



**PALGRAVE STUDIES IN DEMOCRACY, INNOVATION,  
AND ENTREPRENEURSHIP FOR GROWTH**

*SERIES EDITOR: ELIAS G. CARAYANNIS*



# Managing Disruptions in Business

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Causes, Conflicts, and Control

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*Edited by*  
Rajagopal · Ramesh Behl

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Palgrave Studies in Democracy, Innovation,  
and Entrepreneurship for Growth

Series Editor

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The central theme of this series is to explore why some areas grow and others stagnate, and to measure the effects and implications in a trans-disciplinary context that takes both historical evolution and geographical location into account. In other words, when, how and why does the nature and dynamics of a political regime inform and shape the drivers of growth and especially innovation and entrepreneurship? In this socio-economic and socio-technical context, how could we best achieve growth, financially and environmentally?

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This conceptualization lies at the heart of the series, and offers to explore the correlation between democracy, innovation and growth.

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Rajagopal · Ramesh Behl  
Editors

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## PREFACE

Disruption in business is a recurring phenomenon evidenced when innovations spur in the society and economy. Companies often invest in resources to build distinctive capabilities to overpower the disruptive innovations in market. The theory of disruptive innovation has significantly influenced the industry and business circles as a powerful tool for estimating the success of business agglomerations within industries and predicting the risk and business growth of companies. The classic model of disruption emphasizes the penetration of a cheap, innovative substitute to a high-end product or service, then gradually move up the customer chain with gradual improvement in its quality to overpower the competition and lead the market. Disruption in market is driven by psychodynamics in its early stages, which succumbs to an entropy at the end of its lifecycle.

A disruptive innovation is a technology, product, or process that creeps up from the bottom line in an existing business and threatens to displace it. Gradually, it evolves to the point where it displaces the conventional business players. Disruptions have moved from business operations to administration processes over time. Digital management, Internet of Things, and Industry 4.0 revolution support various types of disruptions in business and management processes. Some customer-centric companies are experimenting to harnesses the collective wisdom of the organization to measure the potential of a particular innovation to damage an incumbent's business. The disruptions, thus, need to be viewed from

the point of view of both positive and negative perspectives. However, in dynamic business scenarios that exist today, the organizational model changes along with the customer expectations and preferences. However, defensive playbook for confronting disruptive innovation often falls short. Indeed, disruption has greater effect on the less known, but vital, foundations such as the design cube comprising design-to-market, design-to-value, and design-to-system. Therefore, disruption in business and management threatens the architecture of the survival of a company in a way that alters the overall operations and philosophy of business.

Existing and long-standing businesses usually consider innovation as a threat to be met with defensive measures. Disruptive technology-led business models have driven down many companies because of their temporary surge in the market and left the story behind the industry. Disruptive innovation is, therefore, considered by most businesses as a destructive tool at face value. Nevertheless, in broad sense, disruption is regarded as a change agent within the market, industry, and company, that ensures the net effect of total market growth over time. The counter arguments on disruption offer a powerful growth avenue for frugal innovations and discovering new markets for the existing companies, incumbents, and start-ups. Disruption in business and management slow the process down, but may emerge as radical innovation and thrust its consequences heavily on the established market. During the initial phase, disruptive products serve as a strong instrument to acquire new customers and to build an organization that is capable of standing as a new competitor within the industry. Studies analyzing the effects of disruption in business and management suggest that customer focus holds the key determinant to co-evolve with radical innovations.

Most companies run by deep, experienced management teams dominate almost every industry and develop a shield against disruptive innovation. How do upstarts create disruption? Is disruption a management process of evolving companies? This book intends to document the experience of firms, management process, and business systems that have faced disruption and succeeded of slack markets. Deliberation in the book aims at discussing the causes and effects and challenges associated with the disruptions in business and management. Portraying disruption-resistant business designs, and customer value propositions across the industries are some of the comprehensive objectives of this international academic meet.

Most firms trying to gain competitive advantage build their marketing strategies based on product improvements as innovations to attract consumers and the society. The return on innovation investment concept correlates directly with organic growth, and links innovation-spending with financial performance in ways that can lead decision-makers to generate higher, more reliable returns on innovation and research and development. Various schools of thought during the classical, neo-classical, and modern eras have contributed theories in support of learning organizations. Theory of disruption is a relatively new knowledge pool as compared to the schools of thought of twentieth century. The relationship between business models, value chains, and business ecosystems affects the business growth and performance. It explores new information-intensive business system in the production and services segments. The thematic discussion also focuses on the connection between technology and governance disruption, often enabling the latter in context of the former, or the latter offering prospects for the innovative entrepreneurs and investors to develop new business models.

Competitive advantage is built by the companies in an increasingly interconnected global economy. International firms collaborating with local enterprises often innovate their business models. Firms tend to develop design-to-market and collaborative business models (with stakeholders) for implementation through a set of activities to transform the existing businesses based on a socio-economic model. Besides, discussions also encompass sustainable development business modeling as the emerging global trend. Focusing on the affective reactions as behavioral responses to business disruptions caused by technology and innovation invasions, articles in this theme elaborate the strategy-as-practice perspective. Fast track innovations with prolonged technology lifecycle in high-velocity markets imply business considerations to manage frequent, unforeseen, potentially threatening, and disruptive incidents. Chronological evidence shows the evolution of several innovations in the governance models and planning instruments. The implementation of market-oriented planning innovations faces the major challenge of sustained lifecycle and managing value disruptions among the customers. Market-oriented innovations reinforce social, cultural, and geographical integration to overcome the disruptive market tendencies.

Business analytics demands an increased collaboration across organizations on issues relating to information selection and screening the datasets, and to warn managers about the data intricacies and risks,



and teams about the information oversights. The software tools that a company considers as a part of business analytics span across various areas, including analytics, data integration, querying and reporting, and managing information technology projects. Manufacturing and operations systems including marketing, logistics, and inventory systems have been discussed in the articles in this theme. Over the years of government patronage in developing countries, the small and medium enterprises have spread their business across various economic sectors. These enterprises have built their sector-specific portfolios in customer-centric industries and business-to-business industries. The sectoral industries span across agribusiness, health care, education, and housing in the developing countries. The government policies and public infrastructure have set new trends in services in the emerging markets. Disruption in management is a complex phenomenon for emerging companies. However, disruption is a continuous process in business and marketing. To disrupt or not to disrupt, is a critical decision with the companies. Young entrepreneurial companies evaluate the trade-offs between disruption and other strategies and critically appraise the costs and benefits of emerging enterprises as a disrupter. Doing so allows them to choose a strategy for market disruptors in a given market and time, and to learn its implications as the company commercializes its idea. The concept of classic disruption entails a small enterprise targeting the overlooked customers with an innovative and modest offering and gradually moving upstream market challenge. Different types of disruptions have different degrees of impact, which affect how companies prioritize risk management efforts. As disruptions occur with different frequencies or likelihoods, they are difficult to be identified in the initial stages of intervention.

Many forces drive local enterprises to globalize by expanding their brand reach and participating in foreign markets through various modes of entry. In developed countries, domestic markets have become mature and are seeking international markets. Regional enterprises in big emerging markets are mainly the domains of large, well-resourced national enterprises. These enterprises are now open to global trade and are supported by multinational companies and business diplomacy of the countries with trade power. Focusing on the above debate, articles in this thematic section discuss investment and domestic trade environment, internationalization and cross-country trade management, and globalization and business diversity. Global economy faces significant challenges as it continues to integrate high levels of public debt in Europe and North

America that are causing the fear of a negative impact on GDP growth. Emerging markets with young and growing populations are increasingly becoming the focus of rising consumption and production, and major providers of capital, talent, and innovation. Such economic and environmental growth in the business ecosystem endorses the above-mentioned attributes of global branding and product-innovation management across markets. Besides the core discussion on branding and innovation management, this section discusses various perspectives on global pricing, global supply chain management, and global market segmentation. The market competitiveness factors in global business have been discussed in this section.

Regional innovation strategies in the context of emerging innovation policies in emerging markets have been discussed in the articles of this theme. The impact of multi-level entrepreneurial governance, role of knowledge networks, and shifts in the consumerism are critically examined in the articles of this thematic section. As the adequate knowledge transfer programs do not support most of the innovation of small and medium enterprises, the knowledge diffusion strategies have been discussed in this section. Most companies did not expect the severity of disruptions in manufacturing and supply when the COVID-19 pandemic struck. To provide quick supply, there has been steep disruptions in manufacturing and supply of health care equipment segment. The supply chains in depth, which includes identifying alternate sources of items, is changing the way of procurement function to include revenue assurance.

This book discusses business disruptions as strategic measures to dominate the design-to-market, design-to-society, and design-to-value business segments. Auditing the disruption matrix in context of innovation, competitiveness, and customer value is the major contribution of this volume, which helps managers connect with the strengths and weaknesses of the firms in market and explore diversified opportunities. Innovation audit in the companies needs to be conducted following the contemporary trends that exhibit market and consumer behaviors toward the innovative products and services. Disruptive innovations led by trends tend to transform the market and consumers' landscape. These trends include shifts from closed to transparent and open models of innovation (openness), shifts from providing only physical products to industrial product-services combination (servitization), and moving from conventional manufacturing and marketing paradigms to Industry 4.0 business philosophy (automation).

This edited volume includes 22 articles spread across 6 themes, which aim at bringing together the international forum for raising rich discussion on symbiotic themes of disruption in business and management, and their impact on global-local business imperatives. It critically analyzes the convergence of disruption in innovation and technology, business practices, public policies, political ideologies, and consumer values to strengthen competitive business practices. The anthology of selected papers in this volume enriches the knowledge and skills on contemporary business models, disruptive and radical interventions in manufacturing, services, and marketing organizations. This book discusses about developing new business models and hybrid management perspectives to match with the changing priorities of regional economic development in the developing countries. The chapters in this volume envisage developing innovative business practices to overcome disruptive trends and collective and collaborative perspectives to match with the changing priorities of businesses in the emerging markets. Interestingly, this volume has an exclusive section on case studies, which manifests the ground reality of changing managing practices in developing economies.

The chapters in the book cover varied studies on entrepreneurship, resource planning and regional development. Hence, it will serve as a managerial guide and think tank for the researchers, management students, and working managers. This book will serve as an important resource for start-up firms, market analysts and business consultants engaged in local-global business ventures.

Mexico City, Mexico  
Bhubaneswar, India  
June 2021

Rajagopal  
Ramesh Behl

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PART I

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# Understanding Disruption in Developing Economies





# Critical Insights on Disruption in Marketing Strategies: Some Perspectives in Latin American Countries

*Rajagopal*

## UNDERSTANDING DISRUPTION

Disruption in marketing is not a new phenomenon. Both planned and radical innovations have disrupted the growth of products and services over time in the consumer and industrial markets. The growth of technology has affected both high-end and low-end markets, which has disrupted the market economy, operations, and performance significantly since the mid-twentieth century. The disruptive products emerged with low-cost innovations, economies of scale, high perceived use value, and low operations costs, which have transformed consumer preferences, product demand, and market performance. The disruption in markets

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has both positive (high use value, low price, ease of use, and enhanced features of products) and negative (overriding the existing businesses, polarization in market competition, and trigger imbalance in industry performance). Most disruptive products enter market as a cheap substitute (frugal innovation) to a high-end product, which tend to establish in the market by increasing in quality and inculcating the customer value over time. Frugal innovations from local and international destinations penetrate low-end consumer markets by attacking on both price and quality and rapidly grow by altering the consumer preferences in mass customer segment. Such *big bang* (BB) disruption has infiltrated the consumer electronics, fashion accessories, shoes, and consumer packaged goods, and destroyed progressing product lines through e-commerce. The market for disruptive products has grown manifold today with the support of information technology, which has stimulated customers to use free navigation applications on mobile devices preloaded on smartphones. Such applications had entered the market with the devices made by TomTom, Garmin, and Magellan. Similar applications, which provide ease of use, value to customers, and assist in quick decision-making, are in competition today and are frequently developed as low-cost experiments with existing technologies to crash launch new products in the market. However, such innovation goes out of bounds of conventional marketing practices and drives consumers to adapt to the new market ecosystem with disruptive products. However, it is debatable whether to slow the disruptive innovation down at the cost of customers and to leverage high-end products competition in the marketing. Consequently, most customer-centric and technology companies are leaving low-end markets and diversifying into the product portfolios for premier customer segments. Such business drift has caused the congestion of low-cost technology-led products in the mass market and bottom-of-the-pyramid segment, which appears to be an unhealthy business practice (Downes & Nunes, 2013).

Marketing planning and business development of consumer products in association with consumers have been the contemporary trend in the consumer products companies. The design process of consumer-centric business models integrates customers, stakeholders, and entrepreneurs in delivering values. The need for innovation is instituted in the linear path of understanding the customer by identifying the problem, need, and solutions. Marketing of customer-centric products is aimed at nurturing customer emotions and developing positive perceptions toward the products and services (Beckman & Barry, 2007). The multidimensional

growth of marketing organization is best understood as the next step in the evolution from a resource-centric business model to a customer-centric, knowledge-sharing model. It is a way of managing competitive markets that are particularly well adapted to stimulating the market leadership necessary to create economic value in the complex markets (Strikwerda & Stoelhorst, 2009). Business transformation in consumer-centric companies evolves over the years in reference to values-based governance. Market segments of consumer products deliver convenience to consumers and build on price-value convergence business model. Companies tend to target consumer-centric brands to the most effective target segment, which has the push- and pull-potential to attract new customers. The process of targeting the consumers includes need-based, anthropometric measures; and community oriented and public policy centered approaches.

Disruption in market and customer desires are often synchronized. The desire to have a quality product gradually turns into a need, which paves path for the disruptive products to enter the marketplace. Therefore, the market structure often takes shape from customers' point of view, which is exploited by the low-cost technology disrupters. The disrupters tend to understand customers' needs and launching the congruent products to stimulate the need. Most of the consumer brands such as Starbucks, Amazon, and Spirit Airlines Inc (Ultra low-cost airline of the USA) to name a few have emerged to grow as disruptive brands. However, over time, the power of a disruptive brand tends to grow unless the company creates a new competitive brand of a higher quality (Christensen et al., 2005). Confrontations between disruptive innovators and strong firms in the market explore the possibilities to adapt to the radical engagements in doing business. However, most companies feel that in view of the increasing market size of the disruptive products, making small or incremental changes may not be enough to override the effects of disruptions. They need to change their operating models and business systems from manufacturing to marketing, including the customer relations management perspectives (Iansiti, 2020).

Most consumer-focused companies highlight the distinction of attributes regarding innovativeness, technology applications, use value, and current trends of the product, driving the vogue-psychodynamics in positioning the brands. As consumers are sensitive to price and promotion

offers, brands positioned on these indicators generate wider psychodynamics and purchase intentions among consumers. The brand advertisements are built around user-generated contents, and celebrity and professional endorsements. Pricing is one of the critical elements in segmenting the markets for the consumer products. Customer-centric segments can be identified by analyzing price sensitivity, product attributes, customer perceptions, and tradeoffs of competitors with customers. Building right market segments assures creating the right customer value in the marketplace. Effective business models can be developed by mapping the market evolution, causes and effects of changes, and technological development of products. These factors need to be integrated and critically examined in the process of determining the product lifecycle (Baker et al., 2010). Corporate success depends on building business strategies following relevant marketing research through the existing market chaos in the existing products and consumers in the marketplace. Since adapting to an innovative idea, whether it is a new product, package, price, or promotion, poses great risk for companies. An appropriate market analytics can help companies in developing effective business plans.

Many consumer companies use traditional forecasting models to measure competitive performance and predict the market shares of new products, or the effects of marketing strategies. Interaction among consumers, comprising normative influences and word-of-mouth, is one of the key processes behind this complex market behavior (Gilbert, 2007). Product design and research and development is a cycle of continuous improvement over time, that moves through the product idea generation, product selection, product development, and launch stages involving the research process continuously. Marketing communication has four elements including credibility, understanding of an audience, a solid argument, and effective communication. Consumer socialization through peer communication in social media has become an important marketing issue through the development and increasing popularity of social media.

## DISRUPTIVE BUSINESS PRACTICES IN LATIN AMERICA

Industrial firms (within paper, oil, and textile industries) in Colombia and Peru began sustainability-led manufacturing and marketing operations as disruptive measures to stay ahead in competition. The sustainability-driven business practices have eventually led to spin the commercialization, and mergers and acquisition processes in the region. In the above

stated industries, the disruption in energy and emissions, and Green Extraction Technology (GET) process have emerged as a strong market differentiator against the conventional businesses (Radnejad & Vredenburg, 2019). Consequently, most industrial firms have changed their conventional business model to a new strategy of growing internationally with disruptive technology, which leads the firms to move from *problem child* to *cash cow* quadrant within the *product portfolio matrix*. In the paper industry, farm-based solutions like manufacturing paper with farm-waste (maize straw, sugarcane straw, husk, and wild cactus) have emerged as disruptive innovations and market competitive solutions in terms of pricing and quality. In addition, digital solutions are transforming the forest-based bio economy (Fracaro et al., 2012). Digitalization has enabled real-time, end-to-end supply chain visibility, improved delivery accuracy as well as stock level optimization and alignment with demand planning. Consequently, the deployment of technology to protect forest resources has opened up new avenues for disruptive innovations in the paper industry (Watanabe et al., 2018).

Digitalization in businesses in Latin American countries has emerged in the past two decades of the twenty-first century as a major disruptor among the conventional business operations. Latin American and Caribbean region has seen significant growth in the digitalization metrics, such as developing broadband infrastructure for enhancing the use of artificial intelligence, remote operations, and the adoption of the Internet and social media (Katz & Callorda, 2018). Technological innovation and digitalization of business operations have proved to be major disruptors in national business settings. Such disruption has led to significant transformations in business models, incremental and frugal innovations, and customer-centric strategy in Latin America. The scale and scope of these changes have significantly altered the market competition within the region (Bianchi et al., 2019). Countries such as Argentina, Venezuela, Ecuador, Peru, and Bolivia have even lowered the economic liberalization processes to encourage local innovations as a disruptive drive to compete with the business operations of multinational companies in these countries. However, conventional businesses in the countries of Latin America are confined to niche and face the challenge of responding to increasing levels of technology and automation, which still remains a potential threat to domestic market competition (Vendrell-Herrero et al., 2017).

The previous industrial revolutions have motivated Latin American firms to engage in developing customer-centric business and following systems approach to standardize the manufacturing and supply chain process. The *Industry 4.0* revolution has driven these companies to drive their business through digitalization process, which has emerged as a principal disruptive tool in the conventional business ecosystem. The digitalization process has developed firms that are able to innovate and adapt to the new scenario with the existing tools to differentiated themselves from the rest of the market over time. The digital transformation has not only helped firms in decision-making, but also enhanced their abilities to adjust to new market realities. Among many, a major effect of digitalization process includes working through technological platforms that seek to integrate into a single portal or access point all procedures pertaining to goods import, export, and transit operations. This process has accelerated the supply chain process and given competitive lead to the firms in the marketplace toward delivering products to the end-users (ECLAC, 2020).

Gradual disruption has taken place in the services segment besides manufacturing and marketing segments. Among many services operations, financial institutions are also using disruptive technologies to grow in the competition. Microfinance institutions in Mexico have been considered as disruptive to the banking system because they can cannibalize the market share of established financial institutions (banks). Compartamos Banco,<sup>1</sup> a microfinance company under the parent organization Gentrea in Mexico, is a successful disruption at large scale in the banking and finance industry. Compartamos has gone for initial public offer (IPO) in April 2007, and it was valued at \$1.5 billion at the then current prices. This microfinance company has become the first bank wholly dedicated to microfinance to be quoted in a major stock exchange in the country. Since then, the financial market has become intensely competitive as both large established institutions and new entrants have entered the market to cater to the same customers (Chu & Larangeira, 2019).

<sup>1</sup> For details on institutional profile see <https://www.compartamos.com.mx/compartamos>.

## MARKETING MATRIX

External Factor Evaluation (EFE) Matrix is a combination of several macro factors within the business and economic ecosystem. It is a strategic analysis tool used to evaluate the external environment affecting the marketing strategies of the firm. The EFE analytics reveal strengths and weaknesses of marketing strategies of a firm. The EFE matrix help firms identify the key external opportunities and threats that are affecting or might affect a company by analyzing categorically the political, economic, social, technological, environmental, and legal (PESTEL) factors. In addition, the industry attractiveness and market competition matrix discussed by Michael E. Porter emphasizes the impact of effects of new entrants, substitutes, and bargaining power of customers and suppliers also affect the market performance of the firm. However, the general rule is to identify as many key external and internal factors as possible. The EFE Matrix analysis extends the strategy focus of marketing capability of firms ambidextrously toward inside-out and outside-in perspectives. Such analysis helps in developing upstream buyer–supplier relationship and building downstream buyers’ marketing capabilities (Yang et al., 2019).

Internal Factor Evaluation (IFE) Matrix is built around the analysis of strengths and weaknesses. This is a strategy tool used to evaluate firm’s internal environment and to reveal its strengths and weaknesses. Strengths and weaknesses are used as the key internal factors in the evaluation. This matrix is a strategic management tool for auditing or evaluating major strengths and weaknesses in functional areas of a business. The analysis of matrix elements provides a basis for identifying and evaluating relationships among those areas. The IFE matrix is used in strategy formulation (Kaplan & Norton, 1992). The IFE matrix method conceptually relates to the Balanced Scorecard method, which involves following activities:

- Assessment
- Strategy
- Objectives
- Strategy map
- Measures and target
- Strategic initiatives
- Performance analysis (weights, ranking, cumulative effect)
- Alignment
- Evaluation.

The strategic position and stock evaluation matrix has four quadrants that place a strategy as aggressive, conservative, defensive, or competitive; and this gives us information on whether a certain strategy is suitable for our organization or not. It is visually represented by two axes that create four quadrants of which, two correspond to: Internal environment: financial strength and competitive advantage, and external environment organizational stability and industry strength. The broad elements in the matrix are exhibited in Fig. 1.1.

Growth-share matrix is a business tool, which uses relative market share and industry growth rate factors to evaluate the potential of business brand portfolio and suggest further investment strategies. One of the dimensions used to evaluate business portfolio is the relative market share, which explains that higher market share yields the higher cash returns. High market growth rate means higher earnings, and sometimes profits, but it also consumes lots of cash, which is used as investment to stimulate further growth. These two dimensions are explained by Star, cash Cow, Dog, and Problem Child in the product portfolio matrix. Stars operate in high growth industries and maintain high market share. Stars are both cash generators and cash users (Star). Cash cows are the most profitable



Fig. 1.1 Strategic position and evaluation matrix (Source Author)



brands and should be exploited to provide as much cash as possible. The revenue earned by such companies is invested into stars to support their further growth. Low market share compared to competitors and operated in a slowly growing market (Cash Cow). In general, these portfolios are not worth investing in because they generate low or negative cash returns (Dog). Some companies require much closer consideration to promote their brands in competitive and complex environments (Problem Child).

Quantitative strategic planning matrix is based on time-series analysis in business data to evaluate the performance of product portfolios in specific markets. The big data and business analytics methods support the performance analysis and decision-making for most companies in the competitive marketplace (Pérez-Chacón et al., 2020). The competitive matrix is an industry analysis tool similar to the Five Forces analysis suggested by Michael E. Porter. This matrix compares the characteristics of multiple brands within the market segment to identify their differences, strengths, and weaknesses. strategic measurement and performance evaluation tools discussed above are interrelated with the strategic marketing. The analysis of strengths, weaknesses, opportunities, and threats is associated with the industry attractiveness analysis and market competition matrix while the product portfolio matrix is related to the growth-market share analysis of a firm for specific brand portfolios. These strategic tools are affected by the internal and external factors. The balance score card suggested by Kaplan and Norton has emerged as the key tool to measure the organizational performance.

Markets for implementing brand strategies can be divided into three levels comprising premium markets, regular markets, and Bottom of the Pyramid (BoP) markets located in rural habitat in a region. Consumer behavior toward large firms in the premium markets and regular markets are generally driven by push factors including brand equity, brand personality, and brand endorsements; while brand strength is determined by the consumer pull factors like price advantage, social status, and perceived use value in the BoP market segments. The BoP marketing strategies are contemplated toward stimulating commerce which reveals that multinationals could radically improve the lives of billions of people and help create a more stable, less dangerous world. Achieving this goal does not require a multinational company to spearhead global social development initiatives for charitable purposes (Rajagopal, 2012).

## MARKET SEGMENTATION IN LATIN AMERICA

Traditionally, the companies based on demographic attributes of a market form market segments. Segmentation analysis allows the companies to understand buyer attitudes, motivations and values, patterns of usage, competitive preferences, and degree of association with the products. Current practices of market segmentation for consumer and industrial products show that most companies are relying on demographic and anthropomorphic segmentation by focusing on the cognitive dimensions of the consumers mapping their perceptions, attitudes, and behavior toward buying (Yankelovich, 1964). In the markets, where consumer preferences are congruent to products and services are largely inelastic to the innovative differentiations introduced by the competitors for a sustainable period for the homogeneous consumer segments. Such segments provide companies the opportunity to develop uniform marketing strategies in distribution, retailing and sales, pricing, promotions, and advertising to serve the market area. Consumers of certain age, interest, propensity of buying, and cognitive attributes form homogeneous markets. Market segmentation process in a company is woven indirectly around the consumer and his values, which helps companies to increase their market share and profitability in the selected market segment (Golub et al., 2000).

Market segmentation, targeting, and positioning are the key functions for a company to implement marketing-mix strategies in a marketplace. Market segmentation is specific to the consumption pattern and the consumer behavior within the region. There are different types of consumer segments including homogeneous, heterogeneous, and consumers with varied socio-economic profiles. Most consumer-centric companies develop market segments by evaluating the socio-economic profile, spending propensity, and consumption pattern of consumers, and their desire for vogue brands. The segments developed with the above criteria are classified as premium, mass (upper and lower), and bottom-of-the-pyramid consumer segments. In addition, companies considering the intensity of market competition, and the market players also segment markets (Cui, 2009). The classification of market segments based on the socio-economic profiles of consumers is presented in Table 1.1.

Age, gender, income, ethnicity, marital status, education, occupation, household size, length of residence, and type of residence, etc., constitute

**Table 1.1** Socio-economic segmentation of consumers in Mexico

<i>Socio-economic level</i>	<i>Attributes of consumers</i>
A/B	Household income per month over US \$7000 on an average. Members of family possess checking bank accounts and more than two credit cards. Live in homes or apartments with more than three or four bedrooms and two or three bathrooms
C+	Household income ranges between \$3000 and \$7000 per month. One or two credit cards will be available in the family. Live in homes or apartments with two or three bedrooms and one or two bathrooms. Family members own one or two cars, two telephone lines and two television sets. About 20 per cent of households in this category own a computer
C	Household income ranges between \$1000 and \$3000 per month. Some families have a credit card. Live in homes or apartments with two bedrooms and one bathroom. Own one basic automobile, one telephone line, one television set and one audio system
D+	Household income ranges between \$600 and \$1000 per month. Family members do not possess credit cards. Live in homes or apartments with one or two bedrooms and one bathroom. Do not own any automobile but have one telephone line and one radio
D	Household income ranges between \$200 and \$600 per month. No credit cards. Live in homes or apartments with one bedroom and one bathroom. Use public transport and communication means. Own one television set and one radio
E	Household income stays under \$200 per month. Families live in small homes, a third of which have a bathroom, but most do not have a connection to a municipal sewage system. Household in the class do not possess a telephone but most have only one television set and one radio

*Source* Adapted from (a) Grupo Elektra (2000) *Annual Report*; (b) Chu, M., & Garcia-Cuellar, R. (2007). *Farmacias Similares: Private and Public Health Care for the Base of Pyramid in Mexico*. Boston, MA: Harvard Business School Case

the demographic variables used for segmenting the market. The territorial determinants comprise city, state, zip code, census tract, county, region, metropolitan or rural location, population density, climate, etc. The psychographic variables include attitudes, lifestyle, hobbies, risk aversion, personality traits, leadership traits, magazines read, and television programs watched. The behavioral variables include brand loyalty, usage level, benefits sought, distribution channels used, and reaction to marketing factors, etc. All these variables influence the market segmentation process of multinational companies. On commercial websites and

search engines like Google, Bing, etc., every click on the links of digital communities, leads companies to gain unprecedented insights into individual consumers. The companies then target them with tailored advertisements, hands-on experience tools, and social metrics to develop brand association. However, the scope of liberal communication on digital space might be invasive to people, and it can prompt a strong backlash. Therefore, Marketers today need to understand where to draw the line in the hybrid-marketing environment (John et al., 2018).

Segmentation based on buying behavior reveals a tremendous differential among consumers toward propensity to spend on preferred product attributes such as convenience, status, and quality. Customer-centric segments can be identified by analyzing price sensitivity, product attributes, customer perceptions, and tradeoffs of competitors with customers. Building right market segments assures creating the right customer value in the marketplace (Cross & Dixit, 2005).

## MICRO- AND MACRO-ENVIRONMENTS

Population, spending capacity of consumers, consumption pattern, and the market competition also contributes to the macroeconomic environment. Therefore, competitive advantages need to be designed in view of corporate goals, the macro-environment comprising politico-economic conditions, and the market competition. The micro-business environment consists of consumers, market segments, employees, organizational design, supply chain and operations management, market competition, investment, and stakeholders. These factors contribute to the internal marketing decision of the company.

The micro-and macro-environment factors affecting the marketing strategies and operations within the socio-economic market segments are illustrated in Table 1.2. These factors have been explained in the context of three retailing companies in Mexico-Elektra, Liverpool, and Palacio de Hierro in the services industry segment.

In Mexico, online and hybrid companies operate simultaneously in the marketplace. The hybrid companies operate on both digital platforms and brick-and-mortar infrastructures, which often create an invisible threat to the competing companies operating in the marketplace. Such markets are identified as *hybrid market segments*. Hybrid market segments deliver convenience to consumers and build on price-value convergence business model. In this business model, any demographic, geographic,

**Table 1.2** Micro- and macro-environment factors in selected companies in Mexico

<i>Environmental indicators</i>	<i>Elektra</i>	<i>Liverpool</i>	<i>Palacio de Hierro</i>	
Macro	Demographic	Socio-economic segment—D+, D, and E	Socio-economic segment—C+ and C	Socio-economic segment—A/B
	Customer Spending	Credit linked (daily, weekly, monthly EMIs)	Cash and credit (monthly)	Cash and credit (monthly)
	Consumption Pattern	Subsistence	Economic and moderately high	Luxury or conspicuous
	Market competition	Lower niche, bottom-of-the-pyramid	Mass market competition	Mass and premium segment competition
Micro	Consumer Preferences	Low-cost technology and perceived use value	Contemporary trends, technology, and overseas brands	Vogue, signature brands, high value technology, status
	Price	Low price	Moderate price	Moderate to High Price
	Promotions	Credit- linked promotions, high frequency	Periodical promotions-discounts and credit promotions	Selective promotions
	Customer services	Credit-verification, and post-sales services	Post-sales, delivery, and customer relations	Delivery, customer relations
	Loyalty programs	Selective	Loyalty cards, memberships	Loyalty cards, memberships
	Augmented services	Negotiable	Guarantee, insurance	Guarantee, insurance
	Virtual sales	None	Yes	Yes

*Source* Author Research

psychographic, or behavioral variable can be used to classify people into segments. The target segments are chosen by the companies in reference to age, gender, economic profile, social relations, and peer influence. A differentiated and focused target segment serves for specific brands in a region, and over time. The market segmentation is also done in reference to the consumer preferences for product attributes, which are significantly linked to their lifestyle. The lifestyle theory suggests that the consumers'

perceived hedonic attributes and social identity factors determine the shopping behavior of urban consumers (Zhu et al., 2009).

Industrial consumers transact products and services in the business-to-business market segment. The business-to-business clients buy products and services that are needed to perform business in their company. Public consumers have needs that are less defined. Larger companies have marketing departments that identify market segments and customer needs. In smaller companies, marketing is performed by engineering, sales, and management. Industrial markets include industrial markets consisting of intermediaries where all buyers are identified except the end buyers. Industrial clients buy raw material for production process and infrastructure development. The buying process is performed through negotiation between manufacturers, wholesalers, and the client following a direct transaction or via intermediaries. Many consumer product companies develop business-to-business marketing strategies for industrial clients. Furniture manufacturers often do this, opening up their tables, chairs, and couches to businesses that may want them for their corporate offices. This typically happens when the manufacturer's business grows to a large enough scale to accommodate larger orders. Service providers expand to industrial clients to take advantage of more lucrative contracts to deal with the services that contribute to an increase in the performance of clients. Most suppliers focus on customized procurement preferences of industrial clients and are governed by the client-specific Terms of Reference (TOR). Rather than trying to sell standardized products or services to the biggest possible set of buyers, B2B companies develop ways to help specific customers achieve better outcomes (Ettenson et al., 2018).

Three prominent products in the business-to-business segment are food and beverages, office supplies, and data and communication services. Food and energy production are competing within proximity to compete in the business-to-business market segment. Corn and sugar are becoming increasingly important for procurement in both sectors. These products are sold to industrial client on reverse auction business model. This model is based on the Monopsony principles where many suppliers target to one buyer. The buyers are segmented by the industrial needs, procurement policies, and locations while most supplier companies target them based on the buying potential, purchasing power, and propensity of buying. Agricultural technologies augment productivity even in difficult conditions, which drive price and supply benefits. The food-and-agribusiness

value chain comprises a wide range of companies, from suppliers of agricultural machinery, seeds, chemicals, animal-health tests and vaccines, and packaged foods to data providers for precision agriculture (Goedde et al., 2015).

Office Supplies are technology-driven today. Some technologies created as many problems as they solved. Manufacturing-resource-planning (MRP) systems, for example, promised a fully automated solution to difficult production-scheduling activities. The office supplies range from stationery to electronic multifunctional systems that provide photocopying, printing, scanning, binding, and advanced office presentation services. In addition, Radio-frequency identification (RFID) tags were intended to provide a real-time view of the progress of every item from production line to customer, revolutionizing supply chain management in the process. In practice, high cost and difficulties in implementation have limited the use of the technology to a few niche areas (Alicke et al., 2017).

Data management and communication has been the major requirements of clients in the business-to-business market. The demand for data management in companies (especially banking, insurance, and capital businesses) has shifted from conventional mainframe management to Big Data and Cloud management. Big data is far more powerful than the analytics and communications of the past. These services make better predictions and smarter decisions in the companies. The notable data and communication companies are Microsoft, IBM, HP, Cisco, Oracle, and AT&T. They target more effective interventions in areas that so far have been dominated by gut and intuition rather than by data and rigor. The differences between big data and analytics are a matter of volume, velocity, and variety. Nearly real-time information makes it possible for a company to be much more agile than its competitors (McAfee & Brynjolfsson, 2012).

Traditionally, the companies based on demographic attributes of a market form market segments. Segmentation analysis allows the companies to understand buyer attitudes, motivations and values, patterns of usage, competitive preferences, and degree of association with the products. Current practices of market segmentation for consumer and industrial products show that most companies are relying on demographic and anthropomorphic segmentation by focusing on the cognitive dimensions of the consumers mapping their perceptions, attitudes, and

behavior toward buying (Young & Javalgi, 2007). Market segmentation, targeting, and positioning are the key functions for a company to implement marketing-mix strategies in a marketplace. Market segmentation is specific to the consumption pattern and the consumer behavior within the region. There are different types of consumer segments, which include homogeneous, heterogeneous, and consumers with varied socio-economic profiles. Conducting a methodical marketing research is necessary for the companies to level the market segmentation, targeting, and positioning strategies; and intensify competitiveness among all firms, with the results of improved market efficiency and benefits to consumers and society (Guo, 2004).

## DISRUPTIVE PRODUCT DEVELOPMENT PROCESS

Idea generation in the process of new product development is a major exercise. This technique calls for listing of all major attributes of the existing product and the needed attributes in order to improve the same product. Brainstorming has a major role in the idea generation process. Contemporary methods for ranking the relative merits of ideas generated by brainstorming sessions rely on comparing average scores across members of the group. Ideation process for new product development can be stimulated through metaphors, pictures, and experience. It is rooted in the philosophy of rationalism and empiricism, implying ‘the truth is out there’ approaches (Barczak & Kahn, 2012). It is observed that defining cognitive idea generation is based on personal experiences and beliefs driven by individual and social information. However, these forms of idea generation process are individualistic and not amenable to team contexts (Bhatt, 2000). Mentors provide motivations, set goals, develop entrepreneurial mindset, and resolve budget constraints in reference to the new product development or innovation projects.

Product ideas have to be turned into concept, and product concept can be turned later in to the brand concept. The concept testing calls for testing of these competing concepts with an appropriate group of target consumers. The concepts can be presented physically or symbolically. The consumers’ response may be summarized, and the strength of the concept may be judged. The need-gap and product-gap levels may be checked and modified thereafter. The concept testing and product development methodology applies to any product or service. The business analysis includes estimating the sales as it would be of one-time purchase,



frequently purchasing product or at regular interval purchase product. Consumer oriented innovation is an increasingly important source of new product development and the competitive advantage in reference to the speed with which product innovations are introduced to the market. In many cases, aesthetic properties are as important as technical functions (Petiot & Grognet, 2006).

Technology growth and consumerism are synchronized in the contemporary times. New ideas are need based and technology oriented, which, upon transforming into products, attract categorical geodemographic segments. The 3-dimensional printers are one of such innovations, which is positioned in the up-stream markets to cater to the high-end customers. The attributes and applications of 3-D printing enable partial customization at relatively low costs. However, this product is currently serving efficiently in the business-to-business market segment. 3-D printers can be identified as disruptive technologies that enable consumers to opt for either online services or owning the printer for personal or business use. However, such high-end products might significantly narrow down the scope of sales, user values, and competitive leverage in the markets of developing economies. Consequently, it is difficult for the high-end disruptive products to achieve the economies of scale in low-income countries (Berman, 2012). Disruptive technologies tend to underperform on attributes if they do not fit into the broad strategies of marketing-mix elements. However, reconfiguring the customer value propositions as a way to overcome the technological inferiority or superiority of disruptive technologies appears to be a major challenge (Pinkse & Bohnsack, 2017).

Product mix constitutes a bi-dimensional metric comprising product width (portfolios) and product line within the portfolio. An effective product proliferation in a company needs to be based on several principles that include asking consumers whether a greater assortment is required, arraying products into consumer-behavior-based strata, evaluating the associated stretching and pruning strategies for the new products, and measuring the leverage of mass customization. Wherever appropriate, companies need to offer more product choice while expanding the product mix, and implement effective strategies for managing the products across the consumer segments (Berman, 2011). A store may intentionally have a shallow product depth to keep inventory costs down. In other words, the product depth indicates the volume of products displayed in the shelf of retail outlets. Product mix is a sensitive matrix

in the context of marketing, inventory management, and profit contribution. Often, the product mix is not managed objectively as top managers tend to associate with it emotionally. It causes disequilibrium in the product-market dynamics creating a rift between the fast- and slow-moving products. Therefore, product mix has to be handled efficiently to lower the costs and increase the profit contribution of each product within the product mix. The length and width of the product mix need to be aligned to identify the fast- and slow-moving products of the company for optimizing the product line. The slow-moving products should be pooled, and suitable product management strategy should be developed by measuring their market share and volume of sales. Based on product-metrics analysis in reference to the market share of products, consumer behavior, market competition, and corporate appropriate strategy can be selected by the companies. The product line can be stretched downward or upward, or both ways, depending upon the range of competitors, and the simultaneously existing product lines in the market. The downward stretch results in selling the upper-end products initially at cheaper rates. Product featuring is another strategy to promote the slow-moving products in a company. Consumer-centric companies highlight the use value of successful brands in each product portfolio by communicating the user-generated contents and consumer experience. In advertising the slow-moving products, companies generally endorse the name of the company like '*From the manufactures of Nestle Quality Products*' or endorse the name of successful brand of their own product portfolio such as '*From the manufacturer of Nescafe...*'.

It is necessary to control the overlap of products in the product line. Companies introduce new products with marginal differentiation within the product portfolio that create overlap of brands. Such product overlap strategy is developed and implemented by the companies to attract more customers to the product thereby increasing the overall market. This strategy leads to the long product line within a product portfolio, causing major problem toward the low market share and the profitability of products. Consequently, the product overlap strategy poses the threat of cannibalization of brands within the product line. The company should have a close understanding of consumer needs and uses of the products for effective implementation of the strategy. Implementation of this strategy helps companies in increasing business growth, market share, and

profits. With system-of-products strategy, the company achieves monopolistic control over the market, which may lead to some problems and emphasize on its product/market opportunities.

Front-end activities comprising concept development, concept-design alignment, and concept-commercialization allow customer-centric firms to validate strategies accordingly. The combination and synchronization of these elements largely influence the process and performance of new product development. Firms create new ideas through any means such as the internal ideation process, crowdsourcing, or hybrid insights comprising internal ideation, collective intelligence, and aligned technology design. Such systematic approach provides firms not only the design-thinking perspectives for products, but also enables them to develop design-to-market strategies, which give the firms directions to gain competitive leverage, enhance customer outreach, and the product dynamics in the marketplace (Floren & Frishammar, 2012).

Social motivations to consumers are revealed as social self-concept, which drive consumers in developing consumption behavior. Hence, to enhance the scope of social brand, marketing firms stimulate perceptions of consumers and help in developing attitudes across geo-demographic consumer segments. Most consumer-centric companies implement educational marketing campaigns through social media and informal networks to reinforce the ethical, environmental, and societal benefits of organic production (McEachern & McClean, 2002). Social media has transformational effects on consumers, and it often alters their conventional consumption behavior. Consequently, the technological affordances of social media and indulgence of consumers in sharing and believing user-generated contents have engendered new forms of consumption practices in the utilitarian and hedonic products and services segments. Nonetheless, the community interactions through social media empower consumers to analyze shared experiences on digital network and form consumption opinions on social marketers. Producing new cultural and sustainable products, and socializing access to sustainable luxury brands (Rajagopal, 2020; Zhang, 2017).

Behavioral touch points like self-reference, family, peers, society, ethnicity, culture, education, communication, and community values influence consumers in developing and streamlining their perceptions and attitudes toward buying and consumption. Customer-centric companies develop corporate strategies to create consumer behavior and implement repeatability formulas to expand homogeneity in the consumption

pattern. Due to the accessibility of information technology, consumer behavior tends to shift geo-demographically. Most companies, therefore, prefer to develop crowd-based business involving consumers, society, and stakeholders. Alternatively, companies are also engaged in developing hybrid approaches. The conventional consumer behavior has two common characteristics that exhibit consumption discipline and socio-psychological factors affecting consumption economics (Rajagopal, 2020; Zook & Allen, 2003).

### PRICING REGULATION: A CASE OF MEXICO

In the competitive marketplace, prices of products and services are decided by the companies in the context of market trend and competitive leverage to the brands. Many companies tend to develop consumer value by creating the experience of value for money to increase product demand in every transaction. Contemporarily, firms lean on developing strategic pricing in order to gain competitive advantage in the market. The strategic perspective on pricing includes price objectives, price strategy, price structure, price levels, and price promotions. Globalization has driven various routes to market. Successful pricing strategies could create shared value in reference to augmenting consumer relationships, communicating the concept of value for money, and set proactive prices to encourage consumer buying behavior (Bertini & Gourville, 2012). Pricing structure is largely affected by the profit and cost center attributes that are immensely pushed by the firms to gain advantage over the competitors tactically. One of the pertinent problems in the profit-center structure is that it makes it impossible for the firm to consider a product's revenues and costs separately. Different price structures may be constructed based on various states of price equilibrium. A firm may engage in price competition if it has some sort of advantage enabling it to move first (Bryce et al., 2011).

Pricing plays a key role in the marketing strategy. Strategic choices about market targets, products, and distribution set guidelines for both price and promotion strategies. Product quality and features, type of distribution channel, end-users served, and the functions of intermediaries together help to establish a feasible price range. When an organization forms a new distribution network, selection of the channel and intermediaries may be driven by price strategy. Pricing regulation helps in controlling the fluctuations in prices and determining the customer value.

However, In Mexico the consumer pricing regulation as a public policy is not effective. The industry regulates consumer prices and maintains the competitive edge of pricing. The credit transaction and working capital buffer, borrowed from the primary market and banks, help companies in managing the credit and transactional gaps in business operations.

The food products prices remain uncontrolled in the country. The strict price controls were a feature of past regulations, recent regulations have been aimed at opening pharmaceutical pricing to allow more flexibility. Regulation of pharmaceutical prices in Mexico dates back to 1951, when the Act on Federal Executive Attributions in Economic Matters established maximum prices for drugs and other products. In 1984 a separate regulation for pharmaceutical prices was established in the General Health Law. Article 31 of the law conferred responsibility to the Secretaria de Comercio y Fomento Industrial (SECOFI, Ministry of Commerce and Industrial Development) to fix maximum retail prices for drugs. Based on this regulation, the maximum retail sales price for a drug was at that time based on analysis of the manufacturer's cost and operating expenditures with predetermined margins for manufacturers, wholesalers, and retailers (Moise & Docteur, 2007).

### *Disruptive Pricing Effects*

Companies in Mexico tend to play pricing as a customer-sensitive strategy to attract customers and offer pricing discounts, consumer credit, and promotions as major strategies to stimulate demand and acquiring new customers. The Mexican consumer economy is largely supported by a credit-driven consumption culture. Most companies attract sales through the credit incentives, loyalty programs, and direct discounts. Such marketplace strategy requires enough price attractions, sales promotions, and simple credit transactions. In addition, pricing strategy must play a pivotal role in curbing the switching behavior of shoppers in alternative channels or price sensitive markets (Roth, 2008). Many researchers argue that the increasing globalization is reducing heterogeneity in buying behaviors of young consumers as the consumer credit facilities are leading to augment the purchasing power. The increasing credit-led retailing has expanded the opportunity among consumers to access trendy products and stay tuned to fashion in the society. In addition, services like higher credit limits and domicile services are helping retail shops to acquire and retain customers with their brand tags (Srivastava, 2008).

Pricing regulation is effective in Mexico for sectoral products and services, which include pharmaceutical products and public utility services such as energy and water consumption. The authority responsible for applying and enforcing the regulatory framework in relation to pharmaceutical and medical devices is the Federal Commission for Protection against Sanitary Risks (COFEPRIS), which is a decentralized agency of the Ministry of Health. Price control in the private sector is based on a scheme of self-regulated maximum retail price (MRP) only covering patented products, overseen by the Ministry of Economy. Nonetheless, the participation of pharmaceutical companies in the price regulation process is voluntary. Under the price control norms, the MRP of predetermined products must not exceed an international reference price, which is estimated as the average price in six major markets in the North America and Latin America, plus a market factor. These reference markets change according to the consumer price indices, inflation, and demand and supply equilibrium. The MRP policy is not strictly reinforced in the country and there are no established sanctions for violations of the MRP.

The credit facilities and promotions attract customers of bottom-of-the-pyramid (socio-economic segment of D, D+, and E). According to evolutionary psychology (Griskevicius & Kenrick, 2013), conspicuous consumption may represent a means of competition in mate attraction. Consumers with low income tend to buy conspicuous goods on credit, as it signals high status to compensate for their feelings of economic powerlessness and the relatively inferior social value and lifestyle. The credit-led buying behavior among consumers in Mexico also promotes conspicuous buying behavior besides the other social and cognitive variables. Social comparisons drive conspicuous consumption effectively for those consumers who do not have a clear and well-articulated self-concept. Companies borrow finance from banks and primary markets manage the working capital emerging out of the credit gap. To achieve their extended goals, the companies use extended brands of high value products with affordable prices and credit-linked promotions for the mass market consumers (Immorlica et al., 2017).

## DISRUPTION AND STRATEGIC THINKING

Multinational companies are practicing reverse innovation as one of the best practices suggested by General Electric Company, in which products are designed first for consumers in low-income countries, and then

adapted into disruptive offerings for developed economies. Companies adapting to the reverse innovation practices tend to market products at low price as it requires low technical requirements. Such reverse innovation products are created for low-income markets, but could have global appeal (Winter & Govindarajan, 2015). Disruptive innovation is linked to reverse innovation that drives the firms back to the consumers' buying behavior in reference to 4As paradigm comprising awareness, acceptability, adaptability, and affordability. Reverse innovation refers to developing ideas in emerging markets and persuading them in the existing markets, which drives tough challenges. Such innovation requires a company to overcome the institutionalized thinking that guides its actions and acquires ideas through the social media. Firms following reverse innovation develop a radically simpler and cheaper way of creating products in emerging markets and then position them in the desired consumer segments (Govindarajan, 2012; Rajagopal, 2014).

Implementation of effective marketing strategy is a 'building-block' exercise, which requires perfect coordination among various elements of marketing-mix and associated attributes like emotions, validity of decisions, and consumer value. Such architecture of marketing strategies helps companies in developing a brilliant breakthrough of their products and services in the competitive marketplace. There are several ways to develop and implement a successful marketing strategy experimented by the companies in the past century. Marketing strategies are developed by the companies to fit into organizational design of the companies. Design of a marketing organization is founded on the structural variables, organizational resources including human capital and finance, capabilities and competencies, and the workplace culture. The performance of marketing strategies varies for the companies with different organizational designs representing prospectors, analyzers, low-cost defenders, and competitive differentiation oriented company policies (Rajagopal, 2021).

As the competition of disruptive products increases, most companies tend to spend more in advertisement, promotions, and deliveries of products. However, the companies face the dilemma to trade-off between full-cost and marginal-cost (Christensen et al., 2008). As the competition is increasing, companies are shifting from category-focused marketing to an ecosystem-focused strategic mindset, which accounts for the network-based marketing engaging consumers in co-designing market performance and values. Such shifts in corporate philosophies have altered consumer preference, strategy choices, and customer networks

from conventional platforms. The impact of the shift in strategic mindset toward ecosystems on competitive structure analysis has induced companies to follow strategies of successful brands, competitive strategy analysis, promotion planning, new product development, customer valuation, strategic alliances, and market segmentation (Dass & Kumar, 2014).

Strategic planning is a long-term approach in managing various perspectives of organizational growth and administering managerial activities to reach prolonged goals. In strategic planning process firms document managerial approaches and establish a direction to reach out the long-term goals by assessing various linear and discrete activities. The strategic plan helps firms to build and refine organizational mission, vision, objectives, and values to achieve them collectively. The strategy determinants aim to evaluate how the company visualizes the activity integration within the broad organizational framework that embeds mission, vision, and objectives. In the strategic planning firms aim to create value through the following elements (Gomes-Teixeira & Junior, 2019):

- Approach—develops long-term mission, vision, and objectives of the firm in various business portfolios categorically,
- Objective—identifies the purpose of the growth and activity integration,
- Support—assesses senior managerial relationship to integration,
- Importance—evaluates the commitment and maturity that the company has to integration, and
- Decision-making—evaluates the degree of influence across the areas of work within the organization.

The organizational parameter focuses on evaluating how the values, beliefs, behaviors, and mission of the company are converged with organizational design, function and culture. A strategic planning system is a structured process, which helps firms in organizing and coordinating the activities of managers who plan. A strategic planning system develops an integrated, coordinated, and consistent growth through a long-term plan of action, and facilitates adaptation of the change management within the company. Among many factors, communication of corporate performance goals, the goal-setting process, organizational design, managerial roles, the corporate planner's tasks, and the linkage of planning and



budgeting affect the strategic planning in an organization to carry out its administrative activities (Lorange & Vancil, 1976).

Over the years, strategic planning has evolved to build organizational culture, group dynamics, and leadership. Strategic planning originated in the management literature. It can be defined as breaking down a goal to achieve it into steps over predetermined time, formalizing those steps so that they can be implemented almost automatically, and articulating the anticipated consequences or results of each step (Mintzberg, 1994). By identifying basic trends and uncertainties, a manager constructs a series of scenarios that helps in overcoming the usual errors in decision-making. A strategic planning system is a structured process that organizes and coordinates the activities of managers who plan. A strategic planning system develops an integrated, coordinated, and consistent long-term plan of action, and facilitates adaptation of the corporation to environmental change. Successful strategic planning requires analyzing managerial goals, diffusing strategic knowledge, and developing operational resources. It is argued that though operational effectiveness is necessary to superior performance, is not sufficient, because its techniques are easy to imitate. In contrast, the essence of strategy is choosing a unique and valuable position in the systems of activities in an organization that can be synchronized with the goals of organizational growth (Porter, 1996).

Low-end competitors pose a major threat to the companies in an industry. A company operating in the marketing at relatively lower prices for a similar or identical product disrupts the growth of the product as it cannibalizes the market share of principal competing brands. Many such low-end companies exhibit a taxonomy of disruptors, which include bare-bone companies, raiders, improvers, or challengers. Bare-bone firms operate with emphasis of low price and limited functions focused on the customer convenience, while raiders enter the market as attackers. These firms apply quick response strategies including features of product attractiveness, low prices, rapid and convenient deliveries, and multi-layers product promotions to gain the market share by cannibalizing the market share of competitors within proximity. Companies entering the market with disruptive products as an incremental innovation are less harmful to competitors. These firms play the role of improvers in the market and deliver positive effects of disruption. Challenger companies penetrate a market with strong financial support, strategies, and crowd cognition. However, disruptive tactics may serve effectively during short

term, but low-end challenges are inevitable and remain in the market (Potter, 2004).

Strategic thinking helps new entrants adjust ecosystem with the socio-economic, cultural, and market-led factors that influence one another and stimulate the management of the design cube comprising design-to-market, design-to-society, and design-to-value. Business ecosystem is fundamentally based on these triadic design pillars. Large companies tend to explore radically new technology to disrupt existing markets, while new entrants focus on pursuing value-adding improvement in the existing products and technologies on the frugal innovation platform. In this process of orchestrating business ecosystems, multinational companies and joint ventures follow an integrative and long-term perspectives in business embedding business goals and strategic interests in decision-making. Such strategic business goals help these firms develop backward and forward linkages with suppliers and buyer-groups to develop operational integration (Zahra & Nambisan, 2012).

## REFERENCES

- Alicke, K., Benavides, L., & Sankur, A. (2017). *The game changing supply-chain technologies*. McKinsey & Co.
- Baker, W. L., Marn, M. V., & Zawada, C. C. (2010). *Do you have a long-term pricing strategy*. McKinsey & Co.
- Barczak, G., & Kahn, K. B. (2012). Identifying new product development best practice. *Business Horizons*, 55(3), 293–305.
- Beckman, S. L., & Barry, M. (2007). Innovation as a learning process: Embedding design thinking. *California Management Review*, 50(1), 25–56.
- Berman, B. (2011). Strategies to reduce product proliferation. *Business Horizons*, 54(6), 551–553.
- Berman, B. (2012). 3-D printing: The new industrial revolution. *Business Horizons*, 55(2), 155–162.
- Bertini, M., & Gourville, J. T. (2012). Pricing to create shared value. *Harvard Business Review*, 90(6), 96–104.
- Bhatt, G. (2000). Organizing knowledge in the knowledge development cycle. *Journal of Knowledge Management*, 4(1), 15–26.
- Bianchi, C., Mingo, S., & Fernandez, V. (2019). Strategic management in Latin America: Challenges in a changing world. *Journal of Business Research*, 105, 306–309.
- Bryce, D. J., Dyer, J. H., & Hatch, N. W. (2011). Competing against free. *Harvard Business Review*, 89(6), 104–110.

- Christensen, C. M., Cook, S., & Hall, T. (2005). Marketing malpractice: The cause and the cure. *Harvard Business Review*, 83(12), 74–83.
- Christensen, C. M., Kaufman, S. P., & Shih, W. C. (2008). Innovation killers: How financial tools destroy your capacity to do new things. *Harvard Business Review*, 86(1), 98–105.
- Christensen, C. M., Raynor, M. E., & McDonald, R. (2015). What is disruptive innovation? *Harvard Business Review*, 93(12), 44–53.
- Cross, R. G., & Dixit, A. (2005). Customer-centric pricing: The surprising secret for profitability. *Business Horizons*, 48(6), 483–491.
- Chu, M., & Larangeira, C. (2019). *GENTERA: Facing the digital age*. Harvard Business School Press.
- Cui, G. (2009). Segmenting China’s consumer market. *Journal of International Consumer Marketing*, 11(1), 55–76.
- Dass, M., & Kumar, S. (2014). Bringing product and consumer ecosystems to the strategic forefront. *Business Horizons*, 57(2), 225–234.
- Downes, L., & Nunes, P. F. (2013). Big-bang disruption. *Harvard Business Review*, 91(3), 44–56.
- ECLAC. (2020). *Digital transformation in Latin American and Caribbean logistics*. Economic Commission for Latin America and Caribbean. Facilitation of Transport and Trade in Latin America and the Caribbean, Bulletin 381, No. 5, 1–17.
- Ettenson, R., Grove, H., Knowles, J., & Sellers, K. (2018). Selling solutions isn’t enough. *MIT Sloan Management Review*, 60(1), 55–59.
- Floren, H., & Frishammar, J. (2012). From Preliminary ideas to corroborated product definitions: Managing the front end of new product development. *California Management Review*, 54(4), 20–43.
- Fracaro, G., Vakkilainen, E., Hamaguchi, M., & Souza, S. (2012). Energy efficiency in the Brazilian pulp and paper industry. *Energies*, 5(9), 3550–3572.
- Gilbert, N. (2007). *Agent-based models: Quantitative applications in the social sciences*. Sage Publications.
- Goedde, L., Horii, M., & Sanghvi, S. (2015). *Pursuing the global opportunity in food and agribusiness*. McKinsey & Co.
- Golub, H., Henry, J., Forbis, J. L., Mehta, N. T., Lanning, M. J., Michaels, E. G., & Ohmae, K. (2000). Delivering value to customers. *McKinsey Quarterly*, June.
- Gomes-Teixeira, G. F., & Junior, O. C. (2019). How to make strategic planning for corporate sustainability? *Journal of Cleaner Production*, 230, 1421–1431.
- Govindarajan, V. (2012). A reverse innovation play book. *Harvard Business Review*. 90(4), 120–124.
- Griskevicius, V., & Kenrick, D. T. (2013). Fundamental motives: How evolutionary needs influence consumer behavior. *Journal of Consumer Psychology*, 23(3), 372–386.

- Guo, C. (2004). Marketing research: Cui Bono? *Business Horizons*, 47(5), 33–38.
- Iansiti, M. (2020). From disruption to collision: The new competitive dynamics. *MIT Sloan Management Review*, 61(3), 34–39.
- Immorlica, N., Kranton, R., Manea, M., & Stoddard, G. (2017). Social status in networks. *American Economic Journal: Microeconomics*, 9(1), 1–30.
- John, L. K., Kim, T., & Barasz, K. (2018). *Ads that don't overstep*. Harvard Business School Publication.
- Kaplan, R. S., & Norton, D. P. (1992). Balanced scorecard: Measures that drive performance. *Harvard Business Review*, 70(1), 172–180.
- Katz, R., & Callorda, F. (2018). Accelerating the development of Latin American digital ecosystem and implications for broadband policy. *Telecommunications Policy*, 42(9), 661–681.
- Lorange, P., & Vancil, R. F. (1976). How to design a strategic planning system. *Harvard Business Review*, 54(5), 75–81.
- McAfee, A., & Brynjolfsson, E. (2012). Big Data: The management revolution. *Harvard Business Review*, 90(10), 60–68.
- McEachern, M. G., & McClean, P. (2002). Organic Purchasing Motivations and Attitudes: Are they Ethical? *International Journal of Consumer Studies*, 26(2), 85–92.
- Mintzberg, H. (1994). The fall and rise of strategic planning. *Harvard Business Review*, 72(1), 107–114.
- Moïse, P., & Docteur, E. (2007). *Pharmaceutical pricing and reimbursement policies in Mexico* (Health Working Papers #25). Paris: Organization for Economic Co-operation and Development.
- Pérez-Chacón, R., Ascencio-Cortés, G., Martínez-Álvarez, F., & Troncoso, A. (2020). Big data time series forecasting based on pattern sequence similarity and its application to the electricity demand. *Information Sciences*, 540(1), 160–174.
- Petiot, J. F., & Grognet, S. (2006). Product design: A vectors field-based approach for preference modeling. *Journal of Engineering Design*, 17(3), 217–233.
- Pinkse, J., & Bohnsack, R. (2017). Value propositions for disruptive technologies: reconfiguration tactics in the case of electric vehicles. *California Management Review*, 59(4), 79–96.
- Porter, M. E. (1996). What is strategy. *Harvard Business Review*, 74(6), 61–78.
- Potter, D. (2004). Confronting low-end competition. *MIT Sloan Management Review*, 41(3), 41–49.
- Radnejad, A. B., & Vredenburg, H. (2019). Disruptive technological process innovation in a process-oriented industry: A case study. *Journal of Engineering and Technology Management*, 53(1), 63–79.
- Rajagopal. (2012). *Darwinian fitness in the global marketplace*. Palgrave Macmillan.

- Rajagopal. (2014). *Architecting enterprise: Managing innovation, technology, and global competitiveness*. Palgrave Macmillan.
- Rajagopal. (2020). *Sustainable businesses in developing economies—Socio-economic and governance perspectives*. Palgrave Macmillan.
- Roth, A. E. (2008). What have we learned from market design? *The Economic Journal*, 118(527), 285–310.
- Srivastava, R. K. (2008). Changing retail scene in India. *International Journal of Retail & Distribution Management*, 36(9), 714–721.
- Strikwerda, J., & Stoelhorst, J. W. (2009). The emergence and evolution of the multidimensional organizations. *California Management Review*, 51(4), 11–31.
- Vendrell-Herrero, F., Gomes, E., Mellahi, K., & Child, J. (2017). Building international business bridges in geographically isolated areas: The role of foreign market focus and outward looking competences in Latin American SMEs. *Journal of World Business*, 52(4), 489–502.
- Watanabe, C., Naveed, N., & Neittaanmäki, P. (2018). Digital solutions transform the forest-based bioeconomy into a digital platform industry—A suggestion for a disruptive business model in the digital economy. *Technology in Society*, 54, 168–188.
- Winter, A., & Govindarajan, V. (2015). Engineering reverse innovations. *Harvard Business Review*, 93(7), 80–89.
- Yang, Z., Jiang, Y., & Xie, E. (2019). Buyer-supplier relational strength and buying firm's marketing capability: An outside-in perspective. *Industrial Marketing Management*, 82(1), 27–37.
- Yankelovich, D. (1964). New criteria for market segmentation. *Harvard Business Review*, 42(2), 83–90.
- Young, R. B., & Javalgi, R. G. (2007). International marketing research: A global project management perspective. *Business Horizons*, 50(2), 113–122.
- Zahra, S. A., & Nambisan, S. (2012). Entrepreneurship and strategic thinking in business ecosystems. *Business Horizons*, 55(3), 219–229.
- Zhang, L. (2017). Fashioning the feminine self in “prosumer capitalism”: Women's work and the transnational reselling of Western luxury online. *Journal of Consumer Culture*, 17(2), 184–204.
- Zhu, H., Wang, Q., Yan, L., & Wu, G. (2009). Are consumers what they consume? - Linking lifestyle segmentation to product attributes: An exploratory study of the Chinese mobile phone market. *Journal of Marketing Management*, 25(3–4), 295–314.
- Zook, C., & Allen, J. (2003). Growth outside the core. *Harvard Business Review*, 81(12), 66–73.



# Disrupting Video Games: A Conceptual Framework for Managerial Skills Building

*Pável Reyes-Mercado*

## INTRODUCTION

New technologies have changed the way actors interact in markets. Particularly, disruptive innovations are new products that change the fundamental ways of competing and attending customers. These disruptive innovations have a twofold effect on markets. On one hand, disruptive innovations create new markets. These innovations accomplish this goal by including less-than-optimal attributes that relate to lower prices. Due to this reason, fringe markets are the first to adopt this type of product since they look for basic functionality at a low price. The new product may be overlooked by big incumbent companies that typically overshoot their products by increasingly adding attributes that lack delivering marginal value to consumers. On the contrary, disruptive innovations as low-price,

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low-performance products can jump from the market fringe to the mainstream market and displace incumbent companies (Christensen et al., 2018). Additionally, disruptive innovations create new value networks by altering competition dynamics in this way that new players—even from outside traditional industries—and offer completely new products. New entrant to industries changes interaction not only by offering a new product, but also by developing networks with suppliers and customers in new organizational arrangements (Christensen et al., 2018). Examples of products considered as disruptive include personal computers, which were initially disregarded by manufacturers of mainframes as a threat to their product. Eventually, personal computers became the standard of computers. In this line, video games may represent a disruption to markets, not only due to their high economic value, but also due to the different audiences being attracted to the product. Video games were originally designed for kids, but more mature audiences have also been engaged to spend time playing different genres of video games. In this line, the product may become a disruptive innovation for activities outside the gaming industry.

Technology has gained a prominent place in the current global business environment. Learning is not aside. Half of worldwide population has access to Internet. Although Internet penetration rates show heterogeneity among countries, developing information and communication technologies (ICT) have taken the ubiquitous form of networked mobile devices as tablets and mobile phones, as well as laptops and video game consoles. Young people depend profoundly on technology to accomplish both utilitarian goals (e.g., search for car maintenance or learn how to fix water pipes) and hedonic activities (e.g., watch a movie or play a video game). Workplaces now include two generations: digital natives—the younger generation who “flow” and “immerse” in technology on an all-day-connected basis—engage in activities as social networking, texting, and video gaming, dimensions that shape digital competencies and skills (Prensky, 2001). Alongside this generation, digital immigrants—for whom technological development may represent a disruption—also use technology at varying degrees of skillfulness. These two groups may engage in workplace activities as problem-solving, team building, data analysis, and, hence the degree to which generations acquire and develop skills while playing video games, may be transferred to the workplace.

Existing research shows that managers acquire and develop skills through formal training, courses, coaching, and mentoring. The results

of these sometimes mandatory interventions are related to job performance and career progression. Little is known about more leisure-like activities as video gaming and its impact on managers' skills formation. Existing research focuses on classroom settings for young generations (Adachi & Willoughby, 2013; Blumberg & Fisch, 2013) and hence this paper borrows from such literature. Specifically, researchers have studied how skills as spatial performance (Okagaki & Frensch, 1994), speed of processing (Dye et al., 2009), and learning, and attentional control (Green & Bavelier, 2012).

By discussing flow theory, theory of reasoned action, and personality traits theory, and using the manager as study unit, this paper aims to analyze relationships between video games usage and the resulting outcomes at the workplace. Flow theory maintains that people may engage in a state of focused attention while performing a task. Using such theoretical approaches, this paper aims to frame research proposals worth investigating:

- What is the antecedent relationship between video games usage and managers' flow?
- What are the effects of flow while video gaming on acquisition and development of managerial performance?
- What is the degree to which skills acquired and developed through flow are transferred toward workplace settings?

This paper is structured as follows: section two offers a discussion of relevant learning theories suitable to analyze how managers may acquire skills and proposes a conceptual framework along with research proposals. Section three discusses some possible paths for further testing the conceptual model. Section four closes the paper with concluding comments.

## LITERATURE REVIEW

This section analyzes three theories deemed as suitable to research aspects of learning, personality, self-efficacy to leverage managerial skills at the workplace. Theory of flow helps explain how managers can achieve flow moments, which are important to further elaborate on learning outcomes. Personality traits may explain regarding individuals more prone to achieve flow instants and thus more prone to develop managerial performance.



Finally, theory of reasoned action helps include variables that may close a volitional gap for managers not so prone to get involved into flow.

### *Theories to Analyze Skills Leverage*

#### *Flow Theory*

Flow theory maintains that individuals may engage in a particular mental state while performing an activity or task. Such mental state represents a moment of complete involvement, energized focus, and is related to joy and other positive emotions (Csikszentmihalyi & Nakamura, 1979). During flow, persons channel and align these emotions with the task. As emotions flow, a number of outcomes appear as meaningful learning, self-awareness, creativity, among others. Individuals perceive the task as self-rewarding, an aspect in which performing the task seems more important than achieving a particular goal. Individuals experience flow when personal skills and task challenge balance. When personal skills are low but task challenge is high, anxiety is present. In contrast, when personal skills are high but task challenge is low, relaxation appears. According to flow theory, a low-skill, low-task challenge scenario leads to apathy, whereas a high-skill, high-task challenge presents flow appears (Csikszentmihalyi, 1997). As video games are hedonic voluntary activities in which individuals engage in a number of single and collective activities, it is reasonable to expect that they get fully immersed in the game while keeping aside other peripheral activities. Video games usually present different scenarios with increasing levels of difficulty. Individuals start playing the easier difficulty levels to get familiar with the video game logic and structure and also engage with other players with similar levels of experience. This helps them to self-adjust their own level of expertise with that of the game and hence avoid strong frustration feeling derived from playing at a difficult level. The previous suggests that experience of relaxation or anxiety in managers playing video games may be indicative of an adjustment in the video game difficulty for flow to succeed. If relaxation appears, there is opportunity to build upon previous skills, and adjust video game toward a more difficult setting so a more robust set of personal skills can be achieved. On the opposite, if anxiety appears, an adjustment toward a less difficult video game needs to be set to reach a balance on the actual skills-challenge gap.

Important assumptions are made for the flow moment to occur (Csikszentmihalyi, 2014): (1) individuals should set a clear of progress

and goals upon the task, (2) immediate feedback on accomplishing goals should appear, and (3) there should be a fit between challenges posed by the task and individual skills. After the individual has entered the flow moment, there are specific subjective features that appear: focused concentration on the task, a merge of action and awareness, loss of self-awareness as main actor, a heightened sense of control, a feeling that time passes at faster pace, loss of ego, and feeling the experience as self-rewarding (Nakamura & Csikszentmihalyi, 2009). Merging action and awareness refers to the fact that full attention is devoted to the task, whereas the self and other surrounding objects are left out of awareness. This is possible by focusing attention on a limited number of external stimuli. A sense of control is also developed during flow moments, in that individuals perceive themselves as lack of anxiety during performing the task; it refers more a perceived sense of control rather than actual control of the situation. When individuals are fully involved in a task, awareness on time passing is surpassed as the task poses a challenge to be solved, and hence it is perceived as passing more quickly. Loss of ego refers to the considering ego as an interactive dimension between the external demands and the internal needs, which stops mediating when the individual is fully engaged in a task (Csikszentmihalyi, 2014).

In all, the flow experience may be associated with autotelic experience, in which the road to be followed is rewarding for its own sake, alongside with a strong intrinsic motivation. Video games appear to follow above assumptions: A clear goal for chapters and missions and it is explicitly stated at the beginning. Players know what can be considered as success or failure while they are progressing in the video game. Moreover, feedback on progress in most video games is immediate. The player is made aware of missing items and accomplished partial goals. Finally, as previously discussed, players can set the difficulty level according to their expertise. In learning contexts, flow has been found to increase team game performance in students while being in flow states while playing a 1-day educational video game; distracting activities as technology problem-solving and navigating the virtual city diminished learning levels. Moreover, the less the students were distracted, the more engaged in competition they seemed to be (Admiraal et al., 2011). From the previous discussion, it is reasonable to expect that video game players who perceive a fit between video game challenge and personal skills, immediate feedback on progress, and goal clarity may engage in cognitive processes associated with flow, as concentration, quicker passing of

time, and autotelic experience. From the previous discussion, two research proposals can be framed:

- RP1: Higher levels of task-challenge fit, feedback, and goal clarity lead video game players to present perceptual changes in concentration, passing of time, and autotelic experience.
- RP2: Video game players who present high perceptual changes in concentration, passing of time and autotelic experience may lead to high changes in learning self-perceptions by trial and error and risk-taking attitudes.

### THEORY OF PLANNED BEHAVIOR

Regarding cognitive frameworks, Theory of Reasoned Action (Ajzen, 1985) lacks complete explanations of intentions and actual behaviors, that is, individuals showing high intentions to perform a specific behavior are not effectively explained only by beliefs, attitudes, and intentions. Such gap appears to be the result of a twofold mechanism: on one hand, the individuals' incomplete volitional control lead to open the gap between intentions to perform and actual performance, on the other hand, the gap also appears because non-motivational factors—time, money, and skills—become critical limitations in performing the desired behavior. Deriving from the self-efficacy theory, Bandura (1977) argues that perceived behavioral control was a construct useful to explain the extent to which a particular behavior is perceived as easy or difficult to perform according to the person's subjective self-perception. According to this view, the more ability the individual perceives to possess to perform behavior, the more likely he will succeed in performing such behavior. In specific, the link between video gaming and self-efficacy to accomplish certain results have been researched, ranging from health-related behaviors (Baranowski et al., 2008) to knowledge (Meluso et al., 2012) and learning (Huffman et al., 2013). For example, video game players with lower levels of self-efficacy as the individual perception on personal skills to play video games and the challenge posed by a high perceived difficulty of such video game may lead to a misfit between the task challenge aspects of flow. This can be detrimental for personal outcomes as learning and attitude change. In contrast, a person with high perceived high self-efficacy may be associated with higher levels of learning and attitude change. The underlying

mechanism is that they have more volitional control on their own task performance in spite of actual use of video games. From the previous discussion, a research proposal can be framed as:

- RP3: Video game players with high levels of self-efficacy led to higher levels of personal outcomes as learning by trial and error and risk-taking attitudes.

### *Personality Traits Theory*

Personality traits refer to individual features that shape enduring and consistent ways of reacting toward external stimuli and are expressed as a response to situational and contextual situations. For example, job needs, social demands, behavioral norms (Tett & Burnett, 2003). The five-factor model of personality (McCrae & Costa, 1987) provides a popular description of personality using openness, conscientiousness, extraversion, agreeableness, and neuroticism. Openness refers to imaginative, original, and daring interests. Conscientiousness relates to individuals who are hardworking, ambitious, energetic, and persevering. Individuals who score high in extraversion relate to being sociable, fun-loving, affectionate, friendly, and talkative. Agreeableness refers to ruthless, callous, antagonistic, and critical people. Neuroticism describes a worrying, insecure, self-conscious, and temperamental person. Existing literature linking personality traits and flow (Ullén et al., 2012) has found a negative relationship between flow-proneness and neuroticism, whereas the relationship between flow-proneness and conscientiousness was found positive. Other personality traits lack further relationships. Conscientiousness is associated with variables as problem coping, satisfaction with life and happiness. Hence conscientiousness people, motivational and emotional mechanisms that make them more likely to engage in flow state. The neuroticism dimension is related to negative emotions that may hinder individuals from entering flow, and their associated enjoyment, control, and focus. The same study found that flow-proneness is more associated to personality traits rather than intelligence (Ullén et al., 2012).

Another set of relevant, unexplored personality traits that may explain individual differences of the relationship between focus and performance outcomes may include innovativeness, perceived ease to use the video game, and need for cognition. Innovativeness refers to the individual

preferences for engaging in novel experiences to reach the goal of stimulating the mind; individuals like spending time on thinking and solving problems they face (Venkatraman & Price, 1990). Above all, the focus is on engaging in stimulant activities that demand cognitive attention and seem to be related to flow features, and consequently individuals with high cognitive innovativeness are more likely to engage in flow moments. Perceived ease of use is a concept borrowed from technology adoption modeling. Perceived ease of use of information technologies is the extent to which technology users think using a particular information system would be free of effort (Davis, 1989; Davis et al., 1989). Perceived ease of use has been associated to higher levels of in-classroom learning (Bourgonjon et al., 2010) and gamification tasks (Koivisto & Hamari, 2014). It is reasonable to expect that the easier the video game is to use, the more likely users would engage more deeply in flow while playing video games. Need for cognition is the tendency that leads people to engage and enjoy in thinking (Cacioppo & Petty, 1982). As such, individuals high in need for cognitions are more influenced by the quality of advertisements in publicity. As video games provide new experiences, individuals may try different settings that provide high immersion levels, which are indicative of flow (Przybylski et al., 2012). It is reasonable to expect that managers who score high in need for cognition are more involved in learning new aspects of the virtual reality provided by video games. From the previous discussion, the following research proposals can be framed:

- RP4: Managers with high levels of openness, conscientiousness, and extraversion are more likely to engage in flow activities whereas managers with high levels of agreeableness and neuroticism are less likely to engage in flow activities.
- RP5: Managers with high levels of innovativeness, perceived ease of use, and need for cognition are more likely to engage in flow activities.

### *Maladaptive Behaviors*

The discussion so far has dealt with what can be considered as adaptive behaviors—desirable, positive learning, and attitudinal changes. However, existing literature also shows that video game players may engage in maladaptive behaviors—antisocial, aggressive, and negative behaviors to

be considered the antithesis of managerial performance. For example, in youth settings, video games may be correlated with anti-social behaviors as aggressiveness. Studies suggest that gaming cognitive and behavioral aspects play a role in developing these types of behaviors. Perfectionism, cognitive and behavioral salience, along with regret are correlated with problematic gamers (Forrest et al., 2016). Moreover, similar studies report that addition to video games associates with decreased academic performance, self-esteem, and self-confidence, mainly in males (Toker & Baturay, 2016). This suggests that there is a gaming time before which individuals can derive value from playing but, from this gaming time on, there is a decreased performance. Therefore, a research proposal linking time playing video games with maladaptive behaviors can be framed as:

RP6: Time spent by video game players present a U-inverted shape in which adaptive behaviors present (learning, team building, and problem-solving) before the upper limit of time and maladaptive behaviors present after passing such upper time limit (aggressiveness, isolation, goal confusion, and personal loss of control).

A final word on the development is to say that reaching flow moments may be moderated by a number of individual characteristics, as gender, age, and experience playing video games. Most video game players refer to young men who develop more experience than women of any age; hence it is reasonable to expect that the relationships from task challenge fit, feedback, and goal clarity toward flow may be stronger for experienced young men games. Hence, a last research proposal can be framed as:

RP7: Experienced young men present a stronger relation of flow antecedents (fit with task challenge, feedback, and goal clarity) than women of any age and experience.

### *Conceptual Framework*

As discussed previously, a fit between task challenge and individual skills, immediate feedback, and goal clarity are antecedents of flow (research proposal 1, RP1). As second antecedents, player traits as big five (RP4) and other traits as personal innovativeness, need for cognition, and

perceived ease of use of the video games represent another antecedent of flow (RP5). Flow can be represented by variables as concentration, self-efficacy, sense of time, and autotelic experience. Outcomes of flow include a three-fold instance. First, personal outcomes of keeping flow while video gaming may include learning by trial and error and risk-taking attitudes (RP2). Second, personal skills acquired and developed may be leveraged to workplace settings in the form of team-building, problem-solving, innovative thinking, and design thinking (RP8) with aid of self-efficacy (RP3). Third, spending too much time playing video games may lead to maladaptive behaviors such as isolation, goal confusion, and loss of control (RP6). Finally, drawing for information systems theory, the relationships between antecedents and flow can be moderated by player’s age, gender, and experience on a particular video game (RP7) (Fig. 2.1).

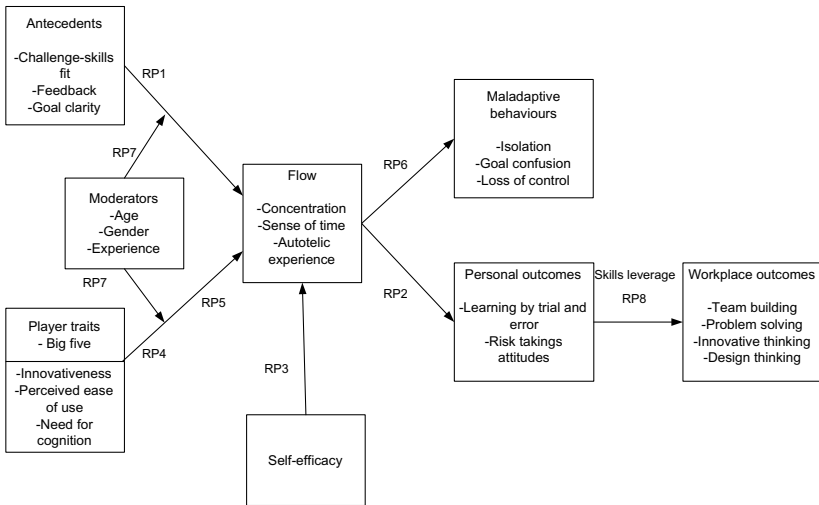


Fig. 2.1 Conceptual framework to study antecedents and consequences of video game flow (Source Author)

## GENERAL DISCUSSION

### *Prospects for Empirical Testing*

There is a wide variety of multiplayer video games available in the market. One example is “Black Desert Online” in which players perform in a conflict between two countries. Through developing collaborative actions, players require to develop the skills of shooters and use limited healing capacities and potions to conquer the opponent country. While playing, there are physical obstacles and events like typhoons, which add challenges to the gaming experience. Another example is “World of the Living Dead”, a game based on the actual Open Street Map platform, in which players are tasked with protecting groups of survivors after a zombie apocalypse. Players’ roles include commanding troops, deploying surveillance operatives, defend survivors from zombie attacks, and radioing orders to other players. From these two examples, it seems apparent that these two video games follow the assumptions for flow to occur. So a framework can be proposed to depict the flow moments in which players engage while playing video gaming and how skills may be leveraged to the workplace.

A further empirical test may shed light of the actual antecedent influencing the formation of manager’s skills. There are at least three different approaches to frame study designs on the proposed research questions. By sampling a suitable number of managers engaged in video gaming, the relationships between variables can be assessed using analytical techniques as partial least squares (PLS). This will shed light on the net effects of one variable over another. By collecting data on managers working in manufacturing, service, and professional services, interesting multi-group comparisons can be achieved. Another interesting comparison among groups would include digital natives and digital immigrants—two different generations with differing attitudes toward technology and usage levels. Items for each discussed variable may be considered as either continuous or discrete. Linear regression would be useful to test individual effects for each variable, over personal learning, attitudes, and perceived risks, as well as maladaptive outcomes. Similarly, player traits may be associated with flow, focus, and immersion. In the same line, structural equation modeling would be helpful to analyze simultaneous relationships of variables in more comprehensible models. Particularly, analytical tools as Partial Least Squares (PLS) may shed light on such relationships without restraining the data to follow stringent requirements from covariance-based models.



Alternatively, qualitative comparative analysis (QCA)—an analytical technique that departs the mainstream tools—may show all possible combinations between antecedent variables that lead to acquisition and formation of skills. Importantly, QCA does not rely on net effect and size effect as standard regression techniques and PLS does. Instead, QCA focuses on finding combinations among flow antecedents and player’s traits that lead to flow. Similarly, this technique would allow analyzing which combinations of the dimensions of flow (concentration, self-efficacy, sense of time, and autotelic experience) lead to personal outcomes, workplace outcomes, and maladaptive behaviors. Noteworthy QCA would enable the researcher to analyze those antecedents leading to skill formation, but also would show those combinations which do not lead to skill formation. Another analytical approach includes performing a qualitative comparative analysis (QCA). QCA explores combinations of causal contribution of different conditions—similar to independent variables in linear regression—to a specified outcome of interest. It begins by conveying diverse configurations of conditions, i.e., the logical combinations associated with each case in which the outcome—similar to dependent variable in linear regression—can be studied. Afterward, QCA captures the simplest set of Boolean conditions that can account for all studied outcomes or their absence. For instance, the Boolean condition A and B or the combination of conditions C and D that leads to outcome X can be expressed as:  $A * B + C * D = X$ . In a sense, QCA answers the question what are the combinations (or groups of cases) in A, B, C, and D that produce X?

Finally, experimental designs may be framed to isolate the most relevant antecedents that lead to learning and skill development (Baranowski et al., 2008). Despite internal validity as criteria to choose experiments, video games are very diverse. Features of video games as scenarios, paths, and player teams may differ in difficulty, time, and complexity for each player. The task of designing a suitable manipulation to explore the impact of one antecedent variable on the outcome becomes challenging.

## IMPLICATIONS FOR RESEARCHERS

This framework has implications for researchers. Testing the proposed framework empirically would craft an initial theory on how to deploy critical skills to the workplace through using a hedonic, non-work-related

tool. This is a critical aspect for business to survive and grow. Importantly, implications for emerging economies may be even stronger since such economies are younger than more developed countries. A first implication is the link between personality-focus-learning. The number of theories addressing learning issues is vast. This paper has addressed focus theory, flow theory, immersive theory, and social cognitive theory. Future studies may shed light on learning managerial skill through video gaming, using other theories as constructivism and multiple intelligences. Second, our propositions focus on the moderating effect of age, gender, and experience, but we excluded mediating processes. Other studies may engage in analyzing other moderators as tenure, type of industry and firm, and managerial or technical roles. Third, scope for this study has included a number of outcomes, namely learning, risk attitudes, and maladaptive behaviors. A logical next step in advancing research on the topic is to include other dimensions of learning as collaborative learning, co-creating, team-building, and collaborative problem-solving.

### IMPLICATIONS FOR PRACTITIONERS

This framework has also implications for managers. First, by analyzing the combinations of antecedents that lead to flow and individual skills, managers may engage in developing organizational initiatives and policies that promote using specific video games as learning tools in the workplace. Our framework assumes that video games features should be considered alongside manager traits to explore segments of managers who may benefit from new organizational policies. Second, patterns of technology usage have implications for workplaces around the world given the availability of video game consoles, Internet access, and online multiplayer games. Some tech firms and universities have engaged in such initiatives with an intuition on the benefits, but more research is needed to understand the evidence-based managerial interventions. Third, our research proposals assume that managers more prone to play video games may engage more frequently in flow, focus, and immersive behaviors. While this may suggest higher performance, we are also aware that mature managers may not be inclined to playing video games; hence they would lose such performance effect. Hybrid policies would be needed at workplaces, since firms include generations, digital natives, and immigrants. Finally, maladaptive behaviors may appear because of playing video games. Firms need to detect early signals from these behaviors and address them accordingly.

## CONCLUSION

Video games have evolved toward pervasive, hedonic, entertaining systems. This paper has proposed a number of research questions to analyze managerial behavior in the context of alternative training tools. Our proposal links manager traits, video game features with focus, flow, and immersion, as core constructs. The outcome is learning and developing skills by trial and error, self-control, enhanced cognitive capabilities, alongside possible maladaptive behaviors as loss of control, aggressiveness, and isolation. We hope that these research questions may help advance understanding transferal of managerial skills from video games to the workplace. We also hope other researchers engage in this exciting topic.

## REFERENCES

- Adachi, P. J., & Willoughby, T. (2013). More than just fun and games: The longitudinal relationships between strategic video games, self-reported problem solving skills, and academic grades. *Journal of Youth and Adolescence*, *42*(7), 1041–1052.
- Admiraal, W., Huijzena, J., Akkerman, S., & Ten Dam, G. (2011). The concept of flow in collaborative game-based learning. *Computers in Human Behavior*, *27*(3), 1185–1194.
- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckmann (Eds.), *Action control* (pp. 11–39). Springer.
- Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological Review*, *84*(2), 191–215.
- Baranowski, T., Buday, R., Thompson, D. I., & Baranowski, J. (2008). Playing for real: Video games and stories for health-related behavior change. *American Journal of Preventive Medicine*, *34*(1), 74–82.
- Blumberg, F. C., & Fisch, S. M. (2013). Introduction: Digital games as a context for cognitive development, learning, and developmental research. *New Directions for Child and Adolescent Development*, *139*, 1–9.
- Bourgonjon, J., Valcke, M., Soetaert, R., & Schellens, T. (2010). Students' perceptions about the use of video games in the classroom. *Computers & Education*, *54*(4), 1145–1156.
- Cacioppo, J. T., & Petty, R. E. (1982). The need for cognition. *Journal of Personality and Social Psychology*, *42*(1), 116–131.
- Christensen, C. M., McDonald, R., Altman, E. J., & Palmer, J. E. (2018). Disruptive innovation: An intellectual history and directions for future research. *Journal of Management Studies*, *55*(7), 1043–1078.

- Csikszentmihalyi, M. (1997). *Finding flow*. Basic.
- Csikszentmihalyi, M. (2014). *Flow and the foundations of positive psychology: The collected works of Mihaly Csikszentmihalyi*. Springer.
- Csikszentmihalyi, M., & Nakamura, J. (1979). The concept of flow. In B. Sutton-Smith (Ed.), *Play and learning* (pp. 257–274). Gardner.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35(8), 982–1003.
- Dye, M. W., Green, C. S., & Bavelier, D. (2009). Increasing speed of processing with action video games. *Current Directions in Psychological Science*, 18(6), 321–326.
- Forrest, C. J., King, D. L., and Delfabbro, P. H. (2016). The measurement of maladaptive cognitions underlying problematic video-game playing among adults, *Computers in Human Behavior*, 55(Part A), 399–405.
- Green, C. S., & Bavelier, D. (2012). Learning, attentional control, and action video games. *Current Biology*, 22(6), 197–206.
- Huffman, A. H., Whetten, J., & Huffman, W. H. (2013). Using technology in higher education: The influence of gender roles on technology self-efficacy. *Computers in Human Behavior*, 29(4), 1779–1786.
- Koivisto, J., & Hamari, J. (2014). Demographic differences in perceived benefits from gamification. *Computers in Human Behavior*, 35(6), 179–188.
- McCrae, R. R., & Costa, P. T. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology*, 52(1), 81.
- Meluso, A., Zheng, M., Spires, H. A., & Lester, J. (2012). Enhancing 5th graders' science content knowledge and self-efficacy through game-based learning. *Computers & Education*, 59(2), 497–504.
- Nakamura, J., & Csikszentmihalyi, M. (2009). Flow theory and research. In C. R. Snyder & S. J. Lopez (Eds.), *Oxford handbook of positive psychology* (pp. 195–206). Oxford University Press.
- Okagaki, L., & Frensch, P. A. (1994). Effects of video game playing on measures of spatial performance: Gender effects in late adolescence. *Journal of Applied Developmental Psychology*, 15(1), 33–58.
- Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon*, 9(5), 1–6.
- Przybylski, A. K., Weinstein, N., Murayama, K., Lynch, M. F., & Ryan, R. M. (2012). The ideal self at play: The appeal of video games that let you be all you can be. *Psychological Science*, 23(1), 69–76.

- Tett, R. P., & Burnett, D. D. (2003). A personality trait-based interactionist model of job performance. *Journal of Applied Psychology, 88*(6), 500–517.
- Toker, S., & Baturay, M. H. (2016). Antecedents and consequences of game addiction. *Computers in Human Behavior, 55*(Part B), 668–679.
- Ullén, F., de Manzano, Ö., Almeida, R., Magnusson, P. K. E., Pedersen, N. L., Nakamura, J., Csíkszentmihályi, M., & Madison, G. (2012). Proneness for psychological flow in everyday life: Associations with personality and intelligence. *Personality and Individual Differences, 52*(2), 167–172.
- Venkatraman, M. P., & Price, L. L. (1990). Differentiating between cognitive and sensory innovativeness: Concepts, measurement, and implications. *Journal of Business Research, 20*(4), 293–315.

PART II

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## Social Media Drivers



# Social Media Usage Behavior in Job Search: Implications for Corporate Image and Employer Branding

*N. V. Subbarao, Bindu Chhabra, and Manit Mishra*

## INTRODUCTION

Companies tend to suitably address their organizational recruitment policies and methods in order to recruit top talent. It is a vivid pointer goading business leaders to pay more attention to Employer Branding in order to survive better. Further with social media now playing a critical role in recruiting, Employer Branding has become even more critical.

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According to Randstad Employer Brand Research (2019) Global Report: (i) 78% of candidates consider the overall job seeking experience an indicator of how a company values its employees (ii) 55% of job seekers abandon their application processes after reading negative reviews (iii) 99% of employers believe managing the employer brand is important when attracting top talent and (iv) 91% of companies believe employer brand and reputation could impact revenue, among other points. Thus it can be seen that Employer Branding is a strategic business need for organizations to emerge as 'preferred employer' (Barrow, 1990).

Brand and human capital have long been acknowledged as important assets of a firm (Aaker, 1996; Backhaus & Tikoo, 2004) for gaining competitive advantage in the marketplace (Sutherland et al., 2002). While the role of branding has received significant attention, there is very little research on the role that branding plays in retaining and attracting employees that constitute the firm's human capital. Studies on human capital strategy have shown that the performance of firms depends on finding, hiring and retaining talented workers (Coff & Kryscynski, 2011). The firms find talent by relying on, search behaviors of their designated workers and or recruiters, referrals from existing employees, and or post job advertisements to search and choose from among the applicants (Fernandez et al., 2000; Jovanovic, 1979; Mortensen & Vishwanath, 1994; Petersen et al., 2000). Other studies examined the impact of employer branding on recruitment outcomes using customer brand equity models (Keller, 1993). They suggest creating favorable employee perceptions and to build strong employer brand equity (EBE) for gaining talent advantage (Collins & Stevens, 2002). However, the rapid adoption of social media and the advent of social media recruitment from around 2010 appears to have added more complexity to employer branding and human capital (Cappelli, 2019). Complexity that seems to be arising from influence effects of perceived trendiness and perceived imagery, triggering rapid and large-scale information exchanges between employer and job aspirants (Taylor et al., 2007). Consequently, Employer Branding (EB) has emerged as a distinct topic of strategic importance for both organizations and academia to pursue and understand more. Specifically, the aspects that signal unique and compelling value propositions to attract and/or retain talent. Accordingly, building Employer Brand Equity (EBE) using social media has emerged as a strategic priority. Published literature however on employer branding in contexts of social media and job search is scarce.



This quantitative study attempts to bridge the gap by ascertaining job search behaviors using Technology Acceptance Model (TAM) as a theoretical framework. Three antecedent constructs; *Information Provisioning (IP)*, *Perceived Image (IM)* and *Perceived Trendiness (TR)*, exemplifying social media usage behaviors in job search were thus studied. The constructs identified from literature, in effect are the predictors of the endogenous variables; *Perceived Usefulness (PU)* and *Perceived Ease of Use (PE)*, which are the predictors for *Intent to Use (IU)*. *Intent to Use in turn leads to Actual Use (AU) of social media in job search* (Davis & Venkatesh, 1996; Venkatesh & Davis, 2000). Ergo, a theoretical model of *Social Media Usage Behavior in Job Search* is proposed and studied using Structural Equation Modelling (SEM), post specifying the Measurement Model using Confirmatory Factor Analysis (CFA). The study has its primary objective to ‘understand the influence of the three antecedent constructs on job seeking behavior and thereby the implications on Employer Branding thereof. In sum, behavioral patterns are identified from the test model and inferred for implications on Employer Branding and Corporate Image. The paper is structured as follows: as conceptualisation via the theoretical framework and hypotheses development for quantitative assessment, research methodology, analysis of results, discussions of managerial and other implications, and concludes with comments on the limitations of the study.

## THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

The topic of employer branding has been an evolving one and is a topic of much interest in strategy, marketing and HR. Aaker (1996) stated Employer Branding to have its origins in the proven methods of branding of goods and services, from the traditional era of brand marketing.

### *Employer Branding and the Job Market Mechanism*

Ambler and Barrow (1996). defined Employer Branding in the context of people management as the “*the package of functional, economic and psychological benefits provided by employment and identified with the employing company*”. In this it has largely been identified as the projection of the image of an organization as a great place to work for both external (potential) and internal (existing) employees. Later Branham

(2000) suggested employer branding as a means of building reputation as a credible employer and great place to work implying that an organization with a strong employer brand would attract more qualified candidates and become a preferred employer. Employer brand is thus to be understood as the set of distinctive images of a prospective employer, which are manifested in the minds of potential employees (Petkovic, 2004). It is the sum total and more, of the values, systems, policies and behaviors of the firm toward the objectives of attracting and retaining current and future employees' (Dell, et al., 2001). With the advent and widespread use of social media in recruitment, the role of Employer Branding appears to have become even more important. However, there appears to be not enough understanding of job search behaviors with social media and their implication on employer branding. Past studies indicate *information provisioning (IP)*, *perceived image (IM)* and *perceived trendiness (TR)*, as three exogenous constructs of social media usage that exemplify job search behaviors (Esch & Black, 2019; Raunier & Yang, 2014; RoyChowdhury & Srimannarayana, 2013). Thus, a fundamental understanding of the job search behaviors using a conceptual framework to measure these constructs could help understand and create more effective employer branding. Hence, we quantitatively studied the 3 antecedent constructs; *IP*, *IM* and *TR* using the Technology Acceptance Model (TAM) as a theoretical framework. Ergo, understanding job seeking behaviors could convey the relevant information needed for identifying the credible brand signals for Employer Branding.

### SOCIAL MEDIA USAGE BEHAVIOR IN JOB SEARCH—CONCEPTUAL FRAMEWORK

TAM derived from the Theory of Reasoned Action (TRA), has its roots in sociological and psychological research (Fig. 3.1). It is a widely accepted

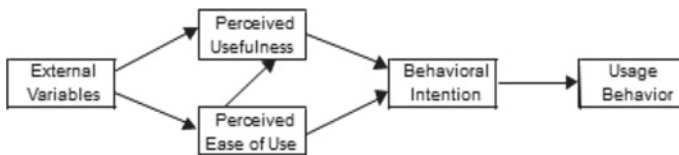


Fig. 3.1 Technology acceptance model (TAM)

theory of usage, behavior and acceptance, and aims to explain behavioral intentions to use an information system with two primary factors: *Perceived usefulness and Perceived ease of use* as its antecedents (Davis & Venkatesh, 1996; Venkatesh & Davis, 2000). TAM has been shown to have proven applicability across both digital and non-digital contexts (Bond et al., 2012), and so is a good place to start.

### *Proposed Model—Social Media Usage Behavior in Job Search Model*

The above TAM mode (Fig. 3.1) was thus adopted with the antecedent constructs IP, IM and TR from literature review as external variables to propose a Theoretical Model of *Social Media Usage Behavior in Job Search* (Fig. 3.2). Hypotheses along the path lines were thus suitably constructed and statistically tested to check causality.

## RELEVANT CONSTRUCTS AND HYPOTHESES PROPOSED

The seven constructs from the above proposed model are discussed next to arrive at the definitions of the respective constructs and the proposed hypotheses for testing and confirmation.

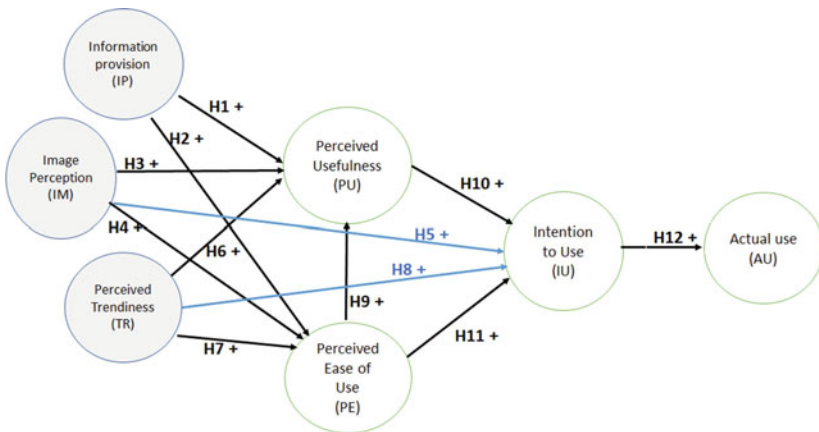


Fig. 3.2 Theoretical model and hypotheses (Source Authors' research)

### *Information Provisioning (IP)*

We define IP in terms of the amount of information that is provided by the job seeker (or recruiting organization) on the social media site, that contribute to their job search experience.

Cober et al. (2003) suggested information provisioning to be an important factor in employment-related contexts as is part of the applicant's expectations. For online recruitments, applicants typically have more access to information on organizations from multiple sources like discussion boards and forums (RoyChowdhury & Srimannarayana, 2013). Thus it's beneficial for job search mechanisms to be perceived as useful and even easy to use. This gives rise to the following propositions;

- H1: *Better Information Provisioning (IP) leads to increased Perceived Usefulness (PU) of a job post or company (i.e., IP on social media sites for job search is positively related to PU)*
- H2: *Better Information Provisioning (IP) leads to increased Perceived Ease of Use (PE) of a job post or company (i.e., IP on social media sites for job search is positively related to PE)*

### *Image Perception (IM)*

We define IM as the degree to which the use of social media in job search is perceived to enhance the appeal of the job seeker and motivate him or her to respond for furthering their employment status. Moore and Benbasat (1991) studied use of an innovation and its perceptions to enhance individual's status in social systems. Sinar et al. (2003), described this construct as a useful reflection of a candidate's image of companies that use the internet for applicant selection purposes. Venkatesh and Davis (2000) provide evidence for a positive effect of subjective norm on image and found a positive relation between image and perceived usefulness. Studies by Sylva and Mol (2009) and RoyChowdhury and Srimannarayana (2013), posit that applicants image perception affects process satisfaction of the online application systems in e-recruitment and so influences their perceived ease of use and usefulness. This thus gives rise to the following propositions:

- H3: *Better Perceived Image (IM) leads to increased Perceived Usefulness (PU) of a job post and or company (i.e., IM on social media sites for job search is positively related to PU)*
- H4: *Better Perceived Image (IM) leads to increased Ease of Use (PE) of a job post or company (i.e., IM on social media sites for job search is positively related to PE)*

Employer Branding studies also indicate that firms perceived to be more innovative and trendy garner higher mind share and attract more candidates than others (Backhaus & Tikoo, 2004; Dell et al., 2001). Hence we propose:

- H5: *Greater Image (IM) of a company or a job post leads to increased Intention to Use (PU) of job post and or social media site for job search (i.e. IM on social media sites for job search is positively related to IU, as a direct relationship)*

#### *Perceived Trendiness (TR)*

We define TR as the extent to which the job seeker using social media on a site might be perceived as not just novel (i.e., new and different), but also trendy in pursuing his job hunting efforts.

Esch and Black (2019) suggest that the new digital or any AI-enabled job application process could likely be perceived as trendy by both job seekers and organizations. Earlier, Esch and Mente (2018) stated that participating with a trendy technology bestows all the cool, novel, and leading-edge characteristics, and promotes higher engagement levels. Dixit and Prakash (2018) stated that a trendy technology inherently implies new, and so bestows trendiness, often to garner higher usage. This gives rise to the following propositions:

- H6: *Greater Trendiness (TR) leads to increased Perceived Usefulness (PU) of a job post and or company (i.e., TR on social media sites for job search is positively related to PU)*
- H7: *Greater Trendiness (TR) leads to increased Perceived Ease of Use (PE) of a job post and or company (i.e., TR on social media sites for job search is positively related to PE)*

Further the literature on Perceived Trendiness (TR) suggests that the new, trendy and/ or innovative technologies are perceived to have leading-edge characteristics which promote high engagement by the direct intention to use (Esch & Mente, 2018). Hence we also propose;

*H8: Greater Trendiness (TR) leads to increased Intention to Use (IU) of a job post or social media site for job search (i.e., TR on social media sites for job search is positively related to IU, as a direct relationship)*

### *Perceived Usefulness (PU)*

We define PU as the extent to which the social media user believes that using a particular social media technology in job search is perceived as being useful and thus help him in the process. Gutman (1982) shows PU to represent advantageous results derived from attributes of the technology being used. Dhar and Wertenbroch (2000) state that the utilitarian value drawn from the usage of technology is cognitively driven, instrumental, goal oriented and accomplishes a functional or practical task of the users. The extent to which this utilitarian value of social media uses, and application is perceived beneficial, determines the PU.

### *Perceived Ease of Use (PE)*

We define PE as the degree to which the social media site is considered free of effort and as such is easy to use for job search purposes. The social media site should be intuitive and efficient in getting tasks done to the principle of least effort (Zipf, 1949). Zeithaml et al. (2002) showed that PE signifies the degree to which an innovation is perceived easy to understand or operate. Past studies by Rauniar et al. (2009), Molla and Licker (2001), Yoo and Donthu (2001) and Zeithaml (2000) indicate that an easy to use website enhances the users experience. This gives rise to the following propositions:

*H9: Greater Perceived Ease of use (PE) leads to increased Perceived Usefulness (PU) of job post or social media site for job search (i.e. PE for job search is positively related to PU)*

### *Intention to Use (IU) and Actual Use (AU)*

We define IU as the continued intention to perform job search using one or more of the social media sites by the job seeker. We define AU as the actual use or deployment of social media in job search by the job seeker. The TAM model is based on the relationship of PU, PE, IU and AU. Davis (1989) states Intention reflects a decision that the person has made about whether to perform a behaviour or not. Davis (1989) and Venkatesh and Davis (2000), state that beliefs or attitudes about PU and PE determine IU of that technology, which in turn leads to actual usage (AU). This gives rise to the following propositions:

- H10: Greater Perceived Usefulness (PU) leads to increased Intention to Use (IU) of a job post or social media site for job search (i.e., PU of social media for job search is positively related to IU)*
- H11: Greater Perceived Ease of Use (PE) leads to increased Intention to Use (IU) of a job post or social media site for job search (i.e., PE of social media for job search is positively related to IU)*
- H12: Greater Intention to Use (IU) leads to greater Actual Use (AU) of a job post or social media site for job search (i.e., IU of social media for job search is positively related to AU)*

## RESEARCH METHODOLOGY

### *Sample*

A representative sample of job seekers was chosen for the study. Both first time job seekers (from any academic discipline), and experienced candidates (from any industry sector with a minimum of 1 year work experience) were chosen. The data from the cross section of the population was collected via a structured questionnaire fielded online and shared on social media platforms. In all 578 responses were obtained over a period of 4 months and 552 responses were accurately completed (response rate 95%). The sample consists of 35% first time job seekers and 65% having work experience (with 56% employed and 9% unemployed and looking for job). 60% of the respondents age was in the '20–25' and '25–30 years' range, while 25% indicate 'more than 40 years'. The maximum number of respondents (36%) fell in the age range of 20–25 years. The gender ratio was 61% male and 39% female. 86% of the

respondents indicated they had used social media at least once for job search and or for career-related purposes.

### *Measures*

The study uses covariance-based structural equation modeling (CB-SEM) to assess the measurement model followed by evaluation of structural relationships. Covariance-based SEM was chosen for analysis because the three antecedent constructs and four endogenous constructs were measured using previously developed scales, thus requiring construct validation. Further, as the study emphasizes upon theory testing, CB-SEM could help better explain the model and the multiple relationships that could exist with their respective causalities (Hair et al., 2014). Analysis of Moment Structures (AMOS) Version 21 was used for testing the causal relationships and examining the hypothesized research model. A two-stage model building approach was used. First, the measurement model was tested to assess validity and reliability of the constructs. Second, the structural model was examined using path estimates. The estimation of the measurement model and structural model was conducted using Maximum Likelihood Estimation (MLE). Also a bootstrapping procedure with 1000 bootstrap samples at 95% bias-corrected confidence intervals was employed.

### *Research Instruments*

The research instruments used in the study are borrowed from extant research. The social media behavior constructs of job seeking: *Information Provisioning (IP)*, *Perceived Image (IM)* and *Perceived Trendiness (TR)* were measured using scales adopted from Sylva and Mol (2009), Raunier and Yang (2014), and Esch and Black (2019), respectively. Similarly, the technology acceptance related constructs of Perceived Usefulness (PU), Perceived Ease of Use (PE), Intention to Use (IU) and Actual Use (AU) were operationalized using the scales developed by Davis (1996).

Accordingly, the final questionnaire with 31 items was designed. To prevent common method bias, negatively worded items were included. Following the data collection, box plot analysis was conducted to examine outliers and based on it, 35 cases were eliminated. Next reliability testing of constructs and their respective items was done to check acceptance via Cronbach alpha ( $\alpha$ ) values.



### *Control Variables*

Control variables included gender, age, industry type, employment status, years of work experience, whether used social media for job or career related and number of social media accounts. The survey instrument used is attached as Appendix A.

## RESULTS AND DISCUSSION

### *Measurement Model Development (Assessing Reliability and Validity)*

The purpose of the measurement model is to determine the reliability and validity of a set of items in each latent construct. Confirmatory Factor Analysis (CFA) was conducted to offer evidence of unidimensionality of the items of each measurement. The assessment is typically to ensure the measurement model does not contain correlated errors or loadings from other latent variables (Heene et al., 2011). The construct validity was examined by investigating convergent (Table 3.1) and discriminant validity (Table 3.2).

Convergent validity was measured utilizing Composite Reliability (CR) and Average Variance Extracted (AVE) (Fornell & Larcker, 1981). A commonly used value for Composite reliability should be at least 0.7 whereas the Average Variance Extracted (AVE) should be 0.5 or higher to be considered acceptable (Hair et al., 2006). As can be seen in Table 3.1. The loading value of each factor is greater than or equal to 0.5 and also reach the significance level of  $p < 0.001$ . The factors IM and AU, both show AVE values less than 0.5, but CR values are higher than 0.60. In the case of AVE being less than 0.50 and CR is higher than 0.60 (factors IM and AU in Table 3.1), the convergent validity of the construct is still adequate (Fornell & Larcker, 1981). Hence we conclude all model constructs show good convergent validity as the convergent validity criterion is met.

Discriminant validity measures the difference between a construct and its indicators from another construct and its indicators (Bagozzi, 1992). It is also used to measure the extent to which a construct is different from other constructs (Hair et al., 2006). Fornell and Larcker (1981) state that the correlations among items in any two constructs should be less than the square root of the AVE shared by items within a construct. For acceptable discriminant validity, each indicator highly measures its intended constructs (Garson, 2009). Additionally, the AVE

**Table 3.1** Convergent validity assessment (AVE & CR)

<i>Factor</i>	<i>Item</i>	<i>Factor loading</i>	<i>AVE</i>	<i>CR</i>	<i>Cronbach alpha (<math>\alpha</math>)</i>
Perceived usefulness (PU)	PU1	0.764	<b>0.564</b>	<b>0.866</b>	0.869
	PU2	0.739			
	PU3	0.756			
	PU4	0.795			
	PU5	0.696			
Perceived ease of use (PU)	PE1	0.766	<b>0.597</b>	<b>0.816</b>	0.824
	PE2	0.802			
	PE4	0.749			
Information provisioning (IP)	IP1	0.766	<b>0.579</b>	<b>0.804</b>	0.804
	IP2	0.818			
	IP3	0.693			
Perceived image (IM)	IM1	0.755	<b>0.448</b>	<b>0.801</b>	0.756
	IM2	0.603			
	IM3	0.680			
	IM4	0.646			
	IM5	0.652			
Perceived trendiness (TR)	TR1	0.798	<b>0.536</b>	<b>0.775</b>	0.766
	TR2	0.737			
	TR4	0.655			
	TR3	0.655			
Intent to use (IU)	IU1	0.771	<b>0.665</b>	<b>0.888</b>	0.887
	IU2	0.834			
	IU3	0.850			
	IU4	0.804			
Actual usage (AU)	AU1	0.785	<b>0.453</b>	<b>0.803</b>	0.715
	AU2	0.546			
	AU3	0.652			
	AU4	0.715			
	AU5	0.642			

*Note* CR = composite reliability; AVE = average variance extracted

shared between a construct and its measures should be higher than the AVE shared by the constructs in the model, and the correlation between the constructs should be lower than 0.85 (Gefen & Straub, 2005).

Thus, from Tables 3.2 and 3.3, we observe that the criteria for conver-

**Table 3.2** Discriminant validity assessment

	<i>Correlation between the variables in the model:</i>		
	<i>IP</i>	<i>IM</i>	<i>TR</i>
Information provisioning (IP)	1.00		
Perceived image (IM)	0.696	1.00	
Perceived trendiness (TR)	0.540	0.582	1.00
Fornell & Larker Criterion Check (AVE based):			
Information provisioning (IP)	<b>0.761</b>		
Perceived image (IM)	0.696	<b>0.669</b>	
Perceived trendiness (TR)	0.540	0.582	<b>0.732</b>

*Note* Numbers on diagonal are the Square root AVEs and off-diagonal numbers are the inter-constructs correlations

**Table 3.3** Results of the theoretical model goodness-of-fit

<i>Model fit index</i>	<i>Criteria</i>		<i>Values</i>	<i>References</i>
	Good fit	Level of acceptance		
Root mean square error of approximation (RMSEA)	<0.08		<b>0.065<sup>a</sup></b>	Hair et al. (1995)
Standardized RMR (SRMR)	<0.08		<b>0.0598<sup>a</sup></b>	Hair et al. (1998)
Comparative fit index (CFI)	$\geq 0.9$	0.88–0.90 adequate	<b>0.904<sup>a</sup></b>	Hair et al. (1998)
CMIN ( $\chi^2$ )/DF	<3.0	3.00–5.00 adequate	<b>3.201<sup>b</sup></b>	Hair et al. (1998)

<sup>a</sup>Good fit

<sup>b</sup>Close to good fit (RMSEA: 0.080–0.083, SRMR: 0.080–0.083, CFI: 0.90), and

<sup>c</sup>Implies adequate fit (CMIN: 3.0–3.1)

gent validity is fully met for all the constructs. We therefore concluded that the model's constructs were reliable and valid. Apropos the next step is to construct the structural model and examine its results (Fig. 3.3).

## STRUCTURAL MODEL EVALUATION

In order to assess the structural relationships, the study evaluated following goodness of fit indices; CMIN/DF, Root mean square

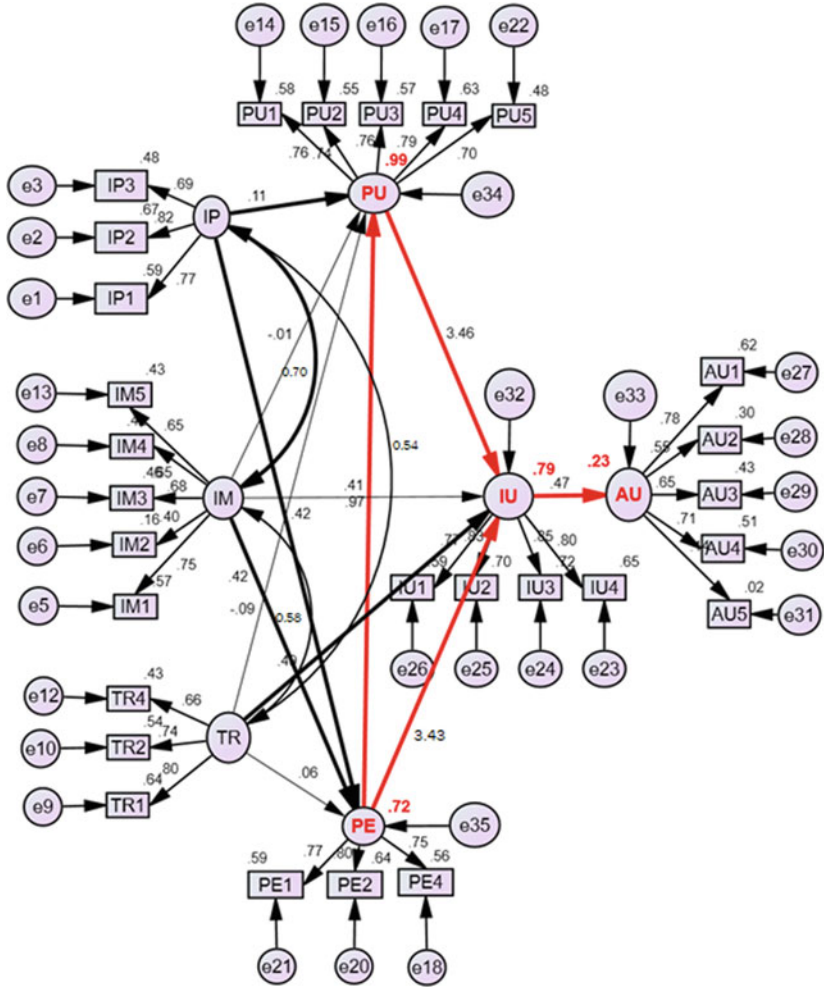


Fig. 3.3 Structural model and path coefficients (with standardized estimates) (Authors' data analysis [SEM] results)

error approximation (RMSEA), Standardized root mean square residual (SRMR) and Comparative fit index (CFI). For a good model fit the CFI should be greater than or equal to 0.90 and  $CMIN/DF$  should be less than 3 (Hair et al., 1995). Moreover, RMSEA and SRMR should be less than 0.08 (Hair et al., 1998). Common criteria for (AMOS) along with the outcomes are shown in Table 3.3.

Overall we observe that the normed chi-square for the hypothesized model is 3.201, CFI is 0.904, RMSEA is 0.065 (and  $L_o = 0.061$ ), SRMR is 0.0598 and the  $p$ -value is  $< 0.001$ . The structural model was also therefore judged to have acceptable goodness of fit (Hair et al., 2010) at minimum. Further, the test offers the path coefficients and the squared multiple correlation ( $R^2$ ), which indicate the variance of the dependent constructs which can be shown by independent constructs.

## RESULTS OF HYPOTHESES TESTING

The regression weights of the models are shown in Table 3.4 and in effect show the results of the structural model. The test produces the standardized path coefficients between model constructs, and also their statistical significance. Further, the test offers the squared multiple correlation ( $R^2$ ), which indicate the variance of the dependent constructs which can be

**Table 3.4** Regression estimates

<i>Path Relationship</i>	<i>Regression estimates</i>		
	<i>Unstandardized</i>	<i>p(&lt;0.001)</i>	<i>Beta (standardized) p(&lt;0.001)</i>
IP → PU	<b>0.114</b>	<b>***</b>	<b>0.111</b>
PE → PU	<b>1.051</b>	<b>***</b>	<b>0.971</b>
PE → PU	-0.01	0.913	-0.009
TR → PU	-0.081	0.151	-0.086
IP → PE	<b>0.397</b>	<b>***</b>	<b>0.417</b>
IM → PE	<b>0.410</b>	<b>***</b>	<b>0.418</b>
TR → PE	0.053	0.423	0.061
IM → IU	0.470	0.175	<b>0.412</b>
TR → IU	<b>0.483</b>	<b>***</b>	<b>0.486</b>
PU → IU	<b>3.629</b>	<b>***</b>	<b>3.462</b>
PE → IU	<b>3.901</b>	<b>***</b>	<b>3.434</b>
IU → AU	<b>0.597</b>	<b>***</b>	<b>0.475</b>

Source Authors' data analysis results \*\*\* Implies p value  $< 0.001$  (statistically significant)

shown by independent constructs. The hypothesized relationships can thus be examined:

Thus, from the above regression estimates we infer the following:

Perceived Usefulness (PU) of social media usage in job search was predicted by Information provisioning (IP) ( $\beta = 0.111$ ,  $p < 0.001$ ) and Perceived Ease of Use (PE) ( $\beta = 0.971$ ,  $p < 0.001$ ). These variables together explained 99% of the Perceived Usefulness ( $R^2 = 0.991$ ). We also observe Perceived Image (IM) and Perceived Trendiness (TR) have no statistically significant relationship with PU and so are not predictors of same. Therefore:

- Hypothesis H1: *IP of social media sites for job search is positively related to PU, is supported.*
- Hypothesis H9: *PE of social media sites for job search is positively related to PU, is supported.*
- Hypothesis H3: *IM of social media sites for job search is positively related to PU, is not supported.*
- Hypothesis H6: *TR of social media sites for job search is positively related to PU, is not supported.*

Perceived Ease of Use (PE) of social media usage in job search was predicted by Information Provisioning (IP) ( $\beta = 0.417$ ,  $p < 0.001$ ) and Perceived Image (IM) ( $\beta = 0.418$ ,  $p < 0.001$ ). These variables together explained 72% of the Perceived Ease of Use ( $R^2 = 0.719$ ). We also observe Perceived Trendiness (TR) has no statistically significant relationship with PE and so does not predict the same. Therefore:

- Hypothesis H2: *IP on social media sites for job search is positively related to PE, is supported.*
- Hypothesis H4: *IM of social media sites for job search is positively related to PE, is supported.*
- Hypothesis H7: *TR of social media sites for job search is positively related to PE, is not supported.*

Intention to use (IU) of social media usage in job search was predicted by Perceived Usefulness (PU) ( $\beta = 3.462$ ,  $p < 0.001$ ), Perceived Ease of Use (PE) ( $\beta = 3.434$ ,  $p < 0.001$ ) and Perceived Trendiness (TR) ( $\beta = 0.486$ ,  $p < 0.001$ ). These variables together explained 79% of the

Perceived Usefulness ( $R^2 = 0.788$ ). We also observe Perceived Image (IM) to have no statistically significant relationship with IU and so is not a predictor for same. Therefore:

- Hypothesis H5: *IM of social media for job search is positively related to IU, is not supported.*
- Hypothesis H8: *TR of social media for job search is positively related to IU, is supported.*
- Hypothesis H10: *PU of social media for job search is positively related to IU, is supported.*
- Hypothesis H11: *PE of social media for job search is positively related to IU, is supported.*

Actual Use (AU) of social media usage in job search was predicted by Intention to Use (IU) ( $\beta = 0.475$ ,  $p < 0.001$ ). Intention to Use explains 23% of the Perceived Usefulness ( $R^2 = 0.226$ ). Therefore:

- Hypothesis H12: *IU of social media for job search is positively related to AU, is supported.*

(Note: It is observed that the  $R^2$  of AU (0.226) is relatively lower vs. that of PU (0.991), PE (0.719) and AU (0.788). This may possibly be due to the loading of AU 5 items (whose  $R^2$  is 0.02 vs. the other four for items AU1 (0.616), AU2 (0.298), AU3 (0.426) and AU4 (0.411).

The results thus indicate the following causal paths to exist; (i) IP contributes to both PU and PE (ii) IM contributes to PE (and not PU), nor has any direct relationship with IU (iii) TR has no causal paths to PE or PU but has a direct path to IU (underscoring the intent of job seekers, even without information of the job role or company). The causal relationship with the variable has been measured through the structural model and path coefficients as exhibited in Fig. 3.4.

Summarizing the above results, we observe eight of the twelve proposed alternate hypotheses have strong statistical support, and as the coefficients are all positive, the influence would also be positive.

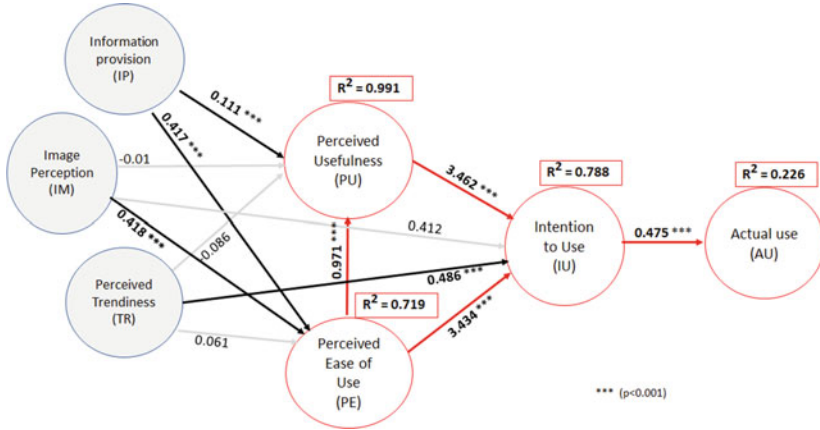


Fig. 3.4 Structural model and path coefficients: Causal relationships (Source Authors’ data analysis results)

## DISCUSSION

This study found that social media usage behavior of job seeker tends toward positive perceptions from Information provisioning (IP), Perceived Image (IM) and Perceived Trendiness (TR). Moreover, the study finds a reasonable (and near good) fit for the hypothesized model. The three antecedent constructs are shown to have causal relationships that contribute significantly to both *Perceived Usefulness* and *Perceived Ease of Use* that cause the *Intention to use*. Thus establishing the framework for the *Actual use*. The antecedent constructs including IP, IM and TR, measured on dimensions of their observable items (Table 3.5), indi-

Table 3.5 Employer branding dimensions of social media

Information provisioning (IP)	Perceived imagery (IM)	Perceived trendiness (TR)
<ul style="list-style-type: none"> <li>Explains job roles adequately</li> <li>Contributes to job application process</li> <li>Offers a holistic view of firm</li> <li>Get reliable and credible information</li> </ul>	<ul style="list-style-type: none"> <li>Futuristic and innovative</li> <li>Prestige connotations</li> <li>Peer recognition</li> <li>Top jobs</li> </ul>	<ul style="list-style-type: none"> <li>Cool</li> <li>Exciting</li> <li>Fun</li> <li>Trendy</li> </ul>



cate the *employer-employee-potential employee* touch points for effective Employer Branding (which could involve social media links, job posts, role descriptions, websites, multi-media use, etc.).

The factor loading values of the above items are all higher than 0.50. Accordingly, knowledge of the perceptions of these items could allow for a more uniform and unambiguous brand message and corporate image. It could help a firm to create an Employer Brand that is both attractive and competitive to engage talent while exemplifying Employer Branding on its definition—*package of psychological, economic, and functional benefits that potential employees associate with employment with a particular company* (Ambler & Barrow, 1996). Aaker (1996) studied brand competitiveness and showed it to be a result of the effective customer relationships that get formed through brand clarity, brand credibility and brand consistency. Using this analogy and the findings from our study, we examine the possible implications for Employer Branding and Corporate Image as discussed below:

- *Employer brand clarity and its relationship*: This implies that firms need to create unambiguous employer brand signals, since clarity of information has a positive effect on the likelihood of engaging talent better. Potential employees associate clear brand signals with (a) ease of use, when they have to invest less effort into gaining information about a prospective employer (b) clarity, when job descriptions and the specific employer brand values are clear, and (c) certainty, when information searches tend to reduce uncertainty. Thus clarity appears to help minimize if not remove ‘information asymmetry and ambiguity’ that results in higher search costs in the form of psychological stress and additional time invested (Berthon et al., 2005) (*supported by H1, H2 and H9*).
- *Employer brand credibility and its relationships*: Studies in consumer theory have shown that the credibility of experience claims can be increased when the claim is stated by a highly credible source (Jain & Posavac, 2001). Thus firms need to create credible employer brand signals, since credibility has a positive effect on the likelihood of attracting talent and enhancing employee-based brand equity similar to customer based brand equity (Keller, 1993). Potential employers thus seek to reduce the perceived risk(s) of joining a new firm or job, by combining their search experience and trust characteristics. They appear to do so by scouring for reputation of employers on

(a) social networks as top firms based on innovation, being futuristic and trendiness (b) their own networks and personal relationships (c) the support and evidence they receive from their peer communities, and (d) the perceived prestige associated with a firm or job role (*supported by H4, & H8*).

- *Employer brand consistency and its relationships*: Kotler (1997) states brands signaling less unambiguity and more clarity leads to formation of trust and hence higher acceptance. Firms thus need to create consistent employer brand signals, since consistency eliminates (a) information asymmetry, and (b) makes search effort easier. Potential employees thus associate consistent employer brand signals to trust and to help their decision about joining a firm. They appear to do so by looking for (a) consistency of information across messages that a company provides regarding employment (b) and the extent to which firm's product brands are in harmony with the employer brand (*supported by H9, H10 & H11*).

Overall the findings from the study suggest potential employees using social media for job search (i) seek to invest less effort to gain information and to connect with prospective employers (ii) associate attributes, values and propositions to a firm based on; *relevancy of information, ease of connecting and the overall job application process itself*, (iii) want clear, unambiguous information with effective facilitation in their search for a right job and/ or employer, and (iv) when a job role or an employer is perceived as 'trendy', there appears to be a direct intent by the job seeker to pursue the same even without the specifics of the actual job or the company. Thus with appropriate use of social media factoring the above job search behaviors, firms can effectively design their value propositions and use employer branding mechanisms to target talent.

## THEORETICAL AND MANAGERIAL IMPLICATIONS

Employer Branding (EB) is a topic of high importance for both academicians and practicing professionals. However, the published literature on employer branding in contexts of social media and job search is scarce.

### *Theoretical Implications*

This empirical study contributes to the extant literature by investigating social media usage behaviors in job search and studies their implications to Employer Branding using TAM as a theoretical framework. The research explores the antecedents of social media behaviors in job search and found that the outcomes bear significant implications to employer branding. The empirical findings from the study suggest that the hypothesized model provides a suitable basis from which to conceptualize social media usage behaviors in job search and its implications to Employer Branding. However, the model could require modifications specific to the industry/ employer context. Further, the model does not directly address the role of employer branding in the creation of employer brand equity. Future studies in Employer Branding can be conducted to understand more the behaviors of both potential employees and employers, and their effect on corporate image and firm productivity. This could also provide insights into identifying the brand signals from different segments in the job market to enable focused Employer Branding efforts.

### *Managerial Implications*

We infer from our study that job seekers want to associate more with companies that are perceived to be trendy, provide relevant information, have a positive image and provide top jobs. The overt implications of these studied behaviors suggest employers would need to integrate these very elements into their employability propositions, to attract and retain talent. Projecting the same in job market could keep them effective and adopt a strategic path to employer branding for attracting talent. This study provides a model-based framework to suitably address Employer Branding efforts. However, this model may require modifications to the employer context, depending on the characteristics and competitiveness of the industry sector that they operate in. Thus the employer branding approach for consumer goods industry could be very different from that of services, technology, manufacturing or other industry sectors. Employers could thus use this framework to gain knowledge of the perceptions of the job seekers to suitably develop their employer branding strategies and methods. Such an approach could help the firm to accrue a strategic advantage in the job market and help it to become an employer of choice.

## LIMITATIONS AND SCOPE FOR FUTURE RESEARCH

One of the limitations that appears with this study is to be its cross sectional attributes and the causal relationships cannot be generalized for the ‘job market’, which has diverse sets of employers and job seekers. Accordingly sector specific studies using this framework approach can be conducted to avail sector rich implications. Also, there could be other antecedent constructs from other social theories, beyond the three chosen in our model (such as trustworthiness, privacy violation, etc.). Such behavioral constructs could also influence job search behaviors directly or indirectly with associated implications to Employer Branding.

Further, though the sample size of this study is large, we cannot fully rule out the biases of respondents, procedural or desirability related. Future studies could thus also employ qualitative techniques to identify emergent themes in this area. Lastly this study is an inference of employer branding from social media usage in job search behaviors. Future empirical studies could directly ascertain employer responses to employer branding on variables that could comprehensively explain their employer branding approach and methods. Future studies could also shed more light on employer branding based on size of organization (as large, medium or small) for the constraints and challenges faced by these organizations could differ significantly, for reasons of culture norms, ethnicity, work motivations, competitiveness, etc.

## APPENDIX A

Study measures for the measurement and structural model.

**Information Provisioning** I think the information posted on jobs  
(IP): on social media sites.

IP1 Explains the job roles adequately.

IP2 Contributes to my job application experience.

IP3 Offers me a holistic view of the company.

IP4 Is not realistic nor believable (*negative worded item*).

[All items measured using 5 point Likert scale: 1 (strongly disagree) to 5 (strongly agree)].

**Perceived Image (IM):** I feel using social media for job search:

IM1 Makes the companies to look more innovative and futuristic (by the use of multi-media etc.)

IM2 Is not a very innovative approach (*negative worded item*).

IM3 Offers more prestige to companies that use social media.

IM4 More candidates tend to join prestigious companies.

IM5 Helps me to find a top job (which my friends are also telling me).

[All items measured using 5 point Likert scale: 1 (strongly disagree) to 5 (strongly agree)].

**Perceived Trendiness (TR):** I think applying for jobs using social media:

TR1 Is cool.

TR2 Is exciting.

TR3 Is not as fun.

TR4 Is trendy.

[All items measured using 5 point Likert scale: 1 (strongly disagree) to 5 (strongly agree)].

**Perceived Usefulness (PU):** I feel job search using social media:

PU1 Is faster.

PU2 Is better, as can get more information.

PU3 Connects me with a wide range of companies.

PU4 Connects me with right companies (that matter to me).

PU5 Helps me to fit better into a company, if selected.

[All items measured using 5 point Likert scale: 1 (strongly disagree) to 5 (strongly agree)].

**Perceived Ease of Use (PE):** I think job search using social media:

PE1 Is easier.

PE2 Makes it easy to interact with companies.

PE3 Does not allow me to find a job quickly (*negative worded item*).

PE4 Enables me to apply to right companies.

[All items measured using 5 point Likert scale: 1 (strongly disagree) to 5 (strongly agree)].

**Intention to Use (IU):** I intend to use social media:

IU1 For searching and for applying for jobs.

IU2 By taking the support of various social media apps and tools.

IU3 As it allows me to communicate better.

IU4 As it allows me to brand myself better.

[All items measured using 5 point Likert scale: 1 (strongly disagree) to 5 (strongly agree)].

**Actual Use (AU):**

AU1 How often per week do you visit social media sites for job related reasons?

[Item measured using 5 point Likert scale: 1 (Not at all visit: nil), 2 (Rarely visit: 1–2 times) 3 (Occasionally visit: 3–4 times) 4 (Often visit: 4–5 times) and 5 (Frequently visit: 6 or more times)].

AU2 How often per week do you post on your personal social media accounts.

[Item measured using 5 point Likert scale: 1 (Not at all post: nil), 2 (Rarely post: 1–2 times) 3 (Occasionally post: 3–4 times) 4 (Often post: 4–5 times) and 5 (Frequently post: 6 or more times)].

AU3 How many job postings have you seen in the last 1 month on social media sites.

[Item measured using 5 point Likert scale: 1 (Not seen any: nil), 2 (Not seen many :1–2 jobs), 3 (Seen few: 3–5 jobs), 4 (Seen many: 6–9) and 5 (Seen very many:10 or more jobs)].

AU4 How many job postings have you applied for in the last 1 month using social media sites.

[Item measured using 5 point Likert scale: 1 (Not applied to any: nil), 2 (Applied to some: 1–2 jobs), 3 (Applied to few: 3–5 jobs), 4 (Applied to many: 6–9) and 5 (Applied to very many:10 or more jobs)].

AU5 How much time do you spend on social media every day?

[Item measured using 5 point Likert scale: 1 (Not much: 0–2 h), 2 (Spend somewhat time: 2–4 h) 3 Spend reasonable time: 4–6 h) 4 (Spend much time: 6–8 h) and 5 (Spend very much more time: more than 8 h)].

## REFERENCES

- Aaker, D. A. (1996). Measuring brand equity across products and markets. *California management review*, 38(3), 102–120.
- Ambler, T., & Barrow, S. J. (1996). The employee brand. *The Journal of Brand Management.*, 4(3), 185–206.
- Backhaus, K., & Tikoo, S. (2004). Conceptualizing and researching employer branding. *Career Development International*, 9(4/5), 501–517.
- Bagozzi, R. P. (1992). The self-regulation of attitudes, intentions, and behavior. *Social Psychology Quarterly*, 55, 178–204.

- Barrow, S. (1990). Turning recruitment advertising into a competitive weapon. Paper delivered at the *CIPD Annual Conference*, Harrogate, UK.
- Berthon, P., Ewing, M., & Hah, L. L. (2005). Captivating company: Dimensions of attractiveness in employer branding. *International Journal of Advertising*, 24(2), 151–172.
- Branham, L. (2000). *Keeping the people who keep you in business: 24 ways to hang on to your most valuable talent*. AMACOM/American Management Association.
- Bond, R. M., Fariss, C. J., Jones, J. J., Kramer, A. D., Marlow, C., Settle, J. E., & Fowler, J. H. (2012). A 61-million-person experiment in social influence and political mobilization. *Nature*, 489(7415), 295–298.
- Cappelli, P. (2019). Your approach to hiring is all wrong. *Harvard Business Review*, 97(3), 48–58.
- Cober, R. T., Brown, D. J., Levy, P. E., Cober, A. B., & Keeping, L. M. (2003). Organizational web sites: Web site content and style as determinants of organizational attraction. *International Journal of Selection and Assessment*, 11(2–3), 158–169.
- Coff, R., & Kryscynski, D. (2011). Invited editorial: Drilling for micro-foundations of human capital-based competitive advantages. *Journal of Management*, 37(5), 1429–1443.
- Collins, C. J., & Stevens, C. K. (2002). The relationship between early recruitment-related activities and the application decisions of new labor-market entrants: A brand equity approach to recruitment. *Journal of Applied Psychology*, 87(6), 1121.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 13(3), 319–340.
- Davis, F. D., & Venkatesh, V. (1996). A critical assessment of potential measurement biases in the technology acceptance model: Three experiments. *International Journal of Human-Computer Studies*, 45(1), 19–45.
- Dell, D., Ainspan, N., Bodenber, T., Troy, K., & Hickey, J. (2001). Engaging employees through your brand (*Research Report 1288-01-RR*). The Conference Board.
- Dhar, R., & Wertenbroch, K. (2000). Consumer choice between hedonic and utilitarian goods. *Journal of Marketing Research*, 37(1), 60–71.
- Dixit, R. V., & Prakash, G. (2018). Intentions to use social networking sites (SNS) using technology acceptance model (TAM) an empirical study. *Paradigm*, 22(1), 65–79.
- Fernandez, R. M., Castilla, E. J., & Moore, P. (2000). Social capital at work: Networks and employment at a phone center. *American Journal of Sociology*, 105(5), 1288–1356.



- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
- Garson, G. (2009). Validity. [Online]. Available: <http://faculty.chass.ncsu.edu/garson/PA765/validity.htm>.
- Gefen, D., & Straub, D. (2005). A practical guide to factorial validity using PLS-graph: Tutorial and annotated example. *Communications of the Association for Information Systems*, 16(1), 5.
- Gutman, J. (1982). A means-end chain model based on consumer categorization processes. *Journal of Marketing*, 46(2), 60–72.
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1995). *Multivariate data analysis with readings* (4th ed.). Prentice Hall.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (1998). *Multivariate data analysis* (Vol. 5, No. 3, pp. 207–219). Prentice hall.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (6th ed.). Pearson Prentice Hall.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Prentice Hall.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage.
- Heene, M., Hilbert, S., Draxler, C., Ziegler, M., & Bühner, M. (2011). Masking misfit in confirmatory factor analysis by increasing unique variances: A cautionary note on the usefulness of cutoff values of fit indices. *Psychological Methods*, 16(3), 319.
- Jain, S. P., & Posavac, S. S. (2001). Prepurchase attribute verifiability, source credibility, and persuasion. *Journal of Consumer Psychology*, 11(3), 169–180.
- Jovanovic, B. (1979). Firm-specific capital and turnover. *Journal of Political Economy*, 87(6), 1246–1260.
- Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *Journal of Marketing*, 57(1), 1–22.
- Kotler, P. (1997). *Marketing management: Analysis, planning, implementation and control*. Prentice Hall.
- Molla, A., & Licker, P. S. (2001). E-commerce systems success: An attempt to extend and re-specify the DeLone and MacLean model of IS success. *Journal of Electronic Commerce Research*, 2(4), 131–141.
- Moore, G. C., & Benbasat, I. (1991). Development of an instrument to measure the perceptions of adopting an information technology innovation. *Information Systems Research*, 2(3), 192–222.
- Mortensen, D. T., & Vishwanath, T. (1994). Personal contacts and earnings: It is who you know! *Labour Economics*, 1(2), 187–201.
- Petersen, T., Saporta, I., & Seidel, M. D. L. (2000). Offering a job: Meritocracy and social networks. *American Journal of Sociology*, 106(3), 763–816.

- Petkovic, M. (2004). Geschickte markenpolitik. *Personal*, 56(4), 6–9.
- Randstad Report. Randstad Employer Brand Research. (2019). *Download Randstad Employer Branding Global Report (Randstad.com website)*, 16.2, Employer Brand Research (2019), Global Report (2019).
- Rauniar, R., Rawski, G., Crumbly, J., & Simms, J. (2009). C2C online auction website performance: Buyer's perspective. *Journal of Electronic Commerce Research*, 10(2), 56–75.
- Raunier, R., & Yang, J. (2014). Technology acceptance model (TAM) and social media usage: An empirical study on Facebook. *Journal of Enterprise Information Management*, 27(1), 6–30.
- RoyChowdhury, T., & Srimannarayana, M. (2013). Applicants' perceptions on online recruitment procedures. *Management and Labour Studies*, 38(3), 185–199.
- Sinar, E. F., Reynolds, D. H., & Paquet, S. L. (2003). Nothing but 'Net'? Corporate image and web-based testing. *International Journal of Selection and Assessment*, 11(2–3), 150–157.
- Sutherland, M. M., Torricelli, D. G., & Karg, R. F. (2002). Employer-of-choice branding for knowledge workers. *South African Journal of Business Management*, 33(4), 13–20.
- Sylva, H., & Mol, S. T. (2009). E-recruitment: A study into applicant perceptions of an online application system. *International Journal of Selection and Assessment*, 17(3), 311–323.
- van Esch, P., & Black, J. S. (2019). Factors that influence new generation candidates to engage with and complete digital AI-Enabled Recruiting. *Business Horizons*, 62(6), 729–739.
- van Esch, P., & Mente, M. (2018). Marketing video-enabled social media as part of your e-recruitment strategy: Stop trying to be trendy. *Journal of Retailing and Consumer Services*, 44, 266–273.
- Taylor, S., Hunter, G., & Lindberg, D. (2007). Understanding (customer-based) brand equity in financial services. *Journal of Services Marketing*, 21(4), 241–252.
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, 46(2), 186–204.
- Yoo, B., & Donthu, N. (2001). Developing a scale to measure the perceived quality of an Internet shopping site (SITEQUAL). *Quarterly Journal of Electronic Commerce*, 2(1), 31–45.
- Zeithaml, V. A. (2000). Service quality, profitability, and the economic worth of customers: What we know and what we need to learn. *Journal of the Academy of Marketing Science*, 28(1), 67–85.

- Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2002). Service quality delivery through web sites: A critical review of extant knowledge. *Journal of the Academy of Marketing Science*, 30(4), 362–376.
- Zipf, G. (1949). *Human Behavior and the Principle of Least Effort: An Introduction to Human Ecology*. Addison-Wesley.



# Social Media—The Emotional and Mental Roller-Coaster of Gen Z: An Empirical Study

*Lakshmi Kannan and T. Praveen Kumar*

## INTRODUCTION

Generation Z today is said to adapt to everything and anything rapidly and not only this they learn about new products and various other developments on social media quicker than anyone else does. They are also 59% more likely than older generations to connect socially with friends and families and build the network. Being socially connected to others can ease stress, anxiety, and depression, boost self-worth, provide comfort and joy, and prevent loneliness. On the other side, lacking strong social connections can pose a serious risk to the mental and emotional health and feel completely left out and aloof, which is where the harm begins.

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Everyone is different and there is no specific amount of time spent on social media and no one can control the time one spends over social sites or the frequency one checks for updates, or the number of posts one makes and likes but these don't indicate by any means that the user is being unhealthy, but if this excess use causes one to neglect face-to-face relationships and the society, causes distractions at work school, or is developing feelings of envy, hatred, or one is posting pictures to show others or make others jealous, its time one thinks and relooks into their social behavior and social media habits. For this current generation using social media has become a substitute for a lot of offline social interactions. Even if one is out with friends, one still feels the need to constantly check social media. Post regular content about oneself, get comments, or likes on the posts, or respond quickly and enthusiastically to friends' posts. These days' people check social media last thing at night, first thing in the morning, or even when they wake up in the night?, and the light from phones and other devices can disrupt one's sleep and cause sleepless nights and does affect mental health. All of our understanding is that Millennials were excited about social media, but Gen Z brings this to an entirely different level.

The generation replacing the Millennials is Generation Z or Gen Z for brief. The mid-to-late-1990s are widely used by demographers and researchers as beginning birth years, though at the end of the years a consensus has not been reached. Generation Z has used technological generation from a younger age for its inspiration and is comfortable with the Internet. Gen Z has started to collect awareness and insights on buying power and social media, and they are generating attention that has been put on Millennials for a long period. This makes Gen Z and their use of social media very accurate. In parenting and adulthood, millennials develop equally, so Gen Z can emerge. They will be the number one age to be raised within the mobile and social media globe without a doubt. Generation Z is passionate about social media users and has emerged as an efficient force for social change. Technological developments (i.e., smartphones and social media) have changed how Gen Z was relative to previous generations in communicating, socializes, and gets statistics. Because dwelling through these events and seeing their impact affects how they could perceive and take the attitude of others, precise reports and characteristics encouraged generation Z's empathy. In addition to testing its effect on them as an individual, business enterprise, and society, the paper seeks to highlight how the current generation Z

uses social media. The paper describes the emotional equilibrium of the distinction of generation Z in their attitudes, norms, and choices that may change continuously over time. It explains their use of social media and their intra-generational differentiation that stems from environmental and private influences. The paper reveals how the use of social media impacts on their emotional attitudes in the Gen Z. It aims to pick out some questions about Gen Z's and their social media usability, as well as sketches rational insights into emotional behavior that causes the younger generation's different choices, choices, and emotional choices. The Research questions stood in the present study is: What is the role of social media in the emotional and mental health of Gen Z during pre- and current pandemic situation? More specifically we ask two research questions as stated below:

- RQ<sub>1</sub>: Would Gen Z usage pattern (fixed and varied period) and addiction toward social media affect their emotional and mental health?
- RQ<sub>2</sub>: How the mental and emotional health of Gen Z varies between pre- and current pandemic situations.

To answer these questions, we conducted a literature review, from which hypotheses were formulated. Social media addiction, mental well-being, and emotional behavior questionnaires were then taken, based on contributions from the literature, to test these hypotheses. The questionnaire was given to Gen Z in Bangalore city. Descriptive analysis, paired sample *t*-test and ANOVA (randomized block experiment), and partial least-square were used to obtain the results. This research paper is categorized as follows: first, grounded on the research question the review of literature is discussed second, the study objectives identified, next the model and hypothesis are developed. Then, the study methodology is described. Finally, analysis is carried out and results are obtained and discussed.

## THEORETICAL BACKGROUND

### *Gratification Theory*

Katz et al. (1973) pointed out that the gratification theory (U&G) is based on the social and psychological roots of needs that create perceptions from mass media or other outlets that contribute to unequal patterns

of media visibility, resulting in the need for gratification and other consequences. U&G is linked to the use of mass media by people. U&G was also concerned with how individuals fulfilled or satisfied their needs in terms of content when using the media. The U&G theory suggests that the social and psychosocial consequences of the use of the Internet depend largely on the user's motivations and objectives for using the technology (Weiser, 2001). Shao (2009) reported that individuals use user-generated media for a variety of purposes: consuming content to meet their knowledge, entertainment, and mood management needs; engaging through engagement with content and other users to improve social connections and virtual communities and creating their content for self-expression and self-actualization. Colás et al.'s (2013) study findings indicate that for young people, online social networks are a source of resources used to meet both psychological and social needs. There are common reasons for people to use social networks. Omar et al. (2014) described the following motivations: finding information, seeking entertainment, social contact, personal identification, and self-disclosure. As McQuail (1987) said, "seeking information" is a basic need for people to understand the relevant events and conditions in the world. "Seek entertainment" is seen to get rid of the tension of daily life and relax as well as to fill your spare time.

Social interaction and incorporation provide an insight into the circumstances of others or social sympathy. Personal identity involves enhancing personal beliefs, discovering behavioral trends, connecting with other values (in the media), and gaining insight into one's self (Omar et al., 2014). Jourard (1964) listed self-disclosure, made the individual visible to others, and enabled others to see the person as a special or common human being. Several studies have explored the motives of the Internet and SNS (Stafford & Gillenson, 2004), socialization and entertainment (Curras-Perez et al., 2014), alienation (Petrocchi et al., 2015), social integration (Weiser, 2001), self-expression and self-actualization (Shao, 2009), work-life balance, etc. (Kim et al., 2014). Scheepers et al. (2014) applied more motivational aspects to the usage of social networks. These behaviors are the quest for knowledge, hedonistic habits, the preservation of strong connections, and the extension of weak ties. Another research conducted in Turkey by Calisir et al. (2013) found that 155 participants had a behavioral intention to use, perceived pleasure, perceived ease of use, perceived utility, and social impact, either directly or indirectly, on the use of social networks on smartphones among students.

### *Social Displacement Theory*

The Social Displacement Theory, as originally suggested, claimed that when individuals were affected, they spend more time on the Internet and spend less time on personal relationships with near family and friends. This argument claimed that while the contact was increased Internet opportunities decreased social interaction and psychological wellness (Kraut et al., 1998; Nie, 2001). Subsequent empiric investigations have stopped these complaints (Kraut et al., 2002; Nie & Hillygus, 2002), and only a meta-analysis was found poor evidence of a cross-sectional correlation between Internet usage and well-being (Huang, 2010). As of its initial wording, the displacement hypothesis new life has been identified in the study of online discussion groups (Cummings et al., 2002). There are four forms of indirect evidence of social displacement as related to the use of social media. First, a recent meta-analysis, involving 9000 Facebook users, reported a poor positive correlation between use and loneliness but challenged the causal relationship (Song et al., 2014). This establishes a connection between the Usage of social media and depression as stated by the displacement hypothesis. Second, to the association, the face-to-face relationships and positive psychosocial results are better than the relationship between online-only relationships and psychosocial result (Ahn & Shin, 2013; Dunbar, 2014; Pollet et al., 2011; Shakya & Christakis, 2017). Short-term longitudinal methods (e.g., Hinsch & Sheldon, 2013; Sheldon et al., 2011) and experience sampling methods (ESMs) have been utilized to explore the association between social media use and well-being (Kross et al., 2013; Verduyn et al., 2015). Although Shakya and Christakis (2017) explored the positive association with the number and quality of close relationships, they did not explore whether social media use predicted change in interactions with close others.

### *Effect on Social Media on Well-Being*

Aparicio (2020) analyzes the effects of communication with cell phones and web-based media stages that influence the psychological wellness and prosperity of teenagers as they progress from existence with guardians to life on their own. Convenience test of no under 50 and close to 100 people between the ages of 18–25 reacting to a poll using a Qualtrics online survey. Findings show that although web-based media is not the main pointer of sadness, web-based media has a factually huge relationship with expanded CES-D scores. Xu et al. (2020) research investigates



the utilization of multimodal prompts present in online media presents on foresee clients' psychological well-being status. Few characterization tests expecting to separate between (1) sound clients and clients influenced by a psychological wellness ailment; and (2) solid clients and clients inclined to mental illness. The exploratory outcomes show that utilizing different modalities can improve the exhibition of this grouping task when contrasted with the utilization of each methodology in turn and can give significant signals into a client's psychological status. Zhang et al. states that such examination means to analyze research subjects, the part of web-based media, and exploration techniques in web-based media-based general well-being research distributed from 2000 to 2018. A dataset of 3419 legitimate investigations was created by looking through the top-notch of applicable catchphrases in the Web of Science and PubMed information bases. Furthermore, this investigation utilizes an unaided book mining method and subject displaying to remove research topics of the distributed studies. Social media empowers researchers to concentrate on new wonders and propose new examination inquiries in general well-being research. Zhang and Ma (2020) analyze the prompt effect of the COVID-19 pandemic on psychological wellness and personal satisfaction among nearby Chinese inhabitants matured  $\geq 18$  years in Liaoning Province territory, China. An online overview was disseminated through a web-based media stage between January and February 2020. Members finished an altered approved poll that surveyed the Impact of Event Scale (IES), pointers of negative emotional wellness effects, social and family uphold, and psychological well-being connected way of life changes. In the end, the COVID-19 pandemic was related with a gentle upsetting effect in the example, although the COVID-19 pandemic is as yet continuous. Twenge and Farley (2021) try to look at the relationship between changed kinds of screen exercises (online media, web, gaming, and TV) and mental health indicators independently for young men and girls. It drew from a broadly delegate test of 13–15-year-old teenagers in the UK ( $n = 11,427$ ) getting some information about hours of the day spent on explicit screen media activities. It has been observed that time spent via web-based media and Internet use were all the more unequivocally connected with self-hurt practices, burdensome manifestations, loser fulfillment, and low confidence than hours spent on electronic gaming and TV viewing. Young women generally demonstrated a more grounded relationship between screen media time and emotional well-being pointers than young men. Nop (2020) investigates the breaks down of what the

impacts are and how correspondence is affected by these youngsters. It doubts how youngsters can use web-based media and abatement harm. The study will be directed through a writing audit and analysis. Its objective is to orchestrate the current information via online media prosperity and how it identifies with youngsters, explicitly Millennials and Generation Z, to at last prescribe methodologies to streamline prosperity in the advanced age. Cooks (2020) connects essential points to analyze these pathways between online media use and discouragement and to decide if such connections equal what is perceived about the relationship between burdensome manifestations and up close and personal relational working. Keles et al. (2020) discuss audit blended proof as online media use to overcome gloom, nervousness, and mental trouble in adolescents. A search of PsycINFO, Medline, Embase, CINAHL, and SSCI information bases procured 13 qualified investigations, of which 12 were cross-sectional. All spaces are related to discouragement, uneasiness, and mental misery. Rasmussen et al. (2020) explored the relationship between social media use and mental well-being through difficulties with emotion regulation and perceived stress among a sample of US college-student emerging adults. Findings suggest that social media use may be a risk factor for mental health among adults and that social media use may be an activity to which adults resort when dealing with difficult emotions.

Yadav and Rai attempt to investigate the consciousness of how the current Generation Z is utilizing the online media just as to survey its repercussion on them as an individual's association and society as a system. This research is significant for tending to the real importance for associations looking to comprehend and attempting to exploit Gen Z' web-based media collaborations. Çiçek et al. (2018) distinguish the impact of web-based media advertising on brand faithfulness of the shoppers, given that the idea is getting expanding consideration from promoting the scholarly community and professionals. The extent of the investigation comprise of clients who follow at any rate one brand on the online media in Turkey and the information were gathered through the organization of an organized survey with an example of 338 individuals and tried using stepwise different relapse analysis. The consequences of the examination indicated that brand dependability of the clients is emphatically influenced when the brand (1) offers invaluable missions, (2) offers pertinent substance, (3) offers famous substance, and (4) shows up on different stages and offers applications via web-based media.

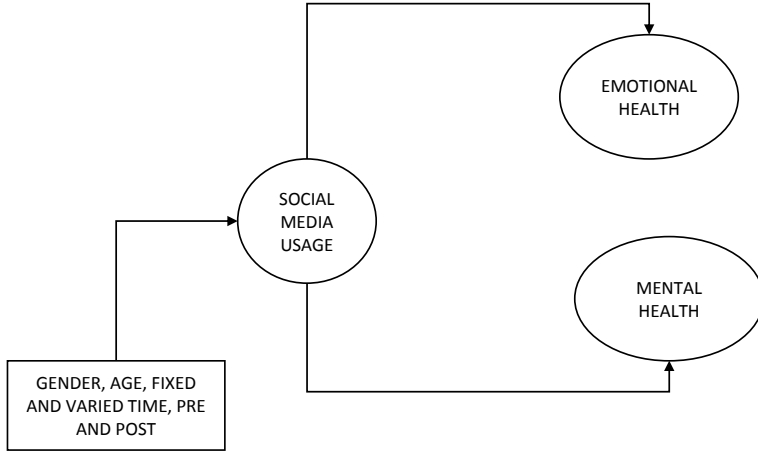


Fig. 4.1 Conceptual model (Source Authors)

### OBJECTIVES OF THE STUDY

To observe the part played by social media in Gen Z emotional and mental well-being the empirical analysis is needed to:

1. measure the mental and emotional health of Gen Z in fixed and varied time usage of mobile phones.
2. measure the mental and emotional health of Gen Z in pre- and current pandemic situations.
3. investigate the impact of social media usage pattern on mental and emotional health among a section of Gen Z (Fig. 4.1).

### HYPOTHESIS DEVELOPMENT

#### HOMOGENEITY TEST—HYPOTHESIS

- H1a: There is no homogeneity across the different levels of time (Fixed and Varied) concerning the Pre- and Post-Pandemic on mental health and emotional health.*
- H2a: There is no homogeneity across the Pre- and Post-Pandemic situations and mobile phone usage on mental health and emotional health of Gen Z.*

## SEM—MEASUREMENT HYPOTHESIS

*H0: Impact of social media usage pattern on emotional and mental health.*

### METHODOLOGY

#### *Participants*

The research design is the technique of finding answers to the research questions. This study encompasses investigating the impact of social media on the mental and emotional health of Gen Z in pre- and current pandemic situations. As it efforts to measure the phenomena as they exist. The researcher conducted a randomized controlled trial (RCT) in investigating the impact of social media on mental and emotional health among a section of Gen Z pre- and current pandemic situations. This study is carried out in Bangalore city, where a higher number of Gen Z studying in Higher educational institutions. Four educational institutions in Bangalore were chosen based upon the number of Gen Z categories studying in this institution. After obtaining consent from the educational intuition and voluntariness of participants, In February 2020 the Gen Z were included in the experiment. The inclusion criteria are participant must be frequent users of social media use, and at least have three or more different social media account. The reasons for selecting the criteria of social media usage in part because previous research has shown that there is a relationship between the use of social media and mental health (Fuller et al., 2017).

#### *Procedure*

Totally 420 Gen Z showed interested in participating in the experiment and received an information sheet explaining the study and an informed consent form. And this was signed by 350 people. So a total of 350 Gen Z participants were randomly assigned to the following two groups with two-time period: measuring mental health and emotional health condition on March 2020 with fixed time on social media usage ( $n = 175$ ) and varied/increase time on social media usage ( $n = 175$ ) (pre-first period—pre-pandemic with intervention) and August 2020 (Post—second period—current pandemic—with intervention) fixed time on social media usage ( $n = 175$ ) and varied/increase time on social media

usage ( $n = 175$ ). Block randomization was carried out for the two groups with stratification on gender, location, education level, and age using computer-generated random sequences of numbers.

### *Measures*

All respondents finished measures on two occasions: at baseline (Pre-first period—March 2020 with pre-pandemic with intervention) and completed line (Post-second period—current pandemic—with intervention). Structured questionnaires were used to measure mental health, emotional health, and social media addiction, and questionnaires were administered online to collect data from the respondents. The outcome measures mental health measured through well-being (WHO-5 Well-Being Index), depression (Depression module of Health Questionnaire [PHQ-9]; Kroenke et al., 2001), anxiety (Generalized Anxiety Disorder 7 scale [GAD-7]; Löwe et al., 2008), stress (perceived stress scale [PSS-10]; Cohen & Williamson, 1991), and sleep quality (SQI). Another measure of emotional health measured through Emotional Behavioral Scales—Generalized Anxiety disorder (GAD), Separation anxiety disorder (SAD), Major Depressive disorder (MDD), social anxiety disorder (social phobia) (SP), Attention-deficit hyperactivity disorder (ADHD), oppositional-defiant disorder (ODD), and Conduct disorder (CD) (Laura Duncan et al., 2018). The social media addiction through Bergen Social Media Addiction Scale (BSMAS; Andreassen et al., 2012).

## RESULTS AND DISCUSSIONS

### *Demographic Analysis*

The respondents were taken for the study concerning the gender with the same proportion in both pre- and post-pandemic situations concerning the fixed time and varied time. The total number of 350 samples was blocked based on the above proportion (50%) (Table 4.1).

*Objective 1: To measure the mental and emotional health of Gen Z in fixed and varied time usage of mobile phones.*

To test if these different levels of time (fixed and varied/ pre- and post-pandemic) concerning mobile phone usage had an impact on mental

**Table 4.1** Demographic profile

S. No	Demographic Variable		Pre-pandemic		Post-pandemic	
			Fixed time	Varied time	Fixed time	Varied time
1	Gender	Male	87	87	87	87
2		Female	88	88	88	88
	Total		175	175	175	175

Source Primary Data

health (well-being, depression, anxiety, stress, and sleep quality) and emotional health (Separation anxiety disorder, Major Depressive disorder, Social phobia—social anxiety disorder, Attention-deficit hyperactivity disorder, Conduct disorder, and Generalized Anxiety disorder) of Gen Z, one-way analysis of variance was carried out. Since testing each measure of emotional and mental health of Gen Z will provide concrete results regarding the impact of different levels of time (fixed and varied/pre- and post-pandemic), the consolidated hypothesis formulated for the same is given below (Table 4.2):

H1a: There is no homogeneity across the different levels of time (Fixed and Varied) concerning the Pre- and Post-Pandemic on mental health and emotional health

*Testing of homogeneity across different levels of time concerning pre-pandemic:*

The level of the study belongs to a fixed and varied level of time concerning mobile phone usage. The hypothesis formulated is given below:

H1a: There is no homogeneity across the different levels of time (Fixed and Varied) concerning the Pre-Pandemic on mental and emotional health.

The ANOVA results of mental health and emotional health measures across two levels of mobile phone usage time (fixed and varied) concerning pre-pandemic are presented in Table 4.2. The test results for all the measures in mental and emotional health were found to be insignificant as  $p$  values are higher than 0.05. Therefore, failed to reject the null

**Table 4.2** Analysis of variance (ANOVA)—fixed time a varied time (pre- and post-pandemic)

<i>Study variables</i>	<i>Measurement</i>	<i>Levels</i>	<i>N</i>	<i>Mean</i>	<i>ANOVA</i>	
					<i>F-value</i>	<i>P-value</i>
Mental health	Well-being	Fixed Time—Pre	175	17.25	2.003	<b>0.158</b>
		Varied Time—Pre	175	17.82		
		Fixed Time—Post	175	15.22	3.025	<b>0.083</b>
		Varied Time—Post	175	14.61		
	Depression	Fixed Time—Pre	175	13.75	0.984	<b>0.322</b>
		Varied Time—Pre	175	14.37		
		Fixed Time—Post	175	13.59	0.026	<b>0.873</b>
		Varied Time—Post	175	13.53		
	Anxiety	Fixed Time—Pre	175	11.07	1.411	<b>0.236</b>
		Varied Time—Pre	175	11.68		
		Fixed Time—Post	175	10.51	1.021	<b>0.313</b>
		Varied Time—Post	175	10.19		
	Stress	Fixed Time—Pre	175	26.70	0.422	<b>0.516</b>
		Varied Time—Pre	175	26.03		
		Fixed Time—Post	175	20.11	0.064	<b>0.801</b>
		Varied Time—Post	175	20.24		
	Sleep quality	Fixed Time—Pre	175	9.91	1.595	<b>0.207</b>

(continued)

**Table 4.2** (continued)

<i>Study variables</i>	<i>Measurement</i>	<i>Levels</i>	<i>N</i>	<i>Mean</i>	<i>ANOVA</i>	
					<i>F-value</i>	<i>P-value</i>
Emotional health	Separation anxiety disorder	Varied Time—Pre	175	10.71		
		Fixed Time—Post	175	10.55	0.087	<b>0.768</b>
		Varied Time—Post	175	10.64		
		Fixed Time—Pre	175	19.23	0.566	<b>0.452</b>
		Varied Time—Pre	175	19.85		
		Fixed Time—Post	175	14.07	1.653	<b>0.199</b>
		Varied Time—Post	175	13.55		
		Fixed Time—Pre	175	25.25	1.853	<b>0.173</b>
		Varied Time—Pre	175	26.67		
		Fixed Time—Post	175	17.33	0.429	<b>0.513</b>
	Major Depressive disorder	Varied Time—Post	175	17.67		
		Fixed Time—Pre	175	13.14	1.826	<b>0.178</b>
		Varied Time—Pre	175	14.13		
		Fixed Time—Post	175	9.99	0.269	<b>0.604</b>
		Varied Time—Post	175	9.82		
		Fixed Time—Pre	175	21.84	0.789	<b>0.375</b>
		Varied Time—Pre	175	22.70		
		Fixed Time—Post	175	16.20	0.183	<b>0.669</b>
		Varied Time—Post	175	16.37		
		Fixed Time—Pre	175	27.77	0.364	<b>0.547</b>

(continued)



**Table 4.2** (continued)

<i>Study variables</i>	<i>Measurement</i>	<i>Levels</i>	<i>N</i>	<i>Mean</i>	<i>ANOVA</i>	
					<i>F-value</i>	<i>P-value</i>
		Varied Time—Pre	175	27.19		
		Fixed Time—Post	175	19.84	0.007	<b>0.935</b>
		Varied Time—Post	175	19.88		
	Generalized Anxiety disorder	Fixed Time—Pre	175	16.18	1.282	<b>0.258</b>
		Varied Time—Pre	175	17.07		
		Fixed Time—Post	175	11.98	0.408	<b>0.151</b>
		Varied Time—Post	175	12.22		
	Oppositional-defiant disorder	Fixed Time—Pre	175	14.56	0.648	<b>0.421</b>
		Varied Time—Pre	175	15.19		
		Fixed Time—Post	175	12.42	2.071	<b>0.524</b>
		Varied Time—Post	175	11.87		

hypothesis and rejected the alternate hypothesis. It means there is homogeneity across the different levels of time (fixed and varied) concerning the pre-pandemic on mental and emotional health.

*Testing of homogeneity across different levels of time concerning post-pandemic effects:*

The level of the study belongs to a fixed and varied level of time concerning mobile phone usage. The hypothesis formulated is given below:

H1b: There is no homogeneity across the different levels of time (Fixed and Varied) concerning the Post-Pandemic on mental and emotional health.

The ANOVA results of mental health and emotional health measures across two levels of mobile phone usage time (fixed and varied) concerning post-pandemic are presented in Table 4.2. The test results for all the measures in mental and emotional health were found to be insignificant as  $p$  values are higher than 0.05. Therefore, failed to reject the null hypothesis and rejected the alternate hypothesis. It means there is homogeneity across the different levels of time (fixed and varied) concerning the post-pandemic on mental and emotional health. So, in general, there is a significant impact on mobile phone usage time on the mental and emotional health of Gen Z (Table 4.3).

**Table 4.3** Analysis of variance (ANOVA)—pre- and post-pandemic

<i>Study variables</i>	<i>Measurement</i>	<i>Levels</i>	<i>N</i>	<i>Mean</i>	<i>ANOVA</i>	
					<i>F-value</i>	<i>P-value</i>
Mental health	Well-being	Pre-pandemic	175	17.53	97.289	<b>0.000</b>
		Post-Pandemic	175	14.91		
	Depression	Pre-pandemic	175	14.06	1.970	<b>0.161</b>
		Post-Pandemic	175	13.56		
	Anxiety	Pre-pandemic	175	11.38	11.555	<b>0.000</b>
		Post-Pandemic	175	10.35		
	Stress	Pre-pandemic	175	26.37	117.68	<b>0.000</b>
		Post-Pandemic	175	20.18		
	Sleep quality	Pre-pandemic	175	10.31	0.630	<b>0.428</b>
		Post-Pandemic	175	10.59		
Emotional health	Separation anxiety disorder	Pre-pandemic	175	19.54	157.10	<b>0.000</b>
		Post-Pandemic	175	13.81		
	Major depressive disorder	Pre-pandemic	175	25.96	201.88	<b>0.000</b>
		Post-Pandemic	175	17.83		
	Social phobia -social anxiety disorder	Pre-pandemic	175	13.63	87.66	<b>0.000</b>
		Post-Pandemic	175	9.91		
	Attention-deficit hyperactivity disorder	Pre-pandemic	175	22.27	129.840	<b>0.000</b>
		Post-Pandemic	175	16.29		
	Conduct disorder	Pre-pandemic	175	27.48	204.58	<b>0.000</b>
		Post-Pandemic	175	19.86		
	Generalized anxiety disorder	Pre-pandemic	175	16.63	108.66	<b>0.000</b>
		Post-Pandemic	175	12.10		
	Oppositional-defiant disorder	Pre-pandemic	175	14.87	39.357	<b>0.000</b>
		Post-Pandemic	175	12.15		

*Objective 2: To measure the mental and emotional health of Gen Z in pre- and current pandemic situations.*

The consolidated hypothesis formulated for the above objectives is given below:

H2a: There is no homogeneity across the Pre- and Post-Pandemic situations and mobile phone usage on mental health and emotional health of Gen Z.

The ANOVA results of mental health and emotional health measures pre- and post-pandemic are presented in Table 4.3. The test results for all the measures in mental and emotional health were found to be significant as  $p$  values are lesser than 0.05. Except depression ( $p = 0.161$ ) and sleep quality ( $p = 0.428$ ). Therefore, reject the null hypothesis and accept the alternate hypothesis H2a for mental health (Well-Being, Anxiety, Stress) and emotional health (Separation anxiety disorder, Major Depressive disorder, Social phobia—social anxiety disorder, Attention-deficit hyperactivity disorder, Conduct disorder, Generalized Anxiety disorder). It means there is no homogeneity across the pre- and post-pandemic on mental health (Well-Being, Anxiety, Stress) and emotional health (Separation anxiety disorder, Major Depressive disorder, Social phobia—social anxiety disorder, Attention-deficit hyperactivity disorder, Conduct disorder, Generalized Anxiety disorder) and there is homogeneity across pre- and post-pandemic on sleep quality and depression. It means there is no significant mean difference in depression and sleep quality of Gen Z in pre- and post-pandemic situations.

*Objective 3: To investigate the impact of social media usage pattern on mental and emotional health among a section of Gen Z.*

Structural equation modeling (SEM), also known as path analysis, is now a regularly used method for representing dependency relations in multivariate data in the behavioral and social sciences. SEM refers to a diverse set of mathematical models, computer algorithms, and statistical methods that fit networks of constructs to data. SEM includes confirmatory factor analysis, path analysis, and partial least squares path analysis. We have done the SEM and taken the measurement model. SEM was tested using AMOS software. The measurement model defines relationships between the observed and unobserved variables. It provides the link between scores on a measuring instrument (i.e., the observed indicator variables) and the underlying constructs they are designed

**Table 4.4** SEM—Hypothesis verification

<i>Hypothesis</i>	<i>Hypothesis</i>	<i>Standardized estimate</i>	<i>S.E</i>	<i>C.R</i>	<i>P</i>
H1	SMAA → WELL-BEING	0.016	0.136	0.413	0.679
H2	SMAA → DEPRESSION	0.597	0.336	4.312	***
H3	SMAA → ANXIETY	0.630	0.385	4.330	***
H4	SMAA → STRESS	0.707	0.608	4.363	***
H5	SMAA → SLEEP QUALITY	0.555	0.397	4.286	***
H8	SMAA → GAD	0.755	0.817	4.379	***
H7	SMAA → SAD	0.772	0.774	4.384	***
H8	SMAA → MDD	0.791	0.791	4.389	***
H9	SMAA → SOCIAL PHOBIA	0.770	0.901	4.383	***
H10	SMAA → ATTENTION DISORDER	0.791	0.784	4.389	***
H11	SMAA → OPPOSITIONALDEFIANT-DISORDER	0.738	0.764	4.374	***
H12	SMAA → CONDUCT DISORDER	0.537	0.558	4.343	***

to measure. The hypothesized framework was constructed with mental health, emotional health, social media addiction, pre- and post-pandemic, fixed and varied period level, and demographic variables. The hypothesis is formulated and tested, and verification values are given below (Table 4.4):

### SEM—MEASUREMENT MODEL

The Hypotheses from H2 and H12 are accepted since all their Critical ratios (CR) are greater than 1.96 and  $p$ -values are lesser than 0.05. So therefore the factor covariance of those hypotheses is accepted. The hypothesis H1 is rejected because the Critical ratios (C.R) are 0.413 not greater than 1.96 and the  $p$ -value 0.679 is not less than 0.05. The above results were supported by Twenge and Farley's (2021) study results, which has shown that social media addiction impacting mental and emotional health. All variables were included with significant covariance's for error terms from the results of confirmatory factor analysis, and the model was tested for goodness of fit, and the results are as follows.  $CMIN/df = 3.567$ ,  $CFI = 0.988$ ,  $GFI = 0.967$ ,  $NFI = 0.908$ ,  $CLOSE = 0.549$ ,  $RMSEA = 0.061$ . The values well abide by the prescribed limits thus ensuring that the SEM has a good fit acquired from this study are within the recommended values of Hair et al. (2009).

## DISCUSSIONS

Social media is considered a very important tool in dissemination of information among young adults and teens today. Due to its brevity, cost, and instant mass communication, it has been gaining momentum in the recent past. The information diffused through this can be a positive or a negative influence in the minds of the recipients. The positive impression can be used as a powerful instrument in marketing goods and services addressing the specific segments or even niche market (Urban Gen Z in this study). The study of the negative impression can help alleviate the stress and other related disorders among the said population. This study views social media and its influence from both the seller and buyer perspectives. It also gives scope to understand the psychosomatic disorders caused by extensive use of internet-based communication tools. Further analysis from more angles using different variables would take the research into the next level.

## IMPLICATION AND FUTURE DIRECTIONS

The impact on the mental and emotional health of Gen Z could be reduced if that generation is educated about the hazardous outcome of mobile phone usage. The adaptability of Gen Z to technology can be used positively to disseminate the negative effect of over usage of mobile phones. This could be done with self-regulated usage (in terms of time) by the users to mitigate the health outcome. The pandemic brought the world to a grinding halt. Even during such an extreme situation, Gen Z did not reduce the usage of social media which deteriorated the quality of sleep and enhanced depression. More facts and figures on the health issues could be highlighted to the current generation on social media usage. This would help in consciously reducing the time and channelize the energy and efforts into something more constructive. Future research could focus on identifying which social media handle has a maximum impact on Gen Z and how could that be used positively in building the generation. It could also emphasize the role played by educational institutions to redefine responsibility in using social media.

## CONCLUSION AND LIMITATIONS

To conclude, it is evident that Gen Z popularly known as the Internet generation has both gained and lost due to the use of social media. The

gains, however, can be harnessed positively as a powerful marketing and communication tool. The concern here is the dark side of social media usage which has resulted in emotional and mental disorders. If these disorders are not mended at an early stage or prevented in its nascent stage, they can lead to threatening situations in the future. This will affect all the stakeholders of Gen Z, namely parents, teachers, society, educational institutions, and their peers. A deeper study could reveal finer reasons for this impact and help arrive at suggestions that would help resolve the volatility in the behavior of Gen Z.

### LIMITATIONS

The scope of the study is limited only to four educational institutions in Bangalore city, which is very narrow and limits the universality of the entire population. The sample population has been considered only from the urban stratum which negates the usage and impact of social media among the rural Gen Z population. Only few variables have been considered that gives a skewed perspective of the study. Consideration of other variables could give a holistic and deeper outlook of the study. This opens up opportunities for future studies that would augment the cause and effect of social media on Gen Z.

### REFERENCES

- Ahn, D., & Shin, D.-H. (2013). Is the social use of media for seeking connectedness or for avoiding social isolation? Mechanisms underlying media use and subjective well-being. *Computers in Human Behavior, 29*, 2453–2462. <https://doi.org/10.1016/j.chb.2012.12.022>
- Andreassen, C. S., Torsheim, T., Brunborg, G. S., & Pallesen, S. (2012). Development of a Facebook addiction scale. *Psychological Reports, 110*(2), 501–517.
- Aparicio, J. (2020). *The effect of social media uses via a mobile device on the mental health of young adults*. Doctoral dissertation, California State University.
- Calisir, F., Atahan, L., & Saracoglu, M. (2013, October). Factors affecting social network sites usage on smartphones of students in Turkey. In *Proceedings of the World Congress on Engineering and Computer Science* (Vol. 2, No. 1, pp. 23–25).
- Çiçek, M., Eren-Erdogmuş, İ., & Daştan, İ. (2018). How to increase the awareness of in-app mobile banner ads: exploring the roles of banner

- location, application type and orientation. *International Journal of Mobile Communications*, 16(2), 153–166.
- Cohen, S., & Williamson, G. M. (1991). Stress and infectious disease in humans. *Psychological Bulletin*, 109(1), 5.
- Colás, P., González, T., & de Pablos, J. (2013). Young people and social networks: Motivations and preferred uses. *Comunicar*, XX(40), 15–23.
- Cooks, J. A. (2020). Understanding social media and the complex interplay between use and depressive symptoms. Doctoral dissertation, Kent State University.
- Cummings, J. N., Butler, B., & Kraut, R. (2002). The quality of online social relationships. *Communications of the ACM*, 45(7), 103–108.
- Curras-Perez, R., Ruiz-Mafe, C., & Sanz-Blas, S. (2014). Determinants of user behaviour and recommendation in social networks: An integrative approach from the uses and gratifications perspective. *Industrial Management & Data Systems*.
- Duncan, L., Georgiades, K., Wang, L., Van Lieshout, R. J., MacMillan, H. L., Ferro, M. A., ... & Boyle, M. H. (2018). Psychometric evaluation of the mini international neuropsychiatric interview for children and adolescents (MINI-KID). *Psychological Assessment*, 30(7), 916.
- Dunbar, R. I. (2014). The social brain: Psychological underpinnings and implications for the structure of organizations. *Current Directions in Psychological Science*, 23(2), 109–114.
- Fuller, C., Lehman, E., Hicks, S., & Novick, M. B. (2017). Bedtime use of technology and associated sleep problems in children. *Global Pediatric Health*, 4, 1–8.
- Hair, B., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). *Multivariate data analysis*. Prentice Hall.
- Hinsch, C., & Sheldon, K. M. (2013). The impact of frequent social Internet consumption: Increased procrastination and lower life satisfaction. *Journal of Consumer Behaviour*, 12(6), 496–505.
- Huang, C. (2010). Internet use and psychological well-being: A meta-analysis. *Cyberpsychology, Behavior, and Social Networking*, 13, 241–249. <https://doi.org/10.1089/cyber.2009.0217>
- Jourard, S. M. (1964). *The transparent self: Self-disclosure and well-being* (Vol. 17). Van Nostrand.
- Katz, E., Gurevich, M., & Haas, H. (1973). On the use of the mass media for important things. *American Sociological Review*, 38, 164–181.
- Keles, B., McCrae, N., & Grealish, A. (2020). A systematic review: The influence of social media on depression, anxiety, and psychological distress in adolescents. *International Journal of Adolescence and Youth*, 25(1), 79–93.
- Kim, D., Chun, H., Kwak, Y., & Nam, Y. (2014). The employment of dialogic principles in website, Facebook, and Twitter platforms of environmental nonprofit organizations. *Social Science Computer Review*, 32(5), 590–605.

- Kraut, R., Kiesler, S., Boneva, B., Cummings, J., Helgeson, V., & Crawford, A. (2002). Internet paradox revisited. *Journal of Social Issues*, 58, 49–74. <https://doi.org/10.1111/1540-4560/00248>
- Kraut, R., Patterson, M., Lundmark, V., Kiesler, S., Mukopadhyay, T., & Scherlis, W. (1998). Internet paradox: A social technology that reduces social involvement and psychological wellbeing? *American Psychologist*, 53, 1017–1031. <https://doi.org/10.1037/0003-066x.53.9.1017>
- Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General and Internal Medicine*, 16(9), 606–613.
- Kross, E., Verduyn, P., Demiralp, E., Park, J., Lee, D. S., Lin, N., & Ybarra, O. (2013). Facebook use predicts declines in subjective well-being in young adults. *Plos One*, 8(8), e69841. <https://doi.org/10.1371/journal.pone.0069841>
- Löwe, B., Decker, O., Müller, S., Brähler, E., Schellberg, D., Herzog, W., & Herzberg, P. Y. (2008). Validation and standardization of the Generalized Anxiety Disorder Screener (GAD-7) in the general population. *Medical care*, 46, 266–274.
- McQuail, D. (1987). *Mass communication theory: An introduction*. Sage Publications, Inc.
- Nie, N. H. (2001). Sociability, interpersonal relations, and the internet: Reconciling conflicting findings. *American Behavior Scientist*, 45, 420–435. <https://doi.org/10.1177/00027640121957277>
- Nie, N. H., & Hillygus, D. S. (2002). The impact of Internet use on sociability: Time-diary findings. *IT & Society*, 1(1), 1–20.
- Nop, A. (2020). Young people, social media, and impacts on well-being. *School of Professional Studies*, 44. [https://commons.clarku.edu/sps\\_masters\\_papers/44](https://commons.clarku.edu/sps_masters_papers/44)
- Omar, A. S., Rashid, W. E. W., & Majid, A. A. (2014). Motivations using social networking sites on quality work life. *Procedia-Social and Behavioral Sciences*, 130, 524–531.
- Parks, M. R. (2011). Boundary conditions for the application of three theories of computer-mediated communication to MySpace. *Journal of Communication*, 61(4), 557–574.
- Petrocchi, N., Asnaani, A., Martinez, A. P., Nadkarni, A., & Hofmann, S. G. (2015). Differences between people who use only Facebook and those who use Facebook plus Twitter. *International Journal of Human-Computer Interaction*, 31(2), 157–165.
- Pollet, T. V., Roberts, S. G. B., & Dunbar, R. I. M. (2011). Use of social network sites and instant messaging does not lead to increased offline social network size, or to emotionally closer relationships with offline network members. *Cyberpsychology, Behavior, and Social Networking*, 14, 253–258. <https://doi.org/10.1089/cyber.2010.0161>



- Rasmussen, E. E., Punyanunt-Carter, N., LaFreniere, J. R., Norman, M. S., & Kimball, T. G. (2020). The serially mediated relationship between emerging adults' social media use and mental well-being. *Computers in Human Behavior, 102*, 206–213.
- Roberti, J. W., Harrington, L. N., & Storch, E. A. (2006). Further psychometric support for the 10-item version of the perceived stress scale. *Journal of College Counseling, 9*(2), 135–147.
- Scheepers, C. E., Wendel-Vos, G. C. W., Den Broeder, J. M., Van Kempen, E. E. M. M., Van Wesemael, P. J. V., & Schuit, A. J. (2014). Shifting from car to active transport: A systematic review of the effectiveness of interventions. *Transportation Research Part A: Policy and Practice, 70*, 264–280.
- Shakya, H. B., & Christakis, N. A. (2017). Association of Facebook uses with compromised wellbeing: A longitudinal study. *American Journal of Epidemiology, 185*(3), 203–211. <https://doi.org/10.1093/aje/kww189>
- Shao, G. (2009). Understanding the appeal of user-generated media: A uses and gratification perspective. *Internet Research, 19*(1), 7–25.
- Sheldon, K. M., Abad, N., & Hinsch, C. (2011). *A two-process view of Facebook use and relatedness need-satisfaction: Disconnection drives use, and connection rewards it.*
- Song, H., Zmyslinski-Seelig, A., Kim, J., Drent, A., Victor, A., Omori, K., & Allen, M. (2014). Does Facebook makes you lonely? A meta-analysis. *Computers in Human Behavior, 36*, 446–452. <https://doi.org/10.1016/j.chb.2014.04.011>
- Stafford, T. F., & Gillenson, M. L. (2004). Motivations for mobile devices: Uses and gratifications for m-commerce. *SIGHCI 2004 Proceedings, 7*.
- Twenge, J. M., & Farley, E. (2021). Not all screen time is created equal: Associations with mental health vary by activity and gender. *Social Psychiatry and Psychiatric Epidemiology, 56*(2), 207–217.
- Verduyn, P., Lee, D. S., Park, J., Shablack, H., Orvell, A., Bayer, J., & Kross, E. (2015). Passive Facebook usage undermines affective well-being: Experimental and longitudinal evidence. *Journal of Experimental Psychology: General, 144*(2), 480.
- Weiser, E. B. (2001). The functions of internet use and their social and psychological consequences. *Cyberpsychology and Behavior, 4*(6), 723–743.
- Xu, Z., Pérez-Rosas, V., & Mihalcea, R. (2020). Inferring Social Media Users' Mental Health Status from Multimodal Information. *Proceedings of the 12th Language Resources and Evaluation Conference* (pp. 6292–6299). Marseille.
- Zhang, Y., & Ma, Z. F. (2020). Impact of the COVID-19 pandemic on mental health and quality of life among residents in Liaoning Province, China: A cross-sectional study. *International Journal of Environmental Research and Public Health, 17*(7), 2381.



# Social Media Competence: An Assessment of Male and Female Users in India

*Sourabh Sharma and Megha Sharma*

## INTRODUCTION

Social Media is a platform used for sharing ideas, information, and content. Social media generates wide range of content on the Internet as different social media platforms allow anyone and everyone with an Internet connection to generate their own content and share them effortlessly on their network. Several studies have revealed the different benefits and usages of social media platforms. Social media is widely used to share information. It has benefits for consumers as well as for producers. Consumers may directly interact with the brand and influence others by sharing their feedbacks. The produces may know the response instantly

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and may create a better customer engagement for the brand. Traditional marketing cannot generate such kind of engagement (Trusov et al., 2009). A framework was proposed by Grewal and Levy's (2014) 4E model, which describes the actual usage of social media in real time. As per the proposed framework, there are four purposes of social media to:

- motivate users with relevant content,
- inform them about the brand and product/services,
- facilitate users to interact with the brand, product/services online; and
- keep them engaged online.

IAMAI (Internet and Mobile Association of India) 2019 data reveals that, in India, out of 560 million Internet users, half of them are very diligently using different social media platforms. Facebook and YouTube are the two most used social media platforms in India. WhatsApp is also gradually becoming popular among the active social media users. Popularity of Facebook is increasing day by day and it is expected that the users in India for Facebook will be close to 319 million by the end of 2021. Globally, women dominate the activities on major social media platforms but in India the trend is reversed. In India, male users have dominance over female users on Facebook and is very much gender skewed.

Although the trend in India is skewed more toward male users, it will be interesting to find out the different social media dimensions which are impacting the usage pattern of male and female users in the developing country like India. The present research is proposed to compare the same and finds the insight for future references.

## LITERATURE REVIEW

Social media has improved the role of users from passive users to active users. Users are actively participating on social media platforms to share their views and thoughts. The active users are not only participating but are also involved in content creation (e.g., photos, videos, and stories) and sharing the same to their network. Around 30% of the users are involved in self-created content sharing on their news feeds (Lenhart et al., 2010). The users on social media are not constrained to only interpersonal

communication but they also use the platforms to interact with the business organizations and brands to share their experiences (Pralhad & Ramaswamy, 2004). Presently, the management is using social media platforms and integrating the same with their existing customer relationship management (CRM) systems to improve customer satisfaction (Trainor et al., 2014). For managing customer relations, this integration of social media with CRM has given a new approach, which is network-focused (Trainor et al., 2014).

As defined earlier, Facebook is the most used social media platform in India. Sacide Güzin Mazman and Yasemin Koçak Uslue (2010) designed a model to describe the educational use of Facebook for its users. In this model, a direct relationship was established between users' purposes in using Facebook and the educational usage of Facebook whereas an indirect relationship was established between users' Facebook adoption processes and their educational use of Facebook.

Twitter is another social media platform in India, which is used and followed by many of the users. Java et al. (2007) define the type of users available for Twitter. For this study, user's Twitter data was analyzed to derive the classification of user's intents like "daily chatter," "conversations," "sharing information/URLs," and "reporting news," Teevan, Ramage and Morris (2011) examined why people search Twitter and found that users were looking for current events and "social information" related to other Twitter users. Approaching the issue from the other side, Hurlock and Wilson (2011) studied which tweets users found most helpful in a search. The authors found that the most useful tweets contained facts/common knowledge; direct recommendations/insights; humor; shared perspective; temporally relevant information; or trustworthy links. Building on the research, Elswailer and Harvey (2014) discovered that Twitter search is about "both achieving and maintaining the state of being informed."

Social media, such as Facebook, Twitter, LinkedIn, YouTube, WhatsApp, Instagram, etc., facilitate users/brands to create their own profile/page, add friends and followers to connect, and exchange content (user-generated content) with them. Pew Research Center's Internet & American Life Project (PRCI & ALP) in a research concluded that in USA, young adults are more connected to social media sites. Internet users under the age group of 18–29 are mostly using the social networking site of any kind. Women are dominating and are more likely than men to be on these sites. People living in urban settings are the main

users of social networking sites as compare to rural Internet users. Women are more active on social media sites like Pinterest, Instagram in Africa, America, and Latino.

Gianfranco, Walsh et al., (2016) have conceptualized five dimensions of social media competence: technical competency, visibility awareness competency, knowledge competency, impact assessment competency, and social media communication competency. By using these dimensions, a scale was created to analyze the social media competency. They described that “for convergent, discriminant and nomological validities, exploratory factor analyses, confirmatory factor analyses, and structural equation modeling were implemented.” The same scale (Annexure 1) has been explored and used to compare these five factors between male and female in Indian context.

Social media is playing a very important role in the change of Indian lifestyles. Social Media Sites (SMS) have become an essential part of life of every Indian who now have access to Internet and want to be socially connected through these mediums (Jehangir, 2018). These virtual social media platforms are very popular among the teenagers and young adults but at the same time, these social media platforms are gradually showing their presence in the life of the entire population (Oberst et al., 2017).

## RESEARCH GAP

From an extensive literature review, it was found that ample research studies are available on social media and its influence on individual within the organization and society at large. The usage of social media, in general, was studied in some of the research studies. It has been observed that there is a research gap to identify the social media competence dimensions and may further be used to evaluate the competence level (gender wise) of social media users in the developing country like India. This study is an honest attempt to map the social media competence of male and female users on various identified dimensions of social media usage. It will be a comparative research to identify the level of competence and analyze the social media usage behavior of Indian users (male and female). This study is going to address this gap by implementing the social media competence scale for the Indian users in the Indian context.

## OBJECTIVE OF THE STUDY

Following objectives have been derived from the identified research gap:

- To explore the social media competence dimensions (scale).
- To check the validity and reliability of the social media competency evaluation scale.
- To compare the social media competence dimensions for male and female users.

## DATA AND METHODOLOGY

Scale developed by Gianfranco Walsh et al. (2016) of 21 items is used to measure the social media competence. There are five dimensions in this scale: “Technical Competence, Visibility awareness competence, Knowledge competence, Impact assessment competence, and Social media communication competence.” A brief description about the dimensions<sup>1</sup>:

1. **Technical Competence (TC):** Technical competence is all about using the technical aspects of social media in an efficient manner.
2. **Visibility Awareness Competence (VAC):** This competence is to acknowledge once presence on social media platforms which is perceptible to all at large.
3. **Knowledge Competence (KC):** It is the competence of involving oneself in the ongoing conversations on social media only when one has the knowledge on the subject matter.
4. **Impact Assessment Competence (IAC):** it’s a realization of the impact of social media contents shared on social media platforms.
5. **Social Media Communication Competence (SMCC):** The way of expressing the views and thoughts in the most appropriate and non-argumentative manner on social media platforms.

The research methodology used for this study is descriptive.

<sup>1</sup> Items of these dimensions are shown in Annexure 1.

## SAMPLING TECHNIQUE

As discussed above, the scale comprises 21 items related to social media usage under five competence aspects that were circulated in the form of a questionnaire to the Internet users who are active on social media platforms in India. In response, the data was collected from 445 respondents, segregated among 244 males and 201 females. Many of the respondents were between 22 and 40 years of age group.

## DATA ANALYSIS AND FINDING

To check the construct validity, correlation and exploratory factor analysis are used, whereas for reliability check, Cronbach's alpha test of reliability is used. The correlation analysis was used to check the validity of social media competence scale in the Indian context. To identify the convergent and discriminant validity, a correlation tool was applied.

Exploratory factor analysis was also performed on 21 items scale of social media competence to confirm the validity of the construct. The factor analysis results are depicted in Tables 5.2 and 5.3. The KMO value is more than the requisite (0.5) and the significance level for the Bartlett's test is below 0.05 as exhibited in Table 5.1. Therefore, it is pertinent to apply factor analysis. The standard extraction method wherein principal component with Varimax rotation was applied to get the factors. Factors are constructed based on the Eigenvalues greater than 1.0 (Field, 2009).

Table 5.2 shows the factor loading of all five dimensions. These dimensions together represent 57.29% of the variance. The first dimension "Technical Competence (TC)" comprised five items and explained 17.884 percent of the total variance. This factor has Eigenvalue of 3.756 and the items TC1, TC2, TC3, TC4, and TC5 are paired up together. Four items with 12.762% of the total variance and 2.680 Eigenvalue were clubbed in the second dimension "Visibility Awareness Competence

**Table 5.1** KMO and Bartlett's test

Kaiser-Meyer-Olkin measure of sampling adequacy		0.693
Bartlett's test of sphericity	Approx. Chi-Square	3006.654
	Df	210
	Sig	0.000

*Source* Authors computation

**Table 5.2** Factor analysis for social media competence scale

<i>Factor 1</i>		<i>Factor 2</i>		<i>Factor 3</i>		<i>Factor 4</i>		<i>Factor 5</i>	
<i>TC</i>		<i>VAC</i>		<i>KC</i>		<i>IAC</i>		<i>SMCC</i>	
<i>Items</i>	<i>Loading</i>	<i>Items</i>	<i>Loading</i>	<i>Items</i>	<i>Loading</i>	<i>Items</i>	<i>Loading</i>	<i>Items</i>	<i>Loading</i>
TC2	0.781	VAC3	0.821	KC3	0.831	IAC3	0.781	SMCC4	0.612
TC3	0.776	VAC1	0.779	KC2	0.826	IAC4	0.775	SMCC2	0.575
TC4	0.709	VAC2	0.731	KC1	0.821	IAC2	0.761	SMCC1	0.563
TC5	0.691	VAC4	0.622	KC4	0.668	IAC1	0.493	SMCC3	0.475
TC1	0.681								
EigenValue		EigenValue		EigenValue		EigenValue		EigenValue	
3.756		2.680		2.254		1.965		1.377	
Percentage of		Percentage of		Percentage of		Percentage of		Percentage of	
variance		variance		variance		variance		variance	
17.884		12.762		10.733		9.357		6.558	
Total variance: 57.294									

Source Authors computation

(VAC).” The items VAC1, VAC2, VAC3, and VAC4 are combined in this dimension.

The third dimension “Knowledge Competence (KC)” comprises of four items, i.e., KC1, KC2, KC3, and KC4 and explained 10.733% of the total variance with an Eigenvalue of 2.254. The fourth dimension “Impact Assessment Competence (IAC)” also has four items IAC1, IAC2, IAC3, and IAC4 and explained 9.357% of the total variance with an Eigenvalue of 1.965. Fifth dimension “Social Media Communication Competence (SMCC)” comprised four items and explained 6.558 percent of the total variance. It has an Eigenvalue of 1.377. The items SMCC1, SMCC2, SMCC3, and SMCC4 loaded on this dimension.

According to Kaura et al. (2013), high loading on the same factor and no substantial cross-loading confirms convergent and discriminant validity, respectively. Further, the Cronbach’s alpha test is used to check the reliability of the scale. The values in Cronbach’s alpha coming at higher side depict the internal consistency of all items in each factor (Wang & Ahmed, 2009, p. 23). Table 5.3 shows the results of the reliability analysis.

Table 5.3 represents the Cronbach’s alpha value of all five dimensions. The Cronbach’s alpha value of first dimension, i.e., “Technical Competence” is 0.786. The value shows a high reliability. The next



**Table 5.3** Result of reliability analysis on social media competence scale

<i>Item-total statistics</i>				
	Scale mean if item deleted	Scale variance if item deleted	Corrected item-total correlation	Cronbach's alpha if item deleted
<b>Technical Competence</b>				
TC1	14.64	10.786	0.502	0.765
TC2	14.79	9.693	0.623	0.727
TC3	14.77	9.184	0.628	0.723
TC4	14.71	9.792	0.541	0.752
TC5	15.13	8.864	0.545	0.758
Cronbach's alpha = 0.786				
<b>Visibility Awareness Competence</b>				
VAC1	13.29	4.192	0.616	0.693
VAC2	13.13	4.998	0.593	0.705
VAC3	13.24	4.288	0.623	0.687
VAC4	12.95	5.765	0.484	0.76
Cronbach's alpha = 0.770				
<b>Knowledge Competence</b>				
KC1	12.16	7.921	0.688	0.745
KC2	12.07	7.887	0.662	0.757
KC3	12.13	7.547	0.711	0.733
KC4	11.89	9.588	0.495	0.829
Cronbach's alpha = 0.817				
<b>Impact Assessment Competence</b>				
IAC1	11.6	6.623	0.303	0.722
IAC2	11.76	5.103	0.503	0.608
IAC3	11.69	5.54	0.537	0.587
IAC4	11.69	5.253	0.569	0.563
Cronbach's alpha = 0.691				
<b>Social Media Communication Competence</b>				
SMCC1	11.88	4.192	0.229	0.386
SMCC2	11.13	4.624	0.348	0.27
SMCC3	10.85	5.301	0.294	0.342
SMCC4	12.17	4.504	0.16	0.467
Cronbach's alpha = 0.433				
SMCC2	4.49	0.606	0.472	
SMCC3	4.22	0.91	0.472	
Revised Cronbach's alpha = 0.632				

three dimensions that are “Visibility Awareness Competence,” “Knowledge Competence,” and “Impact Assessment Competence” have 0.770, 0.817, and 0.691 Cronbach’s alpha values, respectively. Which again shows the significant reliability of all these dimensions. Although the Cronbach’s alpha value for last dimension, *i.e.*, “Social Media Communication Competence” is 0.433. This value shows a very low reliability and cannot be considered. Looking at the values of “Corrected Item—Total Correlation” column, two items SMCC1 and SMCC4 having lowest values are deleted and the Cronbach’s Alpha is recalculated for reliability, the reliability is increased to an acceptable level (0.632).

Cronbach’s alpha values received for social media competence dimensions show reliability varying from 0.632 to 0.817.

### COMPARISON OF SOCIAL MEDIA COMPETENCE DIMENSIONS FOR MALE AND FEMALE USERS

This is the third and most important objective of the present study. To address this objective, the mean of two independent samples which are male and female social media users are compared using the independent *t*-test and to determine whether the sample mean has the significant difference. The sample size is divided into 244 males and 201 females. Table 5.4 shows the result of independent *t*-test:

Independent *t*-test is applied to identify the significance and association of items by comparing the means in the group of two independent samples (Sharma & Sharma, 2018). Here the independent *t*-test states that whether there is a significant difference in the mean score of social media users (male and female) for each competence dimensions. As depicted in Table 5.4, for dimension one, *i.e.*, “Technical Competence,” the resulted significance value is 0.000 ( $p < 0.05$ ). So, the NULL hypothesis (*t* value 7.409,  $p < 0.05$ ) is rejected. It means that there is a significant difference in the Technical Competence level of male and female social media users. The difference can be identified by comparing the mean values. For this dimension, the mean values are 3.926 and 3.429 for male and female social media users, respectively. By comparing the mean values, we may be concluded that male social media users are more technically sound than female users as their mean score is comparatively higher. The technical knowhow of different social media platforms is more in the male users than the female users. Technical competence is all about using the technical features such as settings and security in the most efficient

**Table 5.4** Independent *t*-test: A comparison of independent samples of male and female social media users

<i>Factors</i>	<i>Gender (Independent sample)</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>Std. Error mean</i>	<i>t-test</i>	<i>Sig. (2-tailed) P value</i>
1. Technical Competence (TC)	Male	244	3.926	0.7678	0.0492	7.409	0.000
	Female	201	3.429	0.6482	0.0457		
2. Visibility Awareness Competence (VAC)	Male	244	4.371	0.6715	0.0430	-0.441	0.660
	Female	201	4.401	0.7442	0.0525		
3. Knowledge Competence (KC)	Male	244	4.043	0.9028	0.0578	0.581	0.562
	Female	201	3.991	0.9606	0.0678		
4. Impact Assessment Competence (IAC)	Male	244	3.568	0.7450	0.0477	-11.845	0.000
	Female	201	4.292	0.5432	0.0383		
5. Social Media Communication Competence (SMCC)	Male	244	4.324	0.7054	0.0452	-0.942	0.347
	Female	201	4.391	0.7893	0.0557		

*Source* Authors computation

manner. As per the research findings, male users are more comfortable using technical features such as profile settings and privacy settings, whereas female users find it more complicated and cumbersome.

The “Visibility Awareness Competence,” second dimension, accepts the NULL hypothesis ( $t$ -test =  $-0.441$ ,  $p > 0.05$ ) and shows that there is no significant difference between the male and female social media users. Here, the mean value of male users ( $M = 4.371$ ) is near to the mean score of female users ( $M = 4.401$ ). The result defines that all the social media users are aware about the visibility of their social media posts and comments to others, including the large number of social media population which are not known to them (strangers).

In the third dimension, i.e., knowledge competence, NULL hypothesis is again accepted ( $t$ -test =  $0.581$ ,  $p > 0.05$ ). So, there is no significant difference between male and female social media users. Here the mean value of male users ( $M = 4.043$ ) is close to the mean value of female users ( $M = 3.991$ ). As per Knowledge Competence, both the genders, comprise of male and female users, participate in the discussions on social media platforms if they have the adequate information regarding the subject of discussion. According to the result, all the social media users understand that one should really write about a certain topic, only if they have enough wisdom in the relevant field.

Impact assessment competence does not accept the NULL hypothesis ( $t$ -test =  $-11.845$ ,  $p < 0.05$ ) which means that there is a significant difference in mean responses of male and female social media users for this dimension. So, to identify the difference, mean values are compared. Here the mean value of female social media users ( $M = 4.292$ ) is significantly greater than male users ( $M = 3.568$ ). According to the findings, the possible implications can be predicted in advance by the female users of their social media posts and engagements (like, comment, and share). Female users in advance imagine that how other users may react to their contributions on the social media sites. Whereas the male users on social media platforms are more vocal and write in the flow of current.

Fifth and the last dimension, i.e., “Social Media Communication Competence” accepts the NULL hypotheses. So, there is no substantial difference among both the social media users for this dimension. The mean score of male users ( $M = 4.324$ ) is near to the mean score of female users ( $M = 4.391$ ) at 5% significant level, ( $t = -0.942$ ,  $p > 0.05$ ). As per

the findings, all social media users give more importance to the pleasant conversational tone in their social media conversations.

## CONCLUSION

With reference to the five critical dimensions, this research has identified the different competence levels of male and female social media users. It was found in the research that as far as the technical knowhow, settings and security features are concerned, male social media users are more friendly and find it easy whereas female users find it a bit complex. Both the users (male and female) are cognizant that the open post and engagement in social media sites are displayed to the users to whom they know as well as they do not know or met personally. Both the users know the importance of having enough knowledge about a topic before participating in the online discussions on social media platforms. Regarding awareness about the unwanted effects that one's contributions could have on social media; research indicates that female users are quite mature and can anticipate about the impact of their engagements and posts on others mindset and feelings. Both male and female users consider that style of writing the comment on social media is the most important component and generally try to keep it appropriate on all social media platforms.

## MANAGERIAL IMPLICATIONS

Social media plays a unique role to assess the behavioral aspects of an individual within the organization. So, it is a demand of an hour to understand the various competency parameters mentioned in the study of the social media users. This study will educate all the three stakeholders which include Social Media Users, Social media Channels, and Employers to adopt the outcome and strategies the future course of actions accordingly. Broadly, following three implications may be defined of the present study:

- This research may create an awareness among the social media users and give them an understanding of their areas for improvement. All five dimensions of social media competence are independently comparing the male and female user's behavior and showing the relevant areas of strength and weaknesses of these users.

- The social media channels may also consider the outcome of this research and may create their platforms more convenient and easier to use by removing the technical complexities and guiding users to improve their social media profiles.
- Employers may also use this result to allocate the responsibilities to the employees to manage digital marketing activities more efficiently.

The use of social media by an employee produces a wide range of monetary and non-monetary benefits to the company. All the users know the importance and power (positive and negative) of social media in an organization's reputation in real terms. Companies can better focus on their employee's strengths and weaknesses through this analysis and can get the best result.

### LIMITATION OF THE RESEARCH

This research has some limitations which give an opportunity for future research.

- This study included the respondents from only one nation, i.e., India.
- The sample size also does not represent the complete population of the social media users. Because of a smaller number of respondents, it is difficult to generalize the result of this study.
- There may also have some response biasness of respondents while filling the questionnaire due to the behavioral psychology.

Future studies: For future studies, user's age, income level, qualification, economic status, etc. can also be associated in this study to understand the overall impact of user's behavior on different social media platforms.

## ANNEXURE I

### *Questionnaire on Social Media Competence*

**Name of the Participant:** \_\_\_\_\_.

**Gender:**

- Male
- Female

**Age:**

- Below 18
- 18 – 35
- 36 – 50
- Above 50

**Highest Qualification:**

- School Level
- UG
- PG
- Doctorate

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<i>Technical Competency (TC)</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
<b>TC1:</b> I find it easy to understand the technical side of my profile settings					
<b>TC2:</b> I find it easy to find my way around in social media					
<b>TC3:</b> I find it easy to change my profile settings in social media					
<b>TC4:</b> It is easy to block other people from accessing my profile					
<b>TC5:</b> I know how to conceal personal information in social media such as pictures, texts, and personal data from other users					
<b>Visibility Awareness Competence (VAC)</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>VAC1:</b> I am conscious of the fact that my public comments in social media are read by people I do not know					
<b>VAC2:</b> I know that a great number of people can follow my activities in social media					
<b>VAC3:</b> I know that my profile is visible to people I do not know					
<b>VAC4:</b> I know that through social media I am connected worldwide					

(continued)

(continued)

<i>Technical Competency (TC)</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
<b>Knowledge Competence (KC)</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>KC1:</b> I only comment on subject-specific contributions of other users when I am well-versed in the subject area					
<b>KC2:</b> I only participate in discussions on social media when I have knowledge of the subject area					
<b>KC3:</b> I only make a counter argument in a discussion on social media when I know my argument is correct					
<b>KC4:</b> I only post comments when I am sure that they are correct					
<b>Impact Assessment Competence (IAC)</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>IAC1:</b> Before I write something in social media, I try to picture possible consequences					
<b>IAC2:</b> I think in advance of how my comments or posts might affect other users' thoughts and emotions					
<b>IAC3:</b> I give thought to how other people might take to my contributions and comments					
<b>IAC4:</b> Before I write something in social media, I consider how other people might perceive my contribution					
<b>Social Media Communication Competence (SMCC)</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>SMCC1:</b> I respond to impolite and insulting messages with courtesy and respect					
<b>SMCC2:</b> A pleasant conversational tone is important to me when communicating in social media with other users					
<b>SMCC3:</b> It is important to me that my contributions, comments or posts do not attack anybody personally					
<b>SMCC4:</b> To emphasize what I write in social media I sometimes use expletives					

1-Strongly Disagree; 2-Disagree; 3-Neither Agree nor Disagree; 4-Agree; 5-Strongly Agree

## REFERENCES

- Elsweiler, D., & Harvey, M. (2014). Engaging and maintaining a sense of being informed: Understanding the tasks motivating twitter search. *Journal of the Association for Information Science and Technology*. <https://doi.org/10.1002/asi.23182>
- Field, A. (2009). *Discovering statistics using SPSS: Introducing statistical method* (3rd ed.). Sage Publications.



- Grewal, D., & Levy, M. (2014). *Marketing* (4th ed.). McGraw-Hill/Irwin. <https://www.pewinternet.org/2013/02/14/the-demographics-of-social-media-users-2012/>.
- Hurlock, J., & Wilson, M. (2011). Searching Twitter: Separating the tweet from the chaff. *International AAAI Conference on Weblogs and Social Media*. Retrieved from <https://www.aaai.org/ocs/index.php/ICWSM/ICWSM11/paper/view/2819>.
- Java, A., Song, X. Finin, T. & Tseng, B. (2007). Why we Twitter: Understanding microblogging usage and communities. *Proceedings of the 9th WebKDD and 1st SNA-KDD 2007 Workshop on Web Mining and Social Network Analysis (WebKDD/SNA-KDD '07)*. <https://doi.org/10.1145/1348549.1348556>.
- Jehangir, B. (2018). Exploring education-related use of social media: Business students perspectives in a changing India. *Safer Communities*, 17(2), 119–131.
- Kaura, V., Prasad, C. S. D., & Sharma, S. (2013). Customer perception of service convenience: A comparison between public and new private sector banks. *Global Business Review*, 14(3), 529–547.
- Lenhart, A., Purcell, K., Smith, A., & Zickuhr, K. (2010). *Social media and young adults*. [www.pewinternet.org/2010/02/03/social-media-and-young-adults/](http://www.pewinternet.org/2010/02/03/social-media-and-young-adults/). Accessed on May 26, 2017.
- Mazman, S. G., & Uslue, Y. K. (2010). Modeling educational usage of Facebook. *Computers & Education*, 55(2), 444–453.
- Oberst, U., Stodt, B., Brand, M., & Chamarro, A. (2017). Negative consequences from heavy social networking in adolescents: The mediating role of fear of missing out. *Journal of Adolescence*, 55, 51–60.
- Prahalad, C. K., & Ramaswamy, V. (2004). Co-creation experiences: The next practice in value creation. *Journal of Interactive Marketing*, 18(3), 5–14.
- Sharma, S., & Sharma, M. (2018). Stress level of male and female bank officials in public banks: A comparative study. *International Journal of Business Competition and Growth (IJBCG)*, 6(2), 128–138.
- Teevan, J., Ramage, D., & Morris, M. R. (2011). #TwitterSearch: A comparison of microblog search and web search. *WSDM '11: Proceedings of the fourth ACM International Conference on Web Search and Data Mining* (pp. 35–44). New York: ACM.
- Trainor, K. J., Andzulis, J. M., Rapp, A., & Agnihotri, R. (2014). Social media technology usage and customer relationship performance: A capabilities-based examination of social CRM. *Journal of Business Research*, 67(6), 1201–1208.
- Trusov, M., Randolph, E. B., & Koen, P. (2009). Effects of word-of-mouth versus traditional marketing: Findings from an Internet social networking site. *Journal of Marketing*, 73(5), 90–102.

- Walsh, G., Schaarschmidt, M., & von Kortzfleisch, H. (2016). Employees' company reputation-related social media competence: Scale development and validation. *Journal of Interactive Marketing, 36*, 46–59.
- Wang, Y., & Ahmed, P. K. (2009). The moderating effect of the business strategic orientation on eCommerce adoption: Evidence from UK family run SMEs. *The Journal of Strategic Information Systems, 18*(1), 16–30.



# Insights: Indian Adolescents' Social Media Usage and Life Satisfaction

*Snigdha Mohapatra and Manit Mishra*

## INTRODUCTION

Social media has users from almost every background irrespective of their age, gender, caste, color, region, and religion. The genesis of social media resulted from the desire to stay connected. Its application got further extended to staying abreast with current events and being better informed in diverse domains. Social media usage is now integrated with modern lifestyle. Its applications are diversifying at an increasing rate. The increasing reach of social media has not only facilitated efficient communication within the existing network but has also contributed towards developing new relationships. Given social media's role in connecting

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with friends, family, co-workers, and communities, a significant part of young people's lives is lived mostly on social media platforms. At the same time, extant research offers contradictory findings on whether or not social media enhances these relationships (Dzogang et al., 2017; O'Keeffe & Clarke-Pearson, 2011). Prior research has found social media behavior to have significant influence on emotional states such as happiness and loneliness (Davis, 2001; Nalwa & Anand, 2003; Pelling & White, 2009). The emotional state of happiness is interpreted as a positive evaluation of the quality of one's life events and experiences (Diener & Seligman, 2002). Happiness consists of an affective and a cognitive part (Diener, 2009; Veenhoven, 1991). Feeling socially connected is the affective content and evaluating the worth of these connections with others is the cognitive content that users' experience on social media platforms. Loneliness, on the other hand, is a negative interpretation when users fail to find a connection with others. Perlman and Peplau (1981) define loneliness as "the unpleasant experience that occurs when a person's network of social relations is deficient in some important way."

Social networking sites (SNSs) facilitate social sharing either through purely text or through a combination of text and image. Visual images have been found to be more subtle than text. Shaw and Gant (2002) argue, based on an experiment conducted with different age group subjects, that the intention to remember and use an image-based information is more than pure text-based information. Ostensibly, there is a greater traction of SNSs that allow both image- and text-based information rather than only-text-based exchange (Reid & Reid, 2007). However, there is no evidence in extant research of the differential impact of these two types of SNSs on subjective benefits to the users. Therefore, the current research is carried out to fulfill the following objective. The study evaluates how social sharing on text- and image-based SNSs influence the generalized positive emotional state of happiness, generalized negative socially disconnected state of loneliness and its cascading impact on life satisfaction. The rest of the article is divided into following parts: section "Theoretical Paradigm" establishes the theoretical paradigm of the study; section "Research Model" puts forth the research model; section "Methodology" illustrates the methodology; section "Analysis and Results" presents the result and analysis; and finally, section "Discussion" offers insights through discussion, conclusion, and implications of the study.

## THEORETICAL PARADIGM

### *Social Media*

Social media is an online application that allows users to create and share self-generated content and/or content developed by others (Kaplan & Haenlein, 2010). With the help of web- or mobile-based technology social media comprises of sharing and organizing sites like YouTube (Pickren & Rutherford, 2010); content creation and editing medium such as blogs (Kietzmann et al., 2011; Leonardi et al., 2013); and social networking sites. The current research is based on social media usage through social networking sites (SNS). These sites facilitate interpersonal communication by providing sharing access with online contacts for different forms of content such as profile, status, private information, etc (Mitchell & Guskin, 2013). Two of the prominent SNSs are Facebook and Twitter (Steinfeld et al., 2013; Stutzman et al., 2012).

### *Uses and Gratification Theory Approach*

The uses and gratification theory (UGT) approach to study social media usage is one of the more widely established methods to understand media consumption behavior (Sundar & Limperos, 2013). It is an audience-oriented approach towards understanding mass communication and emphasizes upon users' choice of technology to fulfill their personal needs (Katz et al., 1973). The UGT approach helps in understanding why users are fond of or averse towards any mass communication technology. Social media, as compared to mass media of twentieth century, has an advantage in terms of greater control and interaction among members and this characteristic is instrumental in its ever-increasing popularity (Pittman & Reich, 2016). Extant research pertaining to UGT approach of understanding social media usage indicate towards various consequences of SNS such as happiness (Krasnova et al., 2013; Lucas & Clark, 2006; Verduyn et al., 2015); satisfaction (Bargh & McKenna, 2004; Underwood & Findlay, 2004); loneliness (Bellamy et al., 2010; Cacioppo et al., 2009); and addiction (Basilisco & Cha, 2015; Skues et al., 2012; Sundar & Limperos, 2013). This study uses the UGT approach to understand the relationship between SNS usage, happiness, loneliness, and life satisfaction.

### *Image and Text*

UGT approach is a consumer centric approach that gives emphasis on what needs are satisfied by using a particular media (Rubin et al., 2009). This helps in analyzing the medium through which users are exchanging information (Sundar & Limperos, 2013). Differential usage of social media is natural since gratification is based on belief about the information that has been exchanged. Most of the SNSs are delivering the users' content either in the form of text, or in the form of image, or both simultaneously. The attention theories, however, emphasize that only-text information has lesser impact than image-based information. An image is said to have a better representation of fact, much louder than a bunch of words. This has led the researchers to differentiate users on the basis of only-text (Twitter) in contrast to text- and image-based (Facebook, WhatsApp) SNSs.

### *Life Satisfaction*

Life satisfaction is the general evaluation of one's surroundings which may be positive or negative (Scheufele & Shah, 2000). This is usually interpreted as subjective happiness (Diener et al., 1985). Literature highlights that life satisfaction is an outcome of social ties (Kahneman & Krueger, 2006). Life satisfaction is a feeling that results from happiness due to having friends (Leary & Kowalski, 1990); happiness of family members (Clare & Palmer, 2009); and frequent interpersonal communications (Diener et al., 1991). A sociable and extraverted personality also contributes towards greater life satisfaction (Francis, 1999). SNSs provide an opportunity to actively interact, experience connectedness, and feel happier thereby contributing towards greater life satisfaction (Valkenburg et al., 2006). The present research explores a feeling of life satisfaction derived out of SNS usage.

## RESEARCH MODEL

SNSs allow users to create and share content related to both personal and public happenings either in the form of only-text or both image-and-text. Text- and image-based media offer a relatively more real and intimate interpersonal experience (Pittman & Reich, 2016). As image grabs more attention and generates greater trust in the content, the use of SNSs

offering a combination of image and text sharing facility is likely to be higher among the users.

Extant research indicates greater happiness among users of SNSs as a result of improved communication and enhanced social support (Tosun, 2012; Verduyn et al., 2017). On the contrary, loneliness as an emotional state has been reported to exhibit a decreasing trend due to the opportunity to have social interaction through SNSs (Shaw & Gant, 2002). The preceding discourse leads us to propose following hypotheses:

**H1:** Social media usage through SNSs increases the happiness of the users.

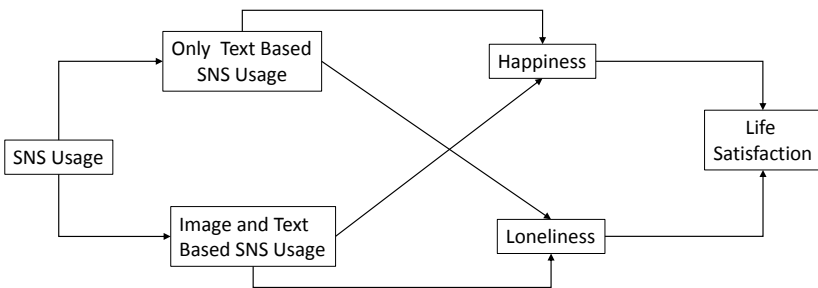
**H2:** Social media usage through SNSs decreases the loneliness of the users.

Prior research suggests that in the context of usage of SNSs, life satisfaction as an evaluation of personal life experiences is contingent upon enhanced happiness and diminished loneliness (Ellison et al., 2011; Longstreet & Brooks, 2017; Turel & Serenko, 2012). Based on the aforementioned arguments, we hypothesized that:

**H3:** Enhanced happiness due to SNS usage will increase life satisfaction.

**H4:** Diminished loneliness due to SNS usage will increase life satisfaction.

The proposed model is shown below (Fig. 6.1).



**Fig. 6.1** Proposed model (Source Authors)

## METHODOLOGY

The study investigates the linkage between different types of SNSs and the consequent constructs of happiness, loneliness, and life satisfaction. Specifically, the study assessed the usage of exclusively image-based platform (Instagram), exclusively text-based platform (Twitter), and one generalized mixed platform (Facebook). Using pre-established scales, this study captures loneliness, happiness, and life satisfaction among SNS users.

### *Sample*

Data was collected from 255 university students from Bhubaneswar, Odisha, India, enrolled in undergraduate programs. After scrutiny, on the basis of non-response of major items, the final sample comprised 183 participants. The sample comprised 60% female and 40% male respondents. The respondents have a mean age of 20.22 years with a standard deviation of 3.32 years.

### *Instruments*

All constructs of interest in this study were measured with previously used and validated instruments. In addition, age and gender are included as control variables in the model. Happiness was assessed using the Oxford Happiness Questionnaire (OHQ) comprising of eight questions on a six-point Likert scale (Hills & Argyle, 2002). The Cronbach's  $\alpha$  reliability coefficient for the scale stands at 0.667. The respondent scores for happiness ranged between 17 and 46 with a mean (M) of 29.43 and standard deviation (SD) of 4.82. Hughes et al.'s (2004) shortened three-item loneliness instrument measured on a seven-point semantic differential scale was used to measure loneliness. The Cronbach's  $\alpha$  reliability score stands at 0.801 and the respondent scores range from 3 to 21 with M = 11.46 and SD = 5.01. Life satisfaction was operationalized with the help of a life satisfaction scale comprising of 11 questions on a seven-point Likert scale (Diener et al., 1985). The Cronbach's  $\alpha$  reliability for the scale stands at 0.753. The life satisfaction score of respondents ranges between 8 and 35, with M = 23.08 and SD = 5.59. Social media usage is measured using six items on a seven-point Likert scale borrowed from Pittman and Reich (2016). The Cronbach's  $\alpha$  reliability score for the



scale stands at 0.992. The usage scores range between 11 and 45 and have  $M = 37.68$  and  $SD = 9.22$ .

## ANALYSIS AND RESULTS

Prior to proceeding with the assessment of relationships, the relative usage of different SNSs was evaluated. To find out the usage of different SNSs each participant was asked to respond either in “yes” or “no” regarding a particular text-based (Twitter), image-based (Instagram), and text- and image-based (Facebook) platform. In case of a “yes” response, the respondent’s usage pattern was gauged using the Pittman and Reich (2016) scale. Table 6.1 presents the number of responses in case of each type of SNS. The figures in Table 6.1 suggest that use of only-text-based SNS (Twitter) is very low in comparison to use of SNS that allows image-based (Instagram) or both image- and text-based SNS (Facebook). Due to lower number of only-text-based SNS users, further analysis was carried out only on image-based and text- and image-based user responses.

The relationships were investigated using correlation analysis. Table 6.2 provides the internal consistency reliability of scales and correlation coefficients between constructs used in the study. The internal consistency reliability for each construct is above the acceptability thresholds. SNS usage was found to be significantly positively related to happiness but has a significantly negative relationship with loneliness. This finding provides support for H1 and H2. The correlation value for loneliness and happiness confirms that these two constructs are totally independent of each other. A positively significant relationship between happiness and life satisfaction leads us to surmise a positive impact of happiness on life satisfaction. Thus, there is a support for H3. On the other hand, the significantly negative correlation between loneliness and life satisfaction suggests that with increased loneliness, life satisfaction diminishes.

**Table 6.1** SNS users for different platforms

<i>Platform used</i>	<i>Number of responses</i>
Twitter	23
Instagram	97
Facebook	122

*Source* Authors’ research

**Table 6.2** Correlation analysis

	<i>Internal consistency reliability</i>	<i>Social media usage</i>	<i>Loneliness</i>	<i>Happiness</i>	<i>Life satisfaction</i>
Social media usage	0.890	1			
Loneliness	0.667	-0.312**	1		
Happiness	0.801	0.440**	0.000	1	
Life satisfaction	0.753	NA	-0.205**	0.290**	1

$p < 0.01$ ; NA: not applicable

A statistically significant negative correlation between loneliness and life satisfaction provides evidence in support of H4.

Thus, the findings can be gainfully interpreted as follows. An enhanced usage of image-based and image- and text-based social networking sites reduces loneliness and enhances happiness among the users. Further, the heightened happiness and diminished loneliness have a positive effect on life satisfaction.

## DISCUSSION

Social media usage is found to be addictive (Fox & Moreland, 2015; Kross et al., 2013), and yet very prevalent. This study endeavored to identify the various consequences of image-based and image-and-text-based SNS usage. The study hypothesized that SNS usage increases happiness and decreases loneliness. Further, the increased happiness and decreased loneliness are expected to reflect in increased life satisfaction among adolescents. Accordingly, data were collected from adolescents using survey method with the help of established scales. With respect to image-based and image- and text-based SNS users, the study offers the following insights: (1) SNS usage is positively related to happiness but negatively related to loneliness; (2) increasing happiness contributes towards enhanced life satisfaction; and (3) decreasing loneliness boosts life satisfaction. Thus, the study found evidence in support of all the four hypotheses proposed.

The findings of this study are in alignment with the extant research. SNS usage helps the users to communicate virtually. The time spent on

SNS helps the users to stay connected with their friends and relatives (Peter & Valkenburg, 2006). Social media not only helps in interpersonal interconnectivity but is also a source of entertainment (Cheung et al., 2011). Social sharing is also known to significantly contribute towards users' well-being (Grieve et al., 2013; Shaw & Gant, 2002). The findings from present research build on these prior results to put forth more specific outcomes of SNS usage in terms of increased happiness, diminished loneliness, and enhanced life satisfaction. The feeling of connectedness due to active membership of an SNS platform facilitates happiness. On the other hand, the confidence of not being left out of the social circles decreases the sense of loneliness and thereby, enhances life satisfaction. Overall, staying connected and contributing, directly or indirectly, to the platform makes users feel happy and satisfied (McKenna et al., 2002; Oh et al., 2014).

## CONCLUSION AND IMPLICATIONS

Social media usage has been widely studied to identify consequences at both ends of the spectrum. Some studies have brought out the negative repercussions such as reduced attention span, increased sensitivity, mood swings, depression, social comparison, and social displacement (Donnelly & Kuss, 2016; Kabasakal, 2015; Samaha & Hawi, 2016; Van Deursen et al., 2015). On the other hand, there are studies that have argued in favor of positive outcomes of social media usage such as pleasant feeling, freedom to share, learning without barrier, and happiness (Das et al., 2018; Kim, 2014; Przybylski et al., 2013; Song et al., 2014). In this context, the present brought a fresh perspective by endeavoring to explore the mechanism for attainment of life satisfaction due to SNS usage. Though life satisfaction is a very multifaceted concept and people interpret it from myriad perspectives, this study established its connection with lowered loneliness and higher happiness in the context of SNS usage. Sharing content and receiving the content shared on social media platforms makes the users feel connected, lowers loneliness, heightens happiness, eventually leading towards greater satisfaction in life. Therefore, the objective of SNS platforms should be to facilitate greater sharing.

The study provides a platform for future research pertaining to SNS platforms. Researchers would be able to immensely contribute to the domain by exploring the consequences of SNS usage in greater detail

by including not just observable but various intrinsic outcomes as well. There is also a need to delve deeper into SNS platforms and understand motives as well as consequences for the users. The reasons for greater usage of image-based SNS platforms in comparison to pure text-based platforms also need to be investigated by researchers. Going beyond survey methods, researchers also need to use unstructured data available on SNS platforms to derive insights. Even as the study contributes towards our understanding of SNS platforms, it is not free from limitations. The study has not taken into consideration pure text-based SNS platforms which are a major outlet for opinion sharing. Inclusion of antecedent constructs of SNS usage would have made the model more holistic. And finally, multivariate data analysis would have offered more insights pertaining to the relationships between the constructs. Nevertheless, the current study has provided insights related to SNS usage, loneliness, happiness, and life satisfaction. Even more importantly, insights are generated from an adolescent population. Our study sets the stage for future research involving adolescents, a vulnerable demographic group, on the mechanism for non-addictive gratification through SNS usage.

## REFERENCES

- Bargh, J. A., & McKenna, K. Y. (2004). The Internet and social life. *Annual Review Psychology*, 55, 573–590.
- Basilisco, R., & Cha, K. J. (2015). Uses and gratification motivation for using Facebook and the impact of Facebook usage on social capital and life satisfaction among Filipino users. *International Journal of Software Engineering and Its Applications*, 9(4), 181–194.
- Bellamy, A. J., Williams, P. D., & Griffin, S. (2010). *Understanding peacekeeping*. Polity.
- Cacioppo, J. T., Fowler, J. H., & Christakis, N. A. (2009). Alone in the crowd: The structure and spread of loneliness in a large social network. *Journal of Personality and Social Psychology*, 97(6), 977.
- Cheung, C. M., Chiu, P. Y., & Lee, M. K. (2011). Online social networks: Why do students use Facebook? *Computers in Human Behavior*, 27(4), 1337–1343.
- Clore, G. L., & Palmer, J. (2009). Affective guidance of intelligent agents: How emotion controls cognition. *Cognitive Systems Research*, 10(1), 21–30.
- Das, S., Mishra, M., & Mohanty, P. K. (2018). The impact of customer relationship management (CRM) practices on customer retention and the mediating

- effect of customer satisfaction. *International Journal of Management Studies*, 5(1 (4)), 95–103.
- Davis, R. A. (2001). A cognitive-behavioral model of pathological Internet use. *Computers in Human Behavior*, 17(2), 187–195.
- Diener, E. (2009). Subjective well-being. In *The science of well-being* (pp. 11–58). Springer, Dordrecht.
- Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1), 71–75.
- Diener, E., & Seligman, M. E. (2002). Very happy people. *Psychological Science*, 13(1), 81–84.
- Diener, E., Sandvik, E., & Pavot, W. (1991). Happiness is the frequency, not the intensity, of positive versus negative affect. In F. Strack, M. Argyle, & N. Schwarz (Eds.), *Subjective well-being: An interdisciplinary perspective* (pp. 119–139). Pergamon Press.
- Donnelly, E., & Kuss, D. J. (2016). Depression among users of Social Networking Sites (SNSs): The role of SNS addiction and increased usage. *Journal of Addiction and Preventative Medicine*, 1, 1–6.
- Dzogang, F., Goulding, J., Lightman, S., & Cristianini, N. (2017, October). Seasonal variation in collective mood via Twitter content and medical purchases. In *International Symposium on Intelligent Data Analysis* (pp. 63–74). Springer, Cham.
- Ellison, N. B., Steinfield, C., & Lampe, C. (2011). Connection strategies: Social capital implications of Facebook-enabled communication practices. *New Media & Society*, 13(6), 873–892.
- Fox, J., & Moreland, J. J. (2015). The dark side of social networking sites: An exploration of the relational and psychological stressors associated with Facebook use and affordances. *Computers in Human Behavior*, 45(45), 168–176.
- Francis, B. (1999). Lads, lasses and (new) labour: 14–16-year-old students' responses to the laddish behaviour and boys' under achievement' debate. *British Journal of Sociology of Education*, 20(3), 355–371.
- Grieve, R., Indian, M., Witteveen, K., Tolan, G. A., & Marrington, J. (2013). Face-to-face or Facebook: Can social connectedness be derived online? *Computers in Human Behavior*, 29(3), 604–609.
- Hills, P., & Argyle, M. (2002). The Oxford Happiness Questionnaire: A compact scale for the measurement of psychological well-being. *Personality and Individual Differences*, 33(7), 1073–1082.
- Hughes, M. E., Waite, L. J., Hawkey, L. C., & Cacioppo, J. T. (2004). A short scale for measuring loneliness in large surveys: Results from two population-based studies. *Research on Aging*, 26(6), 655–672.

- Kabasakal, Z. (2015). Life satisfaction and family functions as-predictors of problematic internet use in university students. *Computers in Human Behavior*, 53, 294–304.
- Kahneman, D., & Krueger, A. B. (2006). Developments in the measurement of subjective well-being. *Journal of Economic Perspectives*, 20(1), 3–24.
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons*, 53(1), 59–68.
- Katz, E., Blumler, J. G., & Gurevitch, M. (1973). Uses and gratifications research. *The Public Opinion Quarterly*, 37(4), 509–523.
- Kietzmann, J. H., Hermkens, K., McCarthy, I. P., & Silvestre, B. S. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business Horizons*, 54(3), 241–251.
- Kim, H. (2014). Enacted social support on social media and subjective well-being. *International Journal of Communication*, 8, 21.
- Krasnova, H., Wenninger, H., Widjaja, T., & Buxmann, P. (2013, 27 February–1 March). Envy on Facebook: A hidden threat to users' life satisfaction? In *Proceedings of the 11th International Conference on Wirtschaftsinformatik (WI2013)*. Universität Leipzig, Germany.
- Kross, E., Verduyn, P., Demiralp, E., Park, J., Lee, D. S., Lin, N., & Ybarra, O. (2013). Facebook use predicts declines in subjective well-being in young adults. *PloS one*, 8(8), e69841.
- Leary, M. R., & Kowalski, R. M. (1990). Impression management: A literature review and two-component model. *Psychological Bulletin*, 107(1), 34.
- Leonardi, P. M., Huysman, M., & Steinfield, C. (2013). Enterprise social media: Definition, history, and prospects for the study of social technologies in organizations. *Journal of Computer-Mediated Communication*, 19(1), 1–19.
- Longstreet, P., & Brooks, S. (2017). Life satisfaction: A key to managing internet & social media addiction. *Technology in Society*, 50, 73–77.
- Lucas, R. E., & Clark, A. E. (2006). Do people really adapt to marriage? *Journal of Happiness Studies*, 7(4), 405–426.
- McKenna, K. Y. A., Green, A. S., & Gleason, M. E. J. (2002). Relationship formation on the internet: What's the big attraction? *Journal of Social Issues*, 58(1), 9–31.
- Mitchell, A., & Guskin, E. (2013, November 4). Twitter news consumers: Young, mobile and educated. *Pew Research Journalism Project*.
- Nalwa, K., & Anand, A. P. (2003). Internet addiction in students: A cause of concern. *Cyberpsychology & Behavior*, 6(6), 653–656.
- Oh, H. J., Ozkaya, E., & LaRose, R. (2014). How does online social networking enhance life satisfaction? The relationships among online supportive interaction, affect, perceived social support, sense of community and life satisfaction. *Computers in Human Behavior*, 30, 69–78.

- O’Keeffe, G. S., & Clarke-Pearson, K. (2011). The impact of social media on children, adolescents, and families. *Pediatrics*, *127*(4), 800–804.
- Pelling, E. L., & White, K. M. (2009). The theory of planned behavior applied to young people’s use of social networking web sites. *CyberPsychology & Behavior*, *12*(6), 755–759.
- Perlman, D., & Peplau, L. A. (1981). Toward a social psychology of loneliness. *Personal Relationships*, *3*, 31–56.
- Peter, J., & Valkenburg, P. M. (2006). Adolescents’ internet use: Testing the “disappearing digital divide” versus the “emerging digital differentiation” approach. *Poetics*, *34*(4–5), 293–305.
- Pickren, W., & Rutherford, A. (2010). *A history of modern psychology in context*. Wiley.
- Pittman, M., & Reich, B. (2016). Social media and loneliness: Why an Instagram picture may be worth more than a thousand Twitter words. *Computers in Human Behavior*, *62*, 155–167.
- Przybylski, A. K., Murayama, K., DeHaan, C. R., & Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in Human Behavior*, *29*(4), 1841–1848.
- Reid, D. J., & Reid, F. J. (2007). Text or talk? Social anxiety, loneliness, and divergent preferences for cell phone use. *CyberPsychology & Behavior*, *10*(3), 424–435.
- Rubin, K. H., Coplan, R. J., & Bowker, J. C. (2009). Social withdrawal in childhood. *Annual Review of Psychology*, *60*, 141–171.
- Scheufele, D. A., & Shah, D. V. (2000). Personality strength and social capital: The role of dispositional and informational variables in the production of civic participation. *Communication Research*, *27*(2), 107–131.
- Samaha, M., & Hawi, N. S. (2016). Relationships among smartphone addiction, stress, academic performance, and satisfaction with life. *Computers in Human Behavior*, *57*, 321–325.
- Shaw, L. H., & Gant, L. M. (2002). In defense of the internet: The relationship between Internet communication and depression, loneliness, self-esteem, and perceived social support. *Cyberpsychology and Behavior*, *5*(2), 157–170.
- Song, H., Zmyslinski-Seelig, A., Kim, J., Drent, A., Victor, A., Omori, K., & Allen, M. (2014). Does Facebook make you lonely? A meta-analysis. *Computers in Human Behavior*, *36*, 446–452.
- Skues, J. L., Williams, B., & Wise, L. (2012). The effects of personality traits, self-esteem, loneliness, and narcissism on Facebook use among university students. *Computers in Human Behavior*, *28*(6), 2414–2419.
- Steinfeld, C., Ellison, N. B., Lampe, C., & Vitak, J. (2013). Online social network sites and the concept of social capital. In *Frontiers in new media research* (pp. 122–138). Routledge.

- Stutzman, F., Vitak, J., Ellison, N. B., Gray, R., & Lampe, C. (2012, May). Privacy in interaction: Exploring disclosure and social capital in Facebook. In *Sixth international AAAI conference on weblogs and social media*.
- Sundar, S. S., & Limperos, A. M. (2013). Uses and grats 2.0: New gratifications for new media. *Journal of Broadcasting & Electronic Media*, 57(4), 504–525.
- Tosun, L. P. (2012). Motives for Facebook use and expressing “true self” on the Internet. *Computers in Human Behavior*, 28(4), 1510–1517.
- Turel, O., & Serenko, A. (2012). The benefits and dangers of enjoyment with social networking websites. *European Journal of Information Systems*, 21(5), 512–528.
- Underwood, H., & Findlay, B. (2004). Internet relationships and their impact on primary relationships. *Behaviour Change*, 21(2), 127.
- Valkenburg, P. M., Peter, J., & Schouten, A. P. (2006). Friend networking sites and their relationship to adolescents’ well-being and social self-esteem. *CyberPsychology & Behavior*, 9(5), 584–590.
- Van Deursen, A. J. A. M., Bolle, C. L., Hegner, S. M., & Kommers, P. A. M. (2015). Modeling habitual and addictive smartphone behavior. *Computers in Human Behavior*, 45, 411–420.
- Veenhoven, R. (1991). Is happiness relative? *Social Indicators Research*, 24(1), 1–34.
- Verduyn, P., Lee, D. S., Park, J., Shablack, H., Orvell, A., Bayer, J., & Kross, E. (2015). Passive Facebook usage undermines affective well-being: Experimental and longitudinal evidence. *Journal of Experimental Psychology: General*, 144(2), 480.
- Verduyn, P., Ybarra, O., Résibois, M., Jonides, J., & Kross, E. (2017). Do social network sites enhance or undermine subjective well-being? A critical review. *Social Issues and Policy Review*, 11(1), 274–330.



PART III

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Disruptions Underneath Marketing



# How to Leverage Marketing to Build Sustainable Competitive Advantage: Insights from Leading Companies

*Swaminathan Mani and Mridula Mishra*

## INTRODUCTION

As the marketplace gets crowded with too many me-too products competing for customers' attention and share of the wallet, creating and sustaining competitive advantage becomes a herculean although rewarding task for companies. Having a clear differentiation helps position the company as delivering superior value in customers' minds. This helps in top of the mind recall for the company's products, higher wallet shares and possibly a premium pricing resulting in higher profitability. Therefore, creating and sustaining a competitive advantage has several business

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benefits that have been well documented in literature. However, companies are finding it challenging to find that unique value proposition, which is compelling and defend that position in the marketplace.

Traditionally companies have looked at several avenues to create competitive advantage—scale of production (Refineries, manufacturing plants), robust supply chain (FedEx), superior products (Apple), innovation and intellectual property creation (Microsoft, IBM), access to markets (Defense contracts), preferred landing slots (Airlines), design and aspiration (BMW), safety (Volvo and Qantas) and superior customer service (Taj Hotels). However, marketing can be a source of enduring competitive advantage if leveraged strategically. Three companies, which are in different sectors, have leveraged marketing to create and sustain differentiation for decades—Intel, Marriott International and Disney. These three firms are category leaders in their respective industry verticals; have been hugely successful for decades and have managed to reinvent frequently.

Intel which is traditionally in the B2B business (selling microprocessors to PC Manufacturers) decided to gain control of the purchase criteria in the PC market by converting themselves into a B2C company when it came to marketing spend. The ‘Intel Inside’ campaign catapulted the company into a world leader in the microprocessor industry leaving competitors like AMD far behind although AMD had technically similar capabilities and products. Similarly, Marriott International leveraged influencers marketing to connect, create and communicate value proposition with target customers and Disney leveraged marketing to communicate their theme of ‘happiest place on earth’ and established Disney as a fun place for family in minds of customers. Each of these three companies—Intel (Products Company), Marriott (Services Company) and Disney (that sells experience)—has used different components of marketing that aligned with their brand strength to communicate superior value. Given that these firms have been successful for over five decades, it is pertinent to evaluate their success using a marketing lens to understand the elements of their marketing strategy that enabled them to a leadership position. Practitioners in industry (irrespective whether marketing a product or services) can take advantage of the insights from these cases studies to build sustainable advantage for their company.

## INSIGHTS FROM A PRODUCT COMPANY: CASE STUDY OF INTEL

Robert Noyce and Gordon Moore founded Intel in July of 1968 and Andy Grove (who subsequently went on to become the legendary CEO of Intel joined as an employee a year later). Intel's metal-oxide semiconductors (MOS) and later, silicon gate MOS chips, ushered the personal computer revolution. The three key inventions of transistors, Integrated circuits and microprocessors were some of the biggest inventions of the twentieth century. Intel was the world leader in microprocessor for the next 50 years. Intel competitors like AMD manufactured similar products from a technology capability perspective. However, Intel's cumulative profit between 1991 and 2015 was \$ 140 billion, and AMD made a cumulative loss of \$ 2 billion during the same period. Marketing and branding proved to be the biggest differentiator for Intel. Some of the key learning from Intel's success is given below:

*Always have the end consumer in mind:* while the customers of Intel microprocessors were the PC makers, Intel's most successful 'Intel Inside' campaign targeted the end users of the PC. Most of these consumers did not have an appreciation of the technological nuance and hardly got to observe the Intel microprocessor as it was inside the computer but felt reassured to see the 'Intel inside' logo on the PC which signaled high-quality product. This campaign built huge brand visibility for Intel and differentiation in the marketplace. PC makers wanted the logo 'Intel inside' on their computer as it fetched premium pricing in the market. Intel had transformed itself from an engineering firm to a consumer products firm.

*Customer engagement:* Intel engages with end consumers of PC across all ages through social media platforms and traditional platforms. Intel has trained its 80,000 employees (who are the brand ambassadors) to engage with consumer and actively listen to them. These do not just focus on technical specifications but build an emotional connection with users by building an active community of users.

*Gain control of the purchase criteria in this market:* Intel gained the control of the purchase criteria in the PC market which was the processor speed which kept increasing every passing year. The end consumer was conversant with the processor speed the same way they were conversant with the engine specifications of a car. However, Intel lost the control

of purchase criteria in the mobile and tablet market to ARM and Qualcomm. Marketing can help set the narrative which can be used to build differentiation.

*Simplify narrative:* Intel did not undertake campaigns around long technical specification or technological nuances which most consumers don't understand or couldn't care less. Intel had multiple products (Chips, Microprocessors, Boards, Adapters, etc.) with varying specifications but kept the narrative simple—if there is 'intel inside' then product performances were guaranteed.

*Experiential marketing:* Intel conducts events (10–12% of marketing budget is spent on events) where it invites the decision makers and C-suites to come and experience Intel products. Ninety-five percent of public cloud runs on Intel architecture that has compelling business benefits across industry sectors and these used cases are demonstrated during the events so that potential customers can get hands-on experience of the technology.

*Brand your products to avoid commoditization:* Microprocessors could have easily become a commodity business when competing products were offering similar technical prowess and these products were largely hidden for the end consumer. But by relentless focus on branding and marketing these microprocessors, Intel ensured that they remain on the top of the mind recall for the end users when they are making a PC buying decision. Classic case of branding driving differentiation by elevating the narrative to emotional connects than just technical discussions.

## INSIGHTS FROM A SERVICES COMPANY: CASE STUDY OF MARRIOTT HOTELS

Marriott International, a diversified hospitality company, was founded in 1927 with two hotels then, is presently the largest hotel chain in the world by the number of available hotel rooms and lodging facilities (both owned and franchised)—over 1.4 million rooms operated by 30 brands, 7400 + properties across 131 countries and reported revenue of \$ 20 billion for 2019. Another 500,000 rooms are under construction at the moment. Marketing of services is inherently challenging as there are too many moving parts in a 'formless' services business. Hotels business is inherently a 'perishable' commodity business (if the rooms remain vacant for the night it is a lost revenue opportunity), with diverse customer expectations (from basic bed and breakfast to full-suite services with pool, gym

and party experience) and competition of all sizes (from five star hotels, Airbnb to small boutique single property motels) offering the core basic product. Despite the clutter, Marriott has managed to remain the numero uno player for over decades. Marriott's marketing strategy is based around the 3Cs—content, community and commerce.

*Influencers marketing:* One of the most important marketing strategies adopted by Marriott was marketing to key individuals who had the ability to influence the target market. Over 90% of people look at referral (travel sites like TripAdvisor are popular) before making decisions, conversion ratio is three to ten times for products endorsed by influencers and earns more for bang for the marketing buck. Marriott partnered with Jackson Harries from JacksGap with over four million followers to create short videos on Marriott destinations, collaborated with Snapchat, Shaun McBride and Casey Neistat to appeal to millennials (the target group of Marriott), worked with musicians to create the Navigator Live, a series of short videos that gives a sneak peek into the musicians who perform at Marriott hotels and finally created two short feature films that garnered over nine million views on YouTube. Getting the combination of content, messaging, influencer, channel and target audience right proved lucrative for Marriott and was their core marketing strategy.

*Seamless marketing experience across channels:* Customers interact with a firm through offline, online channels and would like to have a holistic experience without broken links. Marriott ensured that customer experience is consistent across channels by consolidating the teams handling customer experience into one unit. Earlier these units were silos which did not give a unified experience to customers. Not only the customers benefited from this seamless experience, Marriott benefitted it too as they were able to capture unique customer preferences better so that they can personalize the reach out strategy for them.

*Leverage the power of category branding:* In 2019, Marriott launched category marketing campaign called 'Room for possibility' targeted at longer stay travelers. The campaign features three brand properties—Residence Inn by Marriott, Element Hotels and TownePlace Suites by Marriott—offering the best of both worlds (the feel of home and the flexibility of being on the road). These properties offer dedicate living, working and bedrooms with a full-fledged kitchen and complimentary grocery delivery service.

*Launching Marriott Bonvoy—loyalty program:* Bonvoy which is shortened version of Bon voyage is a rebranded loyalty program that has

120 million members on it—the largest for a hotel. Using this loyalty program, Marriott hopes to keep the travelers updated about the latest news in an integrated manner so that the users will connect with all 30 branded properties of Marriott into one umbrella brand and experience. This will also set the tone for a massive multi-channel digital, social and media campaign that will span over 20 markets worldwide. The benefits of a robust, well-designed loyalty program and an integrated marketing campaign can become a force multiplier for Marriott.

### INSIGHTS FROM A COMPANY THAT SELLS EXPERIENCE: CASE STUDY OF DISNEY

In 1923 Walt Disney set up a studio to produce animated films and in 1928 launched the iconic character, Mickey Mouse. The animation became very successful that 50 years later it was the first cartoon character to receive a star on the sidewalk of Fame, in Hollywood. Disney land was established in 1955 and since properties have been established all over the world. The company reported revenue of almost \$ 70 billion in 2019 with business interest in televisions, films, music, video games, amusement parks, broadcasting and sports network among others. Disney acquired Pixar and Marvel entertainment that has strengthened its overall portfolio by providing complementary skills in introducing newer heroic characters that can be monetized not only through the films but also through merchandising and animation skills. Disney is known for compelling storytelling—bringing many of its characters to life—superior customer experience, branding and marketing and an uncanny ability to cross-leverage its assets across group companies.

*Compelling storytelling:* Ability to tell an engaging story to capture the imagination of its target market is the biggest differentiation of Disney. These stories are inspiring and motivating which resonates with the customers. Time immemorial human civilization has progressed on the backdrop of stories of the times. Disney uses nostalgia (a powerful emotion) to establish and maintain customer loyalty (e.g., reviving old classics like the Jungle book which rakes in close to \$ 1 billion in revenue) where the parents relive their earlier days all over again. Disney's ability to form an emotional and lasting connection with its customers through world-class narrative is at the core of its success.

*Establish Disney land as destination theme parks:* Disney has established 11 theme parks in major cities around the world and has branded them

successfully as destination parks. So, a visit to Orlando, Hong Kong or Tokyo or Paris is incomplete without visiting Disney land. The rides and the various shows in the park are branded and marketed to bring them to life. Not only the theme parks bring in revenues but these larger-than-life characters also help in driving merchandising and licensing revenues as well.

*Importance of branding:* Disney has branded its products around the theme ‘youthful’, ‘magical’, ‘family and fun’. There is something for everyone irrespective of their age (their intergenerational appeal is remarkable). Disney is known by its tagline ‘the Happiest Place on Earth’—which many of their loyal customers agree with. Branding—whether a show or the rides, the characters or the theme park itself—has helped establish over 70% repeat customer visits—an indication of high customer satisfaction.

*Marketing on wholesome user experience/map the user journey:* Disney focuses on creating wholesome user experience—right from ticketing to schedule of shows, content (contemporary as well as nostalgic), themes parks, food courts and fireworks among others—and ensures that customers have wholesome fun with family. Data is collected on popular attractions and the schedule is tweaked accordingly. Newer content is continuously added to attract repeat visitors. Leveraging data, keep content fresh and focusing on the entire user journey makes Disney a destination of choice for families.

*Counter-intuitive content marketing approach:* Disney creates the story and builds the products around that story which is a counter-intuitive approach as other companies do the reverse (they create a product and build the story next). This content marketing approach is unique to Disney; it can differentiate itself from peers in an area of information overload. The content is designed to be exciting, personalized and fun. It has helped to transform a relatively undifferentiated product (spending time with family and there are many avenues for it) to a unique experience cherished by all family members for a long time.

### *Implications for Practitioners*

These case studies pertained to three companies in three different industries—products, services and experience. All the three companies are category leaders in their respective sectors that have used, and continuing to use, the power of marketing to maintain their leadership positions.



While some of the strategies adopted by these firms may be unique to their business, there are also some common marketing strategies across categories. The key insights for marketing practitioners from the success of Intel, Marriott and Disney are below:

*Compelling storytelling:* Probably one of the most important of marketing for any firm would be to build and share compelling stories about the firm—stories that inspire or inform or engage the client. Stories are inherently emotional by nature and once audiences are hooked to the narrative, they will remember the content for a long time to come which is a premium in a cluttered world of information overload.

*Branding for premium pricing and differentiation:* Intel has shown that components that are not visible to end consumers can be branded to create differentiation and premium pricing. Similarly, Marriott has shown that branding can make a difference to an inherently commodity business. Disney has shown that something intangible like experience—which is unique to everyone—can be branded to create value.

*Focus on customer experience end to end:* Marketing needs to focus on end-to-end customer experience to identify what customers prefer and articulate value appropriately. Focusing on end-to-end customer experience will also reveal gaps in existing services that marketing can feed into those responsible for delivering those experiences.

*Have end consumer of the products in the marketing radar:* Marketing to customers' customer was a strategy that paid rich dividends to Intel. While the customer of Intel microprocessors were the PC manufacturers (which is a B2B market), Intel inside campaign focused on the ultimate buyers of the PC (converted it into a B2C market). This helped Intel to gain control of the purchase criteria in the PC market which catapulted it to a leadership position in the microprocessor industry for decades.

*Simplify messaging:* As companies grow, it spawns a plethora of products and brands that can overwhelm customers. Also, if there are multiple channels, that are disjointed, through which customers engage with the company it compounds the narrative. Therefore, it is marketing's job to simplify the narrative so that customers are able to appreciate the whole without getting overwhelmed.

## CONCLUSION

As the three case examples from different industry sector show, marketing can be a force multiplier for business and can become a source of sustainable competitive advantage when leveraged appropriately. These companies used marketing tailored to their business demands, however, maintained the core of marketing—branding, compelling storytelling, unified customer engagement among others—to create sustainable competitive edge in the market. All the three firms—Intel, Marriott and Disney—have been the category leaders for decades thereby proving that the right ingredients of marketing working together can impact business metrics—revenue and profits—significantly over a long term. Many companies consider technology, technical know-how, manufacturing processes, access to scarce resources, access to markets, human capital and scale as source of enduring competitive advantage and treat marketing as a cost center. However, when used strategically, marketing can help build and sustain competitive edge as all these three firms have demonstrated in different sectors. Marketing practitioners can gain vastly by studying the strategies adopted by these firms.

## REFERENCES

- Colon, G. (2016). *Disruptive marketing: What growth hackers, data punks, and other hybrid thinkers can teach us about navigating the new normal*. AMACOM.
- Dawar, N. (2016). What Intel needs to remember about marketing. *Harvard Business Review*.
- Gilmore, J. H., & Pine, B. J. (2002). *The experience is the marketing*. Brown Herron Publishing.
- Grove, A. S. (1996). *Only the paranoid survive: How to exploit the crisis points that challenge every company and career*. Broadway Business.
- Intel Corporation. <https://www.intel.com>. Accessed October 2020.
- Kotler, P. (2004). *Ten deadly marketing sins: Signs and solutions*. Wiley.
- Kotler, P., Kartajaya, H., & Setiawan, I. (2016). *Marketing 4.0: Moving from traditional to digital*. Wiley.
- Malone, M. S. (2014). *The Intel Trinity: How Robert Noyce, Gordon Moore, and Andy Grove built the world's most important company*. Harper Collins.
- Marriott International. <https://www.marriott.com>. Accessed October 2020.
- Schickel, R. (2019). *The Disney version: The life, times, art and commerce of Walt Disney*. Simon & Schuster.

- Thackray, A., Brock, D. C., & Jones, R. (2016). Moore's Law: The life of Gordon Moore, Silicon Valley's quiet revolutionary. *MRS BULLETIN*, 41. The Walt Disney Company. <https://thewaltdisneycompany.com>. Accessed October 2020.
- Wasko, J. (2020). *Understanding Disney: The manufacture of fantasy*. Wiley.



## Why Compromise? I Want the Extreme!

*Pronobesh Banerjee*

Past research shows when asked to make a choice from a set of three alternatives  $x$ ,  $y$ , and  $z$ , which are described on two attributes, such that  $x > y > z$  on one attribute, while  $x < y < z$  on the other, consumers usually prefer the middle alternative, popularly known as compromise effect (Mao, 2016; Simonson, 1989; Wernerfelt, 1995). Arguably, choice sets, such as above, are designed in a way when the alternatives in a set lie on an equipreference contour, making them equally attractive. Thus, the question is, what justifies the choice of a middle alternative, which does not even have a high value on any of the given attributes but scores an average on both?

An underlying theme that guides such choice processes is preference uncertainty (Dhar & Simonson, 2003). For example, in situations such as above, when consumers do not have the option to defer choice, are not sure of attribute importance and the values that describes them (e.g. how does one choose among three options of laptops having hard drive

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space, 750 GB, 1 TB and 1.5 TB, when one is under the impression that anything above 500 GB should be good enough for buying a laptop), they suffer from preference uncertainty. Given that they have to make a choice under conditions when uncertainty looms high, consumers assess attribute values within context and prefers the middle option, which has moderate values on both and is least likely to be criticized (Dhar & Simonson, 2003; Simonson, 1989). Thus, the choice of the middle alternative reflects a risk averse mindset of consumers—as one moves from the middle to the extremes, the comparative losses and gains in attribute values are less extreme compared to when one moves from one end to the other.

Recently, there has been a surge in describing *attribute values* on the same metric, for example, on a rating scale from 1 to 100 (Chernev, 2004). We argue that when attributes are rated such that one of the attributes has high values-lying towards one end of the scale, e.g. 90/100, while the other has comparatively low values-lying towards the other end of the scale, e.g. 30/100, contrary to compromise effect, an extreme alternative will be preferred. For example, if  $x$ ,  $y$  and  $z$  are described on two attributes such that they have values, (100,10), (90,20) and (80,30), people would prefer  $z$  (80,30), an extreme alternative, though (90,20) is the compromise option.

The rest of the paper is organized as follows: first, I discuss the reasons behind compromise effect, second, I use findings from the numerical cognition literature to posit why consumers may prefer an extreme option, third, I report six studies, that support my theorization and finally, end with a general discussion and theoretical implications of our research.

## COMPROMISE EFFECT

When asked to make a choice, consumers often face a dilemma. How to choose? Suppose there are three laptops, which are described on two attributes, RAM and hard disc space, and are as follows: Laptop A, RAM 6 GB and hard disc space 1 Terabyte; Laptop B, RAM 8 GB and hard disk 750 GB, and Laptop C, RAM 10 GB and hard disk 500 GB. Although consumers may have some idea about attribute importance, RAM and hard disc space may turn out to be equally preferable while buying a laptop, but what about attribute values. For example, what is the meaning

of having a laptop with a RAM of 10 GB versus 8 GB? More important, whether such numerical difference translates into any real value for the consumer. For example, if one goes from 6 to 8 GB RAM versus from 8 to 10 GB, will the difference in 2 GB be perceived differently when the point of comparison is 6 GB versus 8 GB? What about the attribute hard disc space? Does one really need a laptop with a one Terabyte hard disc space, when all through one has never bought a laptop with more than 500 GB space? More notably, what is the real differential advantage in buying a laptop with a one Terabyte hard disc space vis-a-vis one with 750 GB hard disc space? In addition, while making a choice, how will one compare an increase in value of one attribute with a concomitant decrease in the other, more so when the values are expressed in different units. For example, a 2 GB increase in RAM with a 250 GB decrease in hard drive space. Situations such as these are quite common when consumers are not only certain about attribute importance but also the values that describe them, leading to preference uncertainty (Dhar & Simonson, 2003; Sheng et al., 2005). If a consumer is still asked to make a choice, she essentially has two options: to defer choice or when forced to make a choice, look for reasons (Dhar & Simonson, 2003).

Unfortunately, she may not have the option to defer choice as is typically seen in most choice experiments. Under such circumstances of forced choice, what are the guiding factors that influence choice? At the least, a consumer should not feel bad about her choice that may negatively impact her self-esteem (Dhar & Simonson, 2003). In addition, she may think that she is under the radar and should not make a choice that may turn out to be foolish in the opinion of others (Janis & Mann, 1977). Given these motivations, consumers look for the best reason that favors a particular alternative (Dhar & Simonson, 2003). How may one decide on the best reason, when one is not only sure of attribute importance, but also is hesitant of the values that describe them? Past research shows under such situations, consumers tend to prefer the middle option that has moderate values on both, leading to compromise effect. Why?

If we consider the middle alternative as the reference point, and move back and forth from the extremes, it results in losses and gains that are moderate compared to when one moves from one extreme to the other. Since, losses loom larger than gains consumers settle for the safer middle option (moderate losses and gains), which reflects the risk averse mindset of the consumers (Tversky & Simonson, 1993). In fact, thought protocols of participants who choose the compromise alternative highlight the

difficulty of making a decision and a tendency to settle for the safer middle option (Huber et al., 1982; Simonson, 1989). Moreover, the moderate option averts any regret from making a wrong choice, making it a safe choice (Dhar & Simonson, 2003). In addition, the choice of the middle option minimizes the maximum potential loss of an alternative if one is making a choice from a set of three alternatives none of which is dominating (Sheng et al., 2005), and therefore, is also in line with the risk averse mindset of the consumers.

In a similar vein, participants exhibit greater compromise effect when choosing for others (Chang et al., 2012). Arguably, it is safer to choose the middle option as the taste of others is unknown. Similarly, prevention-focused consumers exhibit a greater compromise effect, because choosing a middle option is more justifiable under prevention focus (Mourali et al., 2007). In the same way, choice maximisers are ones who look for the option that has the best value on both the attributes and not necessarily an option that satisfies the highest value on a particular attribute, opt for the compromise alternative (Mao, 2016).

While differing in their details, all these explanations are entrenched in “reason-based choice” (Shafir et al., 1993). Whether one is looking to avoid criticism, minimizing the disadvantages of that choice, or inferring the best choice from a given choice set, a decision-maker is looking for *reasons* to choose one option over another in face of uncertainty when one is not sure about her absolute preference.

Recent trend, especially in online websites, is to describe attribute values on a common scale from 1 to 100 (Chernev, 2004). For example, a three alternative set may be described as follows—(100,10), (90,20) and (80,30), where numbers in parentheses represents the rating of attribute values. Will consumers still prefer the middle option? Or are there reasons to believe that one may prefer to choose an extreme option in place of the safer middle option? One noticeable difference that distinguishes the above from the laptop example is that unlike the attribute values describing the laptop alternatives, both the attributes are rated on a common scale, making attribute comparisons feasible. We argue based on numerical cognition literature that making attribute comparisons possible shift the focus to the more discriminable attribute, second one in our case, making the choice on an extreme option (80,30), *reasonable*.

## NUMERICAL COGNITION, ATTRIBUTE RATINGS AND CHOICE

How does one process *numbers*? Past research shows that numbers are not only represented symbolically but also follows an analog representation. In other words, depiction of numbers follows semantic encoding where numbers are classified as small, medium and large on a mental number line (Dehaene et al., 1993, Feigenson et al., 2004). The most critical outcome of such representation of numbers is distance effect—numbers that are far apart (2, 9) that are more easily recognized compared to those which are neighbors (8, 9). For example, a typical distance effect experiment shows that when participants are asked to recognize which of the two is the highest, the responses take much longer when they are close together on the number line compared to when they are far apart (Feigenson et al., 2004). In addition, the two most used mathematical representation of number line—linear model with scalar variability and logarithmic model of fixed variability—show that large numbers overlap increasingly with nearby numbers compared to small numbers, where there is minimal overlap (Feigenson et al., 2004). In fact, adults respond more quickly when two numbers are small, 2 versus 3, compared to when they are large, 9 versus 10.

These two factors, distance effect and overlap of large numbers, essentially capture the gist of numerical cognition, which is popularly known as the ratio effect. In a similar vein, Rips (2013) shows that the accuracy in predicting the difference between small and large numbers produces a log like pattern such that relative to their true positions the small numbers fall slightly above the identity compared to large numbers, making the small numbers more distinct compared to large numbers. In addition, and as Aribarg et al. (2014) asserts, “Not only are large numbers compressed together, but there is diminishing sensitivity to the differences between those large numbers” (p. 281). In summary, research in numerical cognition shows that small numbers are more distinctly encoded compared to large numbers and more important, it follows a ratio effect where small numbers are more discriminable between their neighbors compared to the large numbers.

Now suppose consumers are asked to make a choice from a set of three alternatives whose attributes are rated as follows: attribute one, 100–90–80 and attribute two, 10–20–30. How will one make a choice? Following ratio effect, the discriminability of the attribute ratings will be very distinct



when they lie toward the lower end of the scale. More important, discriminability of the numbers become more distinct when expressed in an expanded scale, 1–100, compared to a diminished scale, 1–10 (Aribarg et al., 2014). Thus, as one moves from 10 to 20 to 30 the discriminability among the numbers is perceptibly larger than when one moves from 80 to 90–100.

Presumably, when asked to make a choice the higher discriminability of the second attribute, makes the alternatives much more distinguishable, and consequently, gives a *reason* to depend primarily on the second attribute for making a choice. Moreover, focusing on the highly discriminable second attribute also help consumers to avoid some unfavorable situations. First, it gives them a way out of making cognitively challenging attribute trade-offs that underlies compromise effect (Dhar et al., 2000). Indeed, past research shows when consumers have an option to avoid trade-offs they prefer to do so (Hedgcock & Rao, 2009). Similarly, consumers prefer to avoid trade-offs as it turns out to be emotionally draining (Janis & Mann, 1977; Luce, 1998). And second, and as Shafir et al. (1993) assert, “First, a focus on reasons seems closer to the way we normally think and talk about choices. When facing a difficult choice (e.g. between schools, or jobs) we try to come up with reasons for and against each option - we do not normally attempt to estimate their overall values. Second, thinking of choice as guided by reasons provides a natural way to understand the conflict that characterizes the making of decisions. From the perspective of reason-based choice, conflict arises when the decision maker has good reasons for and against each option, or conflicting reasons for competing options. Unlike *numerical values, which are easy to compare*, conflicting reasons may be hard to reconcile.” Presumably, the highly discriminable *numerical* values of the second attribute provide an enduring *reason* to focus on only the second attribute to make a choice, which helps to avert both emotionally draining and cognitively challenging attribute trade-offs, which is at the core of compromise effect. Thus, unlike situations that typically leads to the choice of the middle alternative, we contend that in situations such as above, an extreme alternative will be preferred.

In the next section, I report six studies that support my conjecture. Data was collected in Amazon Mechanical Turk. A nominal fee was paid to each online participant. Data was collected in trances.

A total of three hundred online subjects participated in study 1a–1f and made a total of nine hundred choices. The goal of study 1a is to

show when attribute values are rated on a scale from 1 to 100, such that one of the attributes is rated higher than the other, 100–90–80 versus 10–20–30; consumers prefer the extreme instead of a safer middle alternative. Study 1b rules out attribute balance as an alternative explanation. Studies 1c to 1f provide further evidence of the underlying mechanism.

## STUDY 1A

Participants were randomly assigned to two conditions. Condition one had three sets of two alternatives, each described on two attributes and coming from a different product category, mouthwash, mp3 player and grill (Please see Tables 8.1a and 8.1b), such that each participant makes a total of three choices (each from mouthwash, grills and mp3 player). Following which they rate attribute importance. For example, how important is cooking space/cooking speed in choosing a grill. We made sure that there is no difference in attribute importance, which may influence choice. The second condition had one more alternative added to each product category (Please see Tables 8.1a and 8.1b). All else remained same. In both the conditions the product categories were randomly presented.

**Table 8.1a** Two alternative conditions (Study 1a)

<i>Grill brands</i>		
Brands	Cooking space (Rated on a scale from 1 to 100)	Cooking speed (Rated on a scale from 1 to 100)
Brand x	100	30
Brand y	90	40
<i>Mouthwash Brands</i>		
Brands	Germ killing effectiveness (Rated on a scale from 1 to 100)	Decay prevention effectiveness (Rated on a scale from 1 to 100)
Brand a	100	10
Brand b	90	20
<i>Mp3 Brands</i>		
Brands	Features (Rated on a scale from 1 to 100)	Ease of use (Rated on a scale from 1 to 100)
Brand x	100	20
Brand y	90	30

*Source* Author

**Table 8.1b** Three alternative conditions (Study 1a)

<i>Grill brands</i>		
Brands	Cooking space (Rated on a scale from 1 to 100)	Cooking speed (Rated on a scale from 1 to 100)
Brand x	100	30
Brand y	90	40
Brand z	80	50
Mouthwash Brands	Germ killing effectiveness (Rated on a scale from 1 to 100)	Decay prevention effectiveness (Rated on a scale from 1 to 100)
Brand a	100	10
Brand b	90	20
Brand c	80	30
Mp3 Brands	Features (Rated on a scale from 1 to 100)	Ease of use (Rated on a scale from 1 to 100)
Brand x	100	20
Brand y	90	30
Brand z	80	40

Source Author

### *Results*

There was no difference in attribute importance across conditions. In condition one, when only two alternatives were present, the share of the *first* alternative was 44% and that of the *second* was 56%. In condition two, when a third alternative was introduced, the choice shares was as follows: *first*, 22.85%; *second*, 29.52%; and *third*, 47.61% (extreme option). A chi-square test of goodness-of-fit is performed to see whether the alternatives are equally preferred. Preference for the three alternatives were not equally distributed ( $\chi^2 = 10.34$ ,  $p < 0.05$ ). Past research shows when a third alternative is introduced, there is a relative increase in share for the second alternative as also it garners the highest share in the set (Chernev, 2004), none of which is supported here. The middle option has a share of 29.52%, which is obviously not the highest share among the set of the three alternatives and also the relative share of the middle option is 56.36% (please see Chernev, 2004, for calculation of relative

share), which is almost the same, 56%, as in the two-alternative condition. On the other hand, the third alternative garners the majority share as predicted ( $M_{third} = 47.61\%$  versus  $M_{first} = 22.85\%$ ,  $z$  is 3.75,  $p < 0.05$ ,  $M_{third} = 47.61\%$  versus  $M_{second} = 29.52\%$ ,  $z$  is 2.69,  $p < 0.05$ ). Thus, the results of study 1a supports our theorizing, when instead of the middle compromise alternative one chooses an extreme option.

## STUDY 1B

Past research shows when attribute values are rated, the dispersion of attribute values from the midpoint acts as the reference point such that the least dispersed or the most balanced alternative garners the majority share (Chernev, 2004). If we consider (50,50) as the mid-point, the dispersion of the extreme alternative is the least compared to the other two. For example, the dispersion of (80,30) is much less compared to (100,10) and (90,20) and thus, makes it the most balanced alternative in the set. Thus, one may argue that the extreme option is chosen as it is the most balanced one.

To rule out this explanation, we collected data by reducing the attribute dispersion of the third alternative and making it more balanced (Please refer to Table 8.2). For example, (80,30) was made (70,40). Thus, if attribute balance is the reason for choice, the share of the extreme alternative should be higher in the set consisting of (100,10), (90,20) and (70,40) compared to (100,10), (90,20) and (80,30). On the other hand, if consumers focus on the second attribute then there should not be a difference between the two conditions.

### Results

Each participant was randomly presented three choice sets (each containing three alternatives and coming from a different product category) and was asked to make a choice (Please refer to Table 8.2). A total of one hundred and eight choices were made. There was no significant difference in attribute importance. The share of the alternatives was as follows *first*, 25%, *second*, 27.78% and *third*, 47.22%. A chi-square test of goodness-of-fit is performed to see whether the alternatives are equally preferred. Preference for the three alternatives was not equally distributed ( $\chi^2 = 9.5$ ,  $p < 0.05$ ) and as expected the third alternative garners the maximum share ( $M_{third} = 47.22\%$  versus  $M_{first} = 25\%$ ,  $z$  is 3.39,  $p <$

**Table 8.2** Three alternative conditions (Study 1b)

<i>Grill brands</i>		
Brands	Cooking space (Rated on a scale from 1 to 100)	Cooking speed (Rated on a scale from 1 to 100)
Brand x	100	30
Brand y	90	40
Brand z	70	60
Mouthwash Brands		
Brands	Germ killing effectiveness (Rated on a scale from 1 to 100)	Decay prevention effectiveness (Rated on a scale from 1 to 100)
Brand a	100	10
Brand b	90	20
Brand c	70	40
Mp3 Brands		
Brands	Features (Rated on a scale from 1 to 100)	Ease of use (Rated on a scale from 1 to 100)
Brand x	100	20
Brand y	90	30
Brand z	80	50

Source Author

0.05,  $M_{third} = 47.22\%$  versus  $M_{second} = 27.78\%$ ,  $z$  is 2.95,  $p < 0.05$ ). However, the share of the third alternative, 47.22% was not significantly different from study 1a, 47.61% ( $z$  is 0.05). Thus, ruling out attribute balance as a reason of choice.

## STUDY 1C

If participants *primarily* focus on the second attribute and makes a choice, the share of the third alternative should increase if we increase the relative discriminability of the second attribute with respect to the first. For example, in study 1a, the distribution of the second attribute was as follows: 10–20–30, 20–30–40 and 30–40–50, while that of the first attribute was, 100–90–80. If we change the distribution of the second attribute to: 10–30–50, 20–40–60 and 30–50–70, respectively (Please refer to Table 8.3), keeping that of the first attribute the same, the relative discriminability of the second attribute increases with respect to the first, enhancing the choice of the extreme option. Data was collected to test this.

**Table 8.3** Three alternative conditions (Study 1c)

<i>Grill brands</i>		
Brands	Cooking space (Rated on a scale from 1 to 100)	Cooking speed (Rated on a scale from 1 to 100)
Brand x	100	30
Brand y	90	50
Brand z	80	70
Mouthwash Brands		
Brands	Germ killing effectiveness (Rated on a scale from 1 to 100)	Decay prevention effectiveness (Rated on a scale from 1 to 100)
Brand a	100	10
Brand b	90	30
Brand c	80	50
MP3 Brands		
Brands	Features (Rated on a scale from 1 to 100)	Ease of use (Rated on a scale from 1 to 100)
Brand x	100	20
Brand y	90	40
Brand z	80	60

Source Author

### *Results*

Each participant was randomly presented three choice sets, each containing three alternatives, and was asked to make a choice. A total of ninety-six choices were made. There was no difference in attribute importance. The choice of the three alternatives was as follows: *first* 15.62%, *second* 27.08% and *third* 57.29%, with the extreme alternative gathering the maximum share. There is a gain in the share of the third alternative from 47.61% (study 1a) to 57.29% (study 1c),  $z$  is 1.37,  $p < 0.08$ . Thus, as theorized, the choice share of the extreme option increases with an increase in discriminability of the second attribute.

### STUDY ID

In a similar vein, if we bring the attribute ratings of the first attribute closer together it should simulate the effect of study 1c. Arguably, bringing the already high values of the first alternative closer together will make them look almost equal and at the same time increases the relative discriminability of the second attribute. For example, if we change

**Table 8.4** Three alternative conditions (Study 1d)

<i>Grill brands</i>		
Brands	Cooking space (Rated on a scale from 1 to 100)	Cooking speed (Rated on a scale from 1 to 100)
Brand x	100	30
Brand y	95	40
Brand z	90	50
Mouthwash Brands		
Brands	Germ killing effectiveness (Rated on a scale from 1 to 100)	Decay prevention effectiveness (Rated on a scale from 1 to 100)
Brand a	100	10
Brand b	95	20
Brand c	90	30
Mp3 Brands		
Brands	Features (Rated on a scale from 1 to 100)	Ease of use (Rated on a scale from 1 to 100)
Brand x	100	20
Brand y	95	30
Brand z	90	40

Source Author

the attribute ratings of the first attribute from 100–90–80 (Study 1a) to 100–95–90 keeping that of the second attribute same (Please refer to Table 8.4), the share of the third alternative should increase compared to study 1a.

### *Results*

Each participant was randomly presented three choice sets, each containing three alternatives, and was asked to make a choice (Please refer to Table 8.4). A total of one hundred and twenty-nine choices were made. There was no difference in attribute importance. The choice of the alternatives was as follows: *first* 15.50%, *second* 29.45% and *third* 55.03%. There is a directional gain in the share of the third alternative from 47.61% (study 1a) to 55.03% (study 1d), supporting the underling choice process.

Thus, the share of the third alternative increases if we either increase the discriminability of the second attribute (study 1c) or decrease the discriminability of the first attribute (study 1d), which in effect increases the relative discriminability of the second attribute with respect to the

first, enhancing the focus on the second attribute. Consequently, the share of the third alternative increases compared to study 1a.

## STUDY 1E

If the focus on the second attribute increases the share of the third alternative, we may further amplify the effect by concurrently increasing the discriminability of the second attribute and decreasing the discriminability of the first (Please refer to Table 8.5). For example, from 100–90–80 to 100–95–90 for the first attribute and from 10–20–30 to 10–30–50 for the second attribute.

### *Results*

Each participant was randomly presented three choice sets, each containing three alternatives, and was asked to make a choice (Please refer to Table 8.5). A total of one hundred and forty-four choices were made. There was no difference in attribute importance. The choice of the three

**Table 8.5** Three alternative conditions (Study 1e)

<i>Grill Brands</i>		
Brands	Cooking space (Rated on a scale from 1 to 100)	Cooking speed (Rated on a scale from 1 to 100)
Brand x	100	30
Brand y	95	50
Brand z	90	70
<i>Mouthwash Brands</i>		
Brands	Germ killing effectiveness (Rated on a scale from 1 to 100)	Decay prevention effectiveness (Rated on a scale from 1 to 100)
Brand a	100	10
Brand b	95	30
Brand c	90	50
<i>Mp3 Brands</i>		
Brands	Features (Rated on a scale from 1 to 100)	Ease of use (Rated on a scale from 1 to 100)
Brand x	100	20
Brand y	95	40
Brand z	90	60

*Source* Author



alternatives was as follows: *first* 4.86%, *second* 15.97% and *third* 79.16%. As expected, the share of the third alternative is significantly higher than both studies 1c ( $z$  is 3.63,  $p < 0.05$ ) and 1d ( $z$  is 4.25,  $p < 0.05$ ), which supports our conjecture.

## STUDY 1F

Past research shows when it is difficult to justify one's choice (e.g. compromise effect), given an option, one prefers to defer choice (Dhar & Simonson, 2003). For example, 26% of the consumers in the two-alternative condition and 23% in the three-alternative condition prefer to defer choice (Dhar & Simonson, 2003, Study 2).

Studies 1a–1d show that even under conditions that lead to compromise effect consumers prefer an extreme option. Moreover, and as argued in the paper the choice of the extreme option is influenced by the higher discriminability of the second attribute compared to the first, which provides a *reason* for choice. Thus, unlike past research, as the choice of the extreme option is backed by a justifiable reason, we expect the preference for the no choice option to be low compared to previous studies. Study 1f is designed to test this.

## Results

The conditions were exactly similar to study 1a except we added a no-choice option: prefer to defer choice. There was no difference in attribute importance. A total of two hundred and nineteen choices were made and is as follows: two alternative conditions: *first* 34.67%, *second* 58.67% and *no choice* 6.67%; three alternative conditions, *first* 13.19%, *second* 36.80%, *third* 48.61% and *no choice*, 1.38%. Thus, compared to past research, the choice of the no choice option is low for both the two alternative (6.67% versus 26%) and three alternative conditions (1.38% versus 23%). This shows as consumers have a reason to make a choice the preference for the no-choice option is significantly lower than past research.

In the main the results of study one show that attribute discriminability impacts choice such that consumers depend on the more discriminable second attribute to make a choice, which also provides a reasonable justification why one chooses the extreme instead of the compromise alternative.

## GENERAL DISCUSSION

Past research shows when a third alternative is introduced to a choice set consisting of two, none of which is dominating, consumers prefer the safest middle alternative, which is popularly known as the compromise effect in the literature. One interesting finding that characterizes the choice of the middle option is not based on any well-grounded reasons but reveals a risk averse mind set of the consumers—when one chooses the middle option having moderate values on both, which is less likely to be criticized. Arguably, the alternatives lie on an equipreference contour, so there is no reason why one will predominantly choose the middle alternative over the other but for playing it safe.

My research shows that even under conditions that lead to compromise effect, consumers prefer an extreme alternative. I reason when attributes are rated on a common scale; rated on a scale from 1 to 100, they become easily comparable and consequently, shifts the focus of the consumers to the more discriminable attribute, which influences choice. For example, if there are three alternatives that are described on two attributes and have the following ratings—(100,10), (90,20) and (80,30), consumers prefer to choose an extreme option (80,30), which arguably has the highest value on the more discriminable second attribute, which guides choice.

## THEORETICAL CONTRIBUTION

Compromise effect is “... among the most important and robust phenomena documented in behavioral research in marketing” (Kivetz et al., 2004, p. 237). Similarly, a metaanalysis of extremeness aversion research found compromise effect to be robust, which cannot be reduced to an experimental artifact but can reasonably be considered as an empirical generalization. In our research, we show that when attributes are rated on the same metric, consumers avoid the middle alternative and prefers an extreme. Thus, our research provides a moderator of compromise effect. To our mind this is the only study to report such an effect more so when the choice sits on one extreme.

Past research shows when attributes are rated consumers favor an alternative-based processing, when one moves from one attribute value to the other within an alternative, such that the least dispersed or the most-balanced alternative is chosen (Chernev, 2004). For example, in study 1a, (80,30) is the most balanced alternative out of the three—(100,10),

(90,20) and (80,30), as the distance of the attribute ratings from the mid-point (50,50) is the least. Thus, it may appear that the choice of the extreme alternative is an outcome of attribute balance. On the other hand, our research shows that even when attribute values are rated consumers may prefer an attribute-based processing—picking one attribute at a time and moving from one alternative to the other, as the results of the eye tracking study suggests. More important, the eye tracking study also shows that the frequency of attribute-based processing is higher along the more discriminable attribute. In the main, our research shows that attribute ratings may not always lead to alternative-based processing and more important, focus may shift to a single attribute, which influences choice. These findings are also in line with past research, which shows that consumers typically avert emotionally draining attribute trade-offs. Attribute discriminability offers such a possibility as reflected in the eye tracking study, when consumers primarily focus on the second attribute in making a choice.

## REFERENCES

- Aribarg, A., Arora, N., Henderson, T., & Kim, Y. (2014). Private label imitation of a national brand: Implications for consumer choice and law. *Journal of Marketing Research*, 51(6), 657–675.
- Chang, C.-C., Chuang, S.-C., Cheng, Y.-H., & Huang, T.-Y. (2012). The compromise effect in choosing for others. *Journal of Behavioral Decision Making*, 25(2), 109–122.
- Chernev, A. (2004). Extremeness aversion and attribute-balance effects in choice. *Journal of Consumer Research*, 31(2), 249–263.
- Dhar, R., Nowlis, S. M., & Sherman, S. J. (2000). Trying hard or hardly trying: An analysis of context effects in choice. *Journal of Consumer Psychology*, 9(4), 189–200.
- Dhar, R., & Simonson, I. (2003). The effect of forced choice on choice. *Journal of Marketing Research*, 40(2), 146–160.
- Feigenson, L., Dehaene, S., & Spelke, E. (2004). Core systems of number. *Trends in Cognitive Sciences*, 8(7), 307–314.
- Hedgcock, W., & Rao, A. R. (2009). Trade-off aversion as an explanation for the attraction effect: A functional magnetic resonance imaging study. *Journal of Marketing Research*, 46(1), 1–13.
- Huber, J., Payne, J. W., & Puto, C. (1982). Adding asymmetrically dominated alternatives: Violations of regularity and the similarity hypothesis. *Journal of Consumer Research*, 9(1), 90–98.

- Janis, I. L., & Mann, L. (1977). *Decision making: A psychological analysis of conflict, choice, and commitment*. Free press.
- Kivetz, R., Netzer, O., & Srinivasan, V. (2004). Alternative models for capturing the compromise effect. *Journal of Marketing Research*, 41(3), 237–257.
- Luce, M. F. (1998). Choosing to avoid: Coping with negatively emotion-laden consumer decisions. *Journal of Consumer Research*, 24(4), 409–433.
- Mao, W. (2016). When one desires too much of a good thing: The compromise effect under maximizing tendencies. *Journal of Consumer Psychology*, 26(1), 66–80.
- Mourali, M., Bockenholt, U., & Laroche, M. (2007). Compromise and attraction effects under prevention and promotion motivations. *Journal of Consumer Research*, 34(2), 234–247.
- Neumann, N., Böckenholt, U., & Sinha, A. (2016). A meta-analysis of extremeness aversion. *Journal of Consumer Psychology*, 26(2), 193–212.
- Rips, L. J. (2013). How many is a zillion? Sources of number distortion, *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 39(4), 1257–64.
- Shafir, E., Simonson, I., & Tversky, A. (1993). Reason-based choice. *Cognition*, 49(1–2), 11–36.
- Sheng, S., Parker, A. M., & Nakamoto, K. (2005). Understanding the mechanism and determinants of compromise effects. *Psychology & Marketing*, 22(7), 591–609.
- Simonson, I. (1989). Choice based on reasons: The case of attraction and compromise effects. *Journal of Consumer Research*, 16(2), 158–174.
- Tversky, A., & Simonson, I. (1993). Context-dependent preferences. *Management Science*, 39(10), 1179–1189.
- Wernerfelt, B. (1995). A Rational reconstruction of the compromise effect: Using market data to infer utilities. *Journal of Consumer Research*, 21, 627–633.



# Consumer Paradox: A Manifestation of Self-Concept in Activism in Response to Supply Chain Practices

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## INTRODUCTION

There is no doubt that organizations' operations have a direct impact on society; their effects on business and social growth and development are customarily associated with their engagement, or lack thereof, in corporate social responsibility (CSR). The reality is that organizations' dynamics can either enhance or hinder social growth and development. In relation to supply chains, attention is usually placed on focal organizations, meaning those at the end of the supply chain that provide products and services to end consumers and have power and influence over the rest of the organizations in the chain (Wang & Wood, 2016). When focal organizations state to be engaged in CSR, their socially responsible actions, and declarations regarding the latter, tend to be assumed as guarantee that

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the rest of the supply chain's actions are well aligned. Consumption naturally, and perhaps unintendedly, perpetuates organizations' unethical and questionable practices; however, consumer behavior is what can ultimately sway organizational change; the latter reveals the consumer paradox which is influenced by both self-concept and supply chain practices.

Today, their behavior is particularly and constantly tweaked by the increasing bombardment of data and information regarding organizations' business practices, as well as those of their supply chain. Hyperconnectivity propelled by social media, as well as an increase in production and access to documentaries and docuseries, have had an important role in educating consumers on the reality of shocking and appalling conditions in which products and services are being produced, manufactured, distributed, and sold to them. A series of industries and sectors around the world, including textile, retail, agricultural, automotive, farming, food and beverage, pharmaceutical, music, and technology, among others, have been effectively put on blast, as their associated firms' unethical and illegal, if not immoral, practices have been exposed. Effects of the latter are visible in their impact on consumer behavior and their ultimate purchase decision-making.

The general objectives of the study were to understand the underlining effect of consumers' self-concept on consumer activism, and to evaluate the role of consumer awareness of organizations' global supply chain practices on the shaping of self-concept and consumer activism impacting purchase decision-making. In order to do so, a set of propositions were framed to describe theoretical findings, and a conceptual model developed in order to illustrate the association of variables, constructs, and propositions. The study contributes to the understanding of consumer behavior regarding their stance on ethical behavior, social responsibility, and sustainability for purchase decision-making.

## LITERATURE REVIEW

### *Supply Chains*

All organizations, regardless of size and line of business, have a supply chain. An organization's supply chain is the group of organizations that collaborate in a complex system (Serdarasan, 2013) to offer a product and/or service in a market. According to Beamon (1999), it is considered to be a "one-way, integrated manufacturing process wherein raw materials are converted into final products, then delivered to customers." It

includes every actor that participates at any point in the creation, production, distribution, and selling of said product and/or service. Stevens (1989) defined the supply chain as “the connected series of activities which is concerned with planning, coordinating and controlling material, parts and finished goods from supplier to customer.” Whether local or global, supply chains must be effectively managed by implementing techniques for continuous improvements, across the chain, and competitiveness (Albino et al., 2002; Hugos, 2018). As each supply chain is unique, decision-making should be carried out both individually and collectively (Hugos, 2018) to ensure that practices across the chain are aligned with previously agreed upon policies, norms, and standards of operation.

According to Chopra and Sodhi (2004) disruption may occur in supply chains due to “natural disasters, labor disputes, supplier bankruptcy, war and terrorism, dependency on a single source of supply as well as the capacity and responsiveness of alternative suppliers.” And now, global health pandemic is also added to the list of possible disruptors. Therefore, their management is essential for a successful outcome. The effective management of supply chains is directly associated with the firm’s performance and achievement of competitive advantage (Li et al., 2006), as it may impact lead times, costs, as well as quality (Talluri & Baker, 2002). Therefore, it is common for decision-makers to primarily focus on developing strategies for cost reduction and contract renegotiation; however, there are some organizational leaders who have opted for a socially responsible and sustainable supply chain. Their practices are aligned with social, environmental, and financial performance (Silvestre, 2015), and its management positively correlates with cost and environmental performance (Cousins et al., 2019). The reality is that even those firms stating to be and have a socially responsible supply chain are falling short in their engagement; in other words, they are not actually engaging in corporate social responsibility.

Focal firms are those that are at the far end of the supply chain (Frostenson & Prenekert, 2015), have direct contact with end consumers (Wang & Wood, 2016), and provide them with products and services. They are, therefore, the organizations in the supply chain that are visible to current and potential stakeholders, particularly to consumers. Further, they have the power and ability to influence practices, policies, and standards of the rest of the organizations in the chain (Wang & Wood, 2016). Focal firms set the tone, in that they indicate the manner in which the entire chain will operate and ought to act accordingly. So, technically,

if they state to be engaged in corporate social responsibility, then, they and the rest of the chain should demonstrate zero tolerance for any unethical or questionable practices. Furthermore, the policies, actions, and results ought to be based on business strategies well aligned with socially responsible strategies.

### *Corporate Social Responsibility*

Corporate social responsibility (CSR) is a mindset and holistic approach to business. It stems from the firm's corporate philosophy, which is informed by organizational culture (Schneider et al., 2013). It requires organizations to always operate in an ethical manner, with the intent of achieving positive effects on social, environmental, and financial performance. There are various advantages to firm engagement in CSR, including a positive association of the latter with collaborator commitment (Brammer et al., 2007), organizational performance (Margolis & Walsh, 2003), and competitive advantage (Porter & Kramer, 2006). CSR is also well associated with consumer satisfaction (Jermstittiparsert et al., 2019) and loyalty (Han et al., 2019), therefore, it is important for organizations to transparently share their socially responsible actions and results with current and potential stakeholders. Moreover, there are various reasons why firms should effectively engage in CSR, all which may be summed up as their accountability toward society, the environment, and the firm itself (such as internal and external stakeholders), as business operations are only feasible because of them and their effective management.

Firms proactively engaging in corporate social responsibility diligently ensure that all organizations in their supply chain are also socially responsible. Socially responsible supply chains are well associated with supply chain performance (Mani et al., 2018). To be clear, if any of the firms in the supply chain are engaging in questionable and/or unethical practices, then, the entire supply chain is rendered not socially responsible. It is common practice, for the focal companies that state to be socially responsible, to obtain socially responsible, environmentally friendly, and/or fair trade, certifications, labels, and marks to denote that they are doing good and well. However, these by no means ensure that the focal firm and the rest of the supply chain are, in fact, not engaging in any questionable or unethical practices.



### *Non-socially Responsible Supply Chains*

There are many ways in which organizations across supply chains take part in unethical business dynamics. The latter include but are not limited to any type of discrimination, exploitation (human and environmental), violence, fraud, corruption, impunity, abuse, theft, as well as unfair and unequal wages, unsafe work conditions, microaggressions, among many others. One of the most pervasive forms of unethical behavior falls under the classification of modern slavery. Even though slavery has been abolished, the reality is that modern day slavery persists; in fact, there are currently about forty million people enslaved (Council on Foreign Relations, 2020) around the world. The U.S. Department of State (2020) affirms that slavery exists “any time a person has been recruited, transported, or compelled to work by force, fraud, or coercion.” There are many types of modern slavery including: “sex trafficking, child sex trafficking, forced labor, bonded labor or debt bondage, domestic servitude, forced child labor, unlawful recruitment and use of child soldiers” (U.S. Department of State, 2020), as well as “human trafficking, descent-based slavery, forced and early marriage” (Anti-Slavery International, 2020).

According to Anti-Slavery International (2020), modern day slavery is defined as the “severe exploitation of other people for personal or commercial gain.” Forced labor is a type of modern slavery and an appalling common practice in the private sector which, to be clear, includes organizations across supply chains. In 2016, the International Labor Organization (ILO) found that over 24 million people were in forced labor, of which about 64 percent are exploited within the private sector (Freedom United, 2020; ILO, 2017). That is, about 16 million people working for organizations in different stages of supply chains are being exploited. And, to add insult to injury, in 2019, “more than 630 million workers worldwide did not earn enough to lift themselves and their families out of extreme or moderate poverty” (ILO, 2020). To clarify, extreme poverty refers to people who are living with less than \$1.90 per day (The World Bank, 2020).

The focal firm may be transparently sharing, for instance, “fair” wages within the firm and still willingly accept that at the other end of their supply chain workers are earning less than living wage, and in many cases less than minimum wage. Or boast about their secure, healthy, empowering working conditions, as a “great place to work” and accept that at the far end of the chain, workers are denied basic human rights. This is

the case of the well-documented issues surrounding fast fashion; the year 2020 is about to end and sweatshops are still making headlines. Forbes has reported that these include garment workers in Los Angeles, California, working 12-hour shifts and earning about 3 cents apiece or 5 dollars an hour, substantially below the state's minimum wage (Meagher, 2020). And, even more enraging and disturbing, the ILO (2018) has reported that approximately 152 million children are forced into child labor worldwide. Children around the world are working at "all stages of the supply chain in the fashion industry: from the production of cotton seeds in Benin, harvesting in Uzbekistan, yarn spinning in India, right through to the different phases of putting garments together in factories across Bangladesh" (Moulds, 2017). As these are common practice across industries, it is not shocking that those consumers take a stance against the brands that are enabling this behavior.

### *Consumer Behavior*

Basic economic principals of supply and demand dictate that an increase in demand causes an increase in supply. In a market with multiple competitors, demand is affected by a series of potential variables, such as price, quality, ease of use, convenience, among many others. In other words, organizations are faced with the need to constantly innovate their business strategies in order to add value to their products and services and appeal to their current and potential consumers. The most effective manner to achieve this is by understanding consumer behavior; that is to say, what motivates them, what influences and impacts their purchase decision-making, and what does their perception of added value entail, leading to their satisfaction and, ideally, their loyalty.

When considering consumer behavior generically, without doubt, price (Sinha & Batra, 1999) is and will probably remain one of the most important determinants in consumer purchase decision-making. However, the more variables considered, the finer the understanding; that is, organizational decision-makers are able to better appreciate the subtleties of consumer behavior toward a product/service and brand. There are certainly other factors which also play a significant role in consumerism, such as: personal values (Vinson et al., 1977), emotion (Richins, 1997), brand image (Zhang, 2015), culture (De Mooij & Hofstede, 2011), the environment, and sustainability (Dijksterhuis et al., 2005; Verbeke

et al., 2007), among many others. Therefore, it is imperative to recognize the underlying variables that are providing context to consumer purchase decision-making to fully understand their process and, in turn, their impact on business growth and development.

### *Socially Responsible Consumer Behavior*

It is fair to say that consumers are currently more vocal about their preference to associate with organizations that are responsive to stakeholders' needs and wants, conscious about the social issues that permeate society and are authentic, honest, and effective in their efforts to alleviate them. As ethical expectations (Whalen et al., 1991) are certainly a factor considered in decision-making, consumers are significantly comfortable with disseminating experiences and opinions they have of organizations' unethical practices on social media, particularly on Social Networking Sites (SNSs); meaning that, they further strengthen the awareness of other current and potential consumers about organizations' practices. According to (Amoako & Dartey-Baah, 2020), people have become more aware and interested in the impact of organization's actions on the environment and society, such as "environmental protection, employee protection, and customer convenience," and it is information of these practices that inform firm-stakeholder relationships. Thus, the correlation between ethics and consumer behavior (Bray et al., 2011), and socially responsible consumerism (Gonzalez et al., 2009) have gained special attention in the last decade, as they have become increasingly familiar in day-to-day conversations.

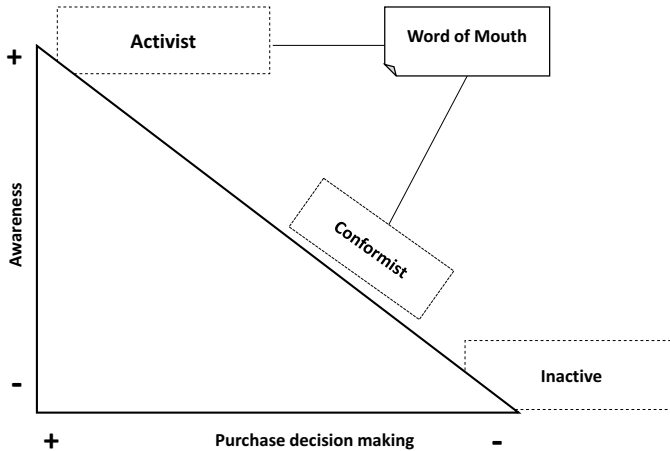
Ethical consumers demonstrate their stance on social issues, and the responsibility they feel toward them, by means of their purchases (De Pelsmacker et al., 2006). In other words, they relate what they purchase directly with a social matter (Shaw & Clarke, 1999) with which they are concerned. And, according to Roberts (1993), socially responsible consumers intend to positively impact social change by purchasing products and/or services that they consider to positively impact society and the environment. Webb et al. (2008) found that there are three key dimensions to socially responsible consumerism; these being, purchase decision-making based on an organization's CSR results and performance, proactive recycling, and avoiding the consumption of products that may have a negative impact on the environment. Lee and Cho (2019) affirmed that socially responsible consumption is related to consumers' value of

self-transcendence. Therefore, socially responsible consumers' behavior is directly related to an issue that does or could potentially pervade and devastate society and the environment.

While CSR is the way organizations can tackle social and environmental issues, consumer activism is how consumers participate in the reduction and eradication of social and environmental issues. Although socially responsible consumerism has become mainstream, it is not a new concept and is certainly not a novel practice; in fact, according to Glickman (2004), American consumer activism can be traced back to the beginning of the nineteenth century and the abolitionist movement with the “free produce movement” which exhorted consumers to purchase free labor products, meaning, those not produced by slaves; further, it provided products for those consumers that were adamantly against slavery. And, in England, Elizabeth Heyrick who, in 1824, wrote the pamphlet “Immediate, not gradual Abolition: Or, an inquiry into the shortest, safest, and most effectual means of getting rid of West Indian slavery” (James & Shuttleworth, 2017), called for the boycott of products produced by means of slave labor. Therefore, as long as there has been firms engaging in questionable and unethical practices, there have been consumers unwilling to enable that behavior.

In relation to social responsibility, there are three types of consumers: activists, inactive, and conformist. Figure 9.1 depicts the three CSR-related types of consumers. An activist consumer diligently seeks information about the provenance of products, services, brands, and, in general, firm dynamics. They wish to be in the know and are engaged with at least one social and/or environmental issue that drives their purchase decision-making of products and services, and influences their word-of-mouth related to the brands offering the latter. A conformist consumer is aware of certain questionable or unethical practices and consciously decides to not take it into account for their purchase decision-making; the latter, however, does not impede them from sharing information about such practices. Also, the inactive consumer is unaware of firms' questionable or unethical practices and, therefore, do not influence their purchase decision-making. Hence,

- P<sub>1</sub>: Consumer unawareness of unethical or non-socially responsible supply chain practices leads to an inactive consumer behavior.



**Fig. 9.1** Consumer taxonomy by corporate social responsibilities (*Source* Author)

Devinney et al. (2010) have posited that social consumerism is “embodied within and embodies general notions of corporate and consumer behavior coevolving to create, characterize, and police a marketplace.” Further, according to Melé (2009), individuals have the power to direct decision-making, and policy-making, by means of their consumption; and, Vitell (2014) argues that if consumers demand socially responsible products and services, they can impact firm’s engagement in CSR. Therefore, it makes sense that at least some consumers would use their power to influence a firm’s business practices via their consumption.

### *Consumer Paradox*

Bypassing the action and effects of actual consumption of a product and/or service, consumer decision-making is a paradox. We cannot negate the fact that our very existence on the planet correlates with the state of the environment. Human beings’ actions certainly cause an effect on others and the environment, which can either be in the direction of improvement or deterioration; however, in many cases, the former and the latter occur simultaneously. Take, for example, a Penrose staircase which demonstrates a logical contradiction in action,

whereby two-dimensional and logical elements are connected to generate a contradictory three-dimensional object. Something similar occurs with consumption. Consumer behavior, for all intents and purposes, perpetuates the vicious cycle of supply chains' unethical and questionable practices, particularly when referring to conformist consumers who are those that are aware of unethical and questionable practices yet purposefully dismiss them in favor of consumption. However, it is consumer purchase decision-making that can ultimately and effectively influence organizational change; hence, the consumer paradox is manifested.

Destruction and construction are both probable and simultaneous outcomes of consumption. In other words, the mere act of buying sets off a series of processes that inevitably harm the environment and, in most cases, interfere with society's well-being, restricting business and social growth and development. Nevertheless, with no intent to relieve firms from their responsibility, consumers have decisive power and influence to change organizational policies, standards, practices, and, ultimately, results. In other words, while consumption is associated with the destitution of the environment and modern-day slavery, it is also a significant means by which ethical and socially responsible behavior can be fueled. The question, then, is what sways some consumers in one direction and others in a completely opposite direction in terms of purchase decision-making? Or why do some consumers take the route of activism, while others choose to remain passive?

### *Self-Concept*

Self-concept is the way an individual thinks about, perceives, and evaluates herself/himself. It is the "the totality of the individual's thoughts and feelings with reference to self as an object" (Rosenberg, 1989); therefore, it is a subjective perception of oneself (Zinkhan & Hong, 1991). It is both the "cognitive and affective understanding of who and what we are" (Schouten, 1991). The definition the self-concept is an ongoing process which begins in childhood and continues throughout adulthood, although it is less heightened in the latter. According to Slaninova and Stainerova (2015), the individual's experience with the environment is what shapes the self-concept; further, the environment as well as significant others are what influence how individuals form their self-concept. Therefore, it helps individuals understand and value themselves in terms

of their relationships, role identities, and possessions (Schouten, 1991) among others.

Self-concept is relevant for consumer behavior understanding (Belk, 1988) as consumers' purchases aid in their definition of self-concept (Zinkhan & Hong, 1991), and they define others on the basis of their possessions (O'Cass & McEwen, 2004). Social identity theory (Hogg, 2018) describes the self-concept in terms of personal and social identity; in a sense, it is a manner in which individuals categorize and identify themselves in groups. As such, self-concept is well associated with brand perception and preference (Gonzalez-Jimenez, 2017; Ross, 1971), as they attribute certain personal traits to products, brands (also known as brand personality) (Schiffman & Kanuk, 2004), and services. Moreover, the ideal-self refers to the manner in which an individual would prefer to perceive her/himself, while the social-self denotes how the latter presents toward other individuals (Sirgy, 1982).

Self-image congruence relates to consumer behavior (Graeff, 1996) as it impacts their attitudes, preferences, and purchase intentions (Achouri & Bouslama, 2010), and it suggests that "people are what they buy" (Rodriguez, 2015); thus, consumerism occurs in the midst of the process of self-creation and self-improvement (Schouten, 1991). In reference to brand selection, Ilaw (2014) found that consumers prefer to purchase from organizations that demonstrate to be congruent with their self-image; moreover, consumers' self-concept is enhanced if this occurs and it is recognized by others (Grubb & Grathwohl, 1967).

It is consumers' self-concept that can drive activism; in fact, it is most likely the strongest mediator in consumer activism and purchase decision-making. However, while consumers' behavior is widely affected by the awareness and knowledge of, for instance, product attributes, it seems that mere awareness of unethical or questionable practices are not enough to sway all consumers to switch brands and/or engage in activism. This occurs because it may also solidify consumer behavior regarding conformism or inactivity as it depends on the individual's identity and how much the environment has influenced them. In other words, consumer behavior is not spontaneous or random rather, a consumer that categorizes and identifies her/himself as an ethical, socially responsible, and sustainable buyer further strengthens their self-concept as such with their purchase decision-making.

For instance, a consumer with a self-concept that drives activism will proactively seek to purchase from brands that execute strategies and have

a firm stance on policies that ensure that practices, across their supply chains, are socially responsible. However, a conformist may be aware that the practices of organizations in the supply chain are not on the up and up, and still purchase from the brand. They may very well disagree with the practices; however, the awareness is not enough to deter their purchases. In other words, they present a higher degree of tolerance for unethical practices, particularly if they are occurring in the far end of a supply chain; therefore, the following propositions are formed:

- P<sub>2a</sub>: A consumer's self-concept impacted by awareness of unethical and non-socially responsible supply chain practices influence consumer activism.
- P<sub>2b</sub>: A consumer's self-concept not impacted by awareness of unethical and non-socially responsible supply chain practices influence their conformism.
- P<sub>3</sub>: Consumer activism derived from self-concept and awareness of supply chain practices, impacts purchase decision-making which directly impacts the firm.
- P<sub>4</sub>: Consumer conformism derived from self-concept and awareness of supply chain practices perpetuates the status quo of unethical and questionable business dynamics.

### *Consumers' Self-Concept Driving Change*

It seems that mere awareness of unethical practices is insufficient to instigate change both by organizational leaders and consumers. As such, the self-concept element turns out to be highly relevant and discernable in activism. Activist consumers can drive organizational change by two general means: by avoiding consumption and by using their voice. As was stated earlier, understanding consumer behavior is elemental for supply and demand, and the latter can be a change-driving force. On one hand, by ceasing to demand a brand's products and/or services, which have been, for instance, performed by workers in forced labor, and/or manufactured by means of environmental destruction, consumer activists do not perpetuate the status quo and send a message of dissatisfaction. On the other hand, activist consumers' voices are significantly powerful; according to Hirschman (1970), voice is described as:



*Any attempt at all to change, rather than to escape from, an objectionable state of affairs, whether through individual or collective petition to the management directly in charge, through appeal to a higher authority with the intention of forcing a change in management, or through various types of actions and protests, including those that are meant to mobilize public opinion.*

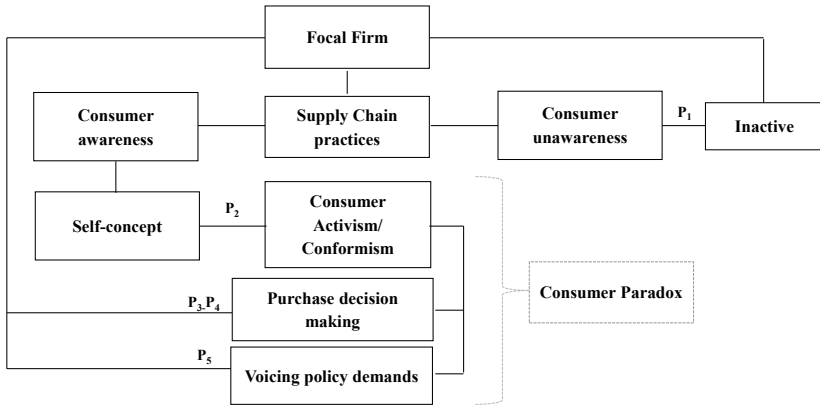
Therefore, consumers may use their voices to demand that firms change their current policies, standards, and norms for ethical ones and effectively engage in CSR. Currently, the most common forms of consumer voice include, but are not limited to, public shaming via social networking sites (Basak et al., 2019), as well as social media led boycotts, and call-out and cancel culture. The latter, in turn, can potentially influence business dynamics across supply chains; hence,

P<sub>5</sub>: Consumer activist can dismantle the status quo of unethical and questionable business dynamics by demanding organizational policy change.

## MODEL ANALYSIS

Focal firms are those that are positioned at the end of the supply chain that have direct, or more direct, contact with end consumers and have power to influence policy-making across the supply chain. Too many focal companies claim CSR engagement, yet are permissive of non-socially responsible practices across their supply chains; therefore, for the study's purposes, the model contemplates unethical or questionable supply chain practices. Figure 9.2 depicts the conceptual model describing the effects of consumer awareness of supply chain practices and their self-concept on behavior.

Unaware consumers of unethical practices across the supply chain remain inactive in relation to firms' engagement in corporate social responsibility (P<sub>1</sub>). Given their lack of awareness, their self-concept is not relevant for a socially responsible purchase decision-making. Individuals' self-concept and self-image impact their preferences and purchase intentions because the former indicates how they perceive themselves and the latter suggests that "people are what they buy" (Rodriguez, 2015). If their self-concept is strongly aligned with ethics and social responsibility, then, the awareness of unethical and non-socially responsible practices



**Fig. 9.2** Self-concept effect on consumer behavior in response to supply chain practices (*Source* Author)

across supply chains impacts self-concept and leads to the proactivity on consumer activism ( $P_{2a}$ ) which, in turn, impacts their purchase decision-making ( $P_3$ ); for instance, upon awareness, these consumers may decide to switch brands to another which is perceived to be engaging in CSR. Furthermore, given their power, they may use their voice to dismantle the status quo of unethical and questionable business dynamics by demanding that firms change their policies ( $P_5$ ), actions and, ultimately, their results. However, if awareness of the unethical and non-socially responsible supply chain practices does not impact their self-concept, leading to consumers conformism ( $P_{2b}$ ), purchase decision-making remains unaltered, further perpetuating the status quo of the firm's unethical and questionable business dynamics ( $P_4$ ). In other words, they tolerate unethical practices, likely to satisfy a need that the product and/or service offers. Finally, the differences in dynamics of activist and conformist consumers illustrate the consumer paradox.

## CONCLUDING REMARKS

Organizational culture, defined by the values that guide organizational dynamics (Schneider et al., 2013), is informed by the firm's engagement, or lack thereof, in corporate social responsibility. Therefore, there is a problematic dissonance between focal firm's statements of CSR

engagement and the reality of supply chain actions. It is important to acknowledge that supply chains are not a cog in a machine; rather, they are a cog in society. As such, just like corporate social responsibility, they work through society, and for society. In the pursuit of executing strategies related to cost leadership, a series of alarming consequences are evidenced, across supply chains and industries, such as the unacceptable involvement of the private sector in the millions of workers in forced labor worldwide. Although malpractice, negligence, non-socially responsible, unethical, and illegal practices have been well documented, their awareness seems insufficient to drive change.

According to the International Labor Organization (ILO) (2016), decent and dignified work conditions are elemental to closing the poverty gap. In other words, illegal, degrading, and inappropriate working conditions have a direct correlation with a poverty-stricken population.

The latter seems to be no more than common sense; however, the reality is far from it. It should be clear that for activist consumers and firms engaged in CSR, a value chain is one that is ethical, sustainable, and socially responsible across the chain; in other words, it adds value in every stage of the chain by guaranteeing social well-being, and environmental protection. Moreover, as doing so will have a positive effect on financial performance, it is not only strategic, but also makes good business sense.

It may be argued that the current global health crisis has significantly disrupted, and in some cases devastated, global supply chains. Of course this has had a significant negative effect on the global economy; however, the somewhat more insidious part are the individuals that have been negatively impacted because of the supply chain breakdown. Yes, workers have lost their source of income because a part of the supply chain has stopped operations; however, they are being pushed into extreme poverty because the work conditions, pre-Covid-19, were already indignant. Therefore, it is no wonder consumers have been fighting for decades to end these practices by means of information dissemination and boycotting.

As consumers have substantial power to foster socially responsible actions, they can either be enablers or inhibitors of organization's active participation in, among other things, modern-day slavery. And, importantly, they and organizational leaders can take part in the co-creation of a truly socially responsible approach to doing business, rather than pursuing cost-effective, unethical, and irrational behavior, which has led to the hyper-normalization of abuse, extreme poverty, hunger, and inequality.

## FUTURE RESEARCH DIRECTIONS

Future research could study the relation between conformists' self-concept and the thought process behind their purchase decision-making in order to understand the low impact of awareness of firms' unethical practices on their behavior. Also, future research could analyze different unethical practices across supply chains to determine if there are degrees of unethical behavior and if these have different effects on consumer purchase decision-making. Finally, it would be interesting to study potential differences of conformists' behavior in relation to different industries and cultures.

## REFERENCES

- Achouri, M. A., & Bouslama, N. (2010). The effect of the congruence between brand personality and self-image on consumer's satisfaction and loyalty: A conceptual framework. *IBIMA Business Review*, 2010(627203), 1–16.
- Albino, V., Izzo, C., & Kühtz, S. (2002, July). Input–output models for the analysis of a local/global supply chain. *International Journal of Production Economics*, 78(2), 119–131.
- Amoako, G. K., & Dartey-Baah, K. (2020). Corporate social responsibility: Strategy for boosting brand perception and competitive advantage. In A. Kuna-Marszalek, & A. Klysik-Uryszek, *CSR and socially responsible investing strategies in transitioning and emerging economies* (pp. 65–78). IGI Global.
- Anti-Slavery International. (2020). *What is modern slavery?* Retrieved October 21, 2020, from <https://www.antislavery.org/slavery-today/modern-slavery/#:~:text=Modern%20slavery%20is%20the%20severe,as%20cooks%2C%20cleaners%20or%20nannies>
- Basak, R., Sural, S., Ganguly, N., & Soumya, K. G. (2019, April). Online public shaming on Twitter: Detection, analysis, and mitigation. *IEEE Transactions on Computational Social Systems*, 2(6), 208–220.
- Beamon, B. M. (1999). Designing the green supply chain. *Logistics Information Management*, 12(4), 332–342.
- Belk, R. W. (1988, September). Possessions and the extended self. *Journal of Consumer Research*, 15(2), 139–168.
- Brammer, S., Millington, A., & Rayton, B. (2007). The contribution of corporate social responsibility to organizational commitment. *The International Journal of Human Resource Management*, 18(10), 1701–1719.
- Bray, J., Johns, N., & Kilburn, D. (2011, February). An exploratory study into the factors impeding ethical consumption. *Journal of Business Ethics*, 98(4), 597–608.

- Chopra, S., & Sodhi, M. S. (2004). Managing risk to avoid supply-chain breakdown. *MIT Sloan Management Review, Fall*, 53–61.
- Council on Foreign Relations. (2020). *Modern Slavery*. Retrieved October 23, 2020, from <https://www.cfr.org/interactives/modern-slavery/#!/section1/item-1>
- Cousins, P. D., Lawson, B., Petersen, K. J., & Fugate, B. B. (2019). Investigating green supply chain management practices and performance: The moderating roles of supply chain ecocentricity and traceability. *International Journal of Operations & Production Management, 39*(5), 767–786.
- De Mooij, M., & Hofstede, G. (2011). Cross-cultural consumer behavior: A review of research findings. *Journal of International Consumer Marketing, 23*(3–4), 181–192.
- De Pelsmacker, P., Driesen, L., & Rayp, G. (2006). Do consumers care about ethics? Willingness to pay for fair-trade coffee. *The Journal of Consumer Affairs, 39*(2), 363–385.
- Devinney, T. M., Auger, P., & Eckhardt, G. M. (2010). *The myth of the ethical consumer*. Cambridge University Press.
- Dijksterhuis, A., Smith, P. K., van Baaren, R. B., & Wigboldus, D. H. (2005). The unconscious consumer: Effects of environment on consumer behavior. *Journal of Consumer Psychology, 15*(3), 193–202.
- Freedom United. (2020). *Freedom 101*. Retrieved October 9, 2020, from Learn: <https://www.freedomunited.org/freedom-university/what-is-modern-slavery/>
- Frostenson, M., & Prenekert, F. (2015). November). Sustainable supply chain management when focal firms are complex: A network perspective. *Journal of Cleaner Production, 107*, 85–94.
- Glickman, L. B. (2004, December). “Buy for the sake of the slave”: Abolitionism and the origins of American consumer activism. *American Quarterly, 56*(4), 889–912.
- Gonzalez, C., Korchia, M., Menuet, L., & Urbain, C. (2009, September). How do socially responsible consumers consider consumption? An approach with the free associations method. *Recherche et Applications en Marketing (English Edition), 24* (3), 25–41.
- Gonzalez-Jimenez, H. (2017, June). The self-concept life cycle and brand perceptions: An interdisciplinary perspective. *AMS Review, 7*(1–2), 67–84.
- Graeff, T. R. (1996, August). Image congruence effects on product evaluations: The role of self-monitoring and public/private consumption. *Psychology and Marketing, 13*(5), 481–499.
- Grubb, E. L., & Grathwohl, H. L. (1967, October). Consumer self-concept, symbolism, and market behavior: A theoretical approach. *Journal of Marketing, 31*(4), 22–27.

- Han, H., Yu, J., & Kim, W. (2019). Environmental corporate social responsibility and the strategy to boost the airline's image and customer loyalty intentions. *Journal of Travel & Tourism Marketing*, 36(3), 371–383.
- Hirschman, A. O. (1970). *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states*. Harvard University Press.
- Hogg, M. A. (2018). Social identity theory. In P. J. Burke (Ed.), *Contemporary social psychological theories* (pp. 112–138). Stanford University Press.
- Hugos, M. H. (2018). *Essentials of supply chain management* (4th ed.). Wiley.
- Ilaw, M. A. (2014). Who you are affects what you buy: The influence of consumer identity on brand preference. *The Elon Journal of Undergraduate Research in Communications*, 5(2), 5–16.
- ILO. (2016). *World employment and social outlook 2016: Transforming jobs to end poverty*. International Labour Office. Retrieved October 15, 2020, from [https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms\\_481534.pdf](https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_481534.pdf)
- ILO. (2017). *Forced labour, modern slavery and human trafficking*. Retrieved October 9, 2020, from Topics: <https://www.ilo.org/global/topics/forced-labour/lang-en/index.htm#:~:text=Out%20of%20the%2024.9%20million,labour%20imposed%20by%20state%20authorities>
- ILO. (2018). *Ending child labor by 2025: A review of policies and programmes*. Geneva: International Labour Organization. Retrieved October 10, 2020, from [https://www.ilo.org/wcmsp5/groups/public/---ed\\_norm/---ipec/documents/publication/wcms\\_653987.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---ipec/documents/publication/wcms_653987.pdf)
- ILO. (2020). *World employment and social outlook. Trends 2020*. Geneva: International Labour Office. Retrieved November 16, 2020, from [https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms\\_734455.pdf](https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_734455.pdf)
- James, F., & Shuttleworth, R. (2017). Chapter Three Susanna Watts and Elizabeth Heyrick: Collaborative campaigning in the Midlands, 1820–34. In A. O. Winckles, A. Rehbein, T. Fulford, & A. Vardy (Eds.), *Women's literary networks and romanticism: "A tribe of authoresses"* (pp. 47–72). Liverpool University Press.
- Jermstittiparsert, K., Siam, M. R., Issa, M. R., Ahmed, U., & Pahi, M. (2019). Do consumers expect companies to be socially responsible? The impact of corporate social responsibility on buying behavior. *Uncertain Supply Chain Management*, 7(4), 741–752.
- Lee, J., & Cho, M. (2019, March). New insights into socially responsible consumers: The role of personal values. *International Journal of Consumer Studies*, 43(2), 123–133.
- Li, S., Ragu-Nathan, B., Ragu-Nathan, T. S., & Subba Rao, S. (2006, April). The impact of supply chain management practices on competitive advantage and organizational performance. *Omega*, 34(2), 107–124.

- Mani, V., Gunasekaran, A., & Delgado, C. (2018). Enhancing supply chain performance through supplier social sustainability: An emerging economy perspective. *International Journal of Production Economics*, 195(C), 259–272.
- Margolis, J. D., & Walsh, J. P. (2003). Misery loves companies: Rethinking social initiatives by business. *Administrative Science Quarterly*, 48(2), 268–305.
- Meagher, S. (2020, February 5). *The not-so-hidden ethical cost of fast fashion: Sneaky sweatshops in our own backyard*. Retrieved October 9, 2020, from Retail: <https://www.forbes.com/sites/syamameagher/2020/02/05/the-not-so-hidden-ethical-cost-of-fast-fashion-sneaky-sweatshops-in-our-own-backyard/?sh=1d13844f25d1>
- Melé, J. A. (2009). *Dinero y conciencia. ¿A quién sirve mi dinero?* Plataforma Editorial.
- Moulds, J. (2017). *Child labour in the fashion supply chain. Where, why and what can be done* (T. Guardian, Ed.). Retrieved October 10, 2020, from Child Labor: <https://labs.theguardian.com/unicef-child-labour/>
- O’Cass, A., & McEwen, H. (2004, September). Exploring consumer status and conspicuous consumption. *Journal of Consumer Behavior*, 4(1), 25–39.
- Porter, M. E., & Kramer, M. R. (2006, December). Strategy and society. The link between competitive advantage and corporate social responsibility. *Harvard Business Review*, 84(12), 78–92.
- Richins, M. L. (1997, September). Measuring emotions in the consumption experience. *Journal of Consumer Research*, 24, 127–146.
- Roberts, J. A. (1993). Sex differences in socially responsible consumers’ behavior. *Psychological Reports*, 73(1), 139–148.
- Rodríguez, A. A. (2015). The image congruence hypothesis: A meta-analytic review. In H. E. Spotts, *Marketing, technology and customer commitment in the new economy. Developments in marketing science: Proceedings of the Academy of Marketing* (p. 173). Springer.
- Rosenberg, M. (1989, September). Self-concept research: A historical overview. *Social Forces*, 68(1), 34–44.
- Ross, I. (1971, January). Self-concept and brand preference. *The Journal of Business*, 44(1), 38–50.
- Schiffman, L. G., & Kanuk, L. L. (2004). *Consumer behaviour*. Prentice Hall.
- Schneider, B., Ehrhart, M. G., & Macey, W. H. (2013, January). Organizational climate and culture. *Annual Review of Psychology*, 64, 361–388.
- Schouten, J. (1991, March). Selves in transition: Symbolic consumption in personal rites of passage and identity reconstruction. *Journal of Consumer Research*, 17(4), 412–425.
- Serdarasan, S. (2013, November). A review of supply chain complexity drivers. *Computers & Industrial Engineering*, 66(3), 533–540.

- Shaw, D., & Clarke, I. (1999). Belief formation in ethical consumer groups: An exploratory study. *Marketing Intelligence & Planning*, 17(2), 109–119.
- Silvestre, B. S. (2015, June). A hard nut to crack! Implementing supply chain sustainability in an emerging economy. *Journal of Cleaner Production*, 96, 171–181.
- Sinha, I., & Batra, R. (1999, September). The effect of consumer price consciousness on private label purchase. *International Journal of Research in Marketing*, 16(3), 237–251.
- Sirgy, M. J. (1982, December). Self-concept in consumer behavior: A critical review. *Journal of Consumer Research*, 9(3), 287–300.
- Slaninova, G., & Stainerova, M. (2015, January). The Self-concept of Students—Formation and its Changes. *Procedia—Social and Behavioral Sciences*, 171, 257–262.
- Stevens, G. C. (1989). Integrating the supply chain. *International Journal of Physical Distribution & Materials Management*, 19(8), 3–8.
- Talluri, S., & Baker, R. C. (2002, September). A multi-phase mathematical programming approach for effective supply chain design. *European Journal of Operational Research*, 141(3), 544–558.
- The World Bank. (2020). *Poverty*. Retrieved November 9, 2020, from Understanding poverty: <https://www.worldbank.org/en/topic/poverty>
- U.S. Department of State. (2020). *What is Modern Slavery?* Retrieved October 19, 2020, from Office to Monitor and combat trafficking in persons: <https://www.state.gov/what-is-modern-slavery/>
- Verbeke, W., Vanhonacker, F., Sioen, I., Van Camp, J., & De Henauw, S. (2007, November). Perceived importance of sustainability and ethics related to fish: A consumer behavior perspective. *AMBIO: A Journal of the Human Environment*, 36(7), 580–585.
- Vinson, D. E., Scott, J. E., & Lamont, L. M. (1977, April). The role of personal values in marketing and consumer behavior. *Journal of Marketing*, 41(2), 44–50.
- Vitell, S. J. (2014). A case for consumer social responsibility (CnSR): Including a selected review of consumer ethics/social responsibility. *Journal of Business Ethics*, 130(4), 767–774.
- Wang, X., & Wood, L. C. (2016). The influence of supply chain sustainability practices on suppliers. In B. Christiansen, *Handbook of research on global supply chain management* (pp. 531–544). IGI Global.
- Webb, D. J., Mohr, L. A., & Harris, K. E. (2008, February). A re-examination of socially responsible consumption and its measurement. *Journal of Business Research*, 61(2), 91–98.
- Whalen, J., Pitts, R. E., & Wong, J. K. (1991). Exploring the structure of ethical attributions as a component of the consumer decision model: The vicarious versus personal perspective. *Journal of Business Ethics*, 10, 285–293.



- Zhang, Y. (2015). The impact of brand image on consumer behavior: A literature review. *Open Journal of Business and Management*, 3(1), 58–62.
- Zinkhan, G. M., & Hong, J. W. (1991). Self-concept and advertising effectiveness: A conceptual model of congruency conspicuousness and response mode. *Advances in Consumer Research*, 18, 348–354.



# Framework of Design-to-Market Business Modeling for Frugal Entrepreneurial Products

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## INTRODUCTION

The dynamic nature of the markets determines their entrepreneurial orientation, value proposition, and growth strategies. The business model of a firm helps in building organizational structure and drives the firm's performance and growth. Frugal innovation, which emphasizes low-cost technology-oriented products, has emerged as a contemporary style of innovation in Asia and the countries in the global south to provide value-added benefit to the customers. The major challenge in promoting frugal innovation is to provide need-based solutions and inculcate high perceived value among consumers. The principal value creators include

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low price products, robust, contemporary technology, easy-to-use, and value for money. Frugal innovation has a growth potential within the niche market that focuses on targeted large populations in developing economies (Hossain, 2021). The frugal solutions are locally developed and initially tested with local lead users who attract early adapters within the market proximities and explore larger markets in collaboration with the sponsoring companies. Strategic alliance with sponsoring companies has a major challenge of commercializing local innovations and upscaling them to fit to the demand in mass markets. Consequently, most frugal innovations in association with large companies tend to develop a commercial brand, and strategically fit it to a hybrid model embedded with marketing technology, enhanced capital resources, and media propagation, to scale up the innovations to match the requirements in the competitive marketplace. The frugal innovations are founded on the factors including cost, growing demand, sustainability, value perceptions, output demonstration, channelization, and effective leadership between the niche and upstream market players (Soman et al., 2012).

With advancements in technology, public policies, and public-private partnerships, frugal innovations have surged in consumer and industrial products in the newly targeted markets such as renewable energy products, consumer electronics and robotics, agriculture, and in the products of social health sectors. Frugal entrepreneurs develop such products in the resource-limitation environment by using appropriate bricolage strategies that ensures austerity to overcome the resource constraints. Consequently, the frugal innovation is nurtured in a resource-scarce environment by ensuring quality solutions at relatively lower prices than the commonly available products (Zeschky et al., 2014). There is an increasing consensus among entrepreneurs that frugal innovation needs to be promoted as an alternate stream of production to supplement the commercial innovation and provide value to the customers at the bottom-of-the-pyramid. Despite the social consciousness about frugal innovations, the major underlying challenge is of developing suitable market for them and their commercialization. The social dimensions of frugal innovations include collective intelligence, crowdfunding, and social governance perspectives, which focus on acquisition of technologies, developing innovation process, and promoting user-oriented product designs (Seles et al., 2019). Frugal innovation initiatives are based on the philosophy of providing customer-oriented services to enhance trust, loyalty, and differentiation to effectively position the brand in the marketplace.

Most research studies focus on developing frugal innovation in emerging economies, which has been conceived as an essential socio-economic productivity stream seeing the resource shortages, environmental damages, and plethora of entrepreneurial limitations. Consequently, the low-cost innovation using intermediate (homegrown) technologies have been the foundation of frugal concepts in product and services innovation. As such innovations aim to override high-value commercial innovations, they embed disruptive attributes with social value-generation perspectives (Bucherer et al., 2012). Sometimes, low-cost disruptive innovations compliment to new technologies that make the consumers adapt frugal innovations to derive value-added benefits. Such innovations, supported by the commercialization strategies, help in combining high-end products with design-to-market architecture helping frugal innovation to roll into mass markets. The sponsorship of large companies to commercialize frugal innovations transforms them from the stationary mode of marketing to dynamic business models considering the disruption as a competitive leverage (Soni & Krishnan, 2014). Frugal innovations, in collaboration with large companies, often transform into reverse innovation, which refers to market expansion rather than product penetration, with the purpose of enhancing the customer outreach and marketability of products. Consumers with conscious consumption value frugal lifestyle as a socio-economic attitude. The increasing trend of customers towards consumption of low-budget innovative products has persuaded entrepreneurs to engage in frugal innovations in developing markets (Hossain, 2018).

Developing frugal innovations in the social and economic context requires adapting to systems thinking approach, which integrates social, economic, and technological systems into entrepreneurial productivity. Systems thinking helps in enhancing innovation process by maximizing the effectiveness of resource utilization and marketability. The systems thinking approach explains networking of socio-economic attributes with business models to systematically measure the consumer needs, competitive advantages, and profitability (Nakata & Hwang, 2020). The local entrepreneurial practices with variability in the non-standardized product architectures and processes often obstruct the market performance of frugal innovation products. Therefore, entrepreneurial complexity, resource utilization, and design thinking can be synchronized through systems thinking approaches that can reduce the divergence of the product attributes. In addition, systems thinking reduces the extent

of passive acceptance of frugal innovation products in larger markets across socio-demographic segments, and streamlines the performance of perceived use value towards the low-cost technology products (Carayon et al., 2015). Systems thinking in entrepreneurship leads to design thinking process, which is based on the approach towards solving socio-economic problems and creating need for affordable innovations. The design thinking is associated with development of new products and services bridging the knowledge gaps, customer needs, and perceived use value for low-cost technology-oriented products. Therefore, the design thinking broadly encompasses a triadic design perspective comprising design-to-market, design-to-society, and design-to-value (Gruber et al., 2015).

The design-to-market strategy is based on the holistic approach to market integrating the strategies to optimize the values associated with customers, suppliers, and retailers. The design-to-market strategy is focused on end-to-end market designing, which requires systems approach and strategies to manage major externalities, technology change, and manufacturer-customer-retailer interface. The key challenge in developing and implementing design-to-market strategy is towards convergence of customer solutions and price-quality relationship to gain competitive leverage. In the absence of appropriate design-to-market strategy, the entrepreneurial products often fail in the competitive markets and are downplayed by the suppliers. Consequently, this strategy helps in integrating the backward and forward linkages, and enhancing customer value by providing affordable frugal solutions. Markets with major externalities pose higher threats to frugal innovation as changes in technology and market designs both cause value deteriorations among consumers for frugal products and services. Consequently, frugal innovations are confined to niche markets and face widespread failures in larger markets due to the lack of appropriate market design focused on end users. The design-to-market strategy focuses on enhancing end-user satisfaction and achieving competitive leverage to expand market outreach of frugal innovation products. This is an upthrust strategy for low-cost technology products to experience out-of-niche leap against commercially competing brands in larger markets (Labbe et al., 2015). In view of the above discussion, this chapter illustrates the attributes of frugal innovation, marketability, and entrepreneurial competitiveness in the dynamic marketplace. Converging the systems thinking approach with frugal innovation practices under the socio-economic ecosystem, this chapter emphasizes

design perspectives to marketing strategy. The strategic alliances of low-cost technology-oriented enterprises with large companies to push frugal innovations in upstream markets constitute the core discussions of this chapter. Broadly, this chapter lays foundation on the framework of design-to-market business modeling for frugal entrepreneurial products.

## MARKET COMPETITION

Large companies focus on outperforming their rivals by developing identical or similar products to gain market competitiveness by implementing marketing strategies for each element of marketing-mix. These companies intend to enhance their market share by developing brand loyalty. However, market competition also infuses the behavior of brand defection among consumers, which throws a more rigorous challenge to the firms. The market competition largely induces incremental improvements in cost and quality management besides providing fringe benefits to customers on marginal reduction in prices and increase in promotional benefits. Nonetheless, frugal innovations developed by small and medium enterprises fail to acquire a safe space to market their innovative products and grow consistently in the competitive marketplace. The frugal enterprises are often unable to break the competitive labyrinth in the marketplace as the frugal innovative products lack secured market space to create value among the niche consumer segments. Consequently, small and medium enterprises engaged in developing frugal innovations are pushed back to niche market environment. Such situations often drive these enterprises to cocoon their growth perspectives unless the commercialization of frugal innovations is supported by large companies. This path of entrepreneurial evolution requires both competitive and collaborative mindset to systematically develop alliances with large firms and explore opportunities. Taking frugal innovations to competitive markets with such alliances have a bidirectional effect on design and productivity, and development of markets with commercial branding. By doing so, the frugal innovative products can find liberal territories (non-competitive) that represent consumer preferences towards cost, quality, and value perspectives (Kim & Mauborgne, 1999).

The rise of small and medium enterprises (SMEs) engaged in developing low-cost innovation and technology products is often stimulated by public policies and social consciousness, which support resources and internal capabilities of firms. The cost-subsidies and tax holidays

provided under public policies in developing economies give a quick boost to the products of small and medium enterprises. Such support from public policies enables these enterprises to develop consortium of frugal innovative products and penetrate the competitive marketplace through umbrella branding initiative. These attributes require transformation, as the global dynamics on low-cost innovative products within the affordable brackets of consumers is rapidly changing. Large companies are fragmenting their brands categorically for upstream and downstream markets to compete with the frugal innovation products of SMEs. In pharmaceutical industry, most multi-national companies, like Pfizer, have fragmented their brands for many essential pharmaceutical products as Vitales (Mexico) to compete with the generic interchange (GI) pharmaceutical products. Therefore, SMEs are focusing their strategies on the value for money segment along with the strategies of brand enhancement to compete with multi-national companies and gain competitive leverage (Ramamurti & Williamson, 2019).

The market competition today is characterized with ultra-low-cost operations, speed of processing and delivery, flexibility, and customization of products and services. Social marketing strategy is followed in mobilizing frugal innovation products in their home markets (Ruz-Mendoza et al., 2021). The products developed in home grown markets require modifications to match with the customer needs in larger markets. SMEs need to periodically strengthen their technology and innovation capabilities in domestic research and development centers to increase their risk-absorbing capacity and develop markets in cutting-edge customer segments. In addition, brand development needs to be undertaken in market events and trade shows to educate customers and inculcate top-of-the-mind brand manifestation. Therefore, investment in brand building through periodical campaigns is an uphill challenge for the enterprises, which operate in low resources. The value for money concept helps in improving the scope of mass retailing in developing economies where frugal innovative products address to the bottom-of-the-pyramid market segment. However, it is essential to learn from mistakes in cross-market (upstream and downstream) management and integrate customization in deliverables to the customers (Santos & Williamson, 2015).

The major challenge for SMEs to compete in the competitive marketplace is to protect their customer niche against the large companies. The SMEs are characterized with disruptive and low-cost innovation products, and they try to play with pricing tactics to attract customers. However,

large companies downplay the marketing strategies of low-cost innovators and focus on omnichannel strategy to serve the predetermined target customers, which raises barriers for frugal innovation enterprises to penetrate the marketplace. The low-cost innovation enterprises need to focus on single consumer segment, deliver basic products, and provide the bottom-line benefits to support their low prices. Nonetheless, these strategies may not provide an opportunity for SMEs to sustain the business competition of branded products promoted by large companies. Eventually, large companies push back to eliminate the price rivals from the entire market segments. Since SMEs cannot sustain the price-war by lowering the profits, it would be a difficult proposition for frugal-innovation products to face the marketplace studded with the large companies with branded products. However, the low-price product enterprises constitute the market at the bottom-of-the-pyramid segment, which always provides scope of business for both low-cost and value-added players. The customer preferences and strategies of traditional businesses deploy transformational synergies for the enterprises engaged in manufacturing and marketing of low-cost and value-driven products in the bottom-of-the-pyramid market segment. The attributes of market competition in the context of market players and customer segments are exhibited in Fig. 10.1, which illustrates the strategy perspectives in convergence with the core attributes.

Market competition is a major concern for SMEs to grow against the large companies carrying out business with commercial brands. Consequently, the strategy foundation of these firms is laid on weak strategy canvas, which affects their market share and profitability. Although the competition-oriented theories suggest that market competition provides scope for improving efficiency and discouraging the managerial slackness, conventional thinking, and near negative effects. Figure 10.1 illustrates various dimensions of market competition on a comparative platform for SMEs and large companies including public enterprises.

The major challenges with SMEs are resource limitation and organizational practices of ownership control and conventional leadership. The large companies plan high investments through own resources or in combination with public equity to encourage research and development, and the approaches to commercialize innovation. The SMEs largely depend on crowdfunding, government finance, or subsidies. Such orientation of SMEs drives strategies towards maintaining low-profile business and gaining creditworthiness to strengthen quick payback possibilities



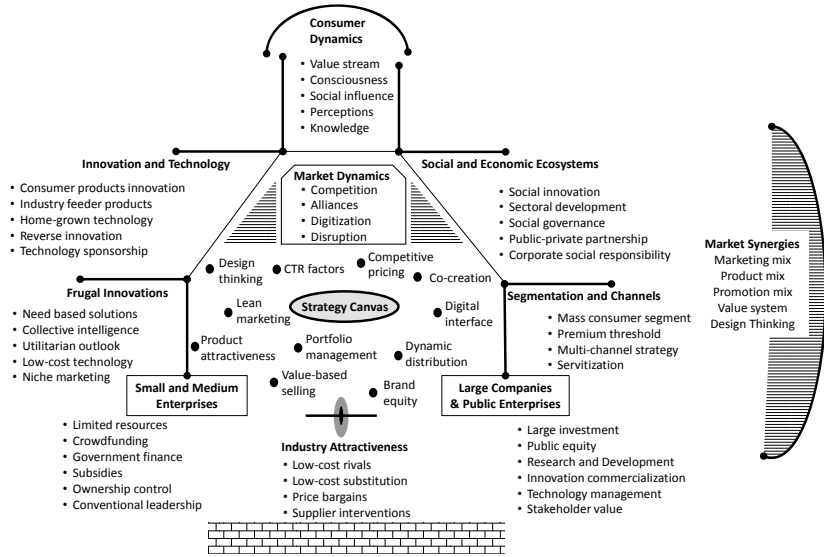


Fig. 10.1 Market dynamics and strategy canvas (Source Author)

(Pacheco et al., 2018). Consequently, these enterprises deviate from enhancing the stakeholder value as compared to the large firms, which have effective strategies to increase value propositions among the market players. However, industry attractiveness matters for both types of enterprises (SMEs and Large firms) to sustain industry competition and pave path to business growth and expansion. The low-cost rivals are not only sensitive to the bottom-of-the-pyramid consumer segment, but also have potential to alter the consumption behavior towards frugal innovative products over time. In addition, low-price substitutions, price bargain with customers and suppliers, and inflow of disruptive products constitute *halo effect*<sup>1</sup> in business performance, growth, and expansion.

SMEs focus on frugal innovations and low-cost technologies, while the large companies aim at technology management contextual to social and economic systems and its commercialization by structuring appropriate

<sup>1</sup> Halo effect refers to the tendency of impression created in one area to influence opinion in another area. Halo effect can be explained also in the context of butterfly effect.

segments and multi-channel marketing strategies. Frugal innovations are developed on utilitarian outlook by screening collective intelligence to provide need-based solutions within niche markets. In transitional economies, most SMEs are growing as suppliers of industrial feeder products than customer-centric product innovators. These enterprises use home-grown or intermediate technology, and intend to seek sponsorship of large companies to uplift the reverse innovations as commercial brands and operate beyond niche market scenarios. Large companies and public enterprises focus on social innovation through public–private partnership and corporate social responsibility. Large firms in competitive markets tend to exhibit value-based social performance to gain high corporate profile as profit-oriented competitive strategies often reduce social concerns. The competitive pressures force firms to increase their social innovation and development actions through corporate social responsibility within industry specification. Social performance of companies is a multi-dimensional strategy, which converges society and business relationships to achieve consistent business growth by improving social performance and socio-economic order of corporate ventures (Leong & Yang, 2020).

Consumer dynamics and market dynamics help in structuring market competition within the market ecosystem. Consumer dynamics incorporates value stream management, perceptions, knowledge, and behavioral perspectives within social consciousness and influence. Market competition, strategic alliances, technology and digitization, and disruptive practices drive market dynamics. By mapping consumer dynamics and market dynamics, strategy canvas can be designed using design thinking, lean marketing strategies, co-creation, and digital interface to develop synergy among market players in the competitive business environment (Buhl et al., 2019). In addition, the strategies on product attractiveness, portfolio management, dynamic distribution, price competitiveness, brand equity management, and value-based selling approaches constitute the front-end of strategy canvas. The cost, time, and risk factors play critical role at the backend of the canvas.

Strategy canvas for SMEs involves design thinking and value-based portfolio management along with creative selling and brand equity. However, these companies face a major challenge in developing competitiveness in the dynamic market space, and create collective value for innovations. As most products of SMEs emerge out of frugal innovation process, the competitive differentiation and creating mindset of

customers becomes methodically difficult due to unfamiliar brands and trade-off between substitute products with synchronized price-quality. Such entrepreneurial problems often remain obscure during the growth of SMEs in offering frugal products and services and breaking the function-emotional cognitive niche (Kim & Mauborgne, 1999). To overcome the challenges of marketplace competition, SMEs should create a positioning map of various factorial combinations such as price-benefit, product-value, and brand-quality. The positioning map can be created along with the following steps by:

- Defining the market holistically
- Understanding customer preferences on competing products and substitutes
- Tracking price-benefit stimulus to identify the primary and secondary benefits of the product
- Enhancing product attributes to justify variance in price and quality against the substitution products
- Mapping value perceptions of customers perceived on the product utilization and value-for-money
- Developing an attractive brand suitable to within the competitive landscape of given market and establishing the quality parameters to endorse brand value
- Highlighting price-premium in primary and secondary benefits on the product to generate customer value with an objective to achieve higher market share
- Building customers as referrals and gatekeepers to support continuous growth of the brand in competitive marketplace by optimizing price-benefit experience.

There are many ways to develop competitive maps using the above points of benefit to exhibit brand personality of frugal innovative products and position them in unoccupied or less crowded market spaces to stimulate protective growth. SMEs can identify virgin opportunities by locating the less competitive markets, and establish their market position by understanding the contextual attributes as discussed above to counter rival strategies and safeguard their market niche (D'Aveni, 2007). The nature of marketplace competition has changed from brick and mortar retailing to virtual departmental stores which are allowing the products

and services without prejudice of brand and size of the firm. The virtual competition is creating fierce fights across frugal brands of emerging companies including SMEs, start-up enterprises, and contract manufacturers. Many large companies have also drawn their products to the battlefield, which were developed as reverse innovation products with global–local strategic alliances. Consequently, the global marketplace for frugal innovative products is observing rapid movements in creating value through co-designing of products, and building agile marketing strategies including customization, delivery options, and post-sales services (Tang et al., 2021). In addition, the low-cost technology aims at enhancing customer leverage towards buying and adaptation of frugal innovation products. The agility in marketing strategies become a critical factor in managing the increasing competition among frugal innovation products developed by SMEs, start-up enterprises, and large firms. However, successful low-cost innovative products make headway in competitive marketplace following the triadic combination of rapid movements, agility in marketing strategies, and creating value. The combination of such strategies can be explained with a biomimicry illustration as Gannets’ strategy, which explains the precise and powerful action of sea diving birds in catching fish.

Most SMEs are unable to create blue ocean strategy with the pursuit of differentiation and low-cost to open new market space and create new demand because these companies enter into the red ocean full of competition and face complexities to survive (Kim & Mauborgne, 2005). Nonetheless, some frugal innovative products that are capable to adapt to Gannets’ strategy are able to survive the red oceans.

## DESIGN-TO-MARKET

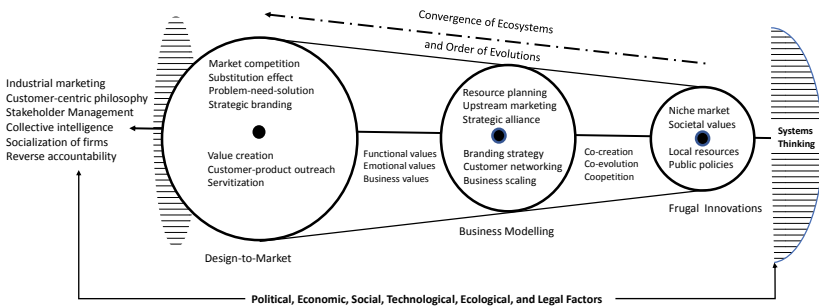
Developing marketing strategies by integrating functional market players, customers, and stakeholders is broadly considered as design-to-market philosophy. However, systems thinking is an organization-wide concept that embeds design thinking to enhance organizational performance and market competitiveness. Broadly, systems consist of people (customers, stakeholders, and front liners including sales and customer relation employees), technologies (low-cost, high-value, and hybrid technologies), organizational structures (vertical, horizontal, and team based), and processes (paper-based, seamless, and hybrid). These systems exhibit integrated functionality to make the business organizations viable and achieve

high competitiveness in the marketplace. Systems thinking approach has evolved within the operations research design by converging the design and management attributes (Norton, 2010). This approach has been extended to enhance organizational performance by involving stakeholders and customers. The systems thinking aims at understanding customer choices within the social and ecological ecosystems that establish a balance between business and marketing in competitive marketplace. Therefore, this approach is considered as a continuous learning stream for organizations to streamline the design thinking process and develop products and services within the broad framework of customer preferences. Systems thinking, combined with design thinking process, has been adapted by the organizational members of the society for organizational learning (SOL) since 1990s. The SOL members include Shell, Harley Davidson, Hewlett Packard, Xerox, and Nike along with others have initiated series of actions to find collaborative solutions to variety of sustainable issues that affect consumer preferences, social values, and corporate reputation. Consequently, design thinking is blended with corporate philosophy and collective intelligence driven from social resources. The systems thinking leads to design thinking process connecting conceptual, relational, and action-oriented systematic change in business (Senge et al., 2007).

Design thinking is an outgrowth of systems thinking, which has gained extensive attention in business, technology, and marketing management. The design-to-market approach is a recent sprout in dynamic global marketplace that tends to converge customer preferences, technology, innovations, and disruptions to develop an integrated market structure. The implementation of design-to-market approaches are sensitive to cost, time, adaptability, values, and revenue streams, measuring the competitive benchmarks, market share, and consistent profitability within the market and industry. Consequently, the design-to-market approaches are largely customized and may not fit all organizations varying in size of business and geographic expansion of markets. Nonetheless, this approach can be well nurtured right from the initial stages of business operations concentrating on providing customer solutions following contemporary management insights. The agile business frameworks, lean start-ups, and social innovations that are initiated by micro or large enterprises streamlining the scientific management methods like Six-Sigma, critical thinking, and Logical Framework Analysis help enterprises in administering the design-to-market strategy. This linear path to design-to-market strategy

assimilates the fundamentals of Six-Sigma (define, measure, analyze, implement, and control) leads to examine the voice-of-customers, critical to quality, design functions, and Quality Function Deployment (Beckman, 2020). Systems thinking must put forward new solutions to challenge market competition, customer values, and underlying social perspectives. This requires developing a multi-quadrant map comprising competition attributes, business influencers, innovation management, technology ecosystem, social diagnostics, and customer perceived value. In addition, transparency in communication in explaining the causes and effects of each quadrant of design-to-market strategy from the perspective of functional determinants (product, price, place, promotion, pace, performance, people, and psychodynamics) needs to be considered by the companies during the process of implementation. The attributes of design-to-market approach converging ecosystems and order of evolution of markets have been explained in Fig. 10.2.

Frugal innovations in the contemporary business environment are re-defined as low-cost innovations targeted for the unserved, lower end of the mass market (ULM). These innovations have grown from simplified form, which were initially focused on social consumption, to multi-dimensional markets with relatively complex designs embedding technology and augmented stakeholder values. Frugal innovations have moved out of the niche market today, carrying societal values to develop multi-dimensional and multi-utilitarian designs through low-cost and green architectural aspects (Hall & Vredenburg, 2003). Consequently, these aspects have shown strong growth in large emerging



**Fig. 10.2** Design-to-market business modeling: Evolution and ecosystem (Source Author)

economies including China and India in penetrating the mass consumer market with upscaling of business and collective recognition to the low-cost innovative products. The steep growth in low-cost mobile phone market in the communication industrial segment in India and China has established the social value of frugal products over the economic leverages and market competitiveness. Such shift has been stimulated by the social marketing model of low-cost innovative products through digital consumer communities and networking practices. Experience sharing and competitive benchmarking among customers have provided opportunities to the frugal companies to offer innovative solutions in the ULM by shifting the demand from large markets to the middle market segments (Govindrajan & Trimble, 2012).

The attributes of frugal innovation have been exhibited in Fig. 10.2, which illustrates the new dimensions of low-cost innovation supported by public policies and societal values despite resource limitations. The frugal innovations have rapidly reformed to new designs through co-creation, co-evolution, and co-competition (cooperative competition). These factors integrate systems thinking as an organizational tool in the process of developing frugal innovations, which stimulates business modeling and design-to-market approaches, as the frugal enterprises eventually switch from niche to larger operations (Guo et al., 2016). The business modeling for frugal innovative products is re-oriented towards upstream markets using business scaling, branding strategy, and customer networking. In addition, enterprises managing low-cost innovations explore strategic alliances with large companies to integrate production and marketing process with commercialization strategies. Such alliances also ease the resource limitations and help in restructuring of the production process. The convergence of business modelling with design-to-market approach is driven by functional, emotional, and embedded business values of the collaborating organizations. These values significantly contribute to design solutions and in creating inclusive markets. The transformation of frugal innovations from niche to broader markets enhances the scope of consumer economies spanning over the middle class and bottom-of-the-pyramid consumers. Consequently, the enhanced marketing opportunities help in creating inclusive growth by attracting large number of potential customers to the lower end of the market. The inclusive approach to frugal innovation has the attributes of overriding the social and economic constraints, bridging access to customers and markets, and implementing upscale business models (Lim & Fujimoto, 2019).

Design-to-market approach for frugal innovation products encompasses flexibility in product attributes, value propositions, and competitive benchmarks. These innovative products are set through the transition process from niche to larger markets through the stakeholder push (referrals) and pull (value for money propositions) strategies. However, it is often difficult for frugal innovative products to breathe through the multi-brand congestion in upstream markets causing structural setbacks within the enterprises. The design-to-market approach is substantially backed by digital marketing strategies, which are cost effective and are supported by AATAR model (Awareness, Attributes, Trial, Availability, and Repeat buying). Customers are attracted to launch-trials of low-cost technology products as the return policies support the customer perception on experimentation. The players in virtual retail marketplace like Amazon have encouraged low-cost technology products in an ULM segment by guaranteeing the return policy and safeguarding customer interest. The design-to-market approach protects frugal innovation products from dynamic fluctuations in the market competition and the substitution effect, as these products are oriented towards offering need-based solution with servitization approach. Consequently, the low-cost technology products are able to create socio-economic and personal values (self-esteem and self-actualization) among customers (Goldfarb & Tucker, 2019). However, the major challenge among frugal enterprises is to sustain profound impacts of changing customer preferences and hybrid technologies to protect the innovation value and create trade-offs between price-quality measures. Most enterprises tend to enter a new marketplace at low cost to ensure profitability and perceive high market share. This strategy reduces the firm's reputation in the competitive marketplace, which affects customer value and market competitiveness of the low-cost innovative products (Chen & Zhang, 2018).

Frugal innovations, business modeling, and design-to-market approaches are supported by systems thinking, which focuses on customer centric philosophy, collective intelligence, and socialization of firms. The stakeholder management is one of the major attributes of customer-centric philosophy, which empowers customers not only to offer new ideas in designing business models, but also to exercise reverse accountability. In successful frugal innovation enterprises, the stakeholders control the production and marketing process of customer-centric designed products. The stakeholders intervene in the business-process



improvement and question the leadership output. This process is identified as reverse accountability, which has become popular as a part of systems thinking approach and adapted by the large companies as well (Tetlock et al., 2013).

Design-to-market approach is evolved around design thinking consciousness in large private and public sector firms including not-to-profit organizations. The design thinking is largely dependent on the critical leadership ideas and organizational work culture, which encourages team culture and workplace autonomy. The design thinking methods are associated with cognitive ergonomics, emotions, and diligence. Design thinking requires cost savings, comprehensive project charter, clear deliverables, and value perceptions in developing a customer centric prototype and documenting the customer experiences and values associated with the innovative product. Consequently, the design thinking process needs to be familiarized within market players, stakeholders, and employees of the organization to synchronize the success through design-to-market philosophy (Bason & Austin, 2019). Design-to-market strategy has become an upstream approach in making new products aesthetically attractive by enhancing brand perceptions through SMART (Strategic, Measurable, Analytical, Responsive, and Timely) and stimulating communications. The design thinking, in association with design-to-market approach, focuses on the needs and desires of stakeholders in a technologically feasible and strategically viable business model. The design thinking process is not always smooth, as it is influenced by growth in technology, organizational cultures, and market trends. Therefore, brainstorming and consistency in prototyping are the major challenges to streamline the design-to-market strategies for low-cost innovative products. However, radical shifts emerging from market trends need to have smooth transition in the design thinking and design-to-market processes. The design-to-market strategy stimulates co-evolution of small entrepreneurial firms with large business organizations on various strategic alliances, which explains the double helix effect in exploring new opportunities, decision-making, and developing a synchronized design thinking process (Rajagopal, 2021).

## GENERAL DISCUSSION

The schematic discussion on design-to-market concepts explains that the characteristics of frugal innovation taking into consideration the acceptance of innovation-led products and services in the marketplace. Products and services based on frugal innovation enhance market competitiveness leading to entrepreneurial growth and performance. Market competition drives the firm's ability to respond to the changing market and consumer needs through effective management of constrained resources, competitive drivers, and inculcating hedonic vs utilitarian values. The emergence of consumer participation in the designing and evolution of innovative products and services leads to co-creation, which is implemented by many frugal innovation-led emerging enterprises. Consumers are being more conscious in their consumption patterns, where they lay importance not only social and environmental impact of their consumption habits, but also on the production process being sustainable. The frugal grassroots entrepreneurship is founded on co-creation, crowd-funding, and open technology platforms changing the market dynamics towards offering innovative, cost-effective, and readily available products and services (Prabhu, 2017). This chapter also outline strategies used for converging various approaches within the socio-economic ecosystem. Such strategies emphasize on the design-to-market and design-to-society perspectives in order to gain access to consumer's needs and preferences. While the implementation of such strategies is challenging, frugal innovation-led firms also face limitations in making the products and services cost-effective. The emerging economies and SMEs need to adopt bottom-up organizational models to implement a systemic change. Discussions on the design-to-market concept also highlights the importance of strategic alliances in large companies with emerging companies in order to establish frugal innovation-led products and services in upstream marketplace.

## LIMITATIONS AND FUTURE RESEARCH PERSPECTIVES

The limitations of this study open more avenues for future research, which have been discussed in this section. The study presents a conceptual framework, which can be analyzed using empirical research methods to gain in-depth comprehension of the design-to-market strategies for

frugal innovation-led enterprises. The study discusses the design-to-market approach for frugal innovative products based on the systems thinking approach. However, considering a design thinking approach will not only provide structured tasks for innovation-led new product development and services. In future, research may focus on considering design thinking approach based on the dynamic nature of consumer mindset leading to acceptance and promotion of innovation-led products and services. In view of the discussions in this study, the pursuit of sustainable growth by the frugal innovation-led enterprises induces challenges such as innovation scope definition, adequate stakeholder management, and implementation of consumer need-based approach. Future studies may focus on identification of consumer-centric and consumer need-based approach to confront complexities in the changing consumer needs.

## REFERENCES

- Bason, C., & Austin, R. D. (2019). *The right way to lead design thinking*. Harvard Business School Press.
- Beckman, S. L. (2020). To frame or reframe: Where might design thinking research go next? *California Management Review*, 64(2), 144–162.
- Bucherer, E., Eisert, U., & Gassmann, O. (2012). Towards systematic business model innovation: Lessons from product innovation management. *Creative Innovation and Management*, 21(2), 183–198.
- Buhl, A., Schmidt-Keilich, M., Muster, V., Blazejewski, S., Schrader, U., Harrach, C., Schäfer, M., & Süßbauer, M. (2019). Design thinking for sustainability: Why and how design thinking can foster sustainability-oriented innovation development. *Journal of Cleaner Production*, 231, 1248–1257.
- Carayon, P., Hancock, P., Leveson, N., Noy, I., Szelwar, L., & Van Hootegem, G. (2015). Advancing a sociotechnical systems approach to workplace safety – Developing the conceptual framework. *Ergonomics*, 58(4), 548–564.
- Chen, Y., & Zhang, T. (2018). Intermediaries and consumer search. *International Journal of Industrial Organization*, 57, 255–277.
- D’Aveni, R. A. (2007). Mapping your competitive position. *Harvard Business Review*, 85(11), 110–120.
- Goldfarb, A., & Tucker, C. (2019). Digital economics. *Journal of Economic Literature*, 57(1), 3–43.
- Govindarajan, V., & Trimble, C. (2012). *Reverse innovation: Create far from home, win everywhere*. Harvard Business Review Press.
- Gruber, M., de Leon, N., George, G., & Thompson, P. (2015). From the editors: Managing by design. *Academy of Management Journal*, 58(1), 1–7.

- Guo, J., Tan, R., Sun, J., Cao, G., & Zhang, L. (2016). An approach for generating design scheme of new market disruptive products driven by function differentiation. *Computers & Industrial Engineering*, *102*, 302–315.
- Hall, J., & Vredenburg, H. (2003). The challenges of innovating for sustainable development. *MIT Sloan Management Review*, *45*(1), 61–68.
- Hossain, M. (2018). Frugal innovation: A review and a research agenda. *Journal of Cleaner Production*, *182*, 926–936.
- Hossain, M. (2021). Frugal innovation and sustainable business models. *Technology in Society*, *64*. <https://doi.org/10.1016/j.techsoc.2020.101508>
- Kim, W. C., & Mauborgne, R. A. (1999). Creating new market space. *Harvard Business Review*, *77*(1), 83–93.
- Kim, W. C., & Mauborgne, R. A. (2005). Blue ocean strategy: From theory to practice. *California Management Review*, *47*(3), 105–121.
- Labbe, D., Ferrage, A., Rytz, A., Pace, J., & Martin, N. (2015). Pleasantness, emotions and perceptions induced by coffee beverage experience depend on the consumption motivation (hedonic or utilitarian). *Food Quality and Preference*, *44*(1), 56–61.
- Leong, C. K., & Yang, Y. C. (2020). Market competition and firms' social performance. *Economic Modelling*, *91*, 601–612.
- Lim, C., & Fujimoto, T. (2019). Frugal innovation and design changes expanding the cost-performance frontier: A Schumpeterian approach. *Research Policy*, *48*(4), 1016–1029.
- Nakata, C., & Hwang, J. (2020). Design thinking for innovation: Composition, consequence, and contingency. *Journal of Business Research*, *118*(1), 117–128.
- Norton, D. P. (2010). *A platform for strategy management*. Harvard Business School Publishing.
- Pacheco, D. A., Schwengber ten Caten, C., Jung, C. F., Navas, H. V. G., & Cruz-Machado, V. A. (2018). Eco-innovation determinants in manufacturing SMEs from emerging markets: Systematic literature review and challenges. *Journal of Engineering and Technology Management*, *48*(1), 44–63.
- Prabhu, J. (2017). Frugal innovation: Doing more with less for more. *Philosophical Transactions of the Royal Society A*, *375*. <https://doi.org/10.1098/rsta.2016.0372>
- Rajagopal. (2021). *Entrepreneurship, Education, and Economics: A Helix Effect on Business Growth*. In Rajagopal, & R. Behl (Eds.), *Entrepreneurship and regional development: Analyzing growth models in emerging markets* (pp. 3–24). Palgrave Macmillan.
- Ramamurti, R., & Williamson, P. J. (2019). Rivalry between emerging-market MNEs and developed-country MNEs: Capability holes and the race to the future. *Business Horizons*, *62*(2), 157–169.
- Ruz-Mendoza, M. A., Trifu, A., Cambra-Fierro, J., & Melero-Polo, I. (2021). Standardized vs. customized firm-initiated interactions: Their effect on

- customer gratitude and performance in a B2B context. *Journal of Business Research*, 133, 341–353.
- Santos, J. F., & Williamson, P. J. (2015). The new mission for multinationals. *MIT Sloan Management Review*, 56(4), 45–55.
- Senge, P. M., Lichtenstein, B. B., Kaeufer, K., Bradbury, H., & Carroll, J. S. (2007). Collaborating for systemic change. *MIT Sloan Management Review*, 48(2), 44–53.
- Seles, B.M.R.P., de Sousa Jabbour A.B.L., Jabbour, C.J.C., Latan, H., and Roubaud D. (2019). Do environmental practices improve business performance even in an economic crisis? Extending the win-win perspective. *Ecological Economics*, 163(C), 189–204.
- Soman, D., Kumar, V., Metcalfe, M., & Wong, J. (2012). *Beyond great ideas: A framework for scaling local innovations*. University of Toronto.
- Soni, P., & Krishnan, R. T. (2014). Frugal innovation: Aligning theory, practice, and public policy. *Journal of Indian Business Research*, 6(1), 29–47.
- Tang, Y., Zhang, S., & Peng, J. (2021). The value of marketing innovation: Market-driven versus market-driving. *Journal of Business Research*, 126(1), 88–98.
- Tetlock, P. E., Vieider, F. M., Patil, S. V., & Grant, A. M. (2013). Accountability and ideology: When left looks right and right looks left. *Organizational Behavior and Human Decision Processes*, 122(1), 22–35.
- Zeschky, M. B., Winterhalter, S., & Gassmann, O. (2014). From cost to frugal and reverse innovation: Mapping the field and implications for global competitiveness. *Research-Technology Management*, 57(4), 20–27.



# The Role of Digital Citizenship Behavior on Digital Marketing and Consumer Buying Behavior

*Subhasish Das and Manit Mishra*

## INTRODUCTION

The world has progressed from the industrial to the information epochs. The way people get information has changed as a result of recent technological advancements (1). While developing technologies have sped up the process of getting information, they have also increased the risk of data being misused and abused. Copyright infringement, unauthorized access, plagiarism, and intimidation have all been documented as a result of technological advancements (Coster & Sigalas, 2017). As a result,

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numerous researchers have recently focused on digital citizenship. Since the mid-1990s, the United Kingdom has been promoting digital citizenship. Digital citizenship entails more than just avoiding online dangers; it also entails creating a safe environment for online communities (Ribble & Bailey, 2007).

Digital marketing is a very vast concept and includes email marketing, mobile marketing, content marketing, social media marketing, search engine optimization, etc. It facilitates generation of leads, customer acquisition, customer engagement, improving brand awareness and, web user experience (Omar & Atteya, 2020). It uses digital channels to communicate directly to potential customers. Email, digital TV, and mobile phones have made this activity easy. The effect of digital channels on consumer behavior is still developing. Email has been a good channel for digital marketing (Dwivedi et al., 2020).

Consumers while buying engage in a series of steps such as problem recognition, information search, alternative evaluation, purchase decision, and post purchase behavior. It is essential to understand how components of digital marketing influence on the consumer buying behavior.

Consumer decision-making process is heavily affected by the customer's engagement on social networks. The rise of net platforms has accelerated the customers' behavioral changes related to information search and decision-making. Now the corporate has wide range of options to influence the customer like e-advertisement, social media marketing, etc. Therefore the corporate must change their approach of marketing. Therefore the corporate must focus on digital marketing to understand and influence netizens (Tiago & Veríssimo, 2014). But this focus would be appropriate only when the corporate know how and when digital marketing affects consumer buying behavior (Powers et al., 2012). This paper tries to explain this problem statement by examining the effect of digital marketing on customer buying decision process and understanding the role of digital citizenship behavior.

## LITERATURE REVIEW

Digital citizenship is defined by Ribble, Bailey, and Ross as “the rules of behaviour with reference to technology use.” Digital access, digital commerce, digital communication, digital literacy, digital etiquette, digital law, digital rights and responsibilities, digital health and wellbeing, and digital security were listed as nine elements of digital citizenship

(Coster, & Sigalas, 2017; Hollandsworth et al., 2011; Milenkova et al., 2020; Mossberger et al., 2007; Ribble, 2011; Ribble & Bailey, 2007; Ribble & Miller, 2013; Shelley et al., 2004). Digital citizenship refers to the use of the Internet and technology as rules, appropriate behavior, and participation in an online society (Choi, 2016). Ribble et al. (2004) define digital citizenship as the ethical, social, and cultural knowledge of concerns associated to technology use. This encompasses acceptable norms as well as the consequences of actively employing technology (Ribble et al., 2004).

Gazi (2016), Ohler (2011), Ribble and Bailey (2007), Ribble (2011, 2015), and Ribble and Miller, (2013) defined Digital citizenship as having appropriate online behavior, standards or codes of online actions, and responsible technology use. “Digital citizenship reflects our quest to help netizens, as well as ourselves, develop the skills and perspectives necessary to live a digital lifestyle that is safe, ethical, and responsible, as well as inspired,” according to the white paper “Digital Citizenship: A Holistic Primer,” coauthored by Impero Software and the directors of the Digital Citizenship Institute, Curran, Ribble, and Ohler (Impero Software & Digital Citizenship Institute, 2016, p. 2). The authors’ goal in producing this article was to “assist schools in better understanding and teaching digital citizenship” (p. 1). Digital citizenship is not a technological trend or a term for online-behavior rules; rather, it is a set of real-world challenges that affect all technology users, regardless of age or status (Snyder, 2016). Positive and poor online behavior are highlighted by nine elements (Ribble, 2011). Because of the maturity level required to participate with Web 2.0 tools, netizens are maturing at a faster rate than past generations (Ribble & Miller, 2013). As a result, all references to digital citizenship in this literature review will relate to an individual’s acceptable, ethical, and responsible use of technology in all elements of device use, websites, open-education resources, and document creation. This definition resulted from a review and combination of prior scholars’ definitions. To understand how education may decrease negative consequences and produce a better-rounded netizens. Junko and Ananou (2015) detailed the social, emotional, ethical, and cognitive influence technology has had on today’s learners. Netizens engage in proper online-behavior practises when educators stress digital citizenship in the educational setting (Chou et al., 2012). As a result, it is critical for educators to not only understand digital citizenship but also to incorporate sound practises into their technological training.



Digital access, digital commerce, digital communication, digital literacy, digital etiquette, digital law, digital rights and responsibilities, digital health and well-being, and digital security (and safety) are the nine characteristics of digital citizenship identified by Ribble (2011, 2015). Use of the Internet: The term “digital access” refers to having equal access to technical resources in order to fully participate in society, which includes making adjustments for those with disabilities. In the classroom, digital access can be used to assist netizens with impairments in accessing traditional curricular materials. Many studies, according to Choi’s (2016) concept analysis, attribute access to digital resources, also known as the digital divide, as a barrier to developing media and information literacy abilities as a citizen. Commerce on the Internet: The ability to acquire and sell goods online to encourage a globalized market for items is known as digital commerce (Curran & Ribble, 2017; Ribble, 2015). Netizens should be informed about the expenses of purchasing products online, such as more coins for a game or a new tablet application (Curran & Ribble, 2017).

Furthermore, when making online transactions, netizens must be aware of how their personal information might be compromised by using unsecure websites (Curran & Ribble, 2017). The way people connect through digital methods, as well as the flow and interaction of information received through technology, is referred to as digital communication. People who are lifelong learners, according to Uzunboylu and Hürsen (2011), change their behavior as a result of events in their personal and professional lives. Being a lifelong learner entails mastering skills like knowledge retrieval and knowing how to interact intelligently, appropriately, and efficiently utilizing technology like email and cell phones (Ozdamli & Ozdal, 2015). It may be more beneficial to focus on the desired message before selecting a tool to convey it via text, email, and social media applications like SnapChat and Twitter, or face-to-face (Curran & Ribble, 2017). Literacy in the Digital Age Digital literacy, also known as new literacies, media literacies, or information literacies, is an individual’s basic comprehension of computer functions and technology use, as well as their ability to apply digital skills to specific situations in order to participate in the online world (Curran & Ribble, 2017). For digital citizenship, new literacy skills are required (Simsek & Simsek, 2013).

The emergence of new literacy has improved access to reliable and creditable information, boosting one’s ability to share, compare, and

contextualize information through gaining new abilities (Simsek & Simsek, 2013, p. 133). Users' confidence in utilizing the Internet to access and assess information, as well as cooperate, collaborate, and interact with others, improves their self-efficacy with technology use (Aesaert et al., 2014; Simsek & Simsek, 2013). Digital etiquette is sometimes known as "netiquette," which refers to recognized rules for online behavior. Netiquette is a term that refers to online morals and ethics (Park et al., 2014). Cyberspace has its own set of rules that distinguish it from the real world and assist users in identifying what is and is not appropriate behavior when engaging in online activities (Park et al., 2014).

Organizations must have Acceptable Use Policies (AUPs), and people must understand when it is appropriate to use specific technology and gadgets in their personal and professional lives (Ribble, 2015). Understanding what constitutes unacceptable behavior and what constitutes a violation of actual laws is central to digital law, which is closely tied to concerns of intellectual property and copyright (Curran & Ribble, 2017). Furthermore, adopting a code of conduct for fair access, sharing, downloading, changing, or reusing digitally distributed material is part of digital law. Laws were enacted to ensure that people's rights were safeguarded and that those who behaved badly in digital environments were held accountable. Inappropriate online behavior includes developing and sharing computer viruses or hacking protocols, plagiarizing and distributing other people's work while claiming it as one's own, sharing files that should be paid for before use, creating and distributing unacceptable media such as child pornography, and actively pursuing and invading an individual's privacy. (Known as Internet stalking; Ribble, 2015).

Digital Well-Being and Health Digital health and well-being refers to an individual's ability to preserve physical and mental health while engaging in digital activities, as well as the recognition and acceptance that one can misuse technology vs the ability to strike a balance between online and offline lives. The disadvantage of this factor stems from the amount of time people spend staring at displays rather than moving around (Curran & Ribble, 2017). 65 percent of Americans use social media on a regular basis (Pew Research Center, 2015). With the widespread use of online platforms for amusement and connection, it is important to teach kids how to create good interpersonal relationships through digital communication and face-to-face encounters (Curran & Ribble, 2017).

Individuals utilize digital security methods, rules, and processes to guarantee that their Internet use does not negatively affect other elements of their lives. This section emphasizes the need for people to take precautions in order to protect themselves. Ensure that personal information is not compromised or stolen as a result of online interactions. People who practice good digital safety and security have habits and practices such as purchasing and installing virus protection on their computers, creating backup systems for valuable documents using external hard drives or cloud storage, and only sharing sensitive and personal information on sites with clear safety protocols (Ribble, 2015). Teachers must have specific computer security knowledge and expertise in order to understand and pass on unique computer security behaviors (Jagasia et al., 2015). Through the application of Ribble's (2015) Educators, netizens, parents, and legislators can develop knowledge of ethical, acceptable, and responsible usage of technology by using the nine principles of digital citizenship. Stakeholders can also determine what types of technology are unwanted, substandard, or unlawful in educational settings as well as in the larger, more open, networked, and globalized world. By focusing on key areas of technology use and integration, the nine factors give a framework for addressing difficulties. These elements should be taught throughout a Netizens's education to ensure that developmentally appropriate topics are presented at critical points in a Netizens's use of technology (Ribble, 2015). Many dangers exist through Internet access (Shillair et al., 2015); individuals should learn safe online behaviors at younger ages than ever before.

Internet safety education activities grew swiftly in response to public concern about the threats that adolescents confront while using new technology, but the direction of youth education in this area is changing as more is learned about young behavior and experiences. Digital citizenship includes three key online dimensions: higher pay (because of digital abilities), democratic engagement, and improved communication options. The term "digital citizenship" was first used to refer to internet access (e.g., "raising the number of teenage digital citizens") but it is now more commonly used to refer to safe and responsible online activity. of duty, rights, safety, and security (Hollandsworth et al., 2011). Others call it "proper technology usage" and "making safe, responsible, and respectful online choices." Digital citizenship education has been translated into curricula on the following topics: Internet safety, privacy and security,

relationships and communication, cyber bullying, digital footprints, reputation, self-image and identity, information literacy, and creative credit and copyright by a media education program. However, if digital citizenship is to become a new educational focus that is sold to schools, a lot of conceptual and evaluative work is required to ensure that its aims are well-defined and that its outcomes are successfully attained. Computer technology serves as a platform for content creation and delivery, allowing for faster creation and distribution of processing data (Ribble & Miller, 2013).

Digital marketing communicates information to the targeted customers through personal computers, mobile phones, and game consoles precisely (Jobber & Ellis-Chadwick, 2013). Not only for precise communication, is digital marketing also known for ease, convenience, appearance of variety of products, etc. The growing popularity and efficacy of e-marketing has attracted marketers toward digital marketing (Afzal & Khan, 2015). It is majorly supported by the social networking platforms.

Email is another tool of digital marketing, known for customized and timely reach ability to customer (Scharl et al., 2005). Email is quick and adjustable for various clients and is easily measurable (Davis, 2010). But email marketing also has a drawback of getting ignored by the recipient if the sender is unknown. Mobile marketing has evolved as a better media of marketing in the last decade. It is true to say that mobile has become an important gadget for everyone due to its multi-utility features (Haghirian et al., 2005). It is the interactive digital media of sending customized, location sensitive product information through customer-glued ubiquitous network (Kaplan, 2012). It is a set activity enabling organizations to communicate with the targeted customers in an interactive manner.

Mobile marketing facilitates organizations to target and retarget potential customers by influencing their decision-making process through customized product suggestions (Li et al., 2013). Cookie-based browsing data and server log files enable marketers to send more customized messages ever before (Trusov et al., 2016). The visitors of a website are labeled with cookies and the cookies are used for targeting or retargeting those visitors with customer product information. This has allowed marketers to send relevant real-time product information (Yaniv, 2008). On the other hand, consumer decision-making is one of the most dynamic process in marketing. Marketers often fail to understand it as understanding the customer decision process just like hitting the bulls eye (Kotler & Keller, 2012). The traditional consumer decision-making

model identifies need recognition, information search, evaluation of alternatives, and purchase and post purchase decision as the five stages of making decisions.

The need can be physical and psychological (Michael, 2006) and they can be divided into physiological, safety, social, esteem, and self-actualization (Maslow, 1954). Once the need is identified the customer searches information related to the need. In this process they get influenced by their own experience or external sources (Oliver et al., 2011). Customers look for information that provides options for solving or extra insights related to the product (Punj & Moore, 2009). The information so collected is assessed for its appropriateness, and evaluates the product on the basis of their hard and soft parameters. The hard parameters are attributes and the soft are the characteristics (Hallaq & Pettit, 1983). The evaluation process also gets influenced by the tangible and intangible benefits of the product (Ha, 2010). Once the information is evaluated the customer moves towards making decision for purchase. While deciding for purchase customers look at supplier with current real market prices (Palos-Sanchez & Saura, 2018). This is the stage where the customer performs a transaction on the planned product and supplier. But sometimes the customer end up with the unplanned purchase which is due to an impulse buy or a temping deal (Inman et al., 2009). The purchase stage is widely affected by accessibility of the information related to product and supplier (Hoyer & Macinnis, 2008). At last the customer tries to assess, whether the purchase satisfied the need or solved the problem they begun with. When the product meets the need of the customer it affects the brand loyalty (Ofir & Simonson, 2005).

## HYPOTHESIS OF THE STUDY

H1: Digital marketing affects consumer buying decision process.

H2: Digital citizenship behavior mediates the relationship between digital marketing and consumer buying decision process.

H3: Digital citizenship behavior moderates the relationship between digital marketing and consumer buying decision process.

**Table 11.1**  
Demographical profile

<i>Gender</i>	<i>Frequency</i>	<i>Percent</i>
Male	63	65.6
Female	33	34.4
Total	96	100

**Table 11.2** Age

<i>Age</i>	<i>Frequency</i>	<i>Percent</i>
Age ( $\leq 29$ )	31	32.2
Age (30–39)	22	23
Age (40–49)	29	30
Age ( $\geq 50$ )	14	14.8
Total	96	100

**Table 11.3** Construct validity

<i>Constructs</i>	<i>CR</i>	<i>AVE</i>	<i>MSV</i>
DM	0.89	0.85	0.61
DCB	0.83	0.91	0.348
CBB	0.91	0.8	0.233

## RESEARCH METHODOLOGY

This is a descriptive study. The respondents of the study are the netizens and 96 responses are complete in all aspects. Therefore sample size of the study is 96. Out of the 96 respondents 65 percent are male and rests are female. The respondents below 30 years of age are 31 percent, between 30 to 39 years of age is 22 percent, between 40 to 49 years of age is 29 percent and above 50 years of age is 14 percent (Tables 11.1, 11.2, 11.3).

## CONSTRUCT VALIDITY

The study measures construct such as digital marketing, consumer buying behavior, and digital citizenship behavior and are measured on the basis of scales developed by Khan and Jan (2019) respectively. The construct validity is measured on the basis of convergent and discriminant validity. Convergent validity is measured on the basis of composite reliability,

internal consistency, and average variance extracted (AVE). The values of composite reliability are found in between 0.89 and 0.91, and the internal consistency is found in between 0.85 to 0.93 and the values of AVE are found to be between 0.82 and 0.87. The discriminant validity is measured on the basis of cross loadings,  $AVE > MSV$  (maximum shared variance) criteria and Heterotrait and Monotrait ratio HTMT. It is observed from the analysis that, there were no cross loadings and the values of AVEs are greater than the MSV and the value of HTMT is 0.56 which is below the recommended value of 0.85 (Henseler et al., 2015).

## STRUCTURAL MODEL

Smart PLS is used to analyze the structural model which is a robust technique for analyzing complex structural models as well as in analyzing the mediation and moderation effects (Ringle et al., 2005). The fitness of the model is checked from the values of SRMR and NFI and Table 11.4 clearly indicates that they both are below the cut of ranges. Therefore the model is fit.

The path coefficients of the structural model and the bootstrapping results indicate that there is a significant positive effect of digital marketing on consumer buying behavior and digital citizenship behavior. The digital marketing has an effect of 0.579 behaviors on consumer buying behavior, Digital citizenship behavior has an effect of 0.42 on consumer buying behavior and digital marketing has an effect of 0.453 on digital citizenship behavior which is very much evident from Table 11.5.

The bootstrapping results from Table 11.6 indicate that digital citizenship behavior is only mediating not moderating the relationship between digital marketing.

**Table 11.4** Model fitness

<i>Fit indices</i>	<i>Obtained</i>	<i>Standards</i>
SRMR	0.047	< 0.06
NFI	0.96	> 0.90

**Table 11.5** Path model

<i>Relationship</i>	<i>Path coefficients</i>	<i>P-value</i>
DM → CBB	0.579	0.000
DCB → CBB	0.42	0.000
DM → DCB	0.453	0.000

**Table 11.6** Mediation and moderation

<i>Relationship</i>	<i>Original sample</i>	<i>Sample mean</i>	<i>SD</i>	<i>T Statistics</i>	<i>P value</i>	<i>Interpretation</i>
DM → CBB	0.475	0.474	0.089	5.324	0.000	Accepted
DM → DCB	0.402	0.414	0.113	3.558	0.000	Accepted
DCB → CBB	0.397	0.406	0.083	4.78	0.000	Accepted
Mediation (DM → DCB → CBB)	0.160	0.168	0.059	2.726	0.0007	Accepted
Moderation	0.046	0.046	0.048	0.952	0.342	Rejected

## CONCLUSION

The study concludes that digital marketing has a significant positive effect on consumer buying behavior and digital citizenship behavior. And digital citizenship behavior is mediating the relationship between digital marketing and consumer buying behavior. The study could not establish the moderation effect. Digital marketing has the highest effect of 0.579 on consumer buying behavior. It is evident from the study that digital marketing affects digital citizenship behavior and digital citizenship behavior in turn affects consumer buying behavior. The study establishes and accepts the hypotheses H1, H2 and could not establish H3. Marketers must consider digital citizenship behavior of netizens while planning and assessing the effect of digital marketing on consumer buying behavior as digital mediates the effect. Therefore, the marketers must know the psychology of the consumers especially towards digital citizenship and also focus on the change in their buying behavior to influence them through digital marketing. The netizens should also be made more aware of the need of being appropriate i.e., showing appropriate behavior while being online. They must act responsibly. The digitalization is capable of bringing positive change in behavior of consumers. The



greater the involvement of online customer greater change can be seen in their consumer buying behavior.

## REFERENCES

- Aesaert, K., Van Nijlen, D., Vanderlinde, R., & van Braak, J. (2014). Direct measures of digital information processing and communication skills in primary education: Using item response theory for the development and validation of an ICT competence scale. *Computers & Education*, 76, 168–181. <https://doi.org/10.1016/j.compedu.2014.03.013>
- Afzal, S., & Khan, J. R. (2015). Impact of online and conventional advertisement on consumer buying behaviour of branded garments. *Asian Journal of Management Sciences & Education*, 4, 125–135.
- Choi, M. (2016). A concept analysis of digital citizenship for democratic citizenship education in the Internet age. *Theory and Research in Social Education*, 44, 565–607. <https://doi.org/10.1080/00933104.2016.1210549>
- Chou, C. C., Block, L., & Jesness, R. (2012). A case study of mobile learning pilot project in K-12 schools. *Journal of Educational Technology Development and Exchange*, 5, 11–26. <https://doi.org/10.18784/jetde.0502.02>
- Curran, Marialice B. F. X., & Ribble, M. (2017). P-20 model of digital citizenship. *New Directions for Student Leadership*, 2017(153), 35–46. <https://doi.org/10.1002/yd.2022>
- Davis, J. A. (2010). *Competitive success, how branding adds value*. John Wiley and Sons.
- De Coster, I.; Sigalas, E. (2017). *Citizenship Education at School in Europe, Eurydice Brief*. Education, Audiovisual and Culture Executive Agency; European Commission.
- Dwivedi, Y. K., Ismagilova, E., Hughes, D. L., Carlson, J., Filieri, R., Jacobson, J., ... & Wang, Y. (2020). Setting the future of digital and social media marketing research: Perspectives and research propositions. *International Journal of Information Management*, 59, 102168. <https://doi.org/10.1016/j.ijinfomgt.2020.102168>
- Ha, J. (2010). Perceived values, satisfaction, and behavioral intentions: The role of familiarity in Korean restaurants. *International Journal of Hospitality Management*, 29(1), 2–13. <https://doi.org/10.1016/j.ijhbm.2009.03.009>
- Haghirian, P., Madlberger, M., & Tanuskova, A. (2005). Increasing advertising value of mobile marketing - An empirical study of antecedents. In *Proceedings of the 38th Annual Hawaii International Conference on System Sciences* (pp. 32–32). IEEE. <https://doi.org/10.1109/HICSS.2005.311>
- Hallaq, J., & Pettit, K. (1983). The relationship of product type, perceived evaluative criteria, and the order of consumption of the evaluation of consumer products. *Advances in Consumer Research*, 6(4), 600–604.

- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modelling. *Journal of Academy of Market Science*, 43(1), 115–135.
- Hollandsworth, R., Dowdy, L., & Donovan, J. (2011). Digital citizenship in K-12: It takes a village. *TechTrends*, 55(4), 37–47. <https://doi.org/10.1007/s11528-011-0510-z>
- Hoyer, W. D., & MacInnis, D. H. (2008). *Consumer behavior* (5th ed.). Cengage Learning.
- Inman, J. J., Winer, R. S., & Ferraro, R. (2009). The interplay among category characteristics, customer characteristics, and customer activities on in-store decision making. *Journal of Marketing*, 73(5), 19–29. <https://doi.org/10.1509/jmkg.73.5.19>
- Gazi, Z. A. (2016). Internalization of digital citizenship for the future of all levels of education. *Egitim ve Bilim*, 41(186), 137–148. Retrieved August 10, 2020 from <http://egitimvebilim.ted.org.tr/index.php/EB/article/viewFile/4533/2471>
- Jagasia, J., Baul, U., & Mallik, D. (2015). A framework for communities of practice in learning organizations. *Business Perspectives & Research*, 3, 1–20. <https://doi.org/10.1177/2278533714551861>
- Jobber, D., & Ellis-Chadwick, F. (2013). *Principles and practice of marketing* (7th ed.). McGraw-Hill Education.
- Junko, Y., & Ananou, S. (2015). Humanity in the digital Age: Cognitive, social, emotional, and ethical implications. *Contemporary Educational Technology*, 6, 1–18. Retrieved from ERIC database (EJ1105609)
- Kaplan, A. M. (2012). If you love something, let it go mobile: Mobile marketing and mobile social media 4x4. *Business Horizons*, 55(2), 129–139. <https://doi.org/10.1016/j.bushor.2011.10.009>
- Khan, M. F., & Jan, A. (2019). A measure of social media marketing: Scale development and validation. *Jindal Journal of Business Research*, 8(2), 158–168.
- Kotler, P., & Keller, K. L. (2012). *Marketing Management* (14th ed.), Pearson Education.
- Li, H., Xhang, S., & Wang, X. (2013). A personalization recommendation algorithm for E-commerce. *Journal of Software*, 8(1), 176–183. <https://doi.org/10.4304/jsw.8.1.176-183>
- Maslow, A. H. (1954). *Motivation and personality*. Harper.
- Michael, S. (2006). *Consumer behavior – A European Perspective*. Financial Times, Prentice-Hall.
- Milenkova, V., Keranova, D., Peicheva, D. (2020). Digital Skills, New Media and Information Literacy as a Conditions of Digitization. In *Applied Human Factors and Ergonomics (AHFEE 2019)* (pp. 65–72). Springer.

- Mossberger, K., Tolbert, C. J., & McNeal, R. S. (2007). *Excerpts from digital citizenship: The internet, society, and participation*. MIT Press.
- Ofir, C., & Simonson, I. (2005). The effect of stating expectations on customer satisfaction and shopping experience. *Stanford, Graduate School of Business*. <https://doi.org/10.2139/ssrn.678382>
- Ohler, J. (2011). Character education for the digital age. *Educational Leadership*, 68(5). Retrieved from <http://www.ascd.org/publications/educational-leadership/feb11/vol68/num05/Character-Education-for-the-Digital-Age.aspx>
- Oliver, H., Volschenk, J., & Smit, E. (2011). Residential consumers in the Cape Peninsula's willingness to pay for premium-priced green electricity. *Energy Policy*, 39, 544–550. <https://doi.org/10.1016/j.enpol.2010.10.012>
- Omar, A. M., & Atteya, N. (2020). The impact of digital marketing on consumer buying decision process in the Egyptian market. *International Journal of Biometrics*, 15, 120.
- Ozdamli, F., & Ozdal, H. (2015). Life-long learning competence perceptions of the teachers and abilities in using information-communication technologies. *Procedia-Social and Behavioral Sciences*, 182, 718–725. <https://doi.org/10.1016/j.sbspro.2015.04.819>
- Palos-Sanchez, P., & Saura, J. R. (2018). The effect of internet searches on forestation: The case of a green search engine. *Forests*, 9, 51. <https://doi.org/10.3390/f9020051>
- Park, S., Na, E., & Kim, E. (2014). The relationship between online activities, netiquette and cyberbullying. *Children and Youth Services Review*, 4274–4281. <https://doi.org/10.1016/j.childyouth.2014.04.002>
- Powers, T., Advincula, D., Austin, M. S., Graiko, S., & Snyder, J. (2012). Digital and social media in the purchase decision process. *Journal of Advertising Research*, 52(4), 479–489. <https://doi.org/10.2501/JAR-52-4-479-489>
- Punj, G., & Moore, R. (2009). Information search and consideration set formation in a web-based store environment. *Journal of Business Research*, 62(6), 644–650. <https://doi.org/10.1016/j.jbusres.2007.04.013>
- Ribble, M. (2011). *Digital citizenship in schools* (2nd ed.). International Society for Technology in Education.
- Ribble, M. (2012). Digital citizenship for educational change. *Kappa Delta Pi Record*, 48, 148–151. <https://doi.org/10.1080/00228958.2012.73401>
- Ribble, M. (2015). *Digital citizenship in schools: Nine elements all students should know* (3rd ed.). International Society of Technology in Education.
- Ribble, M. S., Bailey, G. D., & Ross, T. W. (2004). Digital citizenship: Addressing appropriate technology behavior. *Learning & Leading with Technology*, 32(1), 6–12. Retrieved by ERIC database (EJ695788).
- Ribble, M., & Bailey, G. (2007). *Digital citizenship in schools*. Technology in Education.

- Ribble, M., & Miller, T. N. (2013). Educational leadership in an online world: Connecting netizens to technology responsibly, safely, and ethically. *Journal of Asynchronous Learning Networks*, 17, 137–145.
- Ringle CM, Wende S, Will A 2005 SmartPLS 2.0 M3. [www.smartpls.de](http://www.smartpls.de)
- rran, M. X., & Ribble, M. (2017). P-20 model of digital citizenship. *New Directions for Netizens Leadership*, 2017(153), 35–46. <https://doi.org/10.1002/yd.20228>
- Scharl, A., Dickinger, A., & Murphy, J. (2005). Diffusion and success factors of mobile marketing. *Electronic Commerce Research and Applications*, 4(2), 159–173.
- Shelley, M., Thrane, L., Shulman, S., Lang, E., Beisser, S., Larson, T., & Mutiti, J. (2004). Digital citizenship. *Social Science Computer Review*, 22, 256–269.
- Shillair, R., Cotten, S., Tsai, H., Alhabash, S., LaRose, R., & Rifon, N. (2015, July). Online safety begins with you and me: Convincing Internet users to protect themselves. *Computers in Human Behavior*, 48, 199–207. <https://doi.org/10.1016/j.chb.2015.01.046>
- Simsek, E., & Simsek, A. (2013). New literacies for digital citizenship. *Contemporary Educational Technology*, 4, 126–137. Retrieved from ERIC database (EJ1105529).
- Tiago, M. T. P. M. B., & Veríssimo, J. M. C. (2014). Digital marketing and social media: Why bother? *Business Horizons*, 57(6), 703–708. <https://doi.org/10.1016/j.bushor.2014.07.002>
- Trusov, M., Ma, L., & Jamal, Z. (2016). Crumbs of the cookie: User profiling in customer-base analysis and behavioral targeting. *Marketing Science*, 35(3), 405–426. <https://doi.org/10.1287/mksc.2015.0956>
- Uzunboylu, H., & Hürsen, C. (2011). Lifelong learning competence scale (LLCS): The study of validity and reliability. *Hacettepe University Journal of Education*, 41, 449–460.
- Ververidis, C., & Polyzos, G. C. (2002). Mobile marketing using a location-based service. In *Proceedings of the First International Conference on Mobile Business*. Prentice-Hall.
- Yaniv, G. (2008). Sold on mobile marketing: Effective wireless carrier mobile advertising and how to make it even more so. *International Journal of Mobile Marketing*, 3(2), 86–91.



## Repulsion Effect: An Eye-Tracking Study

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Consumers often make trade-offs in their choices. For example, when choosing among two grills, Option A and Option B, a consumer may need to trade-off between cooking speed and cooking area. If both attributes are equally important and Option A is superior on cooking speed while Option B is superior on cooking area, the consumer encounters a choice conflict. If another Option C (decoy) is introduced in

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the set, and C is asymmetrically dominated by A (i.e., A is better on one attribute and at least as good on the other attribute) but not B (competitor), the consumer will tend to choose the dominating Option A (target). This finding, called the attraction effect (AE), is one of the most explored issues in the field of marketing. Studies have reported the AE in a large variety of substantive domains and with different methodological designs (e.g., Dhar & Simonson, 2003; Huber & Puto, 1983; Huber et al., 1982; Lehmann & Pan, 1994; Simonson & Tversky, 1992; Sivakumar & Cherian, 1995; Wedell & Pettibone, 1996). For example, research documents the AE in consumers' reactions to advertisements (Moran & Meyer, 2006), in supermarkets (Doyle et al., 1999), in general elections (Hedgcock & Rao, 2009; Pan et al., 1995), in lottery choices (Herne, 1999; Wedell, 1991), and in simple perceptual decision tasks (Trueblood et al., 2013). The AE also occurs with birds (e.g., starlings, hummingbirds, gray jays) and honeybees in their foraging and food consumption decisions (Bateson et al., 2002; Schuck-Paim et al., 2004; Shafir et al., 2002).

In contrast with these studies, we explore a certain condition in which the presence of an *asymmetrically dominated decoy increases the choice share of the competitor*—that is, the repulsion effect (see Huber et al., 2014; Simonson, 2014). Despite repeated research attempts throughout the years, the repulsion effect has proved elusive to find systematically (Simonson, 2014). The objective of the current study is to demonstrate the repulsion effect in a consistent and systematic manner. We show that for products with skewed attribute values (i.e., products that are rated exceptional on one attribute and mediocre on another, such as when Product A is rated exceptional on Attribute 1 and mediocre on Attribute 2 and Product B is rated slightly less exceptional than option A on Attribute 1 and slightly less mediocre on Attribute 2), the presence of an extreme asymmetrically dominated decoy favoring the target (i.e., Product C is rated exceptional on Attribute 1 but extremely poor on Attribute 2) results in the repulsion effect instead of the AE. We explicate this finding using numerical cognition research.

Next, we briefly review the AE literature (for recent reviews on the latest developments in AE literature, see Lichters et al., 2015; Sivakumar, 2016). Then, we elaborate on numerical cognition and investigate how numerical values of attributes may influence the repulsion effect. Finally, we report an eye-tracking study and conclude with a general discussion.

## LITERATURE REVIEW

### *Attraction Effect*

Research evidence suggests that consumer judgment and decision-making are context dependent (e.g., Huber et al., 1982; Mellers & Cooke, 1994; Simonson & Tversky, 1992). One of the most extensively studied context effects is the asymmetrically dominated decoy effect (Huber et al., 1982) or the attraction effect (AE). Consider two products, A (target) and B (competitor) with attributes  $A_1$ ,  $A_2$  and  $B_1$ ,  $B_2$ , respectively. If  $A_1$  is superior to  $B_1$  (e.g., 70/100 vs. 50/100) but  $A_2$  is inferior to  $B_2$  (e.g., 50/100 vs. 70/100), consumers have no clear reason to choose either option, especially if both attributes are equally important. However, introducing a third alternative (decoy) with attributes  $C_1$ ,  $C_2$  (e.g., 70/100, 40/100), such that it is dominated by the target but not the competitor, enhances the attractiveness of the target, and increases the target's choice share.

Although research has employed different theoretical accounts to explain the AE, Wedell and Pettibone (1996) subsume the explanations under three categories: (1) weight-change, (2) value-shift, and (3) value-added models. The weight-change model suggests that the weights assigned to the attributes change when a decoy is introduced but that the attribute values are not affected. The value-shift model argues that subjective values, or the attractiveness of the attribute values, are affected by the decoy but that the weights assigned to the attributes are not. Last, the value-added model suggests that the inferiority of the decoy to the target allows consumers to justify their choice.

Huber et al. (1982) explicate the value-shift model by using Parducci's (1974) range-frequency theory. Range-frequency theory proposes that the judgment of a stimulus's attribute values depends on its contextual distribution. Using their contextual position in the attribute space, research has examined three categories of decoys—range (R), frequency (F), and range–frequency (RF) (Fig. 12.1). The R decoy extends the range on the attribute on which the target is weak, while the F decoy increases the differences in ranks on which the target is superior. The RF decoy combines both aspects to manipulate the range and rank differences.  $R^*$  and  $F^*$  are extreme extensions of the R and F decoys. Extant literature has mixed empirical evidence about the efficacy of these decoys in attraction effect.

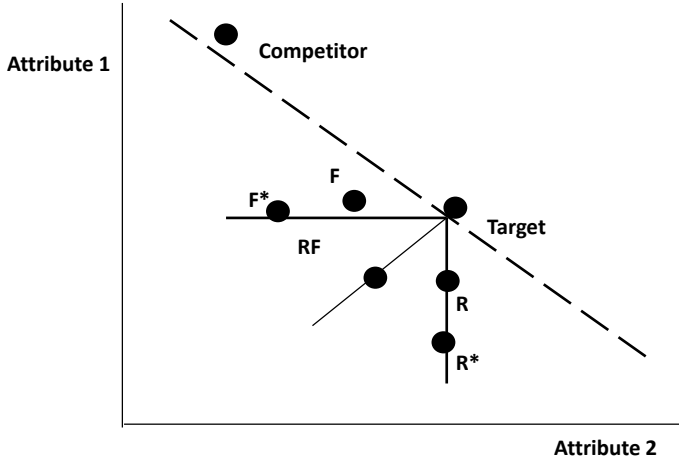


Fig. 12.1 Nomenclature of decoys used in studies

### *The Repulsion Effect, Numerical Cognition, and Attribute Values*

As we noted previously, the AE is robust and has been demonstrated across various domains in the nearly four decades years since its discovery. However, recently Frederick et al. (2014) and Yang and Lynn (2014) have questioned the generalizability of the AE to real-life situations, even finding evidence of a repulsion effect with some of their stimuli. While the idea that the asymmetrically dominated decoy might increase the choice share of a competitor instead of the target is intriguing, why this should happen is unclear. Simonson (2014) argues that a repulsion effect might occur is that the decoy taints that particular region of the attribute space, causing consumers to choose the competitor. However, researchers have been unable to find the repulsion effect consistently. An empirical issue that perhaps has made the repulsion effect elusive is that in designing the choice configuration, the choice shares in the control condition were so overwhelmingly in favor of the competitor that the introduction of the decoy did not change the distribution. To address this issue, we fine-tuned our choice set configuration on the basis of the findings from numerical cognition.

Numerical cognition examines the cognitive, developmental, and neural bases of numbers and mathematics. An important finding is that



consumers perceive a numeric magnitude inexactly (Dehaene, 2011). Numerical cognition research has argued for an analog mental representation of the numbers, such that the magnitude of numbers is classified as small, medium, or large on a mental number line (Dehaene, 2011). Possibly the strongest indication of a mental representation of numbers as magnitudes comes from the number comparison task. In their study, Moyer and Landauer (1967) argue that the response time participants take to discriminate between two numbers decreases with the numerical distance between them. For example, numbers that are far apart (e.g., 2 and 9) are more easily discriminated than adjoining numbers (e.g., 8 and 9). Consumers also display an effect of size, such that their discrimination of magnitudes at a fixed numerical distance (e.g., 10 and 20 vs. 90 and 100) reduces curvilinearly with increases in magnitude (Parkman, 1971). In other words, discrimination of magnitudes is more precise for smaller numbers but imprecision increases for larger numbers on the mental number line (e.g., Feigenson & Carey, 2005; Lipton & Spelke, 2004). These discriminability issues presumably arise from the imprecision in internal representations of numeric magnitude relative to the symbolic numbers (Izard & Dehaene, 2008; Rips, 2013). Several models exist to explain these phenomena, including the accumulator model (Gallistel & Gelman, 2000), the compressed-number-line model (Dehaene, 1992), and the numerosity-code model (Butterworth, 2011), and they make similar predictions about behavioral outcomes.

To summarize, extant research in numerical cognition suggests that (a) distant numbers are discriminated more easily compared to overlapping numbers, and (b) discrimination of magnitude of fixed numeric distance reduces with increase in magnitudes. Next, we extrapolate these findings to make specific predictions about the repulsion effect.

## CONCEPTUALIZATION

While studies on numerical cognition involve magnitude judgments on a single dimension, AE studies typically involve numeric values of two attributes. Furthermore, AE studies have a control condition in which one option is numerically superior to the other option on one attribute but inferior on the other attribute (i.e., neither option dominates the other). The experimental condition has an additional inferior option (decoy) with two attributes. Consumer decision-making in the control condition involves making a trade-off between the two options; the presence of

the asymmetrically dominated decoy in the experimental condition affects this trade-off. To maximize our chances of finding repulsion effect, we consider products with skewed attribute values (vs. balanced attribute values; Chernev, 2005)—that is, products rated as exceptional on one attribute and mediocre/poor on the other attribute. Our aim in choosing products with skewed attribute values is to reduce the role of trade-offs in consumer decision-making so that choice is heavily influenced by one attribute as findings from numerical cognition can be applied along a single dimension.

Consider, for example, a mouthwash with two attributes: germ-killing and decay-prevention effectiveness. Target A has superior germ-killing effectiveness (rated 10/10) but inferior decay-prevention effectiveness (4/10), while competitor B has inferior germ-killing effectiveness (9/10) but superior decay-prevention effectiveness (5/10). Note that the choice task involves resolving a one-point rating superiority of A on germ-killing effectiveness versus a one-point rating superiority of B on decay-prevention effectiveness. This trade-off between A and B is systematically affected by the introduction of an asymmetrically dominated decoy C, with the same germ-killing effectiveness rating (10/10) as A but a much inferior decay-prevention decay ability (1/10). Previous AE studies would suggest that this choice configuration would result in an attraction effect, such that the introduction of the decoy C would enhance the choice share of target A. However, in this research, based-on rationale from numerical cognition literature, we show that this type of choice configuration results in the repulsion effect.

Consider the attribute germ-killing effectiveness that has high ratings for all the products in the experimental condition: A has attribute rating 10/10, B has attribute rating 9/10, and C has attribute rating 10/10. Numerical cognition literature would suggest that as one goes further on the number line, the mental representation of larger numbers such as 9 and 10 has overlapping representation, and therefore the two would have low discriminability. Low discriminability across the ratings on this attribute (germ-killing effectiveness) does not help consumers in their decision-making (in both the control and experimental conditions) because both have excellent ratings (9 and 10). This situation would result in consumers ignoring this attribute in their decision-making. Now consider the second attribute, decay-prevention effectiveness, that has lower ratings for all products: A has 4/10, B has 5/10, and C has 1/10. In the control condition, participants compare just two values 4 and

5, and because their decision would be based largely on values of this attribute, many would choose Option B. In the experimental condition, consumers' decision would be based on three attribute values: 4, 5, and 1 for products A, B, and C, respectively. For the repulsion effect to occur, the choice share of B should be significantly higher in the experimental condition than in the control condition. We argue that the decoy acts as the point of reference and the perceived difference between the attribute ratings of 4 and 5 is enhanced compared with the control condition.

We adopt Holyoak's (1978) reference point model of subjective magnitude comparison to elaborate on how consumers process number triplets (as is the case if they focus only on one attribute). Holyoak's model suggests three processing stages for such comparisons (in addition to encoding and responses). In the first stage, consumers identify whether triplets are unilateral (i.e., all numbers in the comparison task are less than or greater than the reference point) or bilateral (i.e., one number is greater than the reference point, and one number is less than the reference point), as the distance estimation procedure from the reference point to these numbers depends on this conclusion. The second stage entails assessing the distance from each comparison digit to the reference point. In the third stage, the two derived distances are compared. In the illustration, the consumer will assess the triplets (e.g., 4, 5, and 1) as unilateral. In the second stage, the distances between the digits 4 and 5 from the reference point value 1 are computed, giving 3 and 4 as the answer. In the third stage, 4 is clearly identified as the greater of the two numbers. Recall that numerical cognition literature suggests that smaller numbers such as 3 and 4 have greater discriminability than more distant numbers such as 4 and 5. In other words, the presence of a low rating 1 in the set of attribute ratings (1, 4, and 5) affects the discriminability among the numbers. In the control condition, the difference is between 4 and 5, while in the experimental condition, because of the presence of the decoy as a reference point, the difference is between 3 (i.e.,  $4-1$ ) and 4 (i.e.,  $5-1$ ). Therefore, whenever an extremely poor decoy is introduced, the discriminability between the target and competitor is enhanced compared to control condition on the second attribute. Thus, the presence of the decoy results in greater discriminability (smaller numbers have greater discriminability) between the inferior attribute values and favors the competitor attribute rating (i.e., 5), resulting in increased choice share of the competitor (the repulsion effect) compared with the control condition.

## REPULSION EFFECT AND EYE TRACKING

In our numerical cognition-based explanation, we argue that participants ignore attribute 1 because of high values and focus on attribute 2. Furthermore, the extremely low value of decoy on the inferior attribute acts as a reference point and enhances the discriminability between target and competitor. Finally, because of enhanced discriminability competitor is chosen as it has the greater inferior attribute value. Thus, the aim of the eye-tracking study is to investigate the differences in cognitive processing as measured by eye tracking through gaze patterns. Gaze patterns, also known as saccades, are the rapid jumps of the pupils from one point to another. Saccades can provide information on whether attention is shifting from one area of interest to another and provide insight into the decision process (Kimchi et al., 2016; Krol & Krol, 2019; Yu et al., 2015). For example, in this study saccades can take three directions. First, horizontal movement between areas of interest would signify that the participant is comparing different attributes within a brand. Second, saccades that display vertical movement between areas of interest would indicate that the participant is comparing a given attribute between brands. This vertical movement should be the predominant pattern based on our categorization-based theorizing. The third possibility of diagonal movement between areas of interest would mean that the participant is moving between one brand-attribute combination to a different brand-attribute combination in a diagonal pattern. A dominance in one saccade pattern would provide information about the type of processing in which the person is engaging (Shi et al., 2013). We expect in the no decoy condition, due to the high values of attribute 1, the participants will move their attention to attribute 2 for decision-making which will result in more eye movement on attribute 2 than attribute 1. With the introduction of a decoy, participants will be expected to give more attention to the values in attribute 2 than attribute 1. Additionally, based on our proposed mechanism we expect in the presence of a decoy, participants will give more attention to attribute 2 of the competitor brand *y* compared to brand *x* and brand *z* (decoy). With this in mind, we investigated the differential impact of attention as measured by saccade patterns.

## METHOD

Three hundred and eight undergraduate students took part in this study for partial course credit. Participants were of age 18–35 years ( $M = 22.6$  years), and 61% were male. We collected the data using a high-frequency (120 Hz) eye tracker (Tobii T120) that collected raw eye-movement data points every 8.3 ms. The eye tracker is integrated into a 17-inch monitor wand with no visible eye-tracking device that might affect a participant's behavior. The eye tracker uses near infrared illumination to create reflection patterns on the viewer's cornea and pupil with two image sensors that capture images of the eyes. Participants came individually to the lab every ten minutes. After a calibration procedure, the eye-tracking recording began. The study was a 2 (choice: no decoy vs. decoy)  $\times$  2 (product: cell phone and laptop) mixed design. Choice was between-subjects, and products were within-subject. These products were chosen based on a pretest of products our test population were familiar with. As in the previous studies, the participants were randomly assigned to one of the conditions: with decoy or without decoy. The product had one superior attribute and one inferior attribute. Participants were asked to indicate their choice among brand x, brand y, or brand z (the decoy in the with-decoy condition). Attention check and demographic information were then collected.

## RESULTS AND DISCUSSION

Data came from 304 participants, 152 in the no-decoy condition and 152 in the decoy-present condition. All participants passed the attention check; however, the eye-tracking data were not fully recorded for all the participants who took part in the study, leading us to exclude 7 participants from the analysis. One participant chose the decoy for cell phones and two chose the decoy for laptops and were not included in the percentage computations of choice patterns. Repulsion was evident, with a significant increase in the choice of brand y in the decoy condition (55.8%) compared with the no decoy condition (34.5%;  $z = 5.13$ ,  $p < 0.0001$ ).

For the eye-tracking data, we defined non-overlapping areas of interest to regions of the choice table. We used areas of interest to determine eye-gaze movement (saccades). We coded and counted saccades in terms of whether the participant looked between products (vertical movement

between rows) and attributes (horizontal movement between columns) or moved from one product–attribute mix to a different product–attribute mix (diagonal movement to a different column and row). As expected in the no decoy condition, participants fixated more on attribute 2 than attribute 1 across the two brands *x* and *y* for both product categories. This is consistent with our argument that because of the presence of high values in attribute 1, decision-making is based primarily on attribute 2.

### *Difference in Saccades (Eye Movement Between Areas of Interest)*

We compared saccades (eye movements) of participants who saw the decoy (three brands) versus no decoy (two brands). The pattern of saccades provides a glimpse into the comparative cognitive processing that precede choice. We analyzed the number of saccades and direction of movement between these fixations. Nine participants were eliminated from this analysis due to incomplete saccade data capture resulting in 283 participants in this analysis. Based on our proposed mechanism we predict that greater comparison and thus saccades will occur in attribute 2 compared to attribute 1. As predicted there was a significant difference between the decoy and no-decoy condition in the number of vertical saccades as participants compared a given attribute between different products. In the vertical saccades, pupil fixation moved vertically between rows more when a decoy was present than when it was not present ( $M_{\text{decoy}} = 4.15$ ,  $M_{\text{no decoy}} = 3.26$ ;  $F(1, 282) = 5.06$ ,  $p = 0.03$ ). This suggests that the presence of decoy encourages an attribute-based processing than a product-based processing. When we analyze the change in attention (saccades) within a given attribute we found significantly more vertical saccades along attribute 2 for those exposed to a decoy ( $M_{\text{decoy}} = 2.35$ ) than those not exposed to a decoy ( $M_{\text{no decoy}} = 1.81$ ;  $t(283) = 4.22$ ,  $p < 0.001$ ), this is in line with our proposed mechanism of the decisional comparisons occurring within attribute 2. Also, of note, comparison of the number of saccades between attributes (between columns horizontally) in the decoy versus no-decoy condition yielded no significance ( $M_{\text{decoy}} = 3.34$ ,  $M_{\text{no decoy}} = 3.27$ ;  $F(1, 282) = 0.024$ ,  $p = 0.88$ ). This is consistent with a lack of product-based processing. The increase in saccades vertically along attribute 2 with the introduction of a decoy illustrates our proposed reference point model for the repulsion effect. In the decoy condition, participants' eyes shifted their attention

vertically more along attribute 2 ( $M_{\text{decoy}} = 2.35$ ) than attribute 1 ( $M_{\text{decoy}} = 1.80$ ;  $t(283) = 4.45$ ,  $p < 0.001$ ) as they compared the values of brand  $x$  and  $y$ . This pattern of attribute-based processing is consistent with our conceptualization that decision-making occurs primarily on attribute 2.

In summary, eye tracking revealed a difference in attention as measured by gaze patterns in the areas of interest and the shift of attention to attribute 2 as measured by saccades in the presence of a decoy. Saccade analysis revealed more saccades (attention changes) up and down attribute 2 as participants looked back and forth between the different values of the target brand ( $x$ ) and competitor brand ( $y$ ) in the presence of a decoy. The change in attention illustrates our proposed categorization model, which predicts a difference in decision-making that resulted in a shift in preference from brand  $x$  for the competitor brand  $y$  (repulsion effect). As fixed attention and saccades increased, participants nominally ruled out the decoy and assessed the distance from each comparison digit as they looked up and down within a given attribute, which favored the competitor (brand  $y$ ) attribute, resulting in the repulsion effect. This eye-tracker study provided evidence of the proposed mechanism of the repulsion effect.

## GENERAL DISCUSSION

In this study, we examine the elusive repulsion effect and provide evidence in support of the numerical cognition-based theorizing. Fredrick et al. (2014) note the lack of experimental research on the repulsion effect; however, over the years, several researchers have tried to systematically investigate the hypothesized repulsion effect, with limited success (Simonson, 2014). The reason the repulsion effect might be expected is that the added inferior option taints that region of the attribute space, making it repulsive and leading consumers to choose the other extreme. For example, an added cheap option of poor quality may lead consumers to opt for quality over price (triggering the rule “You get what you pay for”), though such theorizing is speculative without any experimental results to support it. Recent research has examined this tainting hypothesis in a perceptual decision-making task and demonstrated the repulsion effect with stimulus that assesses size of rectangles (Spektor et al., 2018). They find that both task complexity and arrangement of options on screen

determine the nature of the context effect. While the tainting hypothesis necessitates higher level reasoning processes, in rectangle size tasks decision-making is obviously based on perceptual processes. Furthermore, the perceptual context effects strongly differ from the choice context effects (Dutilh & Rieskamp, 2016; Trueblood & Pettibone, 2017), thus it seems unlikely that the processes underlying repulsion effect in perceptual tasks and choice are same.

## THEORETICAL CONTRIBUTION AND IMPLICATIONS

We build on the huge literature that has examined consumer choice processes, by introducing the role of attribute values using numerical cognition findings. This is especially important for context effect research because some theories (e.g., Parducci's [1974] range-frequency theory) have specified how different attribute values affect consumer judgment and decision-making. Consider, for example, the range decoy R (Fig. 12.1), which extends the range of the values on which the target is inferior, making the target look better and increasing its choice. Consequently, the extreme range decoy R\* should result in even higher choice share, but empirical research often does not find this. Perhaps the answer lies in the numerical discriminability of the attribute values as the higher adjoining attribute values have lower discriminability.

This research has certain limitations. A common criticism of most context effect research is that the products are not actually available and are often described only on two or three simple attributes with no identifying brand names (Fredrick et al., 2014). This criticism is applicable to our research as well. However, the objective of our research was such that we were forced to use such stimuli. Overall, we demonstrate the elusive repulsion effect using findings from a novel stream of literature (numerical cognition) that has hitherto not been explored in consumer choice literature.

## REFERENCES

- Bateson, M., Healy, S. D., & Andrew Hurly, T. (2002). Irrational choices in hummingbird foraging behaviour. *Animal Behaviour*, 63(3), 587–596.
- Butterworth, B. (2011). Foundational numerical capacities and the origins of Dyscalculia. In *Space, Time and Number in the Brain* (pp. 249–265). Academic Press.



- Chernev, A. (2005). Context effects without a context: attribute balance as a reason for choice. *Journal of Consumer Research*, 32(2), 213–223.
- Dehaene, S. (1992). Varieties of numerical abilities. *Cognition*, 44(1–2), 1–42.
- Dehaene, S. (2011). *The Number Sense: How the Mind Creates Mathematics*. OUP USA.
- Dhar, R., & Simonson, I. (2003). The effect of forced choice on choice. *Journal of Marketing Research*, 40(2), 146–160.
- Doyle, J. R., O'Connor, D. J., Reynolds, G. M., & Bottomley, P. A. (1999). The robustness of the asymmetrically dominated effect: Buying frames, phantom alternatives, and in-store purchases. *Psychology & Marketing*, 16(3), 225–243.
- Dutilh, G., & Rieskamp, J. (2016). Comparing perceptual and preferential decision making. *Psychonomic Bulletin & Review*, 23(3), 723–737.
- Feigenson, L., & Carey, S. (2005). On the limits of infants' quantification of small object arrays. *Cognition*, 97(3), 295–313.
- Frederick, S., Lee, L., & Baskin, E. (2014). The limits of attraction. *Journal of Marketing Research*, 51(4), 487–507.
- Gallistel, C. R., & Gelman, R. (2000). Non-verbal numerical cognition: From reals to integers. *Trends in Cognitive Sciences*, 4(2), 59–65.
- Hedgcock, W., & Rao, A. R. (2009). Trade-Off aversion as an explanation for the attraction effect: A functional magnetic resonance imaging study. *Journal of Marketing Research*, 46(1), 1–13.
- Herne, K. (1999). The effects of decoy gambles on individual choice. *Experimental Economics*, 2(1), 31–40.
- Holyoak, K. J. (1978). Comparative judgments with numerical reference points. *Cognitive Psychology*, 10(2), 203–243.
- Huber, J., Payne, J. W., & Puto, C. (1982). Adding asymmetrically dominated alternatives: Violations of regularity and the similarity hypothesis. *Journal of Consumer Research*, 9(1), 90–98.
- Huber, J., Payne, J. W., & Puto, C. P. (2014). Let's be honest about the attraction effect. *Journal of Marketing Research*, 51(4), 520–525.
- Huber, J., & Puto, C. (1983). Market boundaries and product choice: Illustrating attraction and substitution effects. *Journal of Consumer Research*, 10(1), 31–44.
- Izard, V., & Dehaene, S. (2008). Calibrating the mental number line. *Cognition*, 106(3), 1221–1247.
- Kimchi, R., Yeshurun, Y., Spehar, B., & Pirkner, Y. (2016). Perceptual organization visual attention and objecthood. *Vision Research*, 126, 34–51.
- Krol, M., & Krol, M. (2019). Inferiority, not similarity of the decoy to target, is what drives the transfer of attention underlying the attraction effect: Evidence from an eye-tracking study with real choices. *Working Paper*.
- Lehmann, D. R., & Pan, Y. (1994). Context effects, new brand entry, and consideration sets. *Journal of Marketing Research*, 31(3), 364–374.

- Lichters, M., Sarstedt, M., & Vogt, B. (2015). On the practical relevance of the attraction effect: A cautionary note and guidelines for context effect experiments. *AMS Review*, 5(1–2), 1–19.
- Lichters, M., Bengart, P., Sarstedt, M., & Vogt, B. (2017). What really matters in attraction effect research: When choices have economic consequences. *Marketing Letters*, 28(1), 127–138.
- Lipton, J. S., & Spelke, E. S. (2004). Discrimination of large and small numerosities by human infants. *Infancy*, 5(3), 271–290.
- Mellers, B. A., & Cooke, A. D. J. (1994). Trade-offs depend on attribute range. *Journal of Experimental Psychology: Human Perception and Performance*, 20(5), 1055–1067.
- Moran, S., & Meyer, J. (2006). Using context effects to increase a leader's advantage: What set of alternatives should be included in the comparison set? *International Journal of Research in Marketing*, 23(2), 141–154.
- Moyer, R. S., & Landauer, T. K. (1967). Time required for judgements of numerical inequality. *Nature*, 215(5109), 1519.
- Pan, Y., O'Curry, S., & Pitts, R. (1995). The attraction effect and political choice in two elections. *Journal of Consumer Psychology*, 4(1), 85–101.
- Parducci, A. (1974). Contextual effects: A range-frequency analysis. *Handbook of Perception*, 2, 127–141.
- Parkman, J. M. (1971). Temporal aspects of digit and letter inequality judgments. *Journal of Experimental Psychology*, 91(2), 191–205.
- Rips, L. J. (2013). How many is a zillion? Sources of number distortion. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 39(4), 1257–1264.
- Schuck-Paim, C., Pompilio, L., & Kacelnik, A. (2004). State-dependent decisions cause apparent violations of rationality in animal choice. *PLoS Biology*, 2(12), e402.
- Shafir, S., Waite, T. A., & Smith, B. H. (2002). Context-dependent violations of rational choice in honeybees (*Apis mellifera*) and gray jays (*Perisoreus canadensis*). *Behavioral Ecology and Sociobiology*, 51(2), 180–187.
- Shi, S. W., Wedel, M., & Pieters, F. G. M. (2013). Information acquisition during online decision making: A model-based exploration using eye-tracking data. *Management Science*, 59(5), 1009–1026.
- Simonson, I. (2014). Vices and virtues of misguided replications: The case of asymmetric dominance. *Journal of Marketing Research*, 51(4), 514–519.
- Simonson, I., & Tversky, A. (1992). Choice in context: Tradeoff contrast and extremeness aversion. *Journal of Marketing Research*, 29(3), 281–295.
- Sivakumar, K., & Cherian, J. (1995). Role of product entry and exit on the attraction effect. *Marketing Letters*, 6(1), 45–51.
- Sivakumar, K. (2016). A unified conceptualization of the attraction effect. *AMS Review*, 6(1–2), 39–58.

- Spektor, M. S., Kellen, D., & Hotaling, J. M. (2018). When the good looks bad: An experimental exploration of the repulsion effect. *Psychological Science*, 29(8), 1309–1320.
- Trueblood, J. S., Brown, S. D., Heathcote, A., & Busemeyer, J. R. (2013). Not just for consumers: Context effects are fundamental to decision making. *Psychological Science*, 24(6), 901–908.
- Trueblood, J. S., & Pettibone, J. C. (2017). The phantom decoy effect in perceptual decision making. *Journal of Behavioral Decision Making*, 30(2), 157–167.
- Wedell, D. H. (1991). Distinguishing among models of contextually induced preference reversals. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 17(4), 767–778.
- Wedell, D. H., & Pettibone, J. C. (1996). Using judgments to understand decoy effects in choice. *Organizational Behavior and Human Decision Processes*, 67(3), 326–344.
- Yang, S., & Lynn, M. (2014). More evidence challenging the robustness and usefulness of the attraction effect. *Journal of Marketing Research*, 51(4), 508–513.
- Yu, G., Xu, B., Zhao, Y., Zhang, B., Yang, M., Kan, J. Y. Y., Milstein, D. M., Thevarajah, D., & Dorris, M. C. (2015). Microsaccade direction reflects the economic value of potential saccade goals and predicts saccade choice. *Journal of neurophysiology*, 115(2), 741–751.



# A Study on the Impact of Case Study-Based Teaching Pedagogy in Marketing Education: An Analytic Hierarchy Process Approach

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## INTRODUCTION

Management education can be seen as a combined and integrated learning arena wherein the management graduates acquire a set of knowledge or information, skills or abilities, and ethics that they implement in their professional life. To create budding management professionals the main requirement is to reduce the gap between the theoretical knowledge and applied know-how (or between knowing and doing). Management

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schooling assists in snowballing the relevant potential skill set, problem-solving abilities, and performance aptitudes (Gersel & Thaning, 2020; Ungaretti et al., 2015) that help future managers to be more capable of performing in today's volatile, uncertain, complex, and ambiguous (VUCA) business ecosystem (Horney et al., 2010; Popova et al., 2018; Sarkar, 2016; Schoemaker et al., 2018).

Business Schools are continuously performing a great role to impart the relevant technical and behavioral knowledge to craft the future business and management professionals, but it also can be seen that many B-Schools are not able to match up to the obligations of the contemporary complex business world (Elmuti, 2004). With the rapidly changing time, business situations are becoming even more complex. In this context, the business wisdom, decision-making ability, and creativity approach can be useful to decode the complexity of the contemporary business environment to generate meaningful solutions. Thus, management and business education are transformed into a sought-after knowledge creation and decimation platform to be relevant in this competitive marketplace (Datore et al., 2011). The Graduate Management Admission Council, in their Global Management Education Graduate Survey (2015), has critically established that some skills are becoming indispensable to be more employable as future managers are "*Decision-Making Ability, Analytical Skill, Problem Solving Skill, and Creativity*", which has also been validated by Bloomberg Job Skills Report (2015). Marketing as a subject is very much practice-oriented wherein product decisions, branding, consumer insights, pricing, sales, and customer relations are based on various theories, the outcome orientation and reality is a pivotal aspect to it (Borin et al., 2008). Young (2002) defined "hands-on" and "minds-on" knowledge are extremely vital elements in the domain of the marketing professions. Therefore, all the B-schools engaged in imparting marketing management education must focus on augmenting the students' capability in this changing marketing environment.

Across continents, the different premier B-Schools are constantly researching how to link the marketing acumen to give it a practical perspective. The pedagogy is thus oriented in different forms in which case study, simulation, role play, and experiential learning is utilized to engage the young minds and catalyze their professional learning outcomes with higher students' engagement (Albert & Grzeda, 2015; Bakhru, 2018). The need for students' engagement is getting higher priority in the education sector (Langendahl et al., 2017; Singh et al., 2015; Sunley

et al., 2019). Search for the same case study is being used in marketing courses by premier business schools as an integral part of their teaching pedagogy since Harvard started with the same in the 1920s. The Case Study created teaching method helps in the long-term holding of knowledge of the theoretical concepts and its applications in generating the best solutions by addressing the case dilemma in connection with actual business decision seeking context (Bhattacharya & Chattopadhyay, 2019; Christensen & Carlile, 2009; Corey, 1998; Greenberg et al., 2017; Jain, 2005; Konst & Kairisto-Mertanen, 2020; Mesny, 2013).

The established and upcoming business schools in India too are increasingly adapting to the case teaching pedagogy for enhanced learning outcomes (Mukherjee, 2015, 2018; Roy & Banerjee, 2012; Tripathy, 2008). Case study development is not restricted to the analysis of the realistic situation the organization is going through but acts as an impetus to vivid research in the field of marketing. With the help of case teaching pedagogy, the B-Schools are trying to bridge the theories with the proper context and its relevance to the same (Bhattacharya & Chattopadhyay, 2019; Christensen & Carlile, 2009; Dixit et al., 2005; Matthew et al., 2019; Mesny, 2013; Matthews et al., 2011; Roy & Banerjee, 2012; Tripathy, 2008). The time is ripe to analyze the relevance of case teaching pedagogy in the marketing domain and its impact on the takers (Goebel & Humphreys, 2014; Koh, 2014; Shapiro et al., 2021; Sudhir & Unnithan, 2018). This has played an important role and motivated us to find out how the case study is used as a teaching pedagogy that evokes the response of the stakeholders (Mukherjee, 2015, 2018; Tripathy, 2008). Reputed Business Schools orient and brand the same toward simulating the practice behind the theory, thus discussion of the fundamentals is restricted and the application of the subject of discussion is considered relevant with the help of comprehensive teaching pedagogy.

The present study focuses on the benefits of case study teaching as pedagogy and the marketing acumen derived therein in an Indian context. This paper is an in-depth study on the same as the adoption of case-based teaching pedagogy is toward the practical orientation of management education and needs a comprehensive understanding of the fundamentals of the theory on which it is based. To validate our research, we have thought of the process to analyze the contribution of the case-based teaching methods with the help of empirical data in this age of complex and changing business ecosystems to create budding marketing professionals.

## LITERATURE REVIEW

The researchers in the domain of marketing education have argued that marketing skills or acumen depend on knowledge diversity and practical exposures along with experience and encounter with real-time problems relating to the marketing environment (Albert & Grzeda, 2015; Ellis & Waller, 2017). Marketing schooling as one of the important verticals in the domain of management education is extremely applied and very dynamic too (Albert & Grzeda, 2015; Ellis & Waller, 2017; Harrison & Ajjan, 2019; Madhavaram & Laverie, 2010; Rivera & Alarcón, 2018). Morgan and McCabe (2012, p. 142) have highlighted that “learning by doing” along with understating consumers’ buying behavior, as well as experience related to complex marketing procedures in the present situation, can significantly boost the marketing skills or acumen.

Eminent academic researchers have put their true effort into investigating the pedagogical challenges and issues to help the domain of management education and its learning outcomes. Some of the scholars have highlighted that the lecture-based pedagogy is one of the unsurpassed ways to distribute knowledge among the students (Burkill et al., 2008; Churchill and John, 1958; Griffin & Cashin, 1989; Roy & Banerjee, 2012), but some social scientists have demonstrated the faith that lecture-based pedagogy is the old schools of concept but learning by doing is the better approach in this complex learning environment to generate a higher learning outcome (Bauer et al., 2011; Fry, 2014; Gibbs, 1988; Joyce, 2012; Kolb & Kolb, 2009; Zhao & Jiang, 2009). In today’s teaching and learning environment outcome-based education is getting popular day by day (Borin et al., 2008; Davis, 2003; Kaliannan & Suseela, 2012; Saiful & Puteh, 2011). This is an alternative belief that problem-based education can boost the functional working knowledge and justify the relevance of the theoretical concepts pertaining to practical context (Hallinger and Jiafang, 2011; Brownell & Daphne, 2004; Carriger, 2015; Anderson & Lawton, 2005; Roh & Kim, 2015). But the case-based education pedagogy is serving the purpose of generating the linkage between decision-making skills, practical insights, and theoretical concepts along with long-term retention of knowledge of the ideas that are shared in class (Bhattacharya & Chattopadhyay, 2019; Christensen & Carlile, 2009; Dixit et al., 2005; Matthew et al., 2019; Mesny, 2013; Matthews et al., 2011; Roy & Banerjee, 2012; Tripathy, 2008; Goebel & Humphreys, 2014; Koh, 2014; Shapiro et al., 2021; Sudhir & Unnithan,

2018). This also motivates the students to develop a habit to see any particular problems with multiple perspectives to formulate a prudent decision related to the real-life business situation (Jain, 2005; Berrell et al., 2001; Dixit et al., 2005; Christensen & Carlile, 2009; Mesny, 2013). Case-based teaching pedagogy encourages critical thinking that can be considered as an effective method of marketing class instruction to improve in-depth thoughtful insight in marketing knowledge (Albert & Grzeda, 2015; Bhattacharya & Chattopadhyay, 2019; Mukherjee, 2018; Raya, 2017; Tripathy, 2008).

In today's marketing education some business schools in India already have started simulation-based teaching to help the students to comprehend the rational headway process to analyze problem-solving effectively by creating a replicated virtual condition (Farrell, 2020; Gundala & Singh, 2016; Tingley & Vrooman, 2020; Vos, 2015). But simulation and management simulation games as teaching pedagogy is a costly affair (Boet et al., 2013; Perry et al., 2011; Teng et al., 2019). Considering the cost aspect and technical aspect many business schools emphasize upon case teaching pedagogy to make the marketing education so relevant (Mukherjee, 2018; Neely & Tucker, 2013; Perry et al., 2011; Vos, 2014, 2015). Case study pedagogy can be very much useful in generating the decision-making skill abilities within the management students (Neely & Tucker, 2013; Novák et al., 2017; Peden & Eisenhart, 2010). Managerial Efficiency of the managers can be understood as the output and efficiency, that requires being conscious about the targets and determining a proper process to attain the target. In marketing, this is considered one of the main traits of any manager. Case study as the teaching pedagogy can boost the students to understand the different aspects of understanding the goal orientation and solution generation capabilities to be relevant with the marketing or sales targets (Christensen & Hansen, 1987; Jain, 2005; Shivakumar, 2012).

In this VUCA world, the role of business foresight of the business professionals can minimize the risk of uncertainties. The predictive analysis is always not true but the situation analysis and rational thinking can create a perspective of the situation analysis to deal with the current and future problems with the logical progression that can help managers to see the future on the base of the current market behavior (Kepner & Tregoe, 1976). The beauty of case study pedagogy is that future managers can grow with the right attitudes toward data (both numerical and behavioral)



analysis. Most of the modern marketing cases come with data interpretation part; this data analysis skills help them to see the business future by using the current situation. This habit grows with the interpretation of facts and figures discussed in any case to address the problem in the case (Gupta & Bharadwaj, 2013; Jackson, 2011; Jain, 2005; Matthew et al., 2019).

Analytical ability is another skill that is highly supported by case study pedagogy by finding the root cause of the actual problem from the different dimensions based on the business circumstances and available data related to the case. This analytical ability is one of the core skills needed within any potential manager (Bridgman et al., 2018; Brownell & Daphne, 2004; Hallinger & Lu, 2011). Regarding the concept of self-efficacy, Bandura (1982) has stated in research that “how well one can execute courses of action required to deal with prospective situations” indicates the individual strong perception related to job and commitment to perform within any organization. When the management students continuously solve numerous cases then they get the exposures to the many protagonist and leaders and their activities and commitments related to the organization success, which then consciously or unconsciously imbibes the skill of self-efficacy that grows with the individual’s commitment, that is, they learn the dos and don’ts that is considered as the typical exception of any business organizations (Bonney, 2015; Mukherjee, 2015, 2018; Tripathy, 2008; Yoon et al., 2006).

Problem-solving aptitude is one of the minimum requirements of any potential manager that has been voiced by Bloomberg Job Skills Report (2015). In the case-study analysis, students do focus on one of the widely used approaches to problem-solving which is SA-PA-DA-PPA (i.e., Situation Analysis, Problem Analysis, Decision Analysis, and Potential Problem Analysis) for deeper introspection of the problem domain to generate possible solutions (Kepner & Tregoe, 1976). The case-study teaching pedagogy tunes the students with the diverse problem areas of business that in turn motivates the students to generate the solutions. These exercises can be very useful to inculcate the problem-solving aptitude within the marketing management students (Gupta & Bharadwaj, 2013; Jackson, 2011; Jain, 2005; Mukherjee, 2018; Rennick & McKay, 2018; VanderZanden et al., 2008; Warnock & Mohammadi-Aragh, 2016). Creativity is another very essential ability of the new age managers which helps the managers to generate a unique approach to explain business situations and execute the prudent action points for business success.

Case study discussion in the classroom sessions motivate the students to produce creative solutions, and this nurtures the creative skill of the management students (Bhattacharya & Chattopadhyay, 2019; Mukherjee, 2018; Raya, 2017; Selkrig & Keamy, 2017; Xunyu, 2017).

Outlook India (2016) in their article “Are you Industry Ready?”, have critically pronounced a case study-based teaching approach that can link the theoretical concepts with the application relevance is considered a good step to make the students’ industry ready and job fit, which has also been supported by another article published in Times of India (2019) named “How does a B-school make students industry-ready?” Industry readiness is the amalgamation of all the different skills such as those the recruiters expect within the potential management graduate. The management students should exhibit decision-making ability, analytical skill, problem-solving skills, and creativity at the time of the job interview; case study pedagogy can help the management students to imbibe the aforesaid skills in tandem with each other (Bhattacharya & Chattopadhyay, 2019; Christensen & Carlile, 2009; Corey, 1998; Jackson, 2011; Mukherjee, 2018; Neely & Tucker, 2013).

The different scholarly studies in the domain of management education have tried to unfold the contributions of different management education pedagogy and their challenges too. Most of the studies have been done so far either based on the students’ responses or the teachers’ responses. The researchers have restricted their studies within few angles to it in an unintegrated way, and ranking of the learning outcomes is also rare. But our research is a bit different, which have thoughtfully attempted to unfold the different learning outcome in an integrated manner. This article has also tried to incorporate the opinion of marketing management students along with the voice of marketing management faculty members by using the analytical hierarchy process (AHP).

## ANALYTIC HIERARCHY PROCESS (AHP)

AHP, since it was first introduced as one of the efficient research tools, has been an effective way to process the data to generate multiple-criteria decision-making. This method was propagated by Thomas L. Saaty (1980) became very popular in scientific research. But in the domain of social science different researchers have started applying this tool for its simplicity and efficiency (Omkarprasad & Kumar, 2006). Many extraordinary research studies have been done in the domain of

social science by following the AHP; in marketing research the application of AHP is few but a growing phenomenon. AHP modeling can also be considered as a measurement procedure (Saaty, 1980, 1990) that constructs any compound, multi-periodical, multi-attribute, and multi-criterion into a structure hierarchical outcome to check the contribution of the different criteria or the attributes. In the AHP process relative priority scale is being used to capture the data on how one attribute or criteria is preferred over the other attribute or criteria by the responders and based on the responses, a matrix is formed to find the weights and sequence by following rules of normalization. AHP can deliver an organized framework and process to validate the weights and sequence for better decision-making and factfinding for any strategic marketing decision-making. In data capturing a different scale is being used (1–9 point scale/relative scale) which is as follows:

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Attribute 1	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Attribute 2
Attribute 2																		Attribute 3
Attribute 3																		Attribute 1

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The interpretation of the scale is as illustrated in Table 13.1.

### RESEARCH OBJECTIVES

The present study focuses on the benefits of case study teaching as pedagogy and the marketing acumen derived therein. The paper is an in-depth study on the same as the adoption of case-based teaching pedagogy is toward the practical orientation of management education and needs a comprehensive understanding of the fundamentals of the theory on which it is based. This study had intended to analyze how different B-schools in India are meaningfully using the case-based teaching pedagogy in producing high-impact skills within the potential marketing professionals. Another objective of this study was to see the need to focus on the different important learning outcomes that must be highlighted to generate a higher learning outcome in the domain of marketing education when the case study teaching pedagogy is a concern. To do that ranking of the different learning outcomes and skill set is essential, and the current study has tried to systematically analyze the empirical responses with a hierarchy process with a strong statistical model.

**Table 13.1** Interpretations to the attributes of the scale

<i>Intensity of importance</i>	<i>Definition</i>	<i>Explanation</i>
1	Equal importance	Two activities contribute equally to the objective
3	Weak importance of one over another	Experience and judgement slightly favor one activity over another
5	Essential or strong importance	Experience and judgement strongly favor one activity over another
7	Demonstrated importance	An activity is strongly favored and its dominance is demonstrated in practice
9	Absolute importance	The evidence favoring one activity over another is of the highest possible order of affirmation
2,4,6,8 Reciprocals of above nonzero	Intermediate values between the two adjacent judgements If activity $i$ has one of the above nonzero numbers assigned to it when compared with activity $j$ , then $j$ has the reciprocal value when compared with $i$	When compromise is needed

*Source* Authors

## METHODOLOGY AND ESTIMATION

The extensive literature review has helped this study to do find out the different attributes, criteria, and activities that may have an impact on generating higher learning outcomes by following the case study pedagogy within the marketing education domain that has been shown in Table 13.2.

After identifying the different variables which can address the current research we develop the questionnaire. After developing the questionnaire, we identified the premier B-Schools wherein case study is the main pedagogical methodology for imparting marketing sessions. Across India, we have identified 9 B-Schools that follow the case study method of teaching devotionally viz. IIMA, IIMB, IIMC, ISB, MDI Gurgaon, XLRI, IMT Ghaziabad, Great Lakes Chennai, SP Jain Mumbai. After

**Table 13.2** Dimensions and attributes

Case study teaching pedagogy	Bhattacharya and Chattopadhyay (2019), Christensen and Carlile (2009), Dixit et al. (2005), Matthew et al. (2019), Mesny (2013); Matthews et al. (2011), Roy and Banerjee (2012), Tripathy (2008), Goebel and Humphreys (2014), Koh (2014), Shapiro et al. (2021), Sudhir and Unnithan (2018)
Decision-making skill	Neely and Tucker (2013), Novák et al. (2017), Peden and Eisenhart (2010)
Managerial efficiency	Christensen and Hansen (1987, Jain (2005), Shivakumar (2012)
Business foresight	Jain (2005), Gupta and Shah (2013), Kepner and Tregoe (1976)
analytical ability	Bridgman et al. (2018), Brownell and Daphne (2004), Hallinger and Lu (2011)
Self-efficacy	Bonney (2015), Mukherjee (2015), Mukherjee (2018), Tripathy (2008), Yoon et al. (2006)
Problem-solving ability	Rennick and McKay (2018), Warnock and Mohammadi-Aragh (2016), VanderZanden et al. (2008), Mukherjee (2018), Jain (2005), Gupta and Bharadwaj (2013), Jackson (2011)
Creativity	Selkrig and Keamy (2017), Xunyu (2017), Raya (2017), Bhattacharya and Chattopadhyay (2019),Mukherjee (2018)
Attitude building	Gupta and Bharadwaj (2013), Jackson (2011), Jain (2005), Matthew et al. (2019)
Industry readiness	Bhattacharya and Chattopadhyay (2019), Mukherjee (2018), Jackson (2011), Christensen and Carlile (2009), Corey (1998), Neely and Tucker (2013)

Adopted from the Literature Review

identifying these B-Schools we collected a sample of 117 responses mostly from the faculty members and students maintaining the ratio of 1:12 (faculty: students). It took more than three months to capture the data by following the survey implementing the AHP-based questionnaire related to the implication of case teaching pedagogy in marketing education. In our research, we have used the analytical hierarchy process in finding the impact of the case study method application in the domain of marketing. The questionnaire was designed in the fashion of the Analytical Hierarchy Process (AHP) as per the requirements of questionnaire execution. The empirical data were collected from different course instructors across top business schools and the students. After getting the data the geometric

mean of the individual component was calculated to develop the AHP matrices. The entire methodology of AHP was then executed to assess the impact of the case study in the creation of marketing acumen. The findings of the present research have critically examined and established that there are three main dimensions of case teaching in marketing, viz. decision-making skill, managerial efficiency, and business foresight which are related to sharpening analytical ability, self-efficacy, problem-solving, creativity, attitude building, and industry readiness.

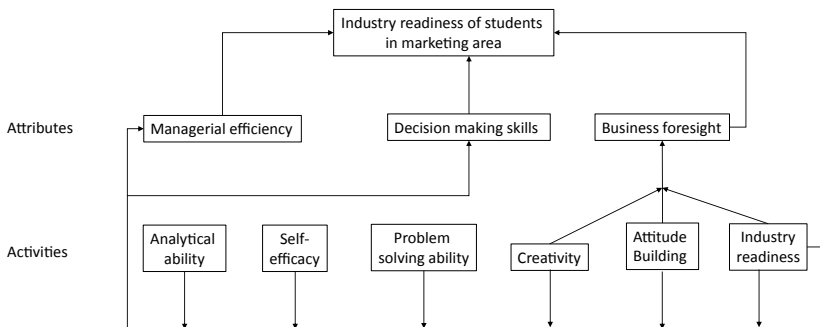
Likewise, we collected the judgments for the other variables like analytical ability, decision-making ability, problem-solving ability, creativity, attitude building, and industry readiness from the responders. Likewise, we collected the judgments for the other variables such as:

- Analytical ability,
- Self-efficacy,
- Problem-solving ability,
- Creativity,
- Attitude building, and
- Industry readiness.

The initial matrix was prepared by following the sample shown as below:

## RESEARCH MODEL

As per the research hypothetical framework depicted in Fig. 13.1, we have



**Fig. 13.1** Hypothetical framework (*Source* Authors)

**Table 13.3** Paired correlation judgments

Decision-making skill	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Managerial efficiency		
Managerial efficiency		9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Business foresight	
Business foresight			9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Decision-making skill

tried to see how the different learning activities performed by case study-based pedagogy to boost all the important skills like analytical ability, self-efficacy, problem-solving, creativity, attitude building, and industry readiness as specified by the scale used for this current research. And also, to see how the above-mentioned skills can jointly influence the three most important key domain abilities like decision-making skills, managerial efficiency, and business foresight for marketing students as to be more industry readiness. This model can also help to understand how the different skill sets can be followed by the different ranks on basis of responders’ opinions too.

### DATA ANALYSIS AND MODEL VALIDATION

The current research has followed some specific steps to gather and analyze the data that has been stated as follows.

*Stage 1:* in this stage, the responders’ trade-off judgments related to different skill nurturing scope through case-study pedagogy were plotted in the paired correlation matrix. As depicted over, the questionnaire was floated (as in Tables 13.3 and 13.4). The shown cell values in the above

**Table 13.4** Paired correlation matrix for Case study teaching pedagogy outcomes

<i>Attributes</i>	<i>Managerial efficiency</i>	<i>Decision-making skill</i>	<i>Business foresight</i>
Managerial efficiency	1		
Decision making skills	$1/\alpha_{12}$	1	
Business foresight	$1/\alpha_{13}$	$1/\alpha_{23}$	1

matrixes (as in Tables 13.3 and 13.4) where  $\alpha_{ij}$  and  $\beta_{ij}$  speak of the responders' opinions and judgments. Similarly, residual cells shown in the paired correlation matrix represent the opposite opinions and judgments (indicated as  $1/\alpha_{ij}$  and  $1/\beta_{ij}$ ) (Table 13.5).

*Stage 2:* in this stage, the consistency of the model was tested based on the responders' opinions and judgments. This cake of consistency was done through consistency ratio (CR), consistency index (CI), and upon random index (RI) as prescribed by Thomas L. Saaty (1980) and Forman, E. H. (2001).

Consistency Ratio = Consistency Index /Random Index

CI is computed as  $(\lambda_{\max} - N) / (N - 1)$  upon  $(N - 1)$  where  $N$  stays for number of measurements and  $\lambda_{\max}$  demonstrates the greatest eigenvalue:

$$CI = (\lambda_{\max} - N) / (N - 1)$$

Eigenvalues are scalars associated with an immediate course of action of numerical values (or a network correlation):

$$\lambda_{\max} = C_{JM1} \times R_{PM1} + C_{JM2} \times R_{PM2} + C_{JM3} \times R_{PM3}$$

wherein  $\lambda_{\max}$ , the maximum eigenvalue of a matrix;  $C_{JM1}$ , indicates the sum total of the column total of the responders' opinions matrix of the first column;  $R_{PM1}$ , row average of priority matrix of the second row;  $C_{JM2}$ , column total of responders' opinions matrix of the second column;

**Table 13.5** Paired correlation matrix for case study teaching pedagogy outcomes

<i>Attributes</i>	<i>Analytical Ability</i>	<i>Self-efficacy</i>	<i>Problem-solving ability</i>	<i>Creativity</i>	<i>Attitude Building</i>	<i>Industry readiness</i>
Analytical ability	1	$\beta_{12}$	$\beta_{13}$	$\beta_{14}$	$\beta_{15}$	$\beta_{16}$
Self-efficacy	$1/\beta_{12}$	1	$\beta_{23}$	$\beta_{24}$	$\beta_{25}$	$\beta_{26}$
Problem solving ability	$1/\beta_{13}$	$1/\beta_{23}$	1	$\beta_{34}$	$\beta_{35}$	$\beta_{36}$
Creativity	$1/\beta_{14}$	$1/\beta_{24}$	$1/\beta_{34}$	1	$\beta_{45}$	$\beta_{46}$
Attitude building	$1/\beta_{15}$	$1/\beta_{25}$	$1/\beta_{35}$	$1/\beta_{45}$	1	$\beta_{56}$
Industry readiness	$1/\beta_{16}$	$1/\beta_{26}$	$1/\beta_{36}$	$1/\beta_{46}$	$1/\beta_{56}$	1



**Table 13.6** Random consistency (RI) indices

N	1	2	3	4	5	6	7	8	9	10
RI	0	0	0.58	0.9	1.12	1.24	1.32	1.41	1.45	1.49

$R_{PM2}$  represents row mean of priority matrix of the second row;  $C_{JM3}$  indicates a total of the responders’ opinions column total of responders’ opinions matrix the third column, and  $R_{PM3}$  represents row mean of priority matrix of the second row. By following the same process other matrix values were calculated.

Then we have followed the method as prescribed by Saaty (1980) and square relatives of responders’ opinions were calculated. Similarly, the random consistency index (RI) was checked from Table 13.6.

$\lambda_{max}$	6.029
CI	0.0145
N	6
CR	0.0117

Consider  $[Ax = \lambda_{max}x]$  where A is the comparison matrix of size  $n \times n$ , for  $n$  criteria, also called the priority matrix.  $x$  is the Eigenvector of size  $n \times 1$ , also called the priority vector.  $\lambda_{max}$  is the Eigenvalue,  $\lambda_{max} \in \mathfrak{R} > n$ . To find the ranking of priorities, namely the Eigen Vector X.

In this model  $CR = CI/RI$ .

$0.010/0.58 = 0.017$  which is less than 0.10 that is signifying the robustness as prescribed by Thomas L. Saaty (1980).

From Table 13.7 this can be seen that on basis of responders’ opinions related to the contribution of the case study-based pedagogy is significant in nurturing skills like analytical ability, self-efficacy, problem-solving, creativity, attitude building and industry readiness. This can also be identified by the rank wise contributing in strengthening the skills; industry readiness is ranked first, self-efficacy ranked second, problem-solving ability ranked third, the analytical ability is ranked fourth, attitude building ranked fifth, and creativity ranked sixth after the first level of data interpretation. At the end of the analysis (see Table 13.8) this was found that managerial efficiency, decision-making skill, business foresight are supported by case pedagogy in marketing education. The relative rank of the managerial efficiency, decision-making skill, business foresight was

**Table 13.7** Normalized paired correlation matrix for the skill learned from case study pedagogy

	<i>Analytical ability</i>	<i>Self-efficacy</i>	<i>Problem-solving ability</i>	<i>Creativity</i>	<i>Attitude building</i>	<i>Industry readiness</i>	<i>Weight</i>	<i>Rank</i>
Analytical ability	0.113	0.154	0.042	0.156	0.293	0.098	0.143	4
Self-efficacy	0.144	0.196	0.376	0.329	0.100	0.138	0.214	2
Problem-solving ability	0.366	0.072	0.137	0.179	0.333	0.098	0.197	3
Creativity	0.065	0.054	0.069	0.091	0.053	0.250	0.097	6
Attitude Building	0.036	0.182	0.038	0.158	0.093	0.175	0.114	5
Industry readiness	0.277	0.342	0.338	0.087	0.128	0.241	0.235	1

found third, second, and first, respectively, in conjunction with analytical ability, self-efficacy, problem-solving, creativity, attitude building, and industry readiness.

### MANAGERIAL IMPLICATION

This article has so many managerial implications; firstly our study has critically examined the different dimension of managerial abilities which are required to perform well in the domain of marketing management and classroom is the best place to make sure all those necessary skills were required for doubling managers. The classroom environment is very imperative to you to bring out the real-time situations with the help of diverse management cases studies. The replication of the facts and circumstances which are common in today's business and marketing ecosystem motivate the student to connect the theoretical concepts and understanding. The application of the theoretical understanding can blend very well with the case study-based teaching pedagogy to imbibe the skills of a future manager like managerial efficiency, decision-making skill and business foresight. In an Indianized B-school learning environment the role of the faculty is also very important to select the very relevant cases

**Table 13.8** Normalized paired correlation matrix for skill-led management abilities

	<i>Analytical ability</i>	<i>Decision-making ability</i>	<i>Problem-solving ability</i>	<i>Creativity</i>	<i>Attitude building</i>	<i>Industry readiness</i>	<i>Final score</i>	<i>Rank</i>
Managerial efficiency	0.223	0.496	0.143	0.193	0.508	0.481	0.355	3
Decision-making skill	0.078	0.318	0.44	0.069	0.332	0.32	0.285	2
Business foresight	0.699	0.186	0.417	0.738	0.16	0.199	0.358	1

in class discussion that would be very affirmative to increase the engagement label of the marketing management students that would inspire the student to use their analytical abilities, creativity, problem-solving abilities which would, in turn, help the future managers reducing the gap in between the practical environment and theoretical concepts. Thus, the motive of the case study-oriented teaching will be fulfilled in generating a sense of self-efficacy; creativity will be enhanced and Indian marketing management students will be more industry ready. This article creates the opportunity for the faculty members across the different B-schools in India, who put their effort to create the perspective of the students related to the different consequences and to reduce the biases of a false assumption. The faculty members need to be very particular in the selection of the management cases which would be much relevant and also blended with different exercises to nurture managerial efficiency, decision-making skill, and business forecasting.

## CONCLUSION

The managers graduating from the B-Schools have to engage themselves in critical and crucial decisions hence their intellectual acumen as regards their spontaneity in decision-making and the prudence in the same is the need of the corporate management hierarchy. This tests the efficiency of the managers in the decision-making process and the foresight value of their thought process and the practical boldness of their decisions are judged when they are encompassing a Catch 22 situation. It is in this context the above three parameters, viz. decision-making skill, managerial efficiency, and business foresight is to be developed which is the outcome of the individual's ability to analyze the situations considering the pros and cons of every dimension of the same; the efficiency of handling complex situations, i.e., self-efficacy, how to overcome the hurdles that come in the way of business and self, i.e., problem-solving, the balance between the logic and emotions and nurturing the same sophisticatedly using the creative bent of mind, development of positive attitude and will power to come out winning the different situations. This all impacts the industry readiness to handle the different marketing situations by going into the core of the matter and easing out the complexities and the bottlenecks for a simple solution to the cumbersome real-life situations that a marketing professional is constantly exposed to either internally or externally.

## REFERENCES

- Albert, S., & Grzeda, M. (2015). Reflection in strategic management education. *Journal of Management Education, 39*(5), 650–669.
- Anderson, P. H., & Lawton, L. (2005). The effectiveness of simulation exercise for integrating problem-based learning in management education. *Developments in Business Simulation and Experiential Learning, 32*(1986), 10–18.
- Bakhru, K. M. (2018). Aligning teaching methods for learning outcomes: A need for educational change in management education using quality function deployment approach. *International Journal of Learning and Change, 10*(1), 54–69.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37*(2), 122–147.
- Bauer, C., Viola, K., & Strauss, C. (2011). Management skills for artists: “learning by doing”? *International Journal of Cultural Policy, 17*(5), 626–644.
- Bhattacharya, S., & Chattopadhyay, S. (2019). Eliminating thought boundaries through fiction movies and books. *South Asian Journal of Business and Management Cases, 8*(3), 324–334.
- Boet, S., Everett, T., Gale, M., Lai, A., Haligua, A., & Bould, D. (2013). Learning crisis management: Practicing versus an observational role in simulation training—A randomized controlled trial. *Anaesthesia Critical Care & Pain Medicine, 35*(4), 275–281.
- Bonney, K. M. (2015). Case study teaching method improves student performance and perceptions of learning gains. *Journal of Microbiology & Biology Education, 16*(1), 21–28.
- Borin, N., Metcalf, L. E., & Tietje, B. C. (2008). Implementing assessment in an outcome-based marketing curriculum. *Journal of Marketing Education, 30*(2), 150–159.
- Bridgman, T., McLaughlin, C., & Cummings, S. (2018). Overcoming the problem with solving business problems: Using theory differently to rejuvenate the case method for turbulent times. *Journal of Management Education, 42*(4), 441–460.
- Brownell, J., & Daphne, A. J. (2004). Problem-based learning in graduate management education: An integrative model and interdisciplinary application. *Journal of Management Education, 28*(5), 558–577.
- Burkill, S., Dyer, S. R., & Stone, M. (2008). Lecturing in higher education in further education settings. *Journal of Further and Higher Education, 32*(4), 321–331.
- Carriger, M. S. (2015). Problem-based learning and management development – Empirical and theoretical considerations. *International Journal of Management Education, 13*(3), 249–259.

- Christensen, C. M., & Carlile, P. R. (2009). Course research: Using the case method to build and teach management theory. *Academy of Management Learning and Education*, 8, 240–251.
- Christensen, C. R., & Hansen, A. J. (1987). *Teaching and the case method*. Harvard Business School.
- Corey, R. (1998, November 6). Case method teaching. Review No. 9-581-058, Harvard Business School.
- Davis, M. H. (2003). Outcome-Based Education. *Journal of Veterinary Medical Education*, 30, 258–263.
- Ellis, R. B., & Waller, D. S. (2017). Marketing education at the University of Melbourne. *History of Education Review*, 46(1), 95–106.
- Farrell, C. (2020). Do international marketing simulations provide an authentic assessment of learning? A student perspective. *International Journal of Management Education*, 18(1), 100362.
- Fry, H. (2014). *A handbook for teaching and learning in higher education*. Routledge.
- Gersel, J., & Thaning, M. S. (2020). The plight to choose: Cultivating practical deliberation in management learning and education. *Journal of Management Education*, 44(5), 663–676.
- Gibbs, G. (1988). *Learning by doing: A guide to teaching and learning methods*. [EBook]. Reflective Gibbs – Study Skills – Upgrade Study Advice Service – Oxford Brookes University.
- Goebel, D. J., & Humphreys, M. A. (2014). The relationships among student learning styles, course delivery method, and course outcomes: A quasi-experiment investigating the case method of course delivery. *Atlantic Marketing Journal*, 3(2), 33–48.
- Greenberg, D. N., Deets, S., Erzurumlu, S., Hunt, J., Manwaring, M., Rodgers, V., & Swanson, E. (2017). Signing to living PRME: Learning from a journey towards responsible management education. *International Journal of Management Education*, 15(2), 205–218.
- Griffin, R. W., & Cashin, W. E. (1989). The lecture and discussion method for management education: Pros and cons. *Journal of Management Development*, 8(2), 25–32.
- Gundala, R., & Singh, M. (2016). Role of simulations in student learning: A case study using marketing simulation. *Journal of Educational Research and Innovation*, 5(2), 2.
- Gupta, N., & Bharadwaj, S. S. (2013). Agility in business school education through richness and reach: A conceptual model. *Education and Training*, 55(4), 370–384.
- Hallinger, P., & Lu, J. (2011). Implementing problem-based learning in higher education in Asia: Challenges, strategies and effect. *Journal of Higher Education Policy and Management*, 33(3), 267–285.

- Harrison, D. E., & Ajjan, H. (2019). Customer relationship management technology: Bridging the gap between marketing education and practice. *Journal of Marketing Analytics*, 7(4), 205–219.
- Horney, N., Pasmore, B., & O’Shea, T. (2010). Leadership agility: A business imperative for a VUCA world. *Human Resource Planning*, 33(4), 34.  
<https://www.gmac.com/-/media/files/gmac/research/curriculum-insight/2015-gmegs-survey-report-final-for-web.pdf>  
<https://www.outlookindia.com/outlookmoney/fixed-assets/are-you-industry-ready-691>  
<https://timesofindia.indiatimes.com/home/education/news/how-does-a-b-school-make-students-industry-ready/articleshow/68645586.cms>
- Jackson, G. (2011). Rethinking the case method. *Journal of Management Policy & Practice*, 12(5), 142–164.
- Jain, A. K. (2005). Management education and case method as a pedagogy. *Vikalpa*, 30(1), 77–84.
- Joyce, P. (2012). Learning as doing: Common goals and interests across management and education. *Journal of Nursing Management*, 20(1), 113–119.
- Kaliannan, M., & Suseela, D. C. (2012). Empowering students through Outcome-Based Education (OBE). *Research in Education*, 87(1), 50–63.
- Kayes, D. C. (2002). Experiential learning and its critics: Preserving the role of experience in management learning and education. *Academy of Management Learning & Education*, 1(2), 137–149.
- Kepner, C. H., & Tregoe, B. B. (1976). *The rational manager: A systematic approach to problem solving and decision making* (2nd ed.). Kepner-Tregoe.
- Koh, A. (2014). The “magic” of tutorial centres in Hong Kong: An analysis of media marketing and pedagogy in a tutorial centre. *International Review of Education*, 60(6), 803–819.
- Kolb, A. Y., & Kolb, D. A. (2005). Learning styles and learning spaces: Enhancing experiential learning in higher education. *Academy of Management Learning and Education*, 4(2), 193–212.
- Kolb, A. Y., & Kolb, D. A. (2009). *Experiential learning theory: A dynamic, holistic approach to management learning, education and development* (pp. 42–68). The SAGE Handbook of Management Learning, Education and Development. SAGE Publications Inc.
- Konst (e. Penttilä), T. and Kairisto-Mertanen, L. (2020). Developing innovation pedagogy approach. *On the Horizon*, 28(1), 45–54.
- Langendahl, P.-A., Cook, M., & Mark-Herbert, C. (2017). Exploring gamification in management education for sustainable development. *Creative Education*, 08(14), 2243–2257.
- Levy, F., & Rodkin, J. (2015). The Bloomberg job skills report: What recruiters really want. *Bloomberg Business*. Retrieved from <https://www.bloomberg.com/graphics/2015-job-skills-report/>. (Accessed on 26th October 2020)

- Madhavaram, S., & Laverie, D. A. (2010). Developing pedagogical competence: Issues and implications for marketing education. *Journal of Marketing Education*, 32(2), 197–213.
- Matthews, R., Bexley, J., & Sullivan, L. (2011). Using case studies to prepare business students to perform: A practical application. *Academy of Entrepreneurship Journal*, 17(1), 1–6.
- Matthew, J. S., Christina, B., Anna, B. H., & René, R. (2019). Five strategic foresight tools to enhance business model innovation teaching. *Journal of Business Models*, 7(3), 77–88.
- Mesny, A. (2013). Taking stock of the century-long utilization of the case method in management education. *Canadian Journal of Administrative Sciences*, 30(1), 56–66.
- Mukherjee, J. (2015). Case study based pedagogy for marketing education in India. *Management and Change*, 19(2), 9–24.
- Mukherjee, J. (2018). Using new case studies for evaluation of marketing student's academic performance. *Vision*, 22(1), 1–7.
- Neely, P., & Tucker, J. (2013, April). Case study: An examination of the decision making process for selecting simulations for an online MBA program. *Education and Training*, 55(2), 128–138.
- Novák, P., Dvorský, J., Popesko, B., & Strouhal, J. (2017). Analysis of overhead cost behavior: Case study on decision-making approach. *Journal of International Studies*, 10(1), 74–91.
- Omkarprasad, S. V., & Kumar, S. (2006). Analytic hierarchy process: An overview of applications. *European Journal of Operational Research*, 16(9), 1–29.
- Peden, J. G., & Eisenhart, H. A. (2010). A case-study approach to managerial decision making. *SCHOLE: A Journal of Leisure Studies and Recreation Education*, 25, 104–199.
- Perry, M., Foley, P., & Rumpf, P. (2011). Events management: An emerging challenge in Australian higher education. *Festival Management and Event Tourism*, 4(3), 85–93.
- Popova, N., Kryvoruchko, O., Shynkarenko, V., & Zéman, Z. (2018). Enterprise management in VUCA conditions. *Economic Annals-XXI*, 170(3–4), 27–31.
- Raya, M. J. (2017). La pedagogía de casos como estrategia catalizadora del cambio hacia la autonomía del alumno y del profesor en la formación inicial del profesorado de secundaria. *Educación Em Revista*, 63, 67–83.
- Rennick, C., & McKay, K. (2018). Componential theories of creativity: A case study of teaching creative problem solving. In *Proceedings of the Canadian Engineering Education Association (CEEA)*. <https://doi.org/10.24908/pceea.v0i0.12991>.
- Rivera, J., & Alarcón, V. (2018). Model for assessing the quality of marketing-management education. *Journal of Economics, Finance and Administrative Science*, 25(49), 5–25.



- Roh, Y. S., & Kim, S. S. (2015). Integrating problem-based learning and simulation: Effects on student motivation and life skills. *CIN - Computers Informatics Nursing*, 33(7), 278–284.
- Roy, S., & Banerjee, P. (2012). Understanding students' experience of transition from lecture mode to case-based teaching in a management school in India. *Journal of Educational Change*, 13(4), 487–509.
- Saaty, T. L. (1980). *The analytic hierarchy process*. McGraw-Hill.
- Saaty, T. L. (1990). How to make a decision: The analytic hierarchy process. *European Journal of Operational Research*, 48(3), 9–26.
- Saiful, S. A., & Puteh, A. (2011). Outcome-based learning and modified problem-based learning for accounting education. *International Conference on Economics, Business and Management*, 2(2011), 120–124.
- Sarkar, A. (2016). We live in a VUCA world: The importance of responsible leadership. *Development and Learning in Organizations*, 30(3), 9–12.
- Schoemaker, P. J. H., Heaton, S., & Teece, D. (2018). Innovation, dynamic capabilities, and leadership. *California Management Review*, 61(1), 15–42.
- Selkrig, M., & Keamy, R. (2017). Creative pedagogy: A case for teachers' creative learning being at the centre. *Teaching Education*, 28(3), 317–332.
- Shapiro, S., Beninger, S., Domegan, C., Reppel, A., Stanton, J., & Watson, F. (2021). Macromarketing pedagogy: Empowering students to achieve a sustainable world. *Journal of Macromarketing*, 41(1), 104–115. <https://doi.org/10.1177/0276146720949637>.
- Shivakumar, K. (2012). The case study method in training and management education. *IUP Journal of Soft Skills*, 6(2), 55–64.
- Singh, A. K., Srivastava, S., & Singh, D. (2015). Student engagement as the predictor of direct and indirect learning outcomes in the management education context. *Metamorphosis: A Journal of Management Research*, 14(2), 20–29.
- Sudhir, S., & Unnithan, A. (2018). The role of theoretical breadth and student engagement in the use of case methods in marketing pedagogy. *E-Journal of Business Education and Scholarship of Teaching*, 12(2), 78–91.
- Sunley, R., Harding, L., & Jones, J. (2019). Realising creativity in management education: Putting student energy into action. *International Journal of Management Education*, 17(2), 172–181.
- Teng, W. N., Su, B. C., & Cheng, H. W. (2019, August 1). *Innovation in sedation and analgesia training*. *Current Opinion in Anaesthesiology*. Lippincott Williams and Wilkins.
- Tingley, C., & Vrooman, M. (2020). From education to employment: Using marketing simulation games to foster meta-skill. *BRC Journal of Advances in Education*, 4(1), 17–33.
- Tripathy, M. R. (2008). Case methodology for adult learning: A critical review of theory and practice. *Asian Journal of Management Cases*, 5(1), 5–19.

- Ungaretti, T., Thompson, K. R., Miller, A., & Peterson, T. O. (2015, June 1). *Problem-based learning: Lessons from medical education and challenges for management education*. Academy of Management Learning and Education. George Washington University.
- VanderZanden, A. M., Sandrock, D., & Kopsell, D. (2008). Student attitudes and perceptions of an online problem-based learning case study in landscape management. *HortTechnology*, 18(3), 520–523.
- Vos, L. (2014). Marketing simulation games: A review of issues in teaching and learning. *The Marketing Review*, 14(1), 67–96.
- Vos, L. (2015). Simulation games in business and marketing education: How educators assess student learning from simulations. *International Journal of Management Education*, 13(1), 57–74.
- Warnock, J. N., & Mohammadi-Aragh, M. J. (2016). Case study: Use of problem-based learning to develop students' technical and professional skills. *European Journal of Engineering Education*, 41(2), 142–153.
- Xunyu, C. (2017). A mentoring approach for developing creativity in teaching. *Malaysian Journal of ELT Research*, 14(2), 23–61.
- Yoon, S., Pedretti, E., Pedretti, L., Hewitt, J., Perris, K., & Van Oostveen, R. (2006). Exploring the use of cases and case methods in influencing elementary preservice science teachers' self-efficacy beliefs. *Journal of Science Teacher Education*, 17(1), 15–35.
- Young, M. R. (2002). Experiential learning=hands-on+minds-on. *Marketing Education Review*, 12(1), 43–51.
- Zhao, S., & Jiang, C. (2009). Learning by doing: Emerging paths of chinese management research. *Management and Organization Review*, 5(1), 107–119.



# The Effect of Consumer Values on Engagement and Behavioral Intent: Moderating Role of Age

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and Raouf Ahmed Rather*

## INTRODUCTION

In environments characterized by rapidly rising competition, online brand-related platforms, including social media or virtual communities, are proven tools to engage consumers (Bowden et al., 2017; Brodie et al., 2013; Carlson et al., 2017). These environments offer myriad interactive tools, including through virtual reality-, digital content marketing-, or

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gamification-based applications, to name the substantial ones (e.g. Hollebeek et al., 2020; Leclercq et al., 2020), which let consumers to engage with brands, including by sharing brand-related ideas, posting brand-related content, or private messaging the company (Labrecque et al., 2013; Pookulangara & Koesler, 2011). These tools also afford personalized, typically opt-in-based interactivity that tends to be synonymous with high consumer-perceived relevance and value, thereby offering significant business opportunity (Füller, 2010; Hollebeek et al., 2017).

In this environment, interactive consumer engagement (CE) is a firm performance indicator of rising cachet (De Vries & Carlson, 2014; Kumar et al., 2010), warranting its growing research interest (Harmeling et al., 2017). CE is understood as consumer's attachment with his/her brand and the resources spent on building association with it (Brodie et al., 2011; Hollebeek et al., 2019). In the last decade, the CE literature has made significant strides, and studies have explored the various facets of the concept (e.g., involvement), and its influence on behavior and brand loyalty (Harrigan et al., 2018; Nyadzayo et al., 2020).

However, while a range of CE's nomological network-based associations have been examined (France et al., 2016; Junaid et al., 2020), the influence of consumer *values*, which reflect an individual's belief in or ascribed importance to particular issues (e.g. purchasing sustainable products), in shaping or affecting CE remains tenuous (Etgar, 2008), thus exposing an important research gap. While, in a study, Islam et al. (2018) examined the association of value congruity and CE, they did not differentiate terminal vs. instrumental values, as undertaken in this study that thus builds on and extends prior research. Though Marbach et al. (2019) deployed individualistic values as a moderator to understand the association between consumer personality dimensions and online brand engagement, the impact of personal values on CE remains obscure, thus warranting further research in this area.

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Consumer values have been argued to be crucial in the development of value-laden consumer/brand relationships. Specifically, the greater a brand's alignment or fit with a consumer's values, the higher the individual's expected brand engagement (Higgins & Scholer, 2009; Islam et al., 2018), as explored empirically in this paper. We offer the following main contribution. Our analyses offer novel acumen regarding the effect of consumer values in driving their engagement with fashion brands online (Loureiro et al., 2018), thus responding to the Marketing Science Institute's (2018) Research Priorities, which solicit further research on consumer/customer engagement. Empirical exploration of CE's theoretical interface with consumer values is important, given the identified key role of personal values in affecting a range of consumer behavior outcomes, including engagement, as explored in this paper. Our findings matter, because if personal values, which tend to be relatively stable and difficult to change (Roccas et al., 2002), affect CE, a wealth of recommended firm investments in activities aligning with (vs. diverging from) their target customers' predominant values would ensue.

The paper is structured as follows. The review of past literature on consumer values, engagement, and behavioral intent, is followed by development of research hypotheses. We then proceed by outlining the methodology adopted to explore the hypotheses, followed by explanation of the results. We complete the study by discussing the results and deriving key implications from the analyses.

## LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### *Consumer Values*

Consumer values are important conscious and subconscious drivers of consumer behavior (Schiffman et al., 2003; Torelli et al., 2012), including the formation of attitudes and purchase (Rokeach, 1968, 1979). Debate however surrounds the conceptualization of values. Schwartz (1994) conceptualized values in terms of "desirable trans-situational goals that vary in importance, and serve as guiding principles in the life of a person or other social entity" (p. 21) while Rokeach (1973) views values in terms of "an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence" (p. 5). Overall, consumer values reflect consumers' deeply-held, relatively stable convictions and beliefs

that are expected to impact their purchase-related behaviors (Lee et al., 2011; Novak & MacEvoy, 1990).

Values also see different operationalization. For example, the List of Values (LoV) addresses the individual's fulfilment of various roles through value. It includes nine values such as security, self-respect, self-fulfillment, warm relationships, being well-respected, and sense of accomplishment, sense of belonging, fun, enjoyment and excitement in life (Kahle et al., 1986). In the LoV method, participants are typically asked to rank their two most important values. Second, Values and Life Styles (VALS) classified people according to nine lifestyle groups. It segmented individuals as 'sustainers, survivors, belongers, emulators, I-am-me, achievers, societally conscious, experiential, and integrated' based on a proprietary scoring system (Kahle et al., 1986; Mitchell, 1983).

Third, Schwartz' (1992) Values Survey uses a quasi-circumplex structure to explain the associations between 10 near-universal values. The key values include openness to change (OC) vs. conservation (CO), and self-enhancement (SE) vs. self-transcendence (ST). The OC-CO facet is an internal conflict of "intellectual and emotional interests in unpredictable and uncertain directions" versus preservation of "the status quo and the certainty it provides in relationships with close others, institutions and traditions" (Schwartz, 1992, p. 43). The SE-ST facet is a conflict situation due desire to pursue success and dominance over others, versus a concern for others' welfare and interests (Lee et al., 2012; Munson & McQuarrie, 1988). Overall, our review shows that a range of conceptual approaches to consumer values already exist that have been successfully applied in the literature. We, further zoom in on consumers' terminal and instrumental values, which have been taken up in current research.

### *Terminal and Instrumental Values*

Rokeach (1968) sees 'values' as operating together as a system in which different values hold differing importance levels for different individuals. Rokeach (1973) distinguishes *terminal values* were demarcated as beliefs about preferred end-states of life (i.e., a comfortable life-style), and *instrumental values*, which are beliefs about preferred modes of action to achieve one's desired end-states of life (e.g., ethical behavior). Rokeach's hierarchical system directs behavioral choices (instrumental values) that yield to particular end-states desired over other states, in line with one's terminal values. This model thus stresses the non-mutually exclusive

nature of values, which can both be achieved simultaneously (Kautish et al., 2020a). However, in some situations, values may compete (e.g. for the individual's scarce resources, e.g. time), requiring the person to prioritize their perceived most important value (Sundström et al., 2019). Based on their prioritization of terminal (vs. instrumental) values, consumers are expected to behave differently. For example, Allen et al. (2002) report that individuals who favor instrumental (vs. terminal) values were predisposed to extracting functional, utilitarian meanings from their brands, while those favoring terminal values focused on attributing symbolic meaning to brands.

### *Consumer Engagement*

The literature reveals a lack of consensus on consumer engagement's (CE's) definition (Groeger et al., 2016). For example, while Hollebeek et al. (2019, p. 166) state that CE can be described as a consumer's "motivationally driven, volitional investment of... operant resources (e.g. cognitive, emotional, behavioral, and social knowledge/skills), and operand resources (e.g. equipment) in brand interactions". Researchers like Kumar et al. (2019) and Brodie et al. (2011, p. 260) opine CE as "a psychological state that occurs by virtue of interactive, cocreative customer experiences with a focal agent/object (e.g. a brand) in focal service relationships." We deduce the following CE hallmarks from our review.

First, CE is an interactive concept that transpires within the consumer-brand interaction (Harrigan et al., 2018). Second, CE reflects consumers' investment in their brand interactions, with greater investments denoting higher engagement (Harmeling et al., 2017; Hollebeek, 2011). Third, it is understood as a multi-faceted conception which encompasses cognitive, emotional, and behavioral magnitudes (Hollebeek et al., 2014; Vivek et al., 2012). Some scholars have focused their research on engagement behaviors, including brand-related citizenship behaviors such as advocacy or blogging (e.g. Groeger et al., 2016). Fourth, common agreement among researchers is that CE is conducive to a number of firm performance improvements, including sales growth, enhanced referrals, etc. (Brodie et al., 2011).

While several studies have linked consumer values and CE (e.g. Marbach et al., 2019), insufficiently acknowledged the role of consumers' terminal (vs. instrumental) values in driving their engagement with

brands. First, consumers' instrumental values reflect an individual's desired mode of action, as discussed. Given CE's interactive nature (Clark et al., 2020), consumers' desired *modus operandi* will affect their resource investments and the route they take to achieve their goal, thus impacting CE (Aghekyan-Simonian et al., 2012; Gambetti & Graffigna, 2010). Second, terminal values are a consumer's beliefs about preferred end-states (e.g. owning their desired brands). Therefore, individuals' terminal values are likely to affect the way they go about in reaching their goal fulfillment, thus impacting the consumer's interactive resource investment. We posit:

H<sub>1a</sub>: Terminal values positively affect consumer engagement.

H<sub>1b</sub>: Instrumental values positively affect consumer engagement.

### *Interface of Values, Consumer Engagement, and Behavioral Intent*

Prior research demonstrates the important role of consumer values in driving their ensuing behavioral intent (e.g. purchase intent) and actual behavior in a range of contexts or sectors (Kahle et al., 1986; Kim et al., 2002; Xiao & Kim, 2009). Hence, we posit that consumer values would exert a direct effect on consumers' behavioral intent:

H<sub>2a</sub>: Terminal values positively affect consumers' behavioral (purchase) intent.

H<sub>2b</sub>: Instrumental values positively affect consumers' behavioral (purchase) intent.

Prior studies also show CE's favorable effect on consumer purchase intent (e.g. Hollebeek et al., 2014; Islam et al., 2019; Rather et al., 2019). We propose:

H<sub>3</sub>: CE positively affects consumers' behavioral (purchase) intent.

Moreover, given CE's nature as a consumer's resource investment within a brand interaction (Hollebeek and Chen, 2014; Kumar et al., 2019), repeated instances or episodes of CE reveal a CE trajectory or process (Brodie et al., 2011). Since CE is very much about the *interactive* process,



we expect consumers' instrumental (vs. terminal) values to exert a particularly significant effect on CE. That is, with instrumental values addressing consumers' desired mode of action, they directly relate to the notion of consumer resource investments throughout these modes of action and interactions. For the same reason, we anticipate consumers' instrumental values, which describe their way of achieving their goals, to exert a greater effect on their behavioral intent than terminal values, which address consumers' desired end-states. We hypothesize:

H<sub>4</sub>: Instrumental (vs. terminal) values have a greater effect on CE.

H<sub>5</sub>: Instrumental (vs. terminal) values have a greater effect on consumers' behavioral intent.

### *Moderating Role of Consumer Age*

Moderators systematically modify the strength or (form) of the relationship between a predictor and a criterion factor (Hair et al., 2010). Hence, we suggest a moderating role of consumer age in the relationship of CE and behavioral intent, as delineate. Our contention is rooted in the following basis: During the individual's life-span, which likely value other persons, services and objects differently (Loureiro & Roschk, 2014). Accordingly, consumer age has been considered as a key demographic variable in consumer-research (Khan et al., 2020; Schirmer et al., 2018). Thus, consumers with different age profiles are likely to reveal varying psychological-, cognitive-, and behavioral- facets toward specific offerings that impact their consequent customer behavior (Rather & Hollebeek, 2021). Extant works claims that customer desires and responses alter throughout the life cycle (Loureiro & Roschk, 2014; Ye et al., 2018). As a result, consumer age can influence the way consumers perceive brand cues and react to marketing messages (e.g., Hervé & Mullet, 2009), generating its moderating affect. Such as aged customers are most driven by schema or heuristic-based processing (e.g., Yoon, 1997), representing their decreased likelihood to look for novel information to make decisions (Rather & Hollebeek, 2021), that can be elucidated by these customers having superior maturity and emotional control.

Furthermore, older versus (younger) consumers likely reveal elevated brand-commitment and loyalty, generating distinctive behavioral and affective responses (Homburg & Giering, 2001). Thus, consume rage

has been revealed to effect the relationship between consumer behavior-related factors (Homburg & Giering, 2001; Rather & Hollebeck, 2021). Although, the role of consumers' age on their consequent behavioral factors remains hazy, call for further investigation. Particularly, the effect of consumer age on the relationship between CE and behavioral intent remains nebulous (Khan et al., 2020; Rather & Hollebeck, 2021), as thus investigated in this research. That is to say, we presume consumers with different age profiles having different wants, preferences, or needs (Hervé & Mullet, 2009), therefore differentially effecting the path between CE and behavioral intent across age groups (Khan et al., 2020). On the basis of this justification, we suggest:

H<sub>6</sub>: Consumer age moderates the impact of CE on consumer's behavioral intent.

## RESEARCH METHODOLOGY

### *Data Collection and Sampling*

In the present study, we concentrated on the online fashion situation, where consumers purchase fashion or apparel through e-tailing websites or portals. We chose fashion, given the centrality of fashion brands to consumers' identity (Spratt et al., 2009) and their typical high engagement with their clothing choices, particularly in our chosen Indian context (Kautish et al., 2020b; Khare, 2014; NASSCOM, 2018). We selected younger respondents (aged 18–30), given their typical interest in fashion and their high usage of online purchase (e.g. e-commerce) channels (Ladhari et al., 2019; Pandey & Chawla, 2014). Table 14.1 outlines demographic characteristics of the study participants.

Prior to data collection, we used the a-priori sample size calculator for structural equation models (Iacobucci, 2010). For the model, which contains four latent, eighteen observed variables, and an estimated effect size of 0.3 ( $p = 0.5$ ), the requisite sample size was 137 (Soper, 2020). The data was collected from students at three premier fashion schools in the metropolitan cities of New Delhi, Jaipur and Ahmedabad, in north India between November 2019 and February 2020. Each of the respondents made frequent online purchases. Before the main survey, screening

**Table 14.1**  
Demographic  
respondent profile ( $N =$   
412)

<i>Variables or criteria</i>	<i>Frequency</i>	<i>Percent</i>
Gender		
Male	228	55.34
Female	184	44.66
Age (in years)		
16–18	55	13.35
19–21	135	32.77
22–24	222	53.88
Qualification		
Diploma	26	6.31
Graduate	92	22.33
Postgraduate	245	59.47
Professional	49	11.89
Household income (monthly)		
Below 50,000/- (Indian Rupees)	284	68.93
Above 50,000/- (Indian Rupees)	128	31.07

*Source* Authors

questions ensured all participants were in the required age range between 18 and 30 years and should have made at least one purchase in the last month via e-commerce-based fashion sites. After distributing 1,256 questionnaires, we obtained 412 complete responses, yielding a 32.8% response rate (Hair et al., 2006). Though our use of a convenience sample has its limitations, students have been shown to offer reliable responses in e-tailing research (Kinley et al., 2010; Kautish & Rai, 2018, 2019; Kautish & Sharma, 2018).

### *Common Method Variance Testing*

We drew on Podsakoff et al.'s (2003) suggestions to minimize the occurrence of common method variance in our data. Firstly, at the research design phase, item priming effect, consent bias in the survey instrument (i.e., “yes or no argument”), and other possible issues were smoothed out in our survey instrument. Secondly, we formally verified for common method variance by adopting Harman’s single-factor test. The results revealed that the variance explicated by the highest factor loading was 14% only; hence none of the factors exceeded the 50% threshold (Malhotra et al., 2006). Consequently, common method variance was not an issue in the present research.

### *Measures*

To establish our measures, we first generated relevant scale items from the extant literature, followed by item refinement procedures to ensure the items' suitability in our chosen context. We then pilot-tested our items with two Marketing/Fashion Professors to further test the items' face validity before administering the survey, which revealed no issues. We sourced the following measures from the literature. To measure terminal/instrumental values, we drew on Allen and Ng's (1999), Kamakura and Mazzon's (1991), and Kamakura and Novak's (1992) scales. To gauge consumer engagement, we used Baldus et al. (2015) and Hollebeck et al. (2014) instruments. Finally, we measured behavioral intent by drawing on Goldsmith et al. (2012) and Kim and Kim (2004).

All scale items were rated on a 7-point Likert-type measures (where 7: strongly agree and 1: strongly disagree). The mean and standard deviation for terminal values ranged from 4.15 to 5.33, and 1.05 to 1.27, respectively. Likewise, the mean and standard deviation for instrumental values ranged from 2.86 to 5.28, and 1.01 to 1.34, respectively. For consumer engagement, the mean and standard deviation ranged from 4.27 to 5.65, and 1.02 to 1.21, respectively. Similarly, for behavioral intent, the mean and standard deviation ranged from 4.83 to 5.65, and 1.13 to 1.27, respectively (see Table 14.2).

## RESULTS

Anderson and Gerbing's (1988) two-stage method for structural equation modeling (SEM) was applied (Bagozzi & Yi, 2012; Bollen and Long, 1993), which includes analysis of the measurement and the structural models (Byrne, 2010). While the measurement model is utilized to assess construct validity and model fit through confirmatory factor analysis (CFA), the structural model is utilized to evaluate the hypothesized relationships described in the conceptual model (Bollen and Long, 1993).

### *Measurement Model Testing Results*

The measurement model with four-factors was subjected to confirmatory factor analysis by utilizing the maximum likelihood assessment (Hu & Bentler, 1998). The fit indices included: CFI = 0.95; NFI = 0.96; NNFI = 0.95; RMSEA = 0.053, revealing the acceptable model fit. While the

**Table 14.2** Constructs, items, and descriptive statistics

<i>Construct</i>	<i>Scale items</i>	<i>Mean</i>	<i>SD</i>
Terminal value	I buy online branded fashion apparels so I could sense of worthiness for myself (TVQ1)	4.28	1.24
	Online branded fashion apparel purchase is convenient and easy for my style statement (TVQ2)	5.32	1.05
	Online branded fashion apparel is pleasant and satisfactory (TVQ3)	4.96	1.16
	Online branded fashion apparel purchases make me happy for myself (TVQ4)	4.15	1.24
	Though the cost of online branded fashion products is greater still I am willing to buy them (TVQ5)	5.33	1.27
Instrumental value	Online branded fashion apparels are convenient to shop (IVQ1)	5.28	1.01
	Online branded fashion apparel shopping is rational and practical to me (IVQ2)	4.74	1.15
	It is not a money wasting activity to purchase online branded fashion apparels (IVQ3)	2.86	1.34
	Online branded fashion apparels are suitable for me to wear and in fitting (IVQ4)	5.24	1.07
	Online branded fashion apparels quality is always very good (IVQ5)	4.92	1.14
Consumer engagement	Online branded fashion apparels get me to think about online shopping (CEQ1)	4.41	1.02
	I think about branded fashion a lot when I buy apparel online (CEQ2)	5.65	1.06
	Branded fashion apparels arouses my curiosity to learn more about online shopping (CEQ3)	5.30	1.21
	I feel very confident when I shop for online branded fashion apparels (CEQ4)	4.27	1.15
	Online branded fashion apparel shopping makes me happy (CEQ5)	5.25	1.09
	I feel good when I shop branded fashion apparel online (CEQ6)	4.80	1.17
	I'm proud to shop for branded fashion apparel online (CEQ7)	5.13	1.21
	I devote a lot of time buying online branded fashion apparel compared to any other shopping mode (CEQ8)	4.94	1.25

(continued)

**Table 14.2** (continued)

<i>Construct</i>	<i>Scale items</i>	<i>Mean</i>	<i>SD</i>
Behavioral intent	Whenever I shop for branded fashion apparels, I usually shop online (CEQ9)	4.89	1.37
	The X fashion portal is one of the online portal I usually shop branded fashion apparels (CEQ10)	4.05	1.38
	I am willing to carry on purchasing online branded fashion apparels in the future also (BIQ1)	4.83	1.27
	I am willing to recommend the online branded fashion apparels to my relatives, friends and others (BIQ2)	5.65	1.13
	I am willing to increase purchase/use of online branded fashion apparels for me (BIQ3)	5.23	1.18

*Source* Authors' data analysis  
SD, Standard Deviation

model's Chi-square was significant:  $\chi^2 = 268.39$ ;  $df = 96$  ( $p < 0.001$ ). The attained  $\chi^2/df$  was 2.79, which is within the tolerable range of 2–5 (Bagozzi & Yi, 2012).

However, two instrumental values items, and one terminal values item, did not fulfill the minimum threshold of 0.40 on their respective standardized factor loadings (Fornell & Larcker, 1981). These items were thus eliminated from further data analysis, thus improving the model's reliability and lowering the scale's measurement error (Nunnally & Bernstein, 1994). The residual 15 items were tested through confirmatory factor analysis, which led to an acceptable model fit: CFI = 0.97; NFI = 0.96; NNFI = 0.97, RMSEA = 0.055; and  $\chi^2 = 216.85$ ;  $df = 82$  ( $p < 0.001$ ; Bagozzi & Yi, 2012). The measurement model results considerably improved, as the delta Chi-square estimates between the first and second CFA models estimate was significant:  $\Delta\chi^2 = 51.54$ ;  $\Delta df = 14$  ( $p < 0.001$ ). All items exceeded the minimum threshold of 0.40 for their standardized factor loadings (Hu & Bentler, 1999).

### *Construct Reliability and Validity Testing Results*

Our constructs' convergent validity was established by considering average variance extracted (AVE) and composite reliability (CR). Convergent validity testing indicated that all constructs' items correlated well with each other (Hair et al., 2006). Moreover, the AVE and CR were within the tolerable limits: AVE > 0.50; CR > 0.70 and CR > AVE (Fornell & Larcker, 1981; Hair et al., 2006). Our constructs' AVEs were calculated and matched with Fornell and Larcker's (1981) ratio, which yielded results exceeding .50 (see Table 14.3), supporting convergent validity of the constructs. Average shared squared variance (ASV), maximum shared squared variance (MSV), and AVE was employed to test for discriminant validity (Hair et al., 2006).

As per Fornell and Larcker (1981), higher AVE values (vs. the shared variance amongst the squared correlations for separately construct pair) establish discriminant validity. Since the ASV and MSV values were lower than the AVEs, the constructs were shown to not correlate highly, thereby confirming discriminant validity (Table 14.3). Further, to ascertain the internal consistency or reliability of the scale items, we used reliability coefficient (Cronbach's alpha). All Cronbach's alpha values bettered the minimum threshold of 0.70 (Nunnally & Bernstein, 1994), thus confirming the adequate reliability of the constructs (Jöreskog, 1993).

### *Structural Model*

The structural model was examined by using maximum likelihood assessment. The structural model results are as follows: CFI = 0.98; NFI = 0.97; NNFI = 0.97, RMSEA = 0.056 and  $\chi^2 = 220.84$ ;  $df = 83$  ( $p < 0.001$ , revealing acceptable model fit (Bagozzi & Yi, 2012; Byrne, 2010; also see Table 14.4). The model's structural relationships are shown in the Fig. 14.1. As presented in the Table 14.4 and Fig. 14.1, the association of terminal values and CE was significant, leading to the acceptance of H<sub>1a</sub>. Likewise, the association of instrumental values and CE support H<sub>1b</sub>. These outcomes show that both instrumental and terminal values are key drivers of CE. Moreover, as instrumental and terminal values were evident to exert a significant influence on behavioral intent, H<sub>2a</sub> and H<sub>2b</sub> were also accepted. As expected, CE emerged as a significant

**Table 14.3** Measurement model

<i>Measure</i>	<i>Terminal values</i>	<i>Instrumental values</i>	<i>Consumer engagement</i>	<i>Behavioral intention</i>	<i>MSV</i>	<i>AVE</i>	<i>ASV</i>	<i>CR</i>
1 Terminal values	1.00							
2 Instrumental values	0.683 (0.469)	1.00			0.373	0.618	0.274	0.762
3 Consumer engagement	0.691 (0.482)	0.792 (0.613)	1.00		0.365	0.548	0.305	0.746
4 Behavioral intent	0.586 (0.368)	0.785 (0.641)	0.864 (0.753)	1.00	0.427	0.716	0.297	0.873
					0.442	0.784	0.315	0.910

*Source* Authors' data analysis

*Notes* Measurement model fit:  $\chi^2 = 220.84$ ;  $df = 83$ ,  $\chi^2/df = 2.66$ ;  $p < 0.001$ ; RMSEA = 0.056; CFI = 0.98; NFI = 0.97; NNFI = 0.97; All correlations were significant at 0.05 level; AVE = average variance extracted; ASV = average shared squared variance; MSV = maximum shared squared variance; CR = composite reliability

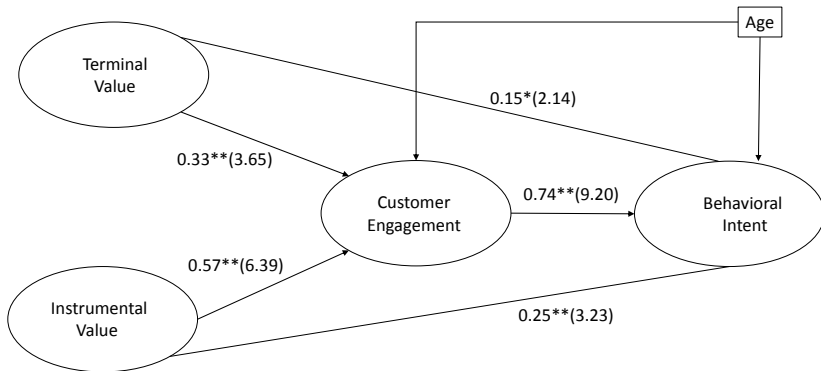


**Table 14.4** Structural model

<i>Hypotheses</i>	<i>Path model</i>	<i>Coefficient</i>	<i>SE</i>	<i>t-value</i>	<i>Result</i>
H <sub>1a</sub>	Terminal value → Consumer engagement	0.33	0.053	3.65**	Supported
H <sub>1b</sub>	Instrumental value → Consumer engagement	0.57	0.075	6.39**	Supported
H <sub>2a</sub>	Terminal values → Behavioral intent	0.15	0.112	2.14*	Supported
H <sub>2b</sub>	Instrumental values → Behavioral intent	0.25	0.071	3.25**	Supported
H <sub>3</sub>	Consumer engagement → Behavioral intent	0.74	0.129	9.20**	Supported

Source Authors' data analysis

Notes Goodness-of-fit:  $\chi^2 = 220.84$ ;  $df = 83$ ;  $\chi^2/df = 2.66$ ; CFI = 0.98; NFI = 0.97; NNFI = 0.97; RMSEA = 0.056;  $p < 0.001$ ;  $R^2$  (Consumer engagement) = 0.69;  $R^2$  (Behavioral intention) = 0.76; \*  $p < 0.05$ , \*\*  $p < 0.01$



**Fig. 14.1** Measures of structural equations (Source Authors' data analysis)

predictor of consumers' behavioral intent, thus support H<sub>3</sub>. As the influence of instrumental values on CE exceeded that of terminal values, H<sub>4</sub> was also accepted. Instrumental (vs. terminal) values also revealed a stronger effect on consumers' behavioral intent, thus accepting H<sub>5</sub>.

### *Indirect/Mediating Effect Results*

Mediation is used when one aims to understand how changes are transmitted from an independent variable via one or more mediators or intervening variables, which in turn affects the dependent variable (Kline, 2015; Little, 2013). Based on Fox (1985), CE's mediating effect was measured to further insight into our model. Because the data was normalized and the conceptual model was relatively straightforward, we used Sobel's (1982) test for indirect/mediating effects. Sobel offers a significance test that gauges the indirect influence of the independent variable on the dependent variable through the mediator for a single mediating model (MacKinnon, 2008), as is the case here. We thus employed the test to measure whether CE significantly affects the independent variables' (i.e. terminal/instrumental values) impact on the dependent variable (e.g., behavioral intent). The Sobel test results confirm that both instrumental and terminal values had a significant influence on consumers' behavioral intent through the mediating factor, CE (coefficient  $_{TV-CE-BI} = 0.21$ ; coefficient  $_{IV-CE-BI} = 0.43$ ) at an alpha value of 0.01. The indirect path specifies that  $t\text{-value} = \text{mediating influence}/\text{standard deviation}$ . Since the direct associations of terminal values and behavioral intent (coefficient = 0.15;  $t = 2.14$ ;  $p < 0.05$ ) and instrumental values and behavioral intent (coefficient = 0.25,  $t = 3.23$ ,  $p < 0.01$ ) were significant, respectively, CE emerges as a mediator (partial) in the association between instrumental and terminal values with behavioral intent (Hair et al., 2006).

We also measured mediation strength through Variance Accounted For (VAF) (Kline, 2015; MacKinnon et al., 2002). The attained VAF estimates exceeded the 40 percent effect for terminal values and the 60 percent effect for instrumental values, respectively, on behavioral intent, as explained by CE. In addition, as the VAF values ranged from 20–80%, these findings corroborate CE's partially mediating effect in the association of consumers' instrumental vs. terminal values for favorable behavioral intents. The total influence of instrumental values on behavioral intent (0.72) exceeded that of terminal values (0.37), revealing the significance of instrumental values in enhancing consumers' behavioral intent (Sobel, 1982).

### *Moderating Role of Age*

Notable studies have reported that socio-cultural and demographic variables (Khan et al., 2020; Schirmer et al., 2018), i.e., age can potentially affect consumers' behavioral intent (Rather & Hollebeck, 2021). Therefore the current study operationalized age as moderator in the hypothesized model. The data analyses specified that consumer engagement was influenced by the demographic variable, viz., consumer age ( $\beta = 0.13$ ,  $p > 0.05$ ). Furthermore, consumer age ( $\beta = 0.15$ ,  $p > 0.05$ ) affect the behavioral intent for online fashion apparel purchase so H<sub>6</sub> have empirical results for supporting the relationship and the findings are in tandem with the previous studies on consumer engagement (Hervé & Mullet, 2009; Homburg & Giering, 2001).

## DISCUSSION, IMPLICATIONS, AND LIMITATIONS

### *Theoretical Contributions*

This study examined the relationship between consumers' terminal/instrumental values, engagement, and their ensuing behavioral intent in the e-commerce fashion context. Our structural equation modeling analyses confirm the proposed research hypotheses, thus suggesting the important role of consumers' values on their engagement, in particular their instrumental (vs. terminal) values. Instrumental values, which are the consumer's beliefs about desired modes of action in their goal fulfilment processes (Rokeach, 1973, 1979), while terminal values reflect one's views regarding desired end-states, as discussed. In line with consumer engagement concept's interactive and process-based characteristics (Brodie et al., 2011), our findings submit that engagement acts as an important vehicle, *through* which consumers' highly latent (e.g. instrumental) values become more observable or manifest. Put differently, consumers' core instrumental values influence their engagement with specific brands (e.g. by seeking out socially responsible brands), thus offering an important theoretical contribution (Kumar & Pansari, 2016).

We also found consumers' terminal and instrumental values to directly affect their behavioral (purchase intent) for particular brands, in addition to the mediated path via consumer engagement. The findings substantiate the strong role of consumers' values on consumer behavior. The indirect, mediated path via consumer engagement, in particular, suggests engagement's capacity as a strategic opportunity for managers. That is,

by designing their marketing mix to fit with or appeal to consumers' key (e.g. instrumental) values, an important strategic opportunity exists to first capture and then capitalizes on consumer engagement. For example, brands aligned with consumers' instrumental values (e.g. purchasing a gym membership to achieve the terminal value of getting fit), are likely to favorably impact consumer engagement and sparking its positive (vs. negative) expressions (Clark et al., 2020). In turn, once consumers are engaged, their brand-related behavioral intent rises in parallel (Rather et al., 2018).

### *Managerial Contributions*

The current study also provides important managerial strategies for managers. First, we uncovered that consumers' terminal and instrumental values directly affect consumers' behavioral intent, as well as via an indirect path mediated by consumer engagement. Our results therefore suggest that appealing to consumers' values represents a viable basis for marketing tactics and strategy (Hui et al., 2000). It is therefore critical to understand consumers' main driving values, distinguish their core (vs. peripheral) values, and design brand-related marketing mixes in line with particular customer segments' core (e.g. instrumental) values (Marbach et al., 2019). As marketers build their brands' unique personality or identity (Aaker, 1997), they are advised to align their brands' values with those of their key (prospective) customer segments, which based on our findings is expected to induce their respective engagement with particular brands. As differing values may dominate across segments, managers also need to understand their respective values-based differences to establish effective segment-specific strategies (Kautish & Rai, 2019). To incite or optimize values-based engagement, we recommend brands to offer consumers regular linking and reminders of the ways in which consumers' personal values align with and are reflected in those of the brand (e.g. through authentic, opt-in-based content marketing deploying high brand symbolism; Cooper et al., 2019; Hollebeek & Macky, 2019).

Second, we identified consumers' instrumental (vs. terminal) values to *asymmetrically* impact consumer engagement and behavioral intent, with instrumental values playing a more decisive role. To stimulate engagement's development by drawing on consumers' instrumental values, we recommend marketers to emphasize the nature of the customer's journey in their brand-related marketing mix. The rationale for this assertion is

that the customer journey fits with instrumental values' process-based nature, including the brand's *modus operandi*, as outlined. The customer journey comprises a series of touchpoints or engagement episodes that collectively make up the journey (Lemon & Verhoef, 2016). Herein, each of touchpoint offers an opportunity to engage consumers by appealing to their instrumental values, which may be also be linked to the achievement of their desired end-states or terminal values. Ideally, marketing strategies should be designed to attain consumers' instrumental as well as terminal values.

### LIMITATIONS AND FURTHER RESEARCH

Despite of its notable contribution to the scholarly exploration on consumer engagement, the present research has a few limitations, which should be identified for future studies. First, our data was sourced from a single country (India), by using convenience sampling, and therefore, the findings may not be generalized for other regions. Thus, further research may be conducted in different (e.g. cultural) settings, thus enhancing academic acumen with respect to the role of consumer values in shaping their engagement with brands, which is likely to vary across cultures or countries (Gupta et al., 2018; Hollebeck, 2018).

Second, though we explored the effect of consumers' terminal/instrumental values on their ensuing engagement, future studies may like to extend our model (i.e., by incorporating additional constructs, such as consumer involvement, brand love, brand attachment, and so so). The specific constructs contained in future models should be guided by the particular perspective deployed (e.g. by adopting differing or potentially competing values paradigms, such as List of Values or Values and Life Styles, as discussed).

Third, since consumer engagement is a state-based variable that may fluctuate over time (Brodie et al., 2011; Calder et al., 2009), the model should ideally be examined in a longitudinal research design, which - unlike our cross-sectional data-affords a better ability to capture this variability (Viswanathan et al., 2017). For example, the attained results may reveal varying perceived importance levels of particular values throughout the consumer's life-cycle, with particular values differentially affecting their engagement and behavioral intent over time.

## REFERENCES

- Aaker, J. L. (1997). Dimensions of brand personality. *Journal of Marketing Research*, 34(3), 347–356.
- Aghekyan-Simonian, M., Forsythe, S., Kwon, W. S., & Chattaraman, V. (2012). The role of product brand image and online store image on perceived risks and online purchase intentions for apparel. *Journal of Retailing and Consumer Services*, 19(3), 325–331.
- Allen, M. W., & Ng, S. H. (1999). The direct and indirect influences of human values on product ownership. *Journal of Economic Psychology*, 20(1), 5–39.
- Allen, M. W., Ng, S. H., & Wilson, M. (2002). A functional approach to instrumental and terminal values and the value-attitude-behavior system of consumer choice. *European Journal of Marketing*, 36(1/2), 111–135.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: a review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411–423.
- Bagozzi, R. P., & Yi, Y. (2012). Specification, evaluation, and interpretation of structural equation models. *Journal of the Academy of Marketing Science*, 40(1), 8–34.
- Baldus, B. J., Voorhees, C., & Calantone, R. (2015). Online brand community engagement: Scale development and validation. *Journal of Business Research*, 68(5), 978–985.
- Bollen, K. A., & Long, S. J. (1993). *Testing structural equation models*. Sage.
- Bowden, J. L.-H., Conduit, J., Hollebeck, L. D., Luoma-aho, V., & Solem, B. A. (2017). Engagement valence duality and spillover effects in online brand communities. *Journal of Service Theory and Practice*, 27(4), 877–897.
- Brodie, R. J., Hollebeck, L. D., Jurić, B., & Ilić, A. (2011). Customer engagement: Conceptual domain, fundamental propositions, and implications for research. *Journal of Service Research*, 14(3), 252–271.
- Brodie, R. J., Ilić, A., Jurić, B., & Hollebeck, L. D. (2013). Consumer engagement in a virtual brand community: An exploratory analysis. *Journal of Business Research*, 66(1), 105–114.
- Byrne, B. (2010). *Structural equation modelling with AMOS: Basic concept, applications and programming* (2nd ed.). Routledge.
- Calder, B. J., Malthouse, E. C., & Schaedel, U. (2009). An experimental study of the relationship between online engagement and advertising effectiveness. *Journal of Interactive Marketing*, 23(4), 321–331.
- Carlson, J., deVries, N. J., Rahman, M. M., & Taylor, A. (2017). Go with the flow: Engineering flow experiences for customer engagement value creation in branded social media environments. *Journal of Brand Management*, 24(4), 334–348.

- Clark, M., Lages, C., & Hollebeck, L. D. (2020). Friend or Foe? Customer engagement's value-based effects on fellow customers and the firm. *Journal of Business Research*, 121, 549–556.
- Cooper, T., Stavros, C., & Dobeles, A. R. (2019). The levers of engagement: An exploration of governance in an online brand community. *Journal of Brand Management*, 26(3), 240–254.
- De Vries, N. J., & Carlson, J. (2014). Examining the drivers and brand performance implications of customer engagement with brands in the social media environment. *Journal of Brand Management*, 21(6), 495–515.
- Etgar, M. (2008). A descriptive model of the consumer co-production process. *Journal of the Academy of Marketing Science*, 36(1), 97–108.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
- Fox, J. (1985). Effect analysis in structural equation models II: Calculation of specific indirect effects. *Sociological Methods and Research*, 14(1), 81–95.
- France, C., Merrilees, B., & Miller, D. (2016). An integrated model of customer-brand engagement: Drivers and consequences. *Journal of Brand Management*, 23(2), 119–136.
- Füller, J. (2010). Refining virtual co-creation from a consumer perspective. *California Management Review*, 52(2), 98–122.
- Gambetti, R. C., & Graffigna, G. (2010). The concept of engagement: a systematic analysis of the ongoing marketing debate. *International Journal of Market Research*, 52(6), 801–826.
- Goldsmith, R. E., Flynn, L. R., & Clark, R. A. (2012). Materialistic, brand engaged and status consuming consumers and clothing behaviours. *Journal of Fashion Marketing and Management*, 16(1), 102–119.
- Groeger, L., Moroko, L., & Hollebeck, L. D. (2016). Capturing value from non-paying consumers' engagement behaviours: Field evidence and development of a theoretical model. *Journal of Strategic Marketing*, 24(3/4), 190–209.
- Gupta, S., Pansari, A., & Kumar, V. (2018). Global customer engagement. *Journal of International Marketing*, 26(1), 4–29.
- Hair, J. F., Anderson, R. E., Babin, B. J., & Black, W. C. (2010). *Multivariate data analysis: A global perspective* (7th ed.). Pearson.
- Hair, J. F. Jr, Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (6th ed.). New Delhi: Pearson Education.
- Harmeling, C. M., Moffett, J. W., Arnold, M. J., & Carlson, B. D. (2017). Toward a theory of customer engagement marketing. *Journal of the Academy of Marketing Science*, 45(3), 312–335.
- Harrigan, P., Evers, U., Miles, M. P., & Daly, T. (2018). Customer engagement and the relationship between involvement, engagement, self-brand connection and brand usage intent. *Journal of Business Research*, 88, 388–396.

- Hervé, C., & Mullet, E. (2009). Age and factors influencing consumer behaviour. *International Journal of Consumer Studies*, 33, 302–308.
- Higgins, E. T., & Scholer, A. A. (2009). Engaging the consumer: The science and art of the value-creation process. *Journal of Consumer Psychology*, 19(2), 100–114.
- Hollebeek, L. D. (2011). Demystifying customer brand engagement: Exploring the loyalty nexus. *Journal of Marketing Management*, 27(7/8), 785–807.
- Hollebeek, L. D. (2018). Individual-level cultural consumer engagement styles: Conceptualization, propositions and implications. *International Marketing Review*, 35(1), 42–71.
- Hollebeek, L. D., & Chen, T. (2014). Exploring positively-versus negatively-valenced brand engagement: A conceptual model. *Journal of Product & Brand Management*, 23(1), 62–74.
- Hollebeek, L. D., Glynn, M., & Brodie, R. J. (2014). Consumer brand engagement in social media: Conceptualization, scale development and validation. *Journal of Interactive Marketing*, 28(2), 149–165.
- Hollebeek, L. D., Juric, B., & Tang, W. (2017). Virtual brand community engagement practices: A refined typology and model. *Journal of Services Marketing*, 31(3), 204–217.
- Hollebeek, L. D., Kumar, V., & Srivastava, R. K. (2020). From customer-, to actor-, to stakeholder engagement: Taking stock, conceptualization, and future directions. *Journal of Service Research*. <https://doi.org/10.1177/1094670520977680> (in press).
- Hollebeek, L. D., & Macky, K. (2019). Digital content marketing's role in fostering consumer engagement, trust, and value: Framework, fundamental propositions, and implications. *Journal of Interactive Marketing*, 45(1), 27–41.
- Hollebeek, L. D., Srivastava, R. K., & Chen, T. (2019). S-D logic-informed customer engagement: Integrative framework, revised fundamental propositions, and application to CRM. *Journal of the Academy of Marketing Science*, 47(1), 161–185.
- Homburg, C., & Giering, A. (2001). Personal characteristics as moderators of the relationship between customer satisfaction and loyalty—an empirical analysis. *Psychology & Marketing*, 18(1), 43–66.
- Hu, L.-T., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological Methods*, 3(4), 424–453.
- Hu, L.-T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55.



- Hui, C., Lam, S. S. K., & Law, K. K. S. (2000). Instrumental values of organizational citizenship behavior for promotion: A field quasi-experiment. *Journal of Applied Psychology, 85*(5), 822–828.
- Iacobucci, D. (2010). Structural equations modeling: Fit indices, sample size, and advanced topics. *Journal of Consumer Psychology, 20*(1), 90–98.
- Islam, J., Hollebeek, L. D., Rasool, A., Khan, I., & Rahman, Z. (2019). Customer engagement in the service context: An empirical investigation of the construct, its antecedents and consequences. *Journal of Retailing & Consumer Services, 50*, 277–285.
- Islam, J., Rahman, Z., & Hollebeek, L. D. (2018). Consumer engagement in online brand communities: A solicitation of congruity theory. *Internet Research, 28*(1), 23–45.
- Jöreskog, K. G. (1993). Testing *Structural Equation Models*. In K. A. Bollen (Ed.), *Testing Structural Equation Models* (pp. 294–316). Sage.
- Junaid, M., Hussain, K., Basit, A., & Hou, F. (2020). Nature of brand love: Examining its variable effect on engagement and well-being. *Journal of Brand Management, 27*(3), 284–299.
- Kahle, L. R., Beatty, S. E., & Homer, P. (1986). Alternative measurement approaches to consumer values: The list of values (LOV) and values and life style (VALS). *Journal of Consumer Research, 13*(3), 405–409.
- Kamakura, W. A., & Mazzon, J. A. (1991). Value segmentation: A model for the measurement of values and value systems. *Journal of Consumer Research, 18*(2), 208–218.
- Kamakura, W. A., & Novak, T. P. (1992). Value-system segmentation: Exploring the meaning of LOV. *Journal of Consumer Research, 18*(1), 208–218.
- Kautish, P., Khare, A., & Sharma, R. (2020a). Influence of values, brand consciousness and behavioral intentions in predicting luxury fashion consumption. *Journal of Product & Brand Management, 30*(4), 513–531.
- Kautish, P., & Rai, S. K. (2018). Fashion portals and generation Y consumers in India: An exploratory study. In S. Soni & V. Sharma (Eds.), *Marketing Magic for Millennials: Rise of Gen YO!* (pp. 125–150). Bloomsbury.
- Kautish, P., & Rai, S. K. (2019). Fashion portals and Indian consumers: An exploratory study on online apparel retail marketing. *International Journal of Electronic Marketing and Retailing, 10*(3), 309–331.
- Kautish, P., & Sharma, R. (2018). Consumer values, fashion consciousness and behavioral intentions in the online fashion retail sector. *International Journal of Retail & Distribution Management, 46*(10), 894–914.
- Kautish, P., Sharma, R., & Khare, A. (2020b). Multi-Item scale development for online consumption emotion construct and psychometric evaluation for relationship marketing. *Journal of Relationship Marketing, 20*(2), 91–134.

- Khan, I., Hollebeck, L., Fatma, M., Islam, J., & Riivits-Arkonsuo, L. (2020). Customer experience and commitment in retailing: Does customer age matter? *Journal of Retailing and Consumer Services*, 57, 102219.
- Khare, A. (2014). How cosmopolitan are Indian consumers? A study on fashion clothing involvement. *Journal of Fashion Marketing and Management*, 18(4), 431–451.
- Kim, E. Y., & Kim, Y. K. (2004). Predicting online purchase intentions for clothing products. *European Journal of Marketing*, 38(7), 883–897.
- Kim, J., Forsythe, S., Gu, Q., & Jae Moon, S. (2002). Cross-cultural consumer values, needs and purchase behavior. *Journal of Consumer Marketing*, 19(6), 481–502.
- Kinley, T. R., Josiam, B. M., & Lockett, F. (2010). Shopping behavior and the involvement construct. *Journal of Fashion Marketing and Management*, 14(4), 562–575.
- Kline, R. B. (2015). The mediation myth, basic and applied. *Social Psychology*, 37(4), 202–213.
- Kumar, V. (2008). *Managing customers for profit*. Wharton School Publishing.
- Kumar, V., Aksoy, L., Donkers, B., Venkatesan, R., Wiesel, T., & Tillmans, S. (2010). Undervalued or overvalued customers: Capturing total customer engagement value. *Journal of Service Research*, 13(3), 297–310.
- Kumar, V., & Pansari, A. (2016). Competitive advantage through engagement. *Journal of Marketing Research*, 53(4), 497–514.
- Kumar, V., Rajan, B., Gupta, S., & DallaPozza, I. (2019). Customer engagement in service. *Journal of the Academy of Marketing Science*, 47(1), 138–160.
- Labrecque, L. I., vordem Esche, J., Mathwick, C., Novak, T. P., & Hofacker, C. F. (2013). Consumer power: Evolution in the digital age. *Journal of Interactive Marketing*, 27(4), 257–269.
- Ladhari, R., Gonthier, J., & Lajante, M. (2019). Generation Y and online fashion shopping: Orientations and profiles. *Journal of Retailing and Consumer Services*, 48, 113–121.
- Leclercq, T., Hammedi, W., Poncin, I., Kullak, A., & Hollebeck, L. D. (2020). When gamification backfires: The impact of perceived justice on online community contributions. *Journal of Marketing Management*, 36(5/6), 550–577.
- Lee, J. A., Soutar, G. N., Daly, T. M., & Louviere, J. J. (2011). Schwartz values clusters in the United States and China. *Journal of Cross-Cultural Psychology*, 42(2), 234–252.
- Lee, Y.-K., Park, J.-H., Chung, N., & Blakeney, A. (2012). A unified perspective on the factors influencing usage intention toward mobile financial services. *Journal of Business Research*, 65(11), 1590–1599.
- Lemon, K. N., & Verhoef, P. C. (2016). Understanding customer experience throughout the customer journey. *Journal of Marketing*, 80(6), 69–96.

- Little, T. D. (2013). *Longitudinal structural equation modeling*. Guilford Press.
- Loureiro, S. M. C., & Roschk, H. (2014). Differential effects of atmospheric cues on emotions and loyalty intention with respect to age under online/offline environment. *Journal of Retailing and Consumer Services*, 21(2), 211–219.
- Loureiro, S. M. C., Cavallero, L., & Miranda, F. J. (2018). Fashion brands on retail websites: Customer performance expectancy and e-word-of-mouth. *Journal of Retailing and Consumer Services*, 41, 131–141.
- MacKinnon, D. P. (2008). *Introduction to statistical mediation analysis*. Mahwah.
- MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. A. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods*, 7(1), 83–104.
- Malhotra, N. K., Kim, S. S., & Patil, A. (2006). Common method variance in IS research: A comparison of alternative approaches and a reanalysis of past research. *Management Science*, 52(12), 1865–1883.
- Marbach, J., Lages, C., Nunan, D., & Ekinci, Y. (2019). Consumer engagement in online brand communities: The moderating role of personal values. *European Journal of Marketing*, 53(9), 1671–1700.
- Marketing Science Institute. (2018). Research Priorities 2018–2020. Marketing Science Institute. Retrieved on August 21, 2021. [http://www.msi.org/uploads/articles/MSI\\_RP16-20.pdf](http://www.msi.org/uploads/articles/MSI_RP16-20.pdf).
- Mitchell, A. (1983). *The Nine American Life Styles*. Warner.
- Munson, J. M., & McQuarrie, E. (1988). Shortening the Rokeach value survey for use in consumer research. In M. J. Houston (Eds.), *Advances in Consumer Research* (Vol. 15, pp. 381–386). Association for Consumer Research.
- NASSCOM. (2018). #India Trends 2018: Trends Shaping Digital India, <https://www.nasscom.in/knowledge-center/publications/india-trends-2018-trends-shaping-digital-india>. Accessed 21 Dec 2021.
- Novak, T. P., & MacEvoy, B. (1990). On comparing alternative segmentation schemes: The list of values (LOV) and values and life styles (VALS). *Journal of Consumer Research*, 17(1), 105–109.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw Hill.
- Nyadzayo, M. W., Leckie, C., & Johnson, L. W. (2020). The impact of relational drivers on customer brand engagement and brand outcomes. *Journal of Brand Management*, 27(5), 561–578.
- Pandey, S., & Chawla, D. (2014). E-lifestyles of Indian online shoppers: A scale validation. *Journal of Retailing and Consumer Services*, 21(6), 1068–1074.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903.

- Pookulangara, S., & Koesler, K. (2011). Cultural influence on consumers' usage of social networks and its' impact on online purchase intentions. *Journal of Retailing and Consumer Services*, 18(4), 348–354.
- Rather, R., Hollebeek, L. D., & Islam, J. (2019). Tourism-based customer engagement: The construct, antecedents, and consequences. *Service Industries Journal*, 39(7/8), 519–540.
- Rather, R. A., & Hollebeek, L. D. (2021). Customers' service-related engagement, experience, and behavioral intent: Moderating role of age. *Journal of Retailing and Consumer Services*, 60, 102453.
- Rather, R., Tehseen, S., & Parrey, S. (2018). Promoting customer brand engagement and brand loyalty through customer brand identification and value congruity. *Spanish Journal of Marketing*, 22(3), 319–337.
- Roccas, S., Sagiv, L., Schwartz, S. H., & Knafo, A. (2002). The big five personality factors and personal values. *Personality and Social Psychology Bulletin*, 28(6), 789–801.
- Rokeach, M. (1968). *Beliefs*. Jossey-Bass.
- Rokeach, M. (1973). *The nature of human values*. Free Press.
- Rokeach, M. (1979). *Understanding human values*. Free Press.
- Schiffman, L. G., & Sherman, E., Long, M. M. (2003). Toward a better understanding of the interplay of personal values and the internet. *Psychology & Marketing*, 20(2), 169–186.
- Schirmer, N., Ringle, C., Gudergan, S., & Feistel, M. (2018). The link between customer satisfaction and loyalty: The moderating role of customer characteristics. *Journal of Strategic Marketing*, 26(4), 298–317.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 24). NY: Academic Press.
- Schwartz, S. H. (1994). Are there universal aspects in the structure and contents of human values? *Journal of Social Issues*, 50(4), 19–45.
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. In S. Leinhardt (Ed.), *Sociological methodology* (pp. 290–312). American Sociological Association.
- Soper, D. S. (2020). A-priori sample size calculator for structural equation models [software]. Retrieved on August 21, 2021. <http://www.danielsoper.com/statcalc>.
- Sprott, D., Czeller, S., & Spangenberg, E. (2009). The importance of a general measure of brand engagement on market behavior: Development and validation of a scale. *Journal of Marketing Research*, 46(1), 92–104.
- Sundström, M., Hjelm-Lidholm, S., & Radon, A. (2019). Clicking the boredom away – Exploring impulse fashion buying behavior online. *Journal of Retailing and Consumer Services*, 47, 150–156.

- Torelli, C. J., Özsomer, A., Carvalho, S. W., Keh, H. T., & Maehle, N. (2012). Brand concepts as representations of human values: Do cultural congruity and compatibility between values matter? *Journal of Marketing*, 76(4), 92–108.
- Vivek, S. D., Beatty, S. E., & Morgan, R. M. (2012). Customer engagement: Exploring customer relationships beyond purchase. *Journal of Marketing Theory and Practice*, 20(2), 127–145.
- Xiao, G., & Kim, J. (2009). The investigation of Chinese consumer values, consumption values, life satisfaction, and consumption behaviors. *Psychology & Marketing*, 26(7), 610–624.
- Ye, B. H., Barreda, A. A., Okumus, F., & Nusair, K. (2018). Website interactivity and brand development of online travel agencies in China: The moderating role of age. *Journal of Business Research*, 99, 382–389.
- Yoon, C. (1997). Age differences in consumers' processing strategies: An investigation of moderating influences. *Journal of Consumer Research*, 24(3), 329–342.

PART IV

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# Organizational Behavior and Human Resources



# Theoretical Model to Gauge the Organization's Readiness of Flexible Work Arrangements (Work-From-Home)

*Munmun Goswami*

## INTRODUCTION

Since early January 2020, the world is battling the biggest health scare of the century, due to the spread of covid19, creating a pandemic situation. Infection rates are high with no known cure in sight yet. The World Health Organization (WHO) declared it “A Global Pandemic” on 11 March 2020 and had outlined detailed guidelines for the world to follow. With neither a cure nor a prevention (vaccine) is yet developed, the only known way to restrict its spread is through social distancing, isolating the sick from the healthy. Thus, most countries were placed under lockdown (mid-March onwards). This has led to huge hampering of business. The way of functioning, in every aspect of life, has changed,

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some drastically, most permanently. In this context, it becomes imperative to understand how an organization is changing/how to control the change/how to successfully navigate the change, so that the organization sustains. One glaring change in work-life which has happened is the way work is being conducted. For instance, in the days of social isolation and movement restrictions, most companies have mandatory work-from-home policies implemented for their employees, whichever role possible. Thus, the importance of work-from-home mandates has become more pronounced in the pandemic situation the world is currently facing. While manufacturing, production, operations, supply chains, tourism, travel, hospitality, etc. requiring physical presence have been adversely affected, with many coming to a standstill, others who could, shifted to work-from-home for its employees in the lockdown period. Initially, there were external compulsions to do so, but then many organizations are waking up to the possibility of having continued work-from-home options for its employees, even in the post-pandemic situation. This is changing the very facet of organization as we understand, right from strategic, structural, functional as well as process implications.

### *Study Motivation*

Though flexible work arrangements including work-from-home have been in existence in organizations since long time as a family-supportive policy/family-friendly work culture ('showing we care'), opting for this was voluntary or on consideration grounds, and hence, the impact at the organizational level (structure, functioning) have never been that significant to be explored much by prior researchers at the macro-level. The reason for choosing to inspect work-from-home is twofold—one, covid19 pandemic has made organizations opt for work-from-home, whichever role possible, thus impacting the functioning/design of the organization as a whole, and two, prior studies have not really analyzed much at the macro-level, i.e., the organizational level. I have also chosen to specifically look at the interventions required through the HRM lens, as the role of HR is also transforming with the transforming organizations, and this requires further deliberation, both for the academicians as well as the practitioners.



### *Scope*

Since most firms are still grappling with the unprecedented situation the world is forced into, and are responding and reacting accordingly, the scope of research is vast. It is not possible to categorize nor explore them all within the limited purview of this paper. Hence, I am looking at only one such strategic change, that is, implementing work-from-home mandates, and present a theoretical model to gauge the organization's readiness to implement work-from-home policies/mandates so as derive maximum benefit for the organization.

## LITERATURE REVIEW

### *Flexible Work Arrangements*

Flexible work arrangements are defined as “*employer provided benefits that permit employees some level of control over when and where they work outside of the standard workday*” (Lambert et al., 2008, p. 107). While there are multitudes of flexible arrangements, researchers have broadly demarcated them under “flex-time” and “flex-place”, the former meaning having flexibility in the time of work, whereas the latter meant flexibility in the location where work is done. Flex-place includes work-from-home, telecommuting, work-from-anywhere options. Flex-time arrangements include reduced workload, compressed work weeks, variable shifts, job sharing, work sharing, phased retirement, and partial retirement.

First introduced to the world by Christel Kammerer in the 1960s (Stanley, 1995), research on flexible work arrangements has come a long way since. Researchers have long established the beneficial effects of flexible work arrangements aiding employees' work-life balance (Lee et al., 2002), along with increased well-being (Rudolph & Baltes, 2017; Shockley & Allen, 2007), greater satisfaction (Baltes et al., 1999; Chen et al., 2018) and higher productivity (Baltes et al., 1999; Bloom, 2014). However, I have observed that barring a few papers, researchers focused more on examining the individual-level antecedents and outcomes. Among the studies which have addressed the macro-level of analyses, researchers explored the influence of organization's size (Kotey & Koomson, 2019), financial constraints, and workforce characteristics to managing flexible work arrangements (in small NFP firms) (Townsend et al., 2017). In another study, researchers examined data

from employers and observed that industry sector, labor market conditions, and organizational cultural support of flexibility are predictive of wide-scale availability of flexible work arrangements (Sweet et al., 2014). Other researchers examined the role of flexible work arrangements toward sustainable development (Čiarnienė et al., 2018) analyzed at individual, company, and societal levels, as well as network perspective for opting for this, based on the concept of exploration and exploitation in organizational learning (Litrico & Lee, 2008). I came across only one study which looked at how flexible work arrangements are designed, implemented, work processes affected, and how structural and cultural factors shaped them (Fisher, 2010). Interestingly, there was only one cross-cultural study which I came across, comparing findings from twenty-one countries on the mediating role of national culture and organization characteristics on organizational outcomes of flexible work arrangements (Peretz et al., 2018). It can be seen from the above that none of these above studies really looked into how to gauge the readiness of the organization for implementing flexible work arrangements. This is not surprising, as the choice of working under flexible arrangements has always been driven by few selected groups (working mothers, especially with small children, dependant/ill family member(s), etc.), that is to say, some constraints the individual employee had in his/ her personal domain, which made him/her opt for a flexible work arrangement. The numbers have not been high in the pre-covid19 situations, on a regular basis. But this scenario has changed with the pandemic situation, and hence, importance as well as inclination toward such flexible work arrangements is something which is of growing interest for researchers and practitioners alike.

### *Flex-Place Arrangement—Work-From-Home (WFH)*

Work-from-home is a type of flexible work arrangement, where the concerned person can carry on his/her work from any space/anywhere. This has been possible due to the advent of digitization, change in work profiles (jobs which can be done online/virtually/remotely), and family-supportive organization policies and practices.

Prior studies have shown that flex-place kind of work arrangements are less effective in spillover of roles, i.e., interferences created by work on family and vice-versa (Byron, 2005; Mesmer-Magnus & Viswesvaran, 2006; Shockley & Allen, 2007). Thus, the probability of occurring of conflict due to blurring of boundaries (Kossek et al., 2006; Lapiere &

Allen, 2006) is higher in flex-place arrangements like work-from home. Flexible work arrangements are associated with a variety of attitudes and outcomes like productivity, performance, and job satisfaction (Baltes et al., 1999; Chen et al., 2018), this holds true even after controlling for gender, age, marital status, education, number of children, and hours worked (McNall et al., 2009). On the flipside, flex-place arrangements like WFH also increases the probability of work-to-family due to blurring of boundaries in conflict situations (Kossek et al., 2006; Lapierre & Allen, 2006). Benefits to the employees include greater work-life-balance, lesser commute time, lower stress, thus increased well-being (McNall et al., 2009; Hayman, 2009; Rudolph & Baltes, 2017; Shockley & Allen, 2007) and work-family enrichment (Baral & Bhargava, 2011; Jain & Nair, 2017; Wadsworth & Owens, 2007; Zhang et al., 2015). However, there are added issues of monitoring, maintaining ethics, and the challenge of retaining and developing the organization's culture, which makes this challenging for the organization.

## DISCUSSION

This section describes the current scenario, that is the Covid19 pandemic, and how it is impacting the organization, through the external factors which are created. While decoding the impact on the organization, the design challenges mentioned by Kates and Galbraith (2007) for the STAR Model of organization designing—strategy, structure, processes, rewards, and people have been used.

### DECODING THE PANDEMIC SCENARIO (COVID-19)

When we look at the kind of uncertain environment faced by everyone across the world, be it nations, organizations, global groups (like GVCs), inter-organizational networks, intra-organizational groups, and individuals, everyone is in a flux, forced to go the backfoot (at least initially). For organizations, the focus is forced into building resilience, sustainability, and revisiting their processes, rather than growth and expandability. External environmental changes act as a catalyst, forcing firms to change internally, to adapt, and sustain. This is coming from the Open System perspective, which defines organization as “*congeries of interdependent flows and activities linking shifting coalitions of participants embedded in wider material-resource and institutional environments*” (Scott & Davis,

2007, p. 32). Thus, the focus is more on the process than on the structure, valuing the interdependencies with the environment. In a crisis situation, like the covid19 pandemic, organizational performance is hampered due to both external and internal challenges and restructuring to adapt to such challenges require not only an in-depth understanding of the external environment, but also organization designing to address the same (Lin et al., 2006).

There is little doubt on this unprecedented situation being a Black Swan event. As per Taleb (2007), an event is called a Black Swan Event when (a) it is high-profile, hard-to-predict, rare beyond normal expectation, (b) probability of its occurrence is non-computable, and (c) psychological biases are present due to uncertainty and rarity of the event as also its huge role in history. Apart from numerous blogs claiming the Black Swan event leading to a global economic crisis (worse than the Great Depression in America), multiple researchers have already published articles substantiating this claim with support and evidence (Balsa-Barreiro et al., 2020; Mazzoleni et al., 2020; Platje et al., 2020; Wind et al., 2020). This background is essential to investigate the far-reaching impact the pandemic situation has already created and is expected to be furthered in the future. The uncertainty situation in which the whole world is pushed into has changed the way organizations are functioning, some drastically, some not so much. Among the numerous impacts of this pandemic situation at various levels (world, nation, firm, group, individual), the external macro-factors, which, are the ones needing immediate attention of the organization have been listed.

## EXTERNAL FACTORS IMPACTING THE ORGANIZATION

### *Economic Recession*

Countries across the globe have been plunged into recession due to the global pandemic. IMF has warned that we are into a global recession, worse than the 2008 Financial crisis. The global growth rate was pegged at -3% in April 2020, and revised to a grimmer -4.9% in June 2020.<sup>1</sup> During the lockdown period (March–July/August 2020), countries across the world had gone into recession, and experts predict little

<sup>1</sup> Retrieved on 4 October 2020 at 00:03 hrs from <https://www.imf.org/en/Publications/WEO/Issues/2020/06/24/WEOUpdateJune2020>.

chance of a V-shaped recovery. Admittedly, though the impact of the pandemic has been adverse for all, the intensity has been different for different industries, with the most hard-hit ones being manufacturing, aviation, tourism, and hospitality services. Growth has been dealt yet another blow with global value chains, supply chains et al. shocked into exposing their weakest points, and firms and multi-national companies (MNCs) and trans-national companies (TNCs), from startup to e-commerce giants, have all had to think on their feet, be agile, shifting focus on building resilience and sustainability, in place of the aggressive vision of exponential growth of the last decade.

### *Deglobalization*

Some researchers have opined that the third wave of deglobalization has already started (Tang, 2020). Along with already present geopolitical tensions (U.S–China trade wars, sanctions imposed by the U.S. on various countries, Brexit, etc.), the pandemic has triggered risk-aversion among organizations as well as individuals. Global trade has become, and is destined to become more fragmented, with the rise in AI, digitization, and other technological progresses. China, from being the biggest supplier to the world, has lost credibility, and many nations are cutting/decreasing their dependencies on the country from whose labs the covid19 virus has been alleged to be generated. Most countries had sealed their borders, and the aviation, tourism, and hospitality industry being severely hit due to the movement restrictions imposed by the pandemic. World travel, business or pleasure, has been hit tremendously under this very eminent scare, with countries worldwide imposing travel restrictions, quarantines, and curfews, quite a few still remaining. Even the role of global value chains (GVCs) is getting redefined, with new equations being formed (China's role lessening and other developing nations of Asia gaining prominence, including India). Disruptions to global value chains, however, pose additional risk of amplifying the shocks of the pandemic on the trade, production, as well as the financial markets.

### *Accelerated Digitization*

Due to social movement restrictions, online platforms came to the rescue for the socially isolated human beings. Forced to stay at home, unable

to venture out, people turned to online avenues for business, education, entertainment, and social interactions. Schools and colleges and offices, whoever can, shifted to working from home, and continue to do so. Digitization has been accelerated. While progresses in machine learning, artificial intelligence, IoT had ushered in Industry 4.0, with the pandemic situation, the focus has shifted to furtherance of digitization, especially to the masses. For example, in the education sector, digitization had been sporadic till now (reference point here is India). Prior to the pandemic, only some schools, colleges, and universities of urban India boasted of being at par with contemporaries worldwide. Post covid19 lockdown was imposed, education institutions, right from pre-schoolers to doctoral students, were forced to relook, revamp, and retrain to use digital as a medium for teaching, and thus online classes were started full-swing. Though a lot still remains to be done, especially for the rural students, stop gap arrangements have been made, and fast. For organizations, work-from-home mandates for employees has furthered the requirement of digitization. Firms have rushed to implement work-from-home directives, however well-prepared or ill-prepared they were to do so. This has created new challenges and opportunities for all the parties involved. Right from internet connectivity issues to security problems, the challenges thrown up are many, let alone the concerns of well-being of the employee.

### *Cybersecurity Concerns*

Cybersecurity is defined as “*the organization and collection of resources, processes, and structures used to protect cyberspace and cyberspace-enabled systems from occurrences that misalign de jure from de facto property rights*” (Craig et al., 2014). With accelerated digitization came the concerns of security and safety. Cybercrime had risen manifold since the onset of the pandemic, due to the vulnerabilities in the cyber landscape. Security flaws in tools used, malware and ransomware attacks, hacking, attack on digital payment systems—all point toward the risk of data breaches and frauds (phishing, scamming). This holds especially true for rural and semi-urban population of India. Additionally, with the rise in the levels of online activities, confidentiality, integrity, and network traffic (bandwidth) are of significant concern, more so for remote-working arrangements.

## IMPLICATIONS OF THE EXTERNAL FACTORS ON THE ORGANIZATION

The five critical design challenges as mentioned by Kates and Galbraith (2007), based on which they built the STAR Model (Kates & Galbraith, 2007) for the purpose of categorizing the implications have been used to explain the effects in an organization. These five design challenges, viz., strategy, structure, process, rewards, and people, are the most common and most relevant ones in organization designing. I have purportedly used the concepts of organization designing for explaining the implications, as they are well-defined. Challenges imposed on strategy, structure, processes, rewards, and people by the external changes, are my focus area of interest here. In order for organizations to cope effectively and regain control, they need to re-design the organization, and hence the concept of organization design is of importance here. Organization design is defined as “*the deliberate process of configuring structures, processes, reward systems, and people practices to create an effective organization capable of achieving the business strategy*” (Kates & Galbraith, 2007, p. 1). Organization designing is focused on creating a stable structure being in a relatively stable state (Emelah & Enyia, 2018; Waring, 2016), which is also the desired goal here. The STAR Model is one of the most widely used, accepted, and proven model by practitioners across organizations, for effective organization designing, and hence, I have also used its concepts in this paper. In the sub-sections below, I shall discuss the impacts on each factor, in detail, within the context of this paper.

### *Strategy*

Organizations have moved toward building resilience, business continuity and agility in this pandemic situation. Focus has been on maintaining continuity, especially with the economic recession scenario, predicted worse than the 2008 financial crisis, the severest since the World War II levels.<sup>2</sup> Many businesses have been forced to close, with unprecedented disruption of commerce in most industry sectors. Apart from short-term

<sup>2</sup> Retrieved on 4 October 2020 at 1:00 hrs from <https://www.worldbank.org/en/news/press-release/2020/06/08/covid-19-to-plunge-global-economy-into-worst-recession-since-world-war-ii>.

challenges like health and safety measures, supply-chain, workforce retention/retrenchment, cash flow, sales, and marketing, companies have to face the additional woe of consumers becoming more averse to spending, thanks to the job losses, pay cuts, and uncertain future created due to the economic recession, across nations across the world. This can best be explained by the contingency theory perspective, as organizations are required to adapt and change according to the changed environment. Also, the change itself is a radical change, due to its suddenness and uncertainty involved (Gersick, 1991).

In order to maintain continuity, many organizations opted for, even imposed mandatory work-from-home policies for their employees, at wherever and whichever role possible. Other roles temporarily shut down. In fact, new-age tech stalwarts like Google, Facebook, Amazon have mandated one-year work-from-home mandates, with Twitter going so far as to even provide for life-time work-from-home options, should the employees so desire.<sup>3</sup> In India, too, companies like Citibank, BCG, HUL, KPMG, RPG Group, Cognizant, Infosys, Philips, Pfizer, Pidilite and TCS<sup>4</sup> to name a few, have mandated that only essential workers are required to be physically present in the office premises. 85% of the IT workforce in India is working from home, with MHA (India) extending work-form-home mandated till 31 December 2020 for IT & BPO companies.<sup>5</sup> A survey conducted in July in India (by Lenovo)<sup>6</sup> revealed that the majority of the people also preferred to work-from-home. While such

<sup>3</sup> Retrieved on 4 October 2020 at 00:40 hrs from <https://indianexpress.com/article/technology/social/twitter-employees-work-from-home-forever-covid-19-6407724/>.

<sup>4</sup> Retrieved on 1 September 2020 at 22:00 hrs from [https://economictimes.indiatimes.com/news/company/corporate-trends/playing-it-safe-amidst-covid-19-work-from-homes-working-so-india-inc-wants-it-to-stay/articleshow/77252879.cms?utm\\_source=contentofinterest&utm\\_medium=text&utm\\_campaign=cppst](https://economictimes.indiatimes.com/news/company/corporate-trends/playing-it-safe-amidst-covid-19-work-from-homes-working-so-india-inc-wants-it-to-stay/articleshow/77252879.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst).

<sup>5</sup> Retrieved on 10 September 2020 at 1400 hrs from <https://www.india.com/news/india/work-from-home-for-it-companies-till-december-31-what-does-this-mean-4091309/>.

<sup>6</sup> Retrieved on 12 April 2020 at 20:00 hrs from <https://www.businessnewsdaily.com/15259-working-from-home-more-productive.html#:~:text=Working%20From%20Home%20Increases%20Productivity&text=According%20to%20one%20study%2C%20remote,weeks%20of%20work%20per%20year.&text=One%20of%20the%20most%20effective,taking%20breaks%20throughout%20the%20day>.



surveys revealed that remote working increases productivity levels,<sup>7</sup> they also revealed that respondents were more stressed and struggled to maintain work-life balance, due to increased role conflict, inability to manage time, as well as demarcate work and life.

This decision of the organizations, that is, to apply work-from-home, draws support from various organizational theories. As per the transaction cost economics theory (Williamson, 1979, 1986) removing traditional work setup decreases the infrastructural and administrative costs associated with physical offices (overhead costs), while increasing expenditures in supporting technologies (cybersecurity, smooth internet connection, devices, etc.). In addition, the productivity of employees also increases due to such flexible work arrangements (remote, WFH), as substantiated by various studies (Baltes et al., 1999; Bloom, 2014; Mcnall et al., 2009), even during the pandemic, as supported by a study conducted by Lenovo in India.<sup>8</sup> Other benefits include companies having access to a bigger and wider talent pool to hire from, unrestricted from geographic limitations, and more positive image (supportive organization) with more satisfied employees (Baltes et al., 1999; Chen et al., 2018; Mcnall et al., 2009).

### *Structure*

The traditional hierarchical structure is affected due to the work-from-home mandates. Majority of the companies across industries, barring the new-age ones preferred to have their workforce under a traditional office setup, with formal hierarchy and supervision structure in place. While in the context of the STAR Model, the authors spoke about units formed around functions, products, geographies, or customers, and suggested formal hierarchy which enables unhindered management and decision making and communication, the covid19 pandemic situation has changed the scenario quite drastically, and also permanently. The strategic decision to work-from-home, to retain business continuity in the times of

<sup>7</sup> Retrieved on 10 September 2020 at 14:05 hrs from <https://timesofindia.indiatimes.com/life-style/relationships/work/work-from-home-survey-66-employees-feel-their-work-productivity-has-gone-up-considerably/articleshow/77649776.cms>.

<sup>8</sup> Retrieved on 10 September 2020 at 14:05 hrs from <https://timesofindia.indiatimes.com/life-style/relationships/work/work-from-home-survey-66-employees-feel-their-work-productivity-has-gone-up-considerably/articleshow/77649776.cms>.

lockdown and social movement restrictions, has opened up avenues for structural changes in the formal hierarchy system itself.

In order to address these issues of communication, management, and decision making in such work arrangements where the physical meeting is absent, the hierarchical structure of the organization needs to be looked at with a different lens. Having an organization that is informational rather than industrial is what is required. A dynamic, non-hierarchical (or flatter hierarchy), technologically advanced organization, while being agile and supple, not only helps in quick adaptation to the dynamic environment, but also reduces costs and maintains business continuity.

### *Processes*

Process, as defined in the context of the STAR Model, is “*a series of connected activities that move information up and down and across the organization*” (Kates & Galbraith, 2007, p. 17). Advances in technology, digitization, and focus on agility have been nudging organizations to change the mediums of information flow since long, the covid19 situation, again, acted as a catalyst to accelerate the changes. While electronic mediums were already present (videoconferencing, teleconferencing, email, skype, zoom, etc.), most organizations had in place a blended system, using a cocktail of physical as well as virtual presence. In fact, a new era of workforce, the jet-setters who traveled all across the world frequently, boomed the aviation and hospitality industry. However, the pandemic situation had restricted travel severely, and hence, these virtual online platforms have come to the aid. Moving away from traditional workplaces and workspaces, the employee is made (forced) to work-from-home, along with the constraints associated. This requires supportive changes from the organization at the technological level (having devices like laptop/desktop, uninterrupted wi-fi connection, issues of cybersecurity) as also the administrative level (challenges of monitoring, smooth unhindered communication across the team, ethical issues, employee well-being, etc.).

Those organizations who lied the positive end of digitization, i.e., were more technologically advanced, flourished, and the others lagged behind—having to race to catch up now. The tech companies, be it in finance, e-commerce, IT/ITES are the ones who have led till now. Manufacturing, automotive industries have been struggling, especially those who required physical workers presence to function. Exploring the

constraints and challenges of those sectors are outside the purview of this paper. Still, needless to say, organizations across industries, across the world, have moved to work-from-home whichever role possible, and this has been aided with technological support and digitization.

One of the key challenges, apart from the infrastructural ones, is that of cybersecurity. The use of technology, in fact, brings with it more issues and threats, in this covid19 pandemic, including DDoS attack, malicious domains, malicious websites, malware, ransomware, spam emails, malicious social media messaging, business email compromise, mobile apps, and browsing apps (Khan et al., 2020).

### *Rewards*

With the economic recession, uncertain situation, and the overall negative outlook, profitability and work continuity for many industries are at stake. There have been many instances of job losses, pay cuts, furloughs, etc. across boards, rewards have admittedly taken a backseat for many. Simultaneously, the importance of skillsets, especially technological knowledge demands have increased commensurate salary expectations. Work-from-home arrangements throw up challenges of monitoring and performance, and this required a changed rewards system. While different organizations follow different compensation and rewards policy, based on a variety of internal and external factors, the impact of all the external uncertainties has shifted the power dynamics by greater emphasis on some roles while reducing/devaluing others. For example, with the rise in cybersecurity concerns, such roles/persons with requisite skillsets are much in demand, while those having traditional job roles are diminished.

### *People*

Within the context of STAR Model, people practices include the human resources policies looking at the selection, staffing, training, and development of the employees, focused on forming the capabilities and mindsets essential to perform the organization's strategy. While it is undeniable that HR practices aid in creating sustained competitive advantage (Collins & Clark, 2003; Delery & Roumpi, 2017), as well as increase organization effectiveness and performance (Belfield & Marsden, 2003), in the covid19 pandemic scenario, the role of HRM is also rapidly evolving, requiring a different approach. Digitization has been onset even in the pre-Covid19

era, with artificial intelligence, machine learning, big data analytics, and the like. E-HRM has been adopted by organizations since the past four decades (Marler & Parry, 2015), with the desired outcomes of cost reduction, service improvements, and reorientation toward strategic HR (Ruël et al., 2007). Within the purview of work-from-home mandate, the issue of monitoring and control of people is of prime importance, along with employee adjustment and well-being, compensation structure, and retaining organizational and work culture (Carnevale & Hatak, 2020).

## FACTORS INFLUENCING IMPLEMENTATION OF WORK-FROM-HOME

Work-from-home mandates, though on paper may be applicable for all employees of an organization, cannot be practically implemented as a blanket cover for all. There are various factors which are at play here.

### *Digitization Readiness of the Industry*

Each industry functions differently, and are at different stages of digitization. We can only look at the automotive industry and e-commerce—these are very unique and different industries per se, each having their challenges and advantages of operations. Except maybe support functions, which can be done remotely, the job functions which are/can be completed for work-from-home would be different among both. Even within the industry itself, the levels of digitization vary from one organization to the next. For example, the level of digitization in Tata Motors is quite different from, say, Bajaj Auto. While institution theory emphasizes that in the long run, organizations tend to “isomorph” (Dimaggio & Powell, 1983) however, this depends a lot on other factors like the size, strategy (defender/analyser/prospecter, reactor) (Miles et al., 1978), etc. In fact, Kotey and Koomson (2019), in their study, observed that organization size affected the relationship between flexible work arrangements and financial performance. Hence, it is proposed that firms can be clustered under three categories, depending upon their digitization readiness—low, medium, and high, based on their size and strategy. Accordingly, It is proposed as:

- P<sub>1</sub>: Organizations which are high on digitization readiness are the ones who are agile prospectors, who are also already invested more in the digitization process.

### *Internal Capabilities*

By internal capabilities, the employees' readiness, and willingness toward accepting digitization. While there are many studies looking at the positive outcomes of flexible work arrangements (Bloom, 2014), here I am interested in looking at the readiness of the employees as a whole. There are two aspects to internal capabilities—the individual employees' readiness, meaning the specific skillsets, the knowledge required. The second aspect is that of the employees' willingness. In the current situation, with no vaccine yet for the Covid19 virus, people are more prone to accept work-from-home mandates, for safety, security, and health concerns. There are added benefits of increased productivity, performance, and job satisfaction (Baltes et al., 1999). However, there is also the added stress of being confined in one place, decreased social interaction (colleagues, supervisors, subordinates), and stress created due to blurred boundaries between work and life (Kossek et al., 2006; Lapierre & Allen, 2006). Man being a social animal, social isolation creates havoc on the physical and psychological health. Thus, the long-term willingness of employees is something which needs to be addressed, and herein lies the work of the HR manager. Shockley and Allen (2012), observed that individuals were more driven toward flexible work arrangements due to work-related motives than life management motives. Prior research has found that people having higher self-efficacy (Butler et al., 2004) opted for such flexible arrangements, as also those who are need-motivated (Shockley & Allen, 2010). For such employees, monitoring issues will also be lesser. Within this context, in the current scenario, therefore, it is proposed that:

- P<sub>2</sub>: Employees with technical know-how, who are self-motivated, having higher self-efficacy will be more ready and willing to embrace the digitization process.

### *Internal Supports*

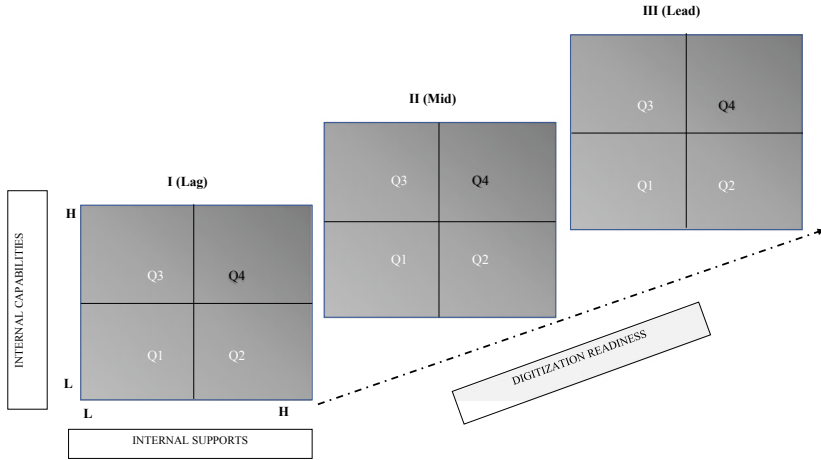
By internal supports, I mean the infrastructural supports required for digitization. Quite a lot of factors are at play here. Organizations already invested in digitization, and having an industry advantage, with a strategic orientation toward digitization will be spending more on infrastructure building for supporting digitization. In the current scenario, with the covid19 situation and mandated work-from-home, organizations are forced to invest more in such associated costs, like hardware and software support for remote work, uninterrupted internet connectivity, cybersecurity, etc. Let me take the example of an IT company, who had implemented work-from-home for its employees till the end of this calendar year. Initially, employees had to manage/arrange for their own internet connection. However, due to the fluctuations of bandwidth, connectivity issues, etc., the company entered into a tie-up with a leading broadband service provider to give discounted internet connection to all its employees across India. Yet another MNC, a corporate bank, which did not even allow USB access or laptop in the office due to security and confidentiality concerns, had to change its policies drastically to implement work-from-home for its employees across the world. To address the data confidentiality issues, the company provided secured devices for each employee covered under work-from-home, and this was a significant overhead cost incurred. Thus, from the above, the research proposal has been constructed as:

- P<sub>3</sub>: Organizations who already have greater internal support (thus incurring lower infrastructure costs and overhead costs), will be more advanced in the digitization process.

### THEORETICAL MODEL

Based on the above understandings, as discussed in previous sections, I propose the following model, given as Fig. 15.1, for gauging the success or failure of the WFH in the organization. This model will also enable the organization to understand where it stands, that is, which quarter it belongs to, and thus put in necessary interventions for improvement.

The three factors determining the implementation of work-from-home mandates are as stated below:



**Fig. 15.1** Theoretical model (*Source* Author)

- (i) *X*-axis—Internal Supports (infrastructure costs, overhead costs)
- (ii) *Y*-axis—Internal Capabilities (employee readiness, employee willingness)
- (iii) *Z*-axis—digitization readiness (organization size, organization strategy).

There are 3 levels of digitization readiness of the industry—lag (I), mid (II), and lead (III), these are clusters of organizations within than industry. Low cluster ones are those firms which are more traditional in nature, and not that much digitized, while high cluster ones are those firms which are already on advanced digitization, the pioneers in that industry.

In this XY plane, within the clusters, there are 4 quadrants where a firm can lie, viz., Q1, Q2, Q3, Q4. These are such that firms which are low in both internal capabilities and internal support, lie in Q1, while those firms which are high on both internal capabilities and internal support, lie in Q4. In Q2 lies those firms which are low in internal capabilities but high in internal support, and in Q3 lies those firms which are high in internal capabilities but low in internal support.

## IMPLICATIONS

### *For Researchers*

This model is, to the best of my knowledge, the first of any such framework aimed to gauge the implementation of flexible work arrangements (work-from-home), from a macro-level. I hope this would open up further interest into the macro-level analyses of this arena, more so in the current context where flexible work arrangements are gaining importance at a broader level. Researchers interested in the digitization process, as also those of E-HRM, may find this model interesting. Testing the above model, for its reliability and validity, may open up more areas of in-depth research yet not explored.

### *For Practitioners*

This model should enable practitioners to assess the current position of the firm, based on the level and quadrant they fall into, and thus help in identifying improvement areas. The aim of a firm should be to reach Q4 within that level of digitization readiness (I, II or III). Thus, the first step would be in identifying the current quadrant and level for the firm, and then put in necessary interventions to move ahead to the highest quadrant, i.e., Q4. For example, a firm lying in level I of organizational readiness cluster, and Q2 quadrant (low internal capabilities but high internal support), the role of HRM practitioners would be to see whether employee willingness or employee readiness (or both) is lacking, and thence provide necessary interventions (for willingness—policy/reward structure changes to increase motivation; for readiness—training or hiring to match the required skillsets). This exercise needs to be done periodically, so as to monitor the progress/regress/change, and it is hoped that such data would allow create knowledge base, aid decision making and contribute to its strategic choices. Especially from the HRM perspective, the role of HR as a strategic partner to the core business is hoped to be strengthened.

## FUTURE RESEARCH

The first step would be to test the above model with real-world data. For this, identification of testable variables, along with scales of measurement has to be done. I envisage this to be a longitudinal study, so as to assess



the movement of firms across quadrants and levels. Results from such analyses would help in further honing and modifying the above model, so as to make it more useful and applicable, not only for the academicians but also for the practitioners.

## REFERENCES

- Balsa-Barreiro, J., Vié, A., Morales, A. J., & Cebrián, M. (2020). Deglobalization in a hyper-connected world. *Palgrave Communications*, 6(1), 1–4.
- Baltes, B. B., Briggs, T. E., Huff, J. W., Wright, J. A., & Neuman, G. A. (1999). Flexible and compressed workweek schedules: A meta-analysis of their effects on work-related criteria. *Journal of Applied Psychology*, 84(4), 496–513.
- Baral, R., & Bhargava, S. (2011). Examining the moderating influence of gender on the relationships between work–family antecedents and work–family enrichment. *Gender in Management: An International Journal*, 26(2), 122–147. <https://doi.org/10.1108/17542411111116545>
- Belfield, R., & Marsden, D. (2003). Performance pay, monitoring environments, and establishment performance. *International Journal of Manpower*, 24(4), 452–471. <https://doi.org/10.1108/01437720310485933>
- Bloom, N. (2014). Harvard Business Review: *To raise productivity, let more employees work from home*. Retrieved September 4, 2020, from <https://hbr.org/2014/01/to-raise-productivity-letmore-employees-work-from-home>
- Butler, A., Gasser, M., & Smart, L. (2004). A social-cognitive perspective on using family-friendly benefits. *Journal of Vocational Behavior*, 65(1), 57–70.
- Byron, K. (2005). A meta-analytic review of work–family interference and its antecedents. *Journal of Vocational Behavior*, 67, 169–198.
- Carnevale, J. B., & Hatak, I. (2020). Employee adjustment and well-being in the era of COVID-19: Implications for human resource management. *Journal of Business Research*, 116, 183–187. <https://doi.org/10.1016/j.jbusres.2020.05.037>
- Chen, W., Zhang, Y., Sanders, K., & Xu, S. (2018). Family-friendly work practices and their outcomes in China: The mediating role of work-to-family enrichment and the moderating role of gender. *The International Journal of Human Resource Management*, 29(7), 1307–1329. <https://doi.org/10.1080/09585192.2016.1195424>
- Čiarnienė, R., Vienažindienė, M., & Adamonienė, R. (2018). Implementation of flexible work arrangements for sustainable development. *European Journal of Sustainable Development*, 7(4), 11–21. <https://doi.org/10.14207/ejsd.2018.v7n4p11>
- Collins, C. J., & Clark, K. D. (2003). Strategic human resource practices, top management team social networks, and firm performance: The role of human

- resource practices in creating organizational competitive advantage. *Academy of Management Journal*, 46, 740–751. <https://doi.org/10.2307/30040665>
- Craigien, D., Diakun-Thibault, N., & Purse, R. (2014). Defining cybersecurity. *Technology Innovation Management Review*, 4(10), 13–21.
- Delery, J. E., & Roumpi, D. (2017). Strategic human resource management, human capital and competitive advantage: Is the field going in circles? *Human Resource Management Journal*, 27, 1–21. <https://doi.org/10.1111/1748-8583.12137>
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147–160.
- Emelah, G. E., & Enyia, C. D. (2018). Exploring the tensions in organizational theories. *European Scientific Journal*, 14(10), 373–377. <https://doi.org/10.19044/esj.2018.v14n10p373>
- Fisher, L. M. (2010). *Flexible work arrangements in context: How identity, place & process shape approaches to flexibility*. Doctoral dissertation. Available from [https://etd.ohiolink.edu/!etd.send\\_file?accession=ucin1275070770&disposition=inline](https://etd.ohiolink.edu/!etd.send_file?accession=ucin1275070770&disposition=inline)
- Gersick, C. J. G. (1991). Revolutionary change theories: A multilevel exploration of the punctuated equilibrium paradigm. *Academy of Management Review*, 16(1), 10–36.
- Hayman, J. R. (2009). Flexible work arrangements: Exploring the linkages between perceived usability of flexible work schedules and work/life balance. *Community, Work and Family*, 12(3), 327–338.
- Jain, S., & Nair, S. K. (2017). Work support and family support as predictors of work-to-family enrichment and family-to-work enrichment. *Global Business Review*, 18(5), 1307–1324. <https://doi.org/10.1177/0972150917710332>
- Kates, A., & Galbraith, J. R. (2007). *Designing your organization: Using the star model to solve 5 critical design challenges* (1st ed.). Jossey-Bass.
- Khan, N. A., Bohri, S. N., & Zaman, N. (2020). Ten deadly cyber security threats amid COVID-19 pandemic. *TechRxiv. Preprint*. <https://doi.org/10.36227/techrxiv.12278792.v1>
- Kossek, E. E., Lautsch, B. A., & Eaton, S. C. (2006). Telecommuting, control, and boundary management: Correlates of policy use and practice, job control, and work–family effectiveness. *Journal of Vocational Behavior*, 68(2), 347–367.
- Kotey, B., & Koomson, I. (2019). Firm size differences in financial returns from flexible work arrangements (FWAs). *Small Business Economics*, 56(1), 65–81. <https://doi.org/10.1007/s11187-019-00201-5>
- Lambert, A. D., Marler, J. H., & Gueutal, H. G. (2008). Individual differences: Factors affecting employee utilization of flexible work arrangements. *Journal of Vocational Behavior*, 73, 107–117.

- Lapierre, L. M., & Allen, T. D. (2006). Work-supportive family, family-supportive supervision, use of organizational benefits, and problem-focused coping: Implications for work–family conflict and employee well-being. *Journal of Occupational Health Psychology, 11*(2), 169–181.
- Lee, M. D., MacDermid, S. M., & Buck, M. L. (2002). Reduced-load work arrangements: Response to stress or quest for integrity of functioning? In D. L. Nelson & R. J. Burke (Eds.), *Gender, work stress, and health* (pp. 169–190). American Psychological Association.
- Lin, Z. J., Zhao, X., Ismail, K. M., & Carley, K. M. (2006). Organizational design and restructuring in response to crises: Lessons from computational modeling and real-world cases. *Organization Science, 17*(5), 598–618. <https://doi.org/10.1287/orsc.1060.0210>
- Litrico, J., & Lee, M. D. (2008). Balancing exploration and exploitation in alternative work arrangements: A multiple case study in the professional and management services industry. *Journal of Organizational Behaviour, 29*, 995–1020. <https://doi.org/10.1002/job.553>
- Marler, J. H., & Parry, E. (2015). Human resource management, strategic involvement and e-HRM technology. *The International Journal of Human Resource Management, 27*, 2233–2253. <https://doi.org/10.1080/09585192.2015.1091980>
- Mazzoleni, S., Turchetti, G., & Ambrosino, N. (2020). The COVID-19 outbreak: From “black swan” to global challenges and opportunities. *Pulmonology, S2531-0437(20)30075-1*. Advance online publication. <https://doi.org/10.1016/j.pulmoe.2020.03.002>
- McNall, L. A., Masuda, A. D., & Nicklin, J. M. (2009). Flexible work arrangements, job satisfaction, and turnover intentions: The mediating role of work-to-family enrichment. *The Journal of Psychology, 144*(1), 61–81. <https://doi.org/10.1080/00223980903356073>
- Mesmer-Magnus, J. R., & Viswesvaran, C. (2006). How family-friendly work environments affect work/family conflict: A meta-analytic examination. *Journal of Labor Research, 4*, 555–574.
- Miles, R. E., Snow, C. C., Meyer, A. D., & Coleman, H. J. (1978). Organizational strategy, structure, and process. *Academy of Management Review, 3*(3), 546–562.
- Peretz, H., Fried, Y., & Levi, A. (2018). Flexible work arrangements, national culture, organisational characteristics, and organisational outcomes: A study across 21 countries. *Human Resource Management Journal, 28*, 182–200. <https://doi.org/10.1111/1748-8583.12172>
- Platje, J., Harvey, J., & Rayman-Bacchus, L. (2020). COVID-19—Reflections on the surprise of both an expected and unexpected event. *Emerging Issues in Energy, Climate Change and Sustainability Management, 4*(1). <https://doi.org/10.29015/cerem.874>

- Rudolph, C. W., & Baltes, B. B. (2017). Age and health jointly moderate the influence of flexible work arrangements on work engagement: Evidence from two empirical studies. *Journal of Occupational Health Psychology, 22*(1), 40–58. <https://doi.org/10.1037/a0040147>
- Ruël, H. J. M., Bondarouk, T. V., & Van der Velde, M. (2007). The contribution of e-HRM to HRM effectiveness: Results from a quantitative study in a Dutch Ministry. *Employee Relations, 29*(3), 280–291. <https://doi.org/10.1108/01425450710741757>
- Scott, W. R., & Davis, G. F. (2007). *Organizations and organizing: Rational, natural, and open system perspectives*. Prentice Hall.
- Shockley, K. M., & Allen, T. D. (2007). When flexibility helps: Another look at the availability of flexible work arrangements and work–family conflict. *Journal of Vocational Behavior, 71*(3), 479–493.
- Shockley, K. M., & Allen, T. D. (2010). Investigating the missing link in flexible work arrangement utilization: An individual difference perspective. *Journal of Vocational Behavior, 76*(1), 131–142.
- Shockley, K. M., & Allen, T. D. (2012). Motives for flexible work arrangement use. *Community, Work & Family, 15*(2), 217–231.
- Stanley, A. (1995). *Mothers and daughters of invention: Notes for a revised history of technology*. Rutgers University Press. ISBN: 9780813521978.
- Sweet, S., Pitt-Catsouphes, M., Besen, E., & Golden, L. (2014). Explaining organizational variation in flexible work arrangements: Why the pattern and scale of availability matter. *Community, Work & Family, 17*(2), 115–141. <https://doi.org/10.1080/13668803.2014.887553>
- Taleb, N. N. (2007). *The Black Swan: The impact of the highly improbable*, 2nd ed. Penguin. ISBN 978-0-14103459-1.
- Tang, H. (2020). *Globalization in crisis*.
- Townsend, K., McDonald, P., & Cathcart, A. (2017). Managing flexible work arrangements in small not-for-profit firms: The influence of organisational size, financial constraints and workforce characteristics. *The International Journal of Human Resource Management, 28*(14), 2085–2107. <https://doi.org/10.1080/09585192.2015.1136671>
- Wadsworth, L. L., & Owens, B. P. (2007). The effects of social support on work-family enhancement and work-family conflict in the public sector. *Public Administration Review, 67*(1), 75–87. <https://doi.org/10.1111/j.1540-6210.2006.00698.x>
- Waring, Stephen P. (2016). *Taylorism transformed: Scientific management theory since 1945*. UNC Press Books.
- Williamson, O. E. (1979). Transaction-cost economics: The governance of contractual relations. *The Journal of Law and Economics, 22*(2), 233–261.

- Williamson, O. E. (1986). Vertical integration and related variations on a transaction-cost economics theme. In *New developments in the analysis of market structure* (pp. 149–176). London: Palgrave Macmillan.
- Wind, T. R., Rijkeboer, M., Andersson, G., & Riper, H. (2020). The COVID-19 pandemic: The ‘black swan’ for mental health care and a turning point for e-health. *Internet Interventions, 20*, 100317. <https://doi.org/10.1016/j.invent.2020.100317>
- Zhang, L., Lin, Y., & Wan, F. (2015). Social support and job satisfaction: Elaborating the mediating role of work-family interface. *Current Psychology, 34*(4), 781–790. <https://doi.org/10.1007/s12144-014-9290-x>



# Determinants of E-Governance Health Care Services Requirements and Rural Citizen Satisfaction

*M. Bhuvana and S. Vasantha*

## INTRODUCTION

The term “E-governance” is defined as the process of providing government services through ICT (Information and Communication Technology). ICT is considered to be a convenient mode for exchanging information among the government and the citizens (Varun Kumar & Venugopal, 2015). The phrase e-governance is referred to as the activity of facilitating government services through Information and Communication Technology (ICT). It is said to be a comfortable platform for

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transferring the information between the government and the citizens in the most productive manner (Varun Kumar & Venugopal, 2015). Experts termed e-governance services as Simple, Moral, Accountable, Responsible, and Transparent Model (SMART) for reaching the government services to all the citizens residing in our country. The preliminary objective of e-governance services is to perform its functions in a smooth, transparent, and effective manner in reaching people. It also acts as a guideline for greater communication and interaction between the government to government, government to citizens, government to employees, and government to businesses (Armstrong & Gandhi, 2012). This system has been already successfully implemented in various countries across the world. But the developing countries like India the usage of Information and Communication Technology seems to be in a growing state. Nearly 70 percentage of the entire population in India resides in rural villages. This shows that it seems to be a greater challenge for the officials in the government department to reach the rural people for delivering its services (GOI, 2020).

The Government of India has taken several initiatives for the development of rural areas in meeting the needs and requirements of the rural citizen. They have made different strategies for conducting awareness programs to create knowledge among the rural people for effectively accessing e-governance services. To meet these objectives the government has set up Common Service Centers at the nearby places of the rural citizen localities for accessing the government services in the field of Agriculture, Education, Health Care Services, Banking, and Insurance Services (Bhuvana & Vasantha, 2020a, b). Hence the research study has strongly focused on examining the rural citizen satisfaction in utilizing the e-governance health care services. Table 16.1 represents the list of Health Care Systems Maintained in the State of Tamil Nadu (Bolton, 2019).

This study aims at identifying the determinants of e-governance health care service requirements and analyzing the effect of e-governance health care services requirements and rural citizen satisfaction.

## DETERMINANTS OF E-GOVERNANCE HEALTH CARE SERVICES ON RURAL CITIZEN SATISFACTION

The phrase “Citizen Satisfaction” is defined as the collective perception of the citizen toward the quality in the production of the Government in providing their services (Van Ryzin, 2013). Researchers have examined

**Table 16.1** List of health care systems maintained in the state of Tamil Nadu, India

<i>S.No.</i>	<i>Health care management system</i>	<i>Services</i>
1.	Hospital Management System (HMS)	Maintaining information about the patients, doctors, and administrators
2.	Dr. Muthulakshmi Reddy Maternity Benefit Scheme (MRMBS)	Facilitating cash assistance of Rs. 12,000 for pregnant and delivered mothers at rural villages
3.	Health Management Information System (HMIS)	Generating unique identification numbers for hospitals, doctors, and patients for facilitating e-health care services
4.	State Health Data Resource Centre (SHDRC)	It acts as a central repository for gathering data from the Health Management Information System (HMIS) in the state of Tamil Nadu
5.	Pregnancy and Infant Cohort Monitoring and Evaluation (PICME)	Generating PICME number for registering the details of pregnant women. The data can be utilized for monitoring high-risk cases during pregnancies
6.	National Teleconsultation Services	For providing healthcare services at home through structured video calls
7.	Tele Diabetology Services	For screening the diabetic patients and facilitating medical services at rural villages

*Source* Laura Bolton (2019)

that Information Quality, Usability, and Trust are the three important factors for examining the rural citizen satisfaction on using e-governance services (Bhuvana & Vasantha, 2020b, c). Many academicians have stated that service quality and customer satisfaction seem to be an associated construct even they are distinct (Irfan et al., 2016; Parasuraman et al., 1994; Oliver & Gregg, 2017). Various factors of service quality are considered for analyzing the satisfaction of the customers based on the performance of the institution or an organization (Connolly & Bannister, 2007). Each citizen in our country is considered to be a consumer in the field of receiving e-governance services. The regulations, policies, and decisions are to be executed productively for satisfying the needs of the citizens (Axelsson et al., 2013).



### *Information Quality*

The term information quality is defined as the quality of information facilitated by the system (Madnick et al., 2009). Information quality includes both subjective and objective elements such as reliability, validity, credibility, trust, and transparency of information that is being shared with the users (Diakopoulos & Essa, 2008). It is defined as the high quality of information that is acceptable when a new system is designed. Professionals have stated that believability, interpretability, and accuracy are the important dimensions of Information Quality (Embury et al., 2009). Information consists of actual data and facts that are organized for decision making (Jung, 2004). The issue occurs where the information and data quality are found to be inconsistent and it may result in quality problems (Lyytinen, 2009; Bhuvana & Vasantha, 2020a). Information quality on e-governance websites is considered to be a preliminary and essential requirement for obtaining the benefits by the people (Tayyaba Rasool et al., 2018a, 2018b).

### *System Quality*

A system is defined as the association of several components that perform its functions for a common objective (Hardcastle, 2011). It is also described as the outcome of an information system that concern with reliability, convenience, ease of use, and other various system-associated metrics and components (Bhuvana & Vasantha, 2019; Petter & McLean, 2009). It has the most important features of the Information system such as response time, flexibility, and sophistication (Saxena, 2005). The phrase system quality is also referred to as an efficiency and productivity of e-governance information system for ease of using the systems by the citizens (Shareef et al., 2010). The variable "System Quality Functionality" is referred to as the outcome of the e-governance information system that is strongly associated with the reliability and functionality of the citizens (Kolsaker & Lee-Kelley, 2008). The paper has highlighted that high-quality software improves information system quality (Gabriel & Obara, 2013). By accessing e-governance websites both the government and citizens receive better and convenient services with lesser management and operating cost (Sivaporn et al., 2005).

### *Service Quality*

The phrase “Service” is described as the collection of perishable, intangible, and inseparable performance of the system that satisfies the requirements of the system. Six sigma of ISO, TQM (Total Quality Management) practices, benchmarking, and balance card are the concepts of the service quality dimensions that measure the system of e-governance (Bhuvana & Vasantha, 2020b, d; Gupta et al., 2016). Assurance, Tangibility, Responsiveness, and Empathy are the various components of service quality in banking, tourism, and transport industries (Parasuraman et al., 1988). Attitude, Behavior, credibility, recovery, and trust are the preliminary factors that measure the service quality of an organization (Gronroos, 1984). To analyze the overall satisfaction of the customer that dimensions of service quality such as responsiveness, quality, reliability, and personalization are to be considered and measured (Lee & Lin, 2005).

### *Behavioral Intention*

The term “Behavioral Intention is referred to as the likelihood of the person who adopts an application to improve his/her performance” (Davis et al., 1989). Zeithaml et al. (1996) has structured the model of intentions that represents the repurchase intentions, loyalty, behavior, word of mouth, and price sensitivity. High service quality results in favorable behavior intention among the consumers for adopting technology-based services (Bhuvana & Vasantha, 2017; Chen & Chen, 2010). Burton et al. (2003) has stated that customer experiences are highly related to their intentions for buying products or services. Furthermore, the loyal consumer recommends their friends and relatives to buy the product or service by performing as an advertising agent (Shoemaker & Lewis, 1999). Nzaramyimana and Susanto (2019) have done an investigation of the dimensions affecting the behavioral intention of the people in using e-governance services. The authors have measured behavioral intention with four different variables namely Social Influence, Trust, Propensity, and the Internet. The study strongly supported that the dimension of trust was found to be highly significant with the factor loading of 0.584.

### *Research Gap*

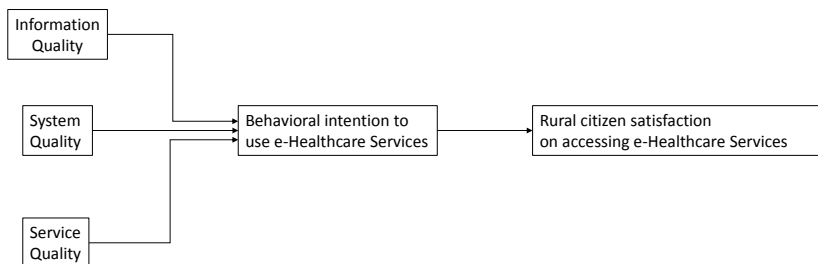
Several research studies have focused on the challenges faced by rural people for using e-governance services. Various authors have theoretically explained the initiatives taken by the government toward e-governance services. Very few researchers have examined rural citizen satisfaction toward e-health care services. Our Indian Government has taken huge initiatives and spent lakhs and lakhs of money for redesigning the process of facilitating its services to the rural citizens through ICT (Information and Communication Technology). But still accessing ICT-based services are found to be lacking in rural villages particularly in acquiring health care services. Hence this research study has focused on the rural citizens' satisfaction toward accessing e-governance health care services. The study has found the most predominant gap from the previous literature reviews on measuring the rural citizen satisfaction on e-governance health care services. The present research study has also analyzed the dimensions of e-health care service requirements for measuring the behavioral intention of rural citizens for accessing e-governance health care services.

## THEORETICAL MOTIVATION

The study has adopted DeLone and McLean (2003) Information System Model for analyzing rural citizen satisfaction by identifying the determinants of e-governance health care service requirements. The authors have considered Information Quality, Service Quality, and System Quality as the dimensions of e-governance health care services requirements which has an impact on behavioral intention to use e-health care services. Through analyzing the behavioral intention to use e-health care services, the outcome variable Rural Citizen Satisfaction has been measured Fig. 16.1 represents the Determinants of e-governance on health care services requirements and Rural Citizen Satisfaction.

## METHODOLOGY

The research has structured a questionnaire to analyze the rural citizen satisfaction for accessing e-governance health care services in villages of Kancheepuram District. The survey questionnaire framed for the research study has 31 questions with two different sections. Section “[Introduction](#)” analyzes the demographic profile of the respondents and



**Fig. 16.1** Determinants of e-governance on health care services requirements and rural citizen satisfaction (*Source* Authors)

**Table 16.2** Displays the number of items for the variables used in the study and its sources

<i>S.No</i>	<i>Variable name</i>	<i>Number of items</i>	<i>Sources</i>
1.	Information quality	5	Ibrahim et al. (2014), Karunasena and Deng (2012)
2.	System quality	5	Ibrahim et al. (2014), Nabafu and Maiga (2012)
3.	Service quality	5	Barnes and Richard (2006), Ibrahim et al. (2014)
4.	Behavioral intention	5	Delone and McLean (2003), Davis et al. (1989)
5.	Rural citizen satisfaction	5	Mohammed et al. (2016), Malik et al. (2016)

section “[Determinants of E-Governance Health Care Services on Rural Citizen Satisfaction](#)” measures the study variables (Information Quality, System Quality, Service Quality, Behavioral Intention to use e-governance health care services, and Rural Citizen Satisfaction). Descriptive research design is adopted for the study. Table 16.2 displays the number of items for the variables used in the study and its sources.

### *Data Collection*

A Descriptive research design is adopted for the study. The primary data for the study has been collected from randomly selected 500 respondents residing in the villages of Kancheepuram district through the purposive

sampling technique since the rural literacy rate of Kancheepuram district is found to be 75.9 percentage that is lesser than the average literacy rate of Tamil Nadu (80.33%).

### *Hypothesis Framed for the Study*

H<sub>1</sub>: e-health Care Services Requirements is positively associated with Behavioral Intention

### *Sub Hypothesis*

- H<sub>a</sub>: Information Quality influences the e-health Care Services Requirements
- H<sub>b</sub>: System Quality influences the e-health Care Services Requirements
- H<sub>c</sub>: Service Quality influences the e-health Care Services Requirements

H<sub>2</sub>: Behavioral Intention positively associated with the Rural Citizen Satisfaction

## ANALYSIS AND FINDINGS

SPSS 21 (Statistical Package of Social Sciences) has been used for data analysis and AMOS 22 has been used for generating the factor loadings, measuring Construct Reliability, Discriminant validity, and Model fit for the proposed conceptual framework. Table 16.3 displays the demographic profile of rural respondents.

### *Factor Loadings, Construct Reliability and Average Variance Extracted Values for All the Variables Used in the Study*

Through the generated factor loading, the construct reliability and AVE (Average Variance Extracted) values of all the variables used in the study are computed. Table 16.4 highlights the calculated CR and AVE values for all the variables used in the study. From the table, it is clear that the factor loadings are greater than 0.5 for all the variables. The extracted CR for all the variables is greater than 0.7 and AVE values are found to be

**Table 16.3**  
Demographic profile of  
the respondents

<i>Variable</i>	<i>Description</i>	<i>Frequency</i>	<i>Percentage</i>
Gender	Male	246	49.0
	Female	254	51.0
Age (years)	18–25 years	151	30.0
	26–35	150	30.0
	36–45	112	22.0
	46–55	60	11.0
	Above 55	27	5.0
Marital status	Married	460	91.8
	Unmarried	40	8.2
Occupation	Farmer	141	28.2
	Employed	265	53.0
	Business	75	15.0
	Student	19	3.8
Education	Below 10th Std.	111	22.2
	Passed 10th Std.	127	25.4
	Passed 12th Std.	144	28.8
	Graduate	118	23.6
	Income	Rs. 25k to Rs. 50k	278
	Rs. 51k to 1 Lakh	186	37.2
	Above Rs. 1 Lakh	36	7.2

*Source* Authors

higher than 0.5. This shows that the construct validity for all the variables used in the study is found to be reliable (Fornell & Larcker, 1981).

### *Discriminant Validity*

Discriminant Validity represents the interdependence of the variables used in the research study. It also evaluates the extent to which items of the variable differ from the items used in the other variables in the study (Bagozzi, 2007). According to Fornell and Larcker (1981), discriminant validity can be measured by comparing the range of variance extracted by the variable and the amount of variance shared by the other variables. Table 16.5 displays the discriminant validity of all the constructs used in

**Table 16.4** Factor loadings, construct reliability and average variance extracted values for all the Variables used in the study

<i>Construct name</i>	<i>Item name</i>	<i>Factor loadings</i>	<i>CR value</i>	<i>AVE value</i>
Information quality	IQ1	0.845	0.712	0.901
	IQ2	0.834		
	IQ3	0.883		
	IQ4	0.852		
	IQ5	0.841		
System quality	SQ1	0.852	0.708	0.898
	SQ2	0.791		
	SQ3	0.830		
	SQ4	0.825		
	SQ5	0.814		
Service quality	SEQ1	0.795	0.748	0.852
	SEQ2	0.869		
	SEQ3	0.842		
	SEQ4	0.811		
	SEQ5	0.823		
Behavioral intention	SEQ1	0.846	0.702	0.921
	SEQ2	0.823		
	SEQ3	0.878		
	SEQ4	0.832		
	SEQ5	0.889		
Rural citizen satisfaction	RCS1	0.828	0.708	0.932
	RCS2	0.834		
	RCS3	0.872		
	RCS4	0.838		
	RCS5	0.815		

*Source* Authors' data analysis

**Table 16.5** Discriminant validity

<i>Construct</i>	<i>IQ</i>	<i>SQ</i>	<i>SEQ</i>	<i>BI</i>	<i>RCS</i>
IQ	0.901				
SQ	0.351	0.898			
SEQ	0.473	0.231	0.852		
BI	0.521	0.170	0.421	0.921	
RCS	0.531	0.430	0.321	0.621	0.932

*Source* Authors

**Table 16.6** Variables of structural equation model (SEM)

<i>Variables</i>			<i>S.E</i>	<i>Standardized coefficient</i>	<i>t value</i>	<i>P value</i>	<i>Result of hypothesis</i>
Behavioral intention	<--	e-health care services requirements	0.505	0.20	4.367	0.000	H <sub>1</sub> is supported
Rural citizen satisfaction	<--	Behavioral intention	0.038	0.20	5.865	0.000	H <sub>2</sub> is supported
Information quality	<--	e-health care services requirements	0.321	0.841	4.261	0.000	H <sub>a</sub> is supported
System quality	<--	e-health care requirements	0.254	0.788	3.432	0.000	H <sub>b</sub> is supported
Service quality	<--	e-health care requirements	0.395	0.751	4.358	0.000	H <sub>c</sub> is supported

*Source* Author's data analysis

the study. This shows that the variance extracted for all the variables is higher than the square of the correlation values of all the variables.

### *Hypothesis Validation*

For examining the gathered primary data from the respondents and analyzing the relationship between the study variables Structural Equation Modeling (SEM) is utilized. Table 16.6 displays the relationship that exists between the variables. It is proved that the *p*-value is found to be less than 0.05. Hence the hypothesis framed for the study is accepted and remains a significant relationship between the constructs.

### *Assessment of Model Fit*

Table 16.7 represents the model fit assessment of the conceptual model framed for the study. It shows that the *P*-value is greater than 0.05 this shows that the model is said to be a complete fit model. The values of GFI, CFI, NFI, and AGFI are found to be greater than 0.9. The value of RMSEA is found to be lesser than 0.08. This represents the conceptual model framed for the research study is a completely fit model (Hu & Bentler, 1999; Hair et al., 2006).



**Table 16.7** Model fit summary for structural equation model

<i>Goodness of fit statistics</i>	<i>Value</i>
Chi square value (CMIN)	93.860
<i>P</i> value	0.07
Chi square/Df (CMIN/Df)	2.890
Goodness of fit index (GFI)	0.978
Root mean square error of approximation (RMSEA)	0.072
Adjusted good of fit index (AGFI)	0.961
Comparative fit index (CFI)	0.978
Normed fit index (NFI)	0.902

*Source* Authors' data analysis

## GENERAL DISCUSSION

It is found that out of 500 rural respondents 246 are male and the remaining 254 are female respondents. The majority of the respondents belong to 18–25 years of age category. Out of 500 respondents, 460 respondents are married and 265 respondents are employed and 144 respondents have passed 12th Std. 278 respondents belong to the income group between INR 25,000 to 50,000.

It is proved that there exists a positive relationship between the e-health Care Requirements and Behavioral Intention to use e-governance health care services. This research findings have been coincided with the findings of Verma et al. (2019). They have examined that behavior intention found to be an important dimension for analyzing the acceptance of e-health Care services among the citizen. It is verified that there exists a significant relationship between the variables Behavioral Intention and Rural Citizen Satisfaction.

The study has found that there exists a significant relationship between behavioral intention to access e-governance health care services and rural citizen satisfaction. This research findings have been coincided with the findings of Wayan Ardani et al. (2019), they have highlighted that the relationship that exists between the satisfaction of the customer and their behavioral intention for accessing any services has drawn a most significant observation in the market space of any kind of industry. DeLone and McLean (2003) have measured the net benefits attained by the users toward accessing an information system. The authors have developed the conceptual model by considering System Quality, Information Quality,

and Service Quality as the dimensions for measuring behavioral Intention. The present research study has tested the model and it has derived the outcome, out of these three dimensions (Information Quality, System Quality, and Service Quality), the dimension “Information Quality” is found to be a highly significant factor of e-health care requirement with the standardized coefficient value of 0.841 for measuring the Behavioral Intention of rural citizens for using e-health care services. Table 16.3 represents the model fit of the conceptual framework.

## IMPLICATIONS

The research study has explored the maximum information related to rural citizen satisfaction in e-governance health care services. The findings of the study can be effectively utilized by the government institutions, policymakers, financial institutions, medical practitioners, Website developers, and many funding agencies for analyzing the needs and requirements of the rural citizens for accessing e-governance health care services. The information about e-governance health care services acts can be used as guidance for supporting the general public in understanding the importance of e-governance health care services.

The study has highlighted the association that exists between the variables “Information Quality”, “System Quality”, Service Quality”, “Behavioral Intention to Use e-governance service” and “Rural Citizen Satisfaction”. From the research findings, it has been evaluated that the dimension “Information Quality” highly significant with the behavioral intention of the rural citizen for attaining satisfaction in accessing e-governance health care services. This finding helps the regulators and implementers of e-governance services for achieving maximum satisfaction among rural citizens for frequently accessing e-health care services.

## CONCLUSION

Health care services under e-governance initiatives are said to be an originating field toward transferring medical informatics, public health, delivering information, and providing health care services with innovative technologies Rushender et al. (2016). It remains a greater challenge in developed countries in India for facilitating its services to the rural villages, make them adopt the services through ICT, and meet their needs and requirements. The present study has made a contribution to

the existing literature on measuring the rural citizen satisfaction on using e-governance health care services. Hence the researchers conclude that to satisfy the requirements of the health care services, the Information Quality of the system has to be given more importance for developing the applications.

## REFERENCES

- Ardani, W., et al. (2019). Customer satisfaction and behavioral intentions in tourism: A literature review. *International Journal of Applied Business & International Management*, 4(3), 85–93.
- Armstrong, L., & Gandhi, N. (2012). Factors influencing the use of information and communication technology (ICT) tools by the rural famers in Ratnagiri District of Maharashtra, India. In *Proceedings of the Third National Conference on Agro-Informatics and Precision Agriculture 2012* (pp. 58–63).
- Axelsson, K., Melin, U., & Lindgren, I. (2013). Public e-services for agency efficiency and citizen benefit—Findings from a stakeholder centered analysis. *Government Information Quarterly*, 30(1), 10–22.
- Bagozzi, P. (2007). The legacy of the technology acceptance model and a proposal for a paradigm shift. *Journal of the Association for Information Systems*, 8(4), 244–254.
- Barnes, J., & Vidgen, R. T. (2006). An integrative approach to the assessment of e-commerce quality. *Journal of Electronic Commerce Research*, 3, 114–127.
- Bhuvana, M., & Vasantha, S. (2017). A structural equation modeling (SEM) approach for mobile banking adoption—A strategy for achieving financial inclusion. *Indian Journal of Public Health Research and Development*, 8(2), 175–182.
- Bhuvana, M., & Vasantha, S. (2019). An outlook of financial inclusion with mediating effect of direct benefit transfer in LPG subsidy towards actual usage of banking technology. *International Journal of Engineering and Advanced Technology (IJEAT)*, 8(6S), 804–811.
- Bhuvana, M., & Vasanth, S. (2020a). Determinants of behavioral intention to access e-governance services by rural people with the mediating effect of information and communication (ICT) literacy. *Journal of Advanced Research in Dynamical & Control Systems*, 12(2), 176–187.
- Bhuvana, M., & Vasantha, S. (2020b). Assessment of rural citizens satisfaction on the service quality of common service centers (CSCS) of e-governance. *Journal of Critical Reviews*, 7(5), 302–305.
- Bhuvana, M., & Vasantha, S. (2020c). Role of information and communication technology (ICT) for rural development through e-governance initiatives. *International Journal of Psychosocial Rehabilitation*, 24(8), 2705–2713.

- Bhuvana, M., & Vasantha, S. (2020d). Neural network machine learning techniques using R studio for predicting the attitude of rural people for accessing e-governance services. *Journal of Advanced Research in Dynamical & Control Systems*, 12(2), 2552–2562.
- Bolton, L. (2019). *E-governance innovations in India, K4D*. Institute of Development Studies.
- Burton, S., Sheather, S., & Roberts, J. (2003). Reality or perception? The effect of actual and perceived performance on satisfaction and behavioral intention. *Journal of Service Research*, 5(4), 292–302.
- Chen, C.-F., & Chen, F.-S. (2010). Experience quality, perceived value, satisfaction and behavioral intentions for heritage tourists. *Tourism Management*, 31(1), 29–35.
- Connolly, R., & Bannister, F. (2007). Consumer trust in Internet shopping in Ireland: Towards the development of a more effective trust measurement instrument. *Journal of Information Technology*, 22(2), 102–118.
- Davis, F. D., et al. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35(8), 982–1003.
- DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: A ten-year update. *Journal of Management Information Systems*, 19(4), 9–30.
- Embury, M., Missier, P., Sampaio, S., Mark Greenwood, R., & Preece, D. (2009). Incorporating domain-specific information quality constraints into database queries. *Journal of Data and Information Quality*, 1(2), 1–3.
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18(3), 382–388.
- Gabriel, J., & Obara, L. C. (2013). Management information systems and corporate decision-making: A literature review. *The International Journal of Management*, 2(3), 78–82.
- Gronroos, C. (1984). A service quality model and its marketing implications. *European Journal of Marketing*, 18, 36–44.
- Gupta, K. P., Bhaskar, P., & Singh, S. (2016). Critical factors influencing e-government adoption in India: An investigation of the citizens' perspectives. *Journal of Information Technology Research*, 9(4), 28–44.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (6th ed.). Pearson University Press.
- Hardcastle, E. (2011). *Business information systems*. Ventus Publishing ApS.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55.

- Ibrahim, M., Rahman, M. A., & Yasin, R. (2014). Determining factors of students' satisfaction with Malaysian skills training institutes. *International Education Studies*, 7(6), 9–24.
- Irfan, M., Shamsudin, M. F., & Hadi, N. U. (2016). How important is customer satisfaction? Quantitative evidence from mobile telecommunication market. *International Journal of Business and Management*, 11(6), 57–69.
- Jung, W. (2004). A review of research: An investigation of the impact of data quality on decision performance. *Proceedings of the 2004 international symposium on Information and communication technologies*, 90, 16–171. ACM International Conference Proceeding Series.
- Karunasena, K., & Deng, H. (2012). Critical factors for evaluating the public value of e-government in Sri Lanka. *Government Information Quarterly*, 29(1), 76–84.
- Kolsaker, A., & Lee-Kelley, L. (2008). Citizens' attitudes towards e-government and e-governance: A UK study. *International Journal of Public Sector Management*, 21(7), 723–738.
- Lee, G.-G., & Lin, H.-F. (2005). Customer perceptions of e-service quality in on-line shopping. *International Journal of Retail & Distribution Management*, 33(2), 161–176.
- Lyytinen, K. (2009). Data matters in IS theory building. *Journal of the Association for Information Systems*, 10(10), 715–720.
- Madnick, S. E., Lee, Y. W., Wang, R. Y., & Zhu, H. (2009). Overview and framework for data and information quality research. *Journal of Data and Information Quality*, 1(1), 1–22.
- Malik, B. H., Shuqin, C., Shuqin, C., Mastoi, A. G., Mastoi, A. G., Gul, N., Gul, N., Gul, H., & Gul, H. (2016). Evaluating citizen e-satisfaction from e-government services: A case of Pakistan. *European Scientific Journal*, ESJ, 12(5), 346.
- Mohammed, M. A., Aboobaidar, B. M., Ibrahim, H., Abdullah, H. A., Ali, M. H., Jaber, M. M., & Shawkat, A. (2016). E-government and its challenges in developing countries: Case study Iraqi e-government. *The Social Sciences*, 11(17), 4310–4319.
- Nabafu, R., & Maiga, G. (2012). E-government principles: Implementation, advantages and challenges. *International Journal of Electronic Business*, 9(3), 255–270.
- Nicholas, D., & Essa, I. (2008, November 28–30). An annotation model for making sense of information quality in online video. In *Proceedings of the 3rd International Conference on Pragmatic Web, ICPW 2008* (pp. 31–34).
- Nzaramyimana, L., & Susanto, T. D. (2019). Analysis of factors affecting behavioural intention to use e-government services in Rwanda. *Procedia Computer Science*, 161, 350–358.

- Oliver, J., & Gregg, G. (2017). Motivated reasoning about public performance: An experimental study of how citizens judge the affordable care act. *Journal of Public Administration Research and Theory*, 27(1), 197–209.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12–40.
- Parasuraman, A., Zeithaml, V., & Berry, L. (1994). Reassessment of expectations as a comparison standard in measuring service quality: Implications for further research. *Journal of Marketing*, 58, 111–124.
- Petter, S., & McLean, E. R. (2009). A meta-analytic assessment of the DeLone and McLean IS success model: An examination of IS success at the individual level. *Information & Management*, 46(3), 159–166.
- Prachi, V., et al. (2019). Understanding the factors affecting consumer's acceptance of e-healthcare services. *International Journal of Recent Technology and Engineering (IJRTE)*, 8(2S10), 468–473.
- Rushender, R., Balaji, R., & Parasuraman, G. (2016). A study on effective utilization of health care services provided by primary health centre and sub-centres in rural Tamil Nadu, India. *International Journal of Community Medicine and Public Health*, 3(5), 1054–1060.
- Saxena, K. B. C. (2005). Towards excellence in e-governance. *International Journal of Public Sector Management*, 18(6), 498–513.
- Shareef, M. A., et al. (2010). E-Government implementation perspective: Setting objective and strategy. *International Journal of Electronic Government Research*, 6(1), 59–77.
- Shoemaker, S., & Lewis, R. (1999). Customer loyalty: The future of hospitality marketing. *Hospitality Management*, 18, 345–370.
- Tayyaba Rasool, N., et al. (2018a). A study of the information quality of e-government websites in Pakistan. In *Proceedings of the 11th International Conference on Theory and Practice of Electronic Governance* (pp. 433–442).
- Tayyaba Rasool, N., et al. (2018b). Information quality of e-government websites as perceived by university students in Pakistan. *Journal of Political Studies*, 25(2), 181–195.
- Van Ryzin, G. (2013). An experimental test of the expectancy-disconfirmation theory of citizen satisfaction. *Journal of Policy Analysis and Management*, 32(3), 597–614.
- Varun Kumar, M., & Venugopal, P. (2015). E-Governance and rural development (A study specially focused on villages of Katpadi Taluk, Vellore District of Tamil Nadu). *International Journal of Applied Engineering Research*, 10(92), 319–324.
- Wangpipatwong, S., et al. (2005, November 19–20). Factors influencing the adoption of Thai eGovernment websites: Information quality and system

quality approach. In *Proceedings of the Fourth International Conference on eBusiness* (pp. 14.1–14.7).

Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The behavioral consequences of service quality. *Journal of Marketing*, 60(2), 31–46.

#### WEBSITE

Government of India. (2020). [Online]. Available: <https://www.mygov.in/aarogya-setu-app/>



# Framework for Crowdfunding Adoption Across Countries

*Chandresh Baid and Devesh Baid*

## INTRODUCTION

The crowdfunding industry has grown at a fast pace since its inception after the global financial crisis in 2008 (Pierrakis & Collins, 2013) but it has remained concentrated in few parts of the world, mainly USA and Europe (Kshetri, 2015). According to an industry report, the USA and Europe account for 95% of the total market (www.massolution.com, 2013). Despite the economic and technical strength of some of the countries in Asia like India, China, Japan and South Korea, adoption of crowdfunding as an alternate source of finance has been low and it can be

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attributed to the institutional barriers in these countries (Kshetri, 2015). The difference in adoption rate of crowdfunding across various countries can be explained by the difference in institutions such as national laws, national culture and business norms across countries.

Individuals and firms are embedded in institutional settings and these settings impact the behavior of both individuals and firms in subtle but permanent way. In this paper, I focus on the institutional differences across countries to analyze variation in adoption rate of crowdfunding. I specifically focus on the question: How do formal and informal institutions impact the adoption of crowdfunding in a global context?

## THEORETICAL FOUNDATION

Institutional theory has been widely used in the management literature. Institutional role has long been recognized in shaping the organizations. Different theorists at different points in time have suggested different views of institutional impact on organization. Institutions can be broadly classified into three categories: regulatory, normative and cognitive (Scott, 1995). Regulatory elements include the rules and laws that regulate the behavior of individuals and organizations. Normative elements provide a moral framework of values and behaviors to be exhibited by individuals and organizations and cognitive elements provide the shared meaning that develops among individuals and organizations through social interaction. Variation in crowdfunding adoption across countries can be understood by analyzing the variations in configurations of regulatory, normative and cognitive institutions (Bruton et al., 2005; Scott & Davis, 2007).

## HYPOTHESIS DEVELOPMENT

In crowdfunding context, Entrepreneurs suffer from the paradox of disclosure (Gans & Stern, 2003). They need to share the idea with potential funder but then once they share the idea, it's in the public domain and known to everyone and not in their control. Incumbent firms with ample resources and economies of scale can learn about the product ideas and beat the entrepreneur in time to market and price by sheer strength of existing resource capabilities. In such scenario entrepreneurs will not be willing to share their product on CFPs as they will fear imitation and appropriation of rent by other people and firms from their product idea

in the absence of well-defined intellectual property regulations (Schwienbacher & Larralde, 2010). It can be derived from above discussion that having well-defined IP Laws and administrative mechanisms by which entrepreneurs can acquire IP rights for their invention is an important factor in the selection of crowdfunding as mechanism to source fund for his venture.

**Hypothesis 1** IP law strength will be positively related to technologically innovative crowdfunding campaign creation

Having explicit IP law is necessary but what is equally important are the enforcement practices related to a particular law (Ostergard, 2000; Porta et al., 1997). Many countries have well-defined laws but they do not have well-oiled machinery backing the laws resulting in a random enforcement of laws (Bruton et al., 2005; Kshetri, 2015). These random enforcement leads to opportunistic behavior by self-interested firms and individuals (Roy & Oliver, 2009) and creates a feeling of uncertainty in the society with respect to law enforcement. Such an environment will discourage entrepreneur to share his invention on the crowdfunding platform because even if invention is protected by IP laws, it can be imitated by incumbent organizations in absence of effective enforcement of IP protection by relevant authorities.

**Hypothesis 2** IP law enforcement will be positively related to technologically innovative crowdfunding campaign creation

Society plays a critical role in promotion of entrepreneurial activities in a region. Some societies have high regard for entrepreneurial activities where as others do not. Some societies perceive it as vehicle for growth where as others societies perceive it as vehicle for exploitation. Societies that have positive attitude toward entrepreneurship may develop social systems such as status and recognition for entrepreneurs to encourage people to start new business (Gnyawali & Fogel, 1994). Thus societies play a role in establishing the legitimacy of entrepreneurship in a region. In crowdfunding context, the entrepreneur reaches out to the society directly with his funding request. An entrepreneur will be encouraged to use crowdfunding as mechanism to source fund in societies which have high regard for entrepreneurs as such societies will value his work and will also provide him with support, encouragement and wisdom to carry out entrepreneurial activities effectively (Krueger & Brazeal, 1994).

**Hypothesis 3** Attitude toward entrepreneurs will be positively associated with crowdfunding campaign creation

In certain societies failure is considered bad. It is observed as a characteristic of the individual rather than an interaction of individual and context. Some other societies consider failure as a stepping stone to success and take failure as an event and not as a characteristic of an individual. Entrepreneurs operate in an uncertain environment. More entrepreneurial ventures fail than succeed. That is the nature of the game in entrepreneurship. Societies which look down on failure will discourage entrepreneurship in general (Hindle & Klyver, 2011). Those who chose to become entrepreneurs in such society will restrain themselves from taking risky action as they will fear that society will look down upon them in event of failure. In the context of crowdfunding, an entrepreneur creates a funding request on a public platform where the success or failure of the campaign will be visible to all. If an entrepreneur fails to secure fund on crowdfunding platform, he will be looked down by the society which considers failures as bad. In such a society an entrepreneur will be discouraged to use crowdfunding platform as he would not like society to build a negative perception about him (Simmons et al., 2014).

**Hypothesis 4** Fear of failure will be negatively associated with crowdfunding campaign creation

Crowdfunding as a funding mechanism has philanthropic element embedded into it. Donation-based crowdfunding is a complete philanthropic act but backers on other crowdfunding platforms such as reward based or lending based also showcase philanthropic reasons alongside or above monetary reasons (Kshetri, 2015). As per industry report, social causes is the most popular category in crowdfunding and accounts for 30% of total funding activity (www.massolution.com, 2013) leading to the conclusion that crowdfunding is a viable channel to fund projects that have social elements. For-profit projects can use the same instruments during their early phases when they are startups and when they have characteristics, such as innovative technology, which can attract altruistic supporters (Hemer, 2011). Under such circumstances supporters may be motivated by non-pecuniary returns such as desire to be part of a philanthropic cause (Agrawal et al., 2011). Desire to help others varies by societies. Some societies have high propensity to support social causes or engage in philanthropic activities than others. Legal systems like tax incentives also contribute to the development of charitable culture in a region

(Kshetri, 2015). An entrepreneur will be encouraged to use crowdfunding platform to raise fund for his venture in a society which has a higher tendency to allocate resources for social cause.

**Hypothesis 5** Charitable culture will be positively associated with crowdfunding campaign creation

Uncertainty avoidance is defined as the degree to which members of a society feel uncomfortable with uncertainty and ambiguity (Hofstede, 1983). Societies with high uncertainty avoidance levels have lower tolerance for uncertainty and high need for structures and institutions. People in high uncertainty avoidance culture also show high resistance to change, presumably because change often involves uncertainties (Lim et al., 2004). Uncertainty avoidance is shown to manifest a wide variety of behavior from the type of beverage consumed to choice of insurance policy to online shopping (Vishwanath, 2003). Entrepreneurial ventures, as discussed above, are risky by nature. There is high degree of uncertainty around an entrepreneurial venture during its nascent stage. The use of online-based crowdfunding platform adds another layer of uncertainty to entrepreneurial venture as investors do not have the benefit of physical access to entrepreneur and his venture. Under such a scenario entrepreneur will be discouraged to use crowdfunding platform to raise fund for his venture (Fig. 17.1).

**Hypothesis 6** Uncertainty avoidance culture will be negatively associated with crowdfunding campaign creation

## VARIABLES

### *Dependent Variable*

*Crowdfunding Adoption:* For hypotheses 1 and 2 where I explore the impact of intellectual property right on adoption for technologically innovative campaign, I will measure the number of campaigns created under technology category on global crowdfunding platform—[indiegogo.com](http://indiegogo.com) across all countries for a given year. Indiegogo is one of the world's leading crowdfunding platform and operates in 223 countries (“About Us|Indiegogo,” n.d.).

For all other hypotheses, I define crowdfunding adoption as the number of crowdfunding platforms operating in a country for a given

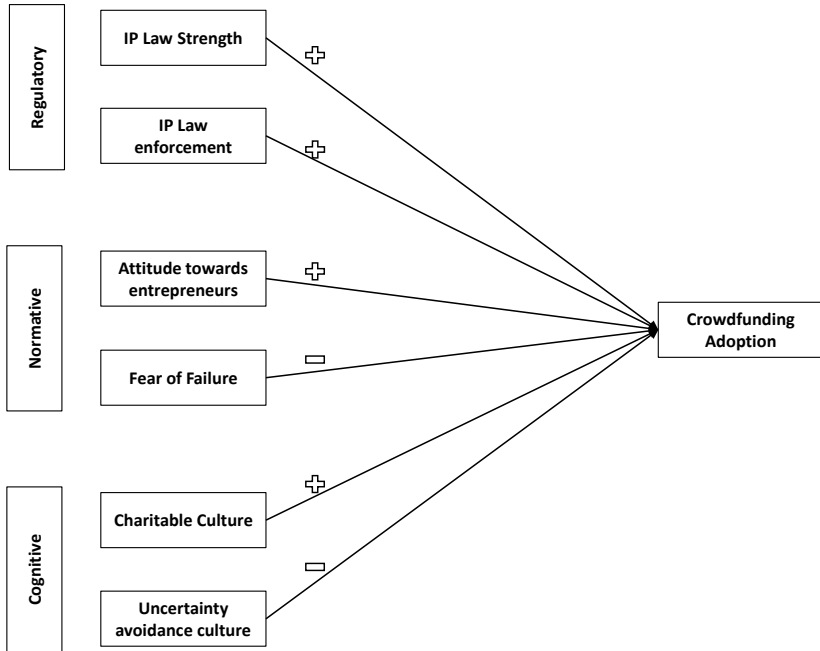


Fig. 17.1 Overall model (*Source* Authors)

year. I adopt this measure from research done by world bank on crowdfunding potential in developing world (infoDev, 2013).

### *Independent Variables*

*IP Law Strength:* I define IP Law Strength as the strength of a country's patent law based on five criteria: coverage, membership in international treaties, restrictions on patent rights, enforcement and duration of protection as defined in International Property Rights Index (IPRI) (Carciente, 2016). IPRI consists of three core components: legal and political environment (LP), physical property rights (PPR) and intellectual property rights (IPR) ("International Property Rights Index," n.d.). Intellectual property rights (IPR) further consist of three components: protection of intellectual property rights, patent protection and copyright piracy. I use patent protection component as measure of IP Law strength. The patent

protection component uses data from Ginarte-Park Index (Park, 2008). It was published for the first time in 1997, is updated every 5 years, and has been widely used in patent and IPR related research.

*IP Law Enforcement:* I define IP Law enforcement as perceived effectiveness of IP Laws by experts in the country as defined in International Property Rights Index (IPRI) (Carciente, 2016). IPRI uses Global Competitive Index from the world economic forum as dataset to arrive at this measure. World economic forum conducts executive opinion survey to gather data. Apart from calculating Global Competitive Index, the executive opinion dataset has been used to compute many other indexes such as enabling trade index and human capital index. The global competitiveness index has 12 categories called pillars of competitiveness and I am using the “intellectual property protection” element of the institutions pillar. This element is measured by asking the question “In your country, to what extent is intellectual property protected? [1 = not at all; 7 = to a great extent].”

*Attitude Toward Entrepreneurs:* I define this variable as the attitude of society toward entrepreneurship measured as the “Entrepreneurship as good career choice” from the entrepreneurial behavior and attitude dataset of GEM Adult Population Survey (APS). APS includes measures for social values toward entrepreneurship and individual attributes of entrepreneurs and is administered to 2000 people in each participating country. This variable—Entrepreneurship as good career choice—indicates the percentage of 18–64 age population who agree that in their country most people consider starting a business a desirable career choice.

*Fear of Failure:* I define this variable as the fear of failure an entrepreneur has and which inhibits him from starting a business and measured as “Fear of Failure Rate” from the entrepreneurial behavior and attitude dataset of GEM Adult Population Survey. This variable indicates the percentage of 18–64 age population who perceives good opportunities to start a business but indicates that a fear of failure would prevent them from setting up a business. This variable is the only available measure of fear of failure at country level and has been used widely in previous research (Wyrwich et al., 2016). It has also been used in the context of stigma due to business failure in extant literature (Simmons et al., 2014).

*Charitable Culture:* I define charitable culture as helping behavior in terms of time and money by members of the society to an unknown individual or charitable organization measured as “World Giving Index” from

Charity Aid Foundation. Charity Aid Foundation is a leading charity organization in the United Kingdom (“About CAF—Motivating Society to Give More Effectively,” n.d.). They are serving mankind for over 90 years. They also have a very active research program with numerous publications which focuses on understanding determinants of charitable giving. World Giving Index consists of average of response received on 3 questions pertaining to help provided to a stranger, money to a charity or time to an organization. World Giving Index has been used as a measure of charitable culture in studies on print media coverage about philanthropy and shaping of national character (McDonald & Scaife, 2011). It has also been used as a measure of charitable giving in study that focused on ways to increase the charitable pie (List & Price, 2012). A study on determinants of social entrepreneurship has also used it as a measure of philanthropic support (Griffiths et al., 2013).

*Uncertainty Avoidance Culture:* I define uncertainty avoidance as the degree to which the members of the society feel uncomfortable with uncertainty and ambiguity and measure it using Uncertainty Avoidance Index (UAI) from Hofstede’s national culture dimensions (Hofstede, 1983). UAI is a widely used measure of tolerance for ambiguity in life and has been used in studies pertaining to risk-taking and entrepreneurship orientation (Kreiser et al., 2010), and organization of financial systems (Kwok & Tadesse, 2006). A meta-analysis done on the use of UAI in international research identified 118 articles in the *Journal of International Business Studies* that have used this index, of which 30 have used UAI as independent or control variable (Rapp et al., 2010).

Control variables:

I use *education* (World Bank—Education Statistics), *Internet penetration* ([www.internetworldstats.com](http://www.internetworldstats.com)), *Population* (World Bank data) and *GDP* (World Bank data) as control variable in study. Internet penetration level in a country will have impact on the adoption of CFPs as internet is a prerequisite for participation in crowdfunding. Education can also impact the growth of crowdfunding adoption in a country. Education is positively associated with entrepreneurship in general (infoDev, 2013). Education is a salient variable for crowdfunding adoption due to the fact that an individual must have basic skillset of reading and writing to be able to participate in crowdfunding phenomenon. The population of a country can confound the research as countries with large population like India and China host about 30% of the world’s population

between them (infoDev, 2013). The probability of having more crowdfunding platforms in India and China on account of its population size (1.3 billion each roughly) is higher than in a country like Switzerland (8 million). Similarly GDP of a country is measure of economic activity in a region and should be used to control for country-level variations in economic activities (infoDev, 2013).

## DATA COLLECTION

Data collection will be done via secondary sources. For number of crowdfunding platforms internet search will be used as primary tool. A list of crowdfunding platforms operating in each country will be identified by making a targeted search for a given country. Any relevant governmental or industry association website containing information on crowdfunding platforms for a given country, if found, will also be used for data collection. Once the list of websites is collected, domain registration details or company registration details will be used to arrive at the launch year of crowdfunding platform. With the availability of web portal suite customization offerings, it's very quick to launch a new platform and any delay between website registration and/or company registration and platform launch is going to be minimal. For all independent variables, I will use the sources discussed in the variables section, namely, IPRI ("IPRI 2016," n.d.), GEM ("GEM Global Entrepreneurship Monitor," n.d.), World Giving Index ("Charities Aid Foundation (CAF)—Charity Giving Made Simple," n.d.) and National Culture ("Geert Hofstede—Geert Hofstede," n.d.). For control variables, data will be used from World Bank data sources ("DataBank|The World Bank," n.d.) and Internet World Stats ("Internet World Stats—Usage and Population Statistics," n.d.).

The data collection strategy employed in this research is feasible for all dependent and control variables as they are adopted measures from authentic sources. Independent variable will require primary data collection as there is no established measure or source for number of crowdfunding platforms across the world. Reports from infoDev/World Bank, Massolutions and Nesta show a general trend in the growth of crowdfunding platforms but do not offer a complete list. In this research, I plan to use them as a starting point and build on them using the method outlined above. One challenge in using internet search will be language barrier. Since the search will be conducted in English language, it is possible to miss some crowdfunding platforms conducting business



operations in native languages only. With the global nature of crowdfunding industry and involvement of diaspora in funding, it is less likely that platform will not support English as an alternate language.

## METHODS

Since the dependent variable in my analysis is a count data and since it will contain zero as a value for many countries for many years, I will use Poisson or negative binomial regression (special case of Poisson) depending on whether assumption for variance equal to mean is satisfied or not. Poisson regression will ensure that the zero values in dependent variable are not dropped from the model as in case of regular OLS regression (Katila & Ahuja, 2002).

## DISCUSSION

If the hypothesis is confirmed, it would mean that institutions in a country should focus on improving the law and enforcement for intellectual property as a prerequisite to promoting crowdfunding as additional source of funding. This would also mean that institutions should establish activities which improve the image of entrepreneurs in the society by highlighting the contribution that entrepreneurial activities make to society at large in terms of employment, innovation and social welfare, leading to change in society's attitude toward entrepreneurs and entrepreneurial activities. This will lead to acceptance of entrepreneur and will enable support from society for entrepreneurial activities and will encourage entrepreneurs to use crowdfunding to connect with society. Institutions should also create an environment of trust and transparency to reduce feeling of uncertainty in society and to enable acceptance of crowdfunding as a medium of financial support. Institutions should define and enforce regulations pertaining to crowdfunding and online financial transactions, bring in transparency by making entrepreneurs and intermediaries (like CFPs) accountable for any wrongdoing and crack down any fraudulent activity swiftly.

If the hypothesis is not confirmed, it would be mean that institutions may not play a role in adoptions of crowdfunding in a country. Based on the extant research done on the role of institutions in general and entrepreneurial finance in particular, I would consider this as anomaly and would relook at the theoretical foundations to find missing elements. It might be possible that constructs and operational variables used in this

study were not an accurate reflection of the on ground phenomenon and more in-depth observation and analysis is required to unearth the right constructs or operational variables.

## FUTURE RESEARCH

Future research should try to test the impact of cyber laws on adoption of crowdfunding platforms. The use of online integrated payment systems makes an interesting case for the study of cyber law strength in a country with respect to adoption of e-commerce platforms in general and crowdfunding in particular where you cannot have Cash on Delivery model devised by e-commerce platforms as an alternate to online payment.

Future research should also try to improve on the measure of crowdfunding adoption used in this study. Instead of using a count of crowdfunding platforms, future research should try to use utilization measures of crowdfunding platforms such as number of campaigns created or amount of funding sought/received. Such a measure will be more representative of crowdfunding adoption in a country.

This research has focused only on the patent's aspect of intellectual property protection. Future research may expand on this work and try to look at the strength of IP laws using a composite index of patents, copyrights and trademarks.

## REFERENCES

- About CAF—Motivating Society to Give More Effectively. (n.d.). Retrieved April 14, 2017, from <https://www.cafonline.org/about-us>
- About Us|Indiegogo. (n.d.). Retrieved April 13, 2017, from <https://www.indiegogo.com/about/our-story>
- Agrawal, A. K., Catalini, C., & Goldfarb, A. (2011). *The geography of crowdfunding*. National Bureau of Economic Research. Retrieved from <http://www.nber.org/papers/w16820>
- Bruton, G. D., Fried, V. H., & Manigart, S. (2005). Institutional influences on the worldwide expansion of venture capital. *Entrepreneurship Theory and Practice*, 29(6), 737–760.
- Carciente, S. L. (2016). *International property rights index 2016*. Retrieved from <http://s3.amazonaws.com/ipri2016/IPRI+2016+Full+Report.pdf>
- Charities Aid Foundation (CAF)—Charity Giving Made Simple. (n.d.). Retrieved April 19, 2017, from <https://www.cafonline.org/>

- DataBank|The World Bank. (n.d.). Retrieved April 19, 2017, from <http://data.abank.worldbank.org/data/home.aspx>
- Gans, J. S., & Stern, S. (2003). The product market and the market for “ideas”: Commercialization strategies for technology entrepreneurs. *Research Policy*, 32(2), 333–350.
- Geert Hofstede—Geert Hofstede. (n.d.). Retrieved April 19, 2017, from <https://geert-hofstede.com/>
- GEM Global Entrepreneurship Monitor. (n.d.). Retrieved April 19, 2017, from <http://www.gemconsortium.org/>
- Gnyawali, D. R., & Fogel, D. S. (1994). Environments for entrepreneurship development: Key dimensions and research implications. *Entrepreneurship Theory and Practice*, 18, 43–43.
- Griffiths, M. D., Gundry, L. K., & Kickul, J. R. (2013). The socio-political, economic, and cultural determinants of social entrepreneurship activity: An empirical examination. *Journal of Small Business and Enterprise Development*, 20(2), 341–357. <https://doi.org/10.1108/14626001311326761>
- Hemer, J. (2011). *A snapshot on crowdfunding* (Working papers firms and region). Retrieved from <https://www.econstor.eu/handle/10419/52302>
- Hindle, K., & Klyver, K. (Eds.). (2011). *Handbook of research on new venture creation*. Edward Elgar.
- Hofstede, G. (1983). National cultures in four dimensions: A research-based theory of cultural differences among nations. *International Studies of Management & Organization*, 13(1–2), 46–74.
- infoDev. (2013). *Crowdfunding’s potential for the developing world*. Retrieved from [http://www.infoddev.org/infoddev-files/wb\\_crowdfundingreport-v12.pdf](http://www.infoddev.org/infoddev-files/wb_crowdfundingreport-v12.pdf)
- International Property Rights Index. (n.d.). Retrieved March 22, 2017, from <http://internationalpropertyrightsindex.org/>
- Internet World Stats—Usage and Population Statistics. (n.d.). Retrieved April 19, 2017, from <http://www.internetworldstats.com/>
- IPRI 2016. (n.d.). Retrieved April 19, 2017, from <http://internationalpropertyrightsindex.org/>
- Katila, R., & Ahuja, G. (2002). Something old, something new: A longitudinal study of search behavior and new product introduction. *Academy of Management Journal*, 45(6), 1183–1194. <https://doi.org/10.2307/3069433>
- Kreiser, P. M., Marino, L. D., Dickson, P., & Weaver, K. M. (2010). Cultural influences on entrepreneurial orientation: The impact of national culture on risk taking and proactiveness in SMEs. *Entrepreneurship Theory and Practice*, 34(5), 959–983. <https://doi.org/10.1111/j.1540-6520.2010.00396.x>
- Krueger, N. F., & Brazeal, D. V. (1994). Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship Theory and Practice*, 18, 91–91.

- Kshetri, N. (2015). Success of crowd-based online technology in fundraising: An institutional perspective. *Journal of International Management*, 21(2), 100–116. <https://doi.org/10.1016/j.intman.2015.03.004>
- Kwok, C. C. Y., & Tadesse, S. (2006). National culture and financial systems. *Journal of International Business Studies*, 37(2), 227–247. <https://doi.org/10.1057/palgrave.jibs.8400188>
- Lim, K. H., Leung, K., Sia, C. L., & Lee, M. K. (2004). Is eCommerce boundary-less? Effects of individualism–collectivism and uncertainty avoidance on Internet shopping. *Journal of International Business Studies*, 35(6), 545–559.
- List, J. A., & Price, M. K. (2012). Charitable giving around the world: Thoughts on how to expand the pie. *Cesifo Economic Studies*, 58(1), 1–30. <https://doi.org/10.1093/cesifo/ift023>
- McDonald, K., & Scaife, W. (2011). Print media portrayals of giving: Exploring national “cultures of philanthropy”: Print media portrayals of giving. *International Journal of Nonprofit and Voluntary Sector Marketing*, 16(4), 311–324. <https://doi.org/10.1002/nvsm.430>
- Ostergard, R. L. (2000). The measurement of intellectual property rights protection. *Journal of International Business Studies*, 31(2), 349–360. <https://doi.org/10.1057/palgrave.jibs.8490911>
- Park, W. G. (2008). International patent protection: 1960–2005. *Research Policy*, 37(4), 761–766. <https://doi.org/10.1016/j.respol.2008.01.006>
- Pierrakis, Y., & Collins, L. (2013). *Banking on each other: Peer-to-peer lending to business: Evidence from funding circle*. Retrieved from <http://eprints.kingston.ac.uk/29078/>
- Porta, R. L., Lopez-De-Silanes, F., Shleifer, A., & Vishny, R. W. (1997). Legal determinants of external finance. *The Journal of Finance*, 52(3), 1131. <https://doi.org/10.2307/2329518>
- Rapp, J. K., Bernardi, R. A., & Bosco, S. M. (2010). Examining the use of Hofstede’s uncertainty avoidance construct in international research: A 25-year review. *International Business Research*, 4(1), 3.
- Roy, J.-P., & Oliver, C. (2009). International joint venture partner selection: The role of the host-country legal environment. *Journal of International Business Studies*, 40(5), 779–801. <https://doi.org/10.1057/jibs.2008.110>
- Schwiebacher, A., & Larralde, B. (2010, forthcoming). Crowdfunding of small entrepreneurial ventures. In *Handbook of entrepreneurial finance*. Oxford University Press. Retrieved from [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1699183](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1699183)
- Scott, W. R. (1995). *Institutions and organizations* (Vol. 2). Sage.
- Scott, W. R., & Davis, G. F. (2007). *Organizations and organizing: Rational, natural and open systems perspectives*. Pearson Prentice Hall.

- Simmons, S. A., Wiklund, J., & Levie, J. (2014). Stigma and business failure: Implications for entrepreneurs' career choices. *Small Business Economics*, 42(3), 485–505. <https://doi.org/10.1007/s11187-013-9519-3>
- Vishwanath, A. (2003). Comparing online information effects: A cross-cultural comparison of online information and uncertainty avoidance. *Communication Research*, 30(6), 579–598. <https://doi.org/10.1177/0093650203257838>
- www.massolution.com. (2013). *Massolution 2013CF full report*. www.massolution.com. Retrieved from [www.massolution.com](http://www.massolution.com)
- Wyrwich, M., Stuetzer, M., & Sternberg, R. (2016). Entrepreneurial role models, fear of failure, and institutional approval of entrepreneurship: A tale of two regions. *Small Business Economics*, 46(3), 467–492. <https://doi.org/10.1007/s11187-015-9695-4>

PART V

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## Health Sector and COVID-19



# Towards an Empathetic HRM in Industrial Relations: Need of the Hour in Disruptive Times

*Abhipsa Satpathy, Lalatendu Kesari Jena, and Kalpana Sahoo*

## INTRODUCTION

The first quarter of the year 2020 concluded with the beginning of uncertainty, apprehension, and confusion in the whole world due to the COVID-19 pandemic. Industries ended up loaded with unforeseen challenges, at a time when they could not summon the human resources to come up with the know-how to deal with it. HR managers were invested with the dirty job of firing their employees for no fault of theirs. Ratan

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Tata, the noted industrialist and chairman of TATA group, denounced the practice of mass layoffs adding that the companies need to understand their employees' position, the action of hastening layoffs has shown lack of empathy by the companies (The Wire, 2020). Understanding someone's position or keeping oneself in the other person's shoes requires *empathy*. Emotional aspects such as empathy are the grey areas in human resource management and industrial relations which are usually perceived as a non-rational part of the system. The quality of an organization to let its employees have a thorough knowledge of and access to organization-related information sets the stage for *transparency*. It gives them the environment to learn about the organization in a clear and unobstructed manner (Parris et al., 2016). The organization's intentions are lucidly conveyed to the employees in companies which incorporate transparency in their systems. With the spread of the COVID-19 pandemic, a large number of countries went into a locked down phase putting the industries in disarray and the stakeholders at a loss of agency. Some companies have relieved the employees of their jobs without being open about compensations and future prospects (Ranipeta, 2020). Disclosing facts related to downsizing, compensations, and aftercare is the need of the hour to respect the *trust* vested by the employees in the company.

The foundation of employer–employee relationship, just like any other, needs to be accorded by *trust*. However, studies have shown that the trust of employees in their companies has been seeing a downward slope (Bingham, 2017). The current pandemic has taken this distrust to new heights because employees have been abandoned helplessly by many organizations. Apart from monetary assurance, employees also need an emotional outreach by the employers to feel assured that their contribution to the organization is valued. Trust in the organization implies the employees' belief in the organization that it will not take advantage of its vulnerability (Martins, 2000). Trust also talks about the employees' intent to put their confidence in the organization that it will take decisions which is beneficial to both the parties (Berg & Martins, 2013). Trust cannot be built in a day or by calculated acts of benevolence. Trust has a psychological aspect to it which could be nurtured especially by understanding each other in challenging times. Employee counselling has proven to build trust in the organization (Personneltoday.com, 2014). Counselling is a steady process whereby the client builds trust in the counsellor and vice versa. When the counsellor becomes a permanent part of the organization, it will help extend the trust to an organizational level.



Empathy as an ingrained part of the organizational culture can be beneficial to productivity as well as wellbeing (Moreno, 2017). Especially, during the pandemic times, empathy needs to be incorporated in communication; this will help in keeping the employees' trust in the organization alive (Kumaran, 2020). Empathy is a learnable skill and hence leaders and employees can be trained to be more empathetic (Cclinnova-tion, 2020). Although empathy can be simply described as understanding how the other person might be feeling, in practice it is not as simple as it sounds. The definition of empathy for our model is an emotional response to another person or groups' distress with a recognition that the distress may or may not be have a source in the workplace (Cuff et al., 2014). Empathy is an essential skill of any psychological counsellor. A counsellor is equipped with how to express empathy and how to train people in empathetic behaviour. Many companies have started training their HR professionals in counselling skills but those are not enough to provide therapy or emotional support as and when required (Hughes, 2014). Thus, a culture of empathetic HRM can be installed by employing counsellors in the system that will not be on part-time basis but as an integral part of the organization.

### NEED FOR EMPLOYEE COUNSELLING DURING AND POST COVID-19

The declaration of the coronavirus disease as a pandemic ensued reorgani-zation of workplaces, changes in terms of working, and relying hugely on working from home. These changes are too much to take at a single time, creating stress, burnouts, and low productivity among the employers and employees (Birla, 2020). That is why, some companies like *Mpower* have started providing counselling solutions to organiza-tions so that the employees get the psychosocial support they need in this disruptive times (Birla, 2020). Business giants like Microsoft, Deloitte, and P&G have roped in professional assistance to help the employees cope up with the challenges arising out of social distancing, remote working, increased screen exposure, etc. (Dave, 2020) Providing employees an increased access to wellness programmes is one way in which The Bank of Ireland has reached out to its employees (Jll, 2020). Dedi-cated helplines connecting with psychologists, counsellors, and mental health professionals are being used by some big corporations (Ghosh, 2020).

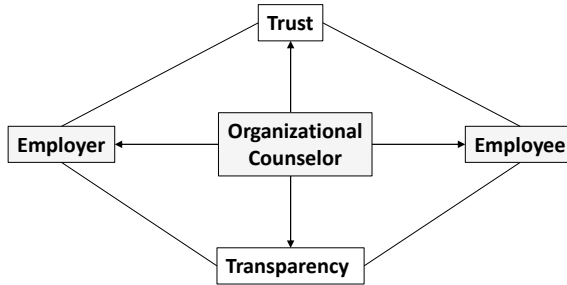


Fig. 18.1 Research model (*Source* Authors)

Looking at the need in the current times, it can be predicted that the need for constant psychological support is here to stay even after the pandemic is over, or else have normalized. In the “*new normal*” scenario, we propose a model which considers a solution of the emotional gap among employees, employers, and employees and among employers. Employee counselling needs to move beyond Employee Assistance Programs, in which the psychological service provider is not an integral part of the organization. Rather, they operate as extra services given to the employees as a pro bono act of employee wellbeing. An integrated model is proposed (see Fig. 18.1) keeping in view the above discussed needs.

### *The Preventive Approach*

The preventive approach to counselling is based on the view that the members of an organization could be trained in empathy, transparency, and trust with the help of an organizational counsellor. Prevention orientation to helping is useful in empowering client and systems (Conyne, 2004). Prevention averts maladjustment in individuals with a risk of negative outcomes (Hage et al., 2007). The organization as a system has traditionally looked at employee redressal as a bottom-up approach whereby the employees seek help from the HR personnel, and they in turn, helped the employees with the rules, regulations, laws, and code of conduct (Contributor, 2020). This model seeks to bridge the emotional gap which is not addressed in the organization through regular HR problem-solving. Employees and even employers might not always be

facing a problem which has a solution in the rational part of the system. Lately, organizations have been connecting the employees to outsourced counselling service providers to take care of their emotional needs. This is the curative approach, where a person in distress is empowered through counselling and enabled to be back on a healthier state of being. Preventive approach tries to set an environment, which is positive, conducive to work in, minimizes the stressors, and ensures wellbeing of the members of the organization. Therefore, we propose,

P<sub>1</sub>: Preventive model of employee counselling will help build a positive environment.

Stressful environment leads to various mental health concerns sooner or later. It adversely affects the productivity and health of the employees, strains relationship with the employer, and leads to dissatisfaction and frustration. Stressors in an organizational setting can crop up from difficult employer–employee interactions, which include lack of transparency and trust in the communications. Here, empathy can help fill the emotional gaps by fostering better understanding. Thus, prevention includes workshops, meetings, role plays, events in the annual functions, and training in approaches which will promote empathy among organization members. The organizational counsellor will play a major role in the dissemination of knowledge, development of content for meetings and practices, and delivery of counselling services. The organizational counsellor will be the agent of creating a positive empathetic work culture where every member tries to be empathetic towards the other, is transparent, and trusts the organization and its members. This will enhance the teamwork and give a sense of belonging which is a great motivator. The preventive approach will also look at eliminating the stigma around mental health in the organization. It is a fact that even the educated masses find it difficult to consult a counsellor or therapist due to the fear of being branded unfit for their job. So, through various discourses and desensitization programmes, the employees and employers can be educated about the importance of mental health and how as a part of the same organization, they can respect each other's emotional needs. This will strengthen the relationship between the employers and the employees.

P<sub>2</sub>: Transparency, Trust, and Empathy between employer and employee will help cope up with the crisis.

An important pretext of building strong employer–employee relationships is how comfortable the employees are in the presence of the employer. It matters whether the employees feel encouraged or threatened to put forth ideas or grievances amid a group of senior employees or the employer. If the relationship compels any of the members of the organization to hold back opinions, problems, or exchange of ideas, there is a need for transparency in the industrial relationships. Lack of transparency could range from a simple denial of feedback to someone's work and can go up to hiding important organizational intentions from the employee. In a time of crisis, such as the COVID-19 pandemic, the withholding of information about further information on layoffs, compensations, and employee assistance programs can lead to lack of trust of the employee in the organization. Here, transparency can play a great role in saving the trust that the employees vest in their employers.

Organizational trust in the time of crisis can be fostered with the help of empathy. The act of empathy in organizations could be practised with the intervention of an organizational counsellor. The role of the OC will be to provide *psychoeducation* to all the members of the organization through one to one as well as group counselling. Without breaking the confidentiality of any employee or employer, the OC will enlighten the employer of the probable consequences of various interactions in the organization. This will help the employers understand the employees' *mental status* and interact in a manner which will not hurt the dignity of the employees. Likewise, the employees could be *desensitized* about the process of furloughing, appraisals, payrolls, and compensations so that they do not feel abandoned in the middle of a crisis. Trust in an organization can be developed by empathy (Feng et al., 2004). Trust is an important predictor of cooperative behaviour (Zalabak et al., 2000). An important concern to be considered in this context is the employees' reluctance to seek one on counselling with an organization. The stigma attached to seeking mental help can be addressed through a *systematic desensitization* of all the members of the organization which will lead to a better understanding and acceptance of around the idea of mental health assistance. The whole process of desensitization is based on the idea of empathy as we need to understand that providing counselling assistance

is not enough unless the employees who are in need are willing to seek the help or understand their peers who need help.

P<sub>3</sub>: Counselling will help reduce the stress and emotional problems of the employees.

Employee assistance programs have been put in place by many companies to look after the emotional needs of employees. Still, many employees hesitate to utilize this facility for the fear of being judged. A counsellor is trained in providing non-judgemental assistance, but the help seekers are nevertheless exposed to a largely judgemental organizational environment which makes them refuse to go for counselling even when they need it. Counselling in this paper refers to changing and extending the boundaries of work assigned to an organizational counsellor. Here, the counsellor needs to make his/her presence visible to all the members as a wellness coach, a contributor to learning and development in the organization, and a promoter of inclusion and diversity. These roles will help increase acceptance among employees of individual limitations, strengths, and weaknesses and give better insight into making teamwork more productive. The counsellor will be equipped with the legal knowledge of the employees' rights and duties to help them deal overcome *cognitive dissonance* arising out of faulty employer–employee communications.

Emotional problems at workplace can also emerge from various errors in thought processes such as *self-fulfilling prophecy*, *Pygmalion effect*, *self-defeating social comparisons*, and *halo effect*. If an employee is under confident about a task and ends up faring poorly in it, this could be caused because the employee had prior notions about his performance. This is the self-fulfilling prophecy which needs to be countered with rationality. Likewise, the employer's negative expectations from an employee can lead to the employee ending up faring badly in an assignment, as explained by the Pygmalion effect. This can also be related to the stigma attached to mental health. A negative expectation of the employer from an employee, for example, expecting the employee to not be productive because of seeking mental help, can lead the employee being less productive. Social comparisons in a negative way such as demeaning oneself before a peer having a better growth or pay raise can lead to curbing of individual creativity and unique strengths. An employee who gets furloughed is in no way a lesser individual than a counterpart who is not given an out. Halo

effect in organizations obstructs mutual understanding by generalization of one's overall personality. Clichéd phrases like "*the boss is always right*" have social undertones which affect employer–employee relationships. An employer or employee cannot be termed as good or bad in every situation. These changes in perspectives can foster mutual respect and deal better even in a crisis. Thus, a change in perspective can help counter the faulty pattern of thoughts and nurture understanding of self and others. Now, to bring about these changes, certain skills and knowledge are required which are better understood by a counsellor. So, the organizational counsellor can be an agent of transformation in organizational settings, as proposed next.

P<sub>4</sub>: Preventive model of employee counselling will bring about a transformation in the way industrial relations is perceived.

Organizations seek transformational changes when the existing situation fail to provide a solution to emerging problems (Schalock et al., 2018). The existing nature of employee counselling is not enough to boost an organizational culture based on transparency, trust, and empathy in industrial relations. Thus, the proposed model provides a change in the perception and practice of employee counselling which will lead to transformation in organizations. The components of this transformation will be a transformation in *work culture and employer–employee interactions, leadership, policy, and wellbeing*. Transformational leadership is closely related to leaders with empathetic skills of the leadership is closely related to empathy towards the employees. Transformation in leadership style will be one component of the transformation proposed in the model. The organizational counsellor will be a proactive member of the organization who will promote empathetic approaches in employer–employee interactions. At the same time, he will take care that transparency and trust are not violated in due process.

Work culture is the sum of an organization's ideologies and principles as well as employee's beliefs, thought processes, and attitudes. Work culture can be largely influenced by the type of interaction among employees, and between employer and employee. Freedom to be creative, expressive, sociable, and proactive can all be affected by the way industrial relations are perceived by the employees. Peers' belief of each other as equal partners in growth rather than competition, can be a source of

emotional support during the crisis. Bringing empathy into the picture as a rational and actively practised behaviour can improve industrial relations to a great extent. Employees will find a more accepting culture and employers will have a happier and more enthusiastic workforce.

Change in the present state of the organizational culture can be strengthened with the help of policy level amendments. The roles and responsibilities of the counsellor need to be clearly charted. The new policy will mandate the counsellor to carry out activities within the organization to consolidate the ideas of transparency, trust, and empathy. Without a legit framework, the validity of the proposed model could be questioned by others whereas a policy level change will substantiate the authenticity of the position held by the counsellor. This is the way whereby the organizational counsellor's emotional reach out programmes can be seen as a rational part of the industrial relations.

The presence of an organizational counsellor as an agent of transformation will affect many areas of the human resource management practices, wellbeing of members being the most important one. Wellbeing of employees has been found to be strongly related to organizational productivity. Thus, investing in wellbeing of all the members with the help of a counsellor is a secure way of achieving organizational goals. Empathetic practices lead to a better employer–employee relationship which in turn ensures wellbeing. Emotional grievances can be addressed by the organizational counsellor with a genuine concern for the emotional health of the help seeker.

## IMPLICATIONS OF THE PROPOSED MODEL

Our aim in developing the model was to introduce an integrated system of employee counselling in organizations so that the emotional requirements such as transparency, trust, and empathy, of all the organizational members, could be taken care of during and post COVID-19 disruption. We have developed the model as an exploratory research, whose implications can be put to test by organizations who are willing to develop a robust work culture to enhance industrial relations. For practice, our model can serve as a ground for better industrial relations, it goes a step further from employee assistance programs and mandates an organizational counsellor to proactively work in fostering relationships and understanding in the organization. It can create opportunities for counsellors and therapists to specialize in an organizational setting

and come up with novel approaches to cater to the psychosocial and emotional needs of employees and employers. This will further lead to better environment to work in, boost creativity, individual growth, utilize the talents in the organization, and enhance productivity. It can actuate better communication between employer and employee as well as among employees. It gives an overview of how an organizational counsellor can be an agent of transformation in the organization. This idea can be taken forward to develop flexible programmes to propagate empathetic HRM practices in organizations.

The model serves as a potent one for future research. The variables emphasized in the model are transparency, trust, and empathy. Other variables such as type of leadership, personality, errors in thought processes could be explored in which the organizational counsellor can intervene to strengthen industrial relations. Research can be undertaken to frame and structure the roles and responsibilities of an organizational counsellor in consonance with transparency, trust, empathy, and ethics. Research can be carried out to specify the difference between counselling through employee assistance programs and the proposed model. Structural changes in organizational policies can be brought about to build a strong and rational foundation for empathetic HRM. After all, the need for more humane practices in HRM is going to increase soon (Mishra & Kar, 2020). The model can be taken as a reference point for furthering research in better human resource management practices.

## LIMITATIONS AND CONCLUSION

The model introduces a novel combination of employer–employee and the organizational counsellor due to which, any previous attempt to this model has not been cited. Although the model caters to the need of the hour, that is catering to emotional gaps in human resource practices, it is new idea and thus, it requires strong marketing to be recognized by organizations. Employing an organizational counsellor as a proactive part of the organization, surpassing the existing passive roles is liable to questions because, it will require a restricting of roles and responsibilities to ensure it does not overlap with that of the HR professionals. Organizations need to have genuine concern for better human resource practices to incorporate this model. Organizations have need to be convinced that the organizational counsellor can work as an agent of promoting positive environment in a way any other professional cannot.



In this paper, we presented a model which promotes empathetic HRM in industrial relations by using transparency, trust, and empathy. We have put the organizational counsellor at the heart of the model who will establish and maintain an emotionally fulfilling environment in organizations by interacting with the employers and employees and cementing their relationships. The COVID-19 pandemic has created a dire need for transparency, trust, and empathy in industrial relations and thus we have emphasized on these elements to cultivate a more humane HRM practices in organizations.

## REFERENCES

- Berg, Y. V. D., & Martins, N. (2013). The relationship between organisational trust and quality of work life. *SA Journal of Human Resource Management*, 11(1). <https://doi.org/10.4102/sajhrm.v11i1.392>
- Bingham, S. (2017, May 3). If employees don't trust you, it's up to you to fix it. *Harvard Business Review*. <https://hbr.org/2017/01/if-employees-dont-trust-you-its-up-to-you-to-fix-it>
- Conyne, R. K. (2004). *Preventive counseling*. <https://doi.org/10.4324/9780203336052>
- Cuff, B. M., Brown, S. J., Taylor, L., & Howat, D. J. (2014). Empathy: A review of the concept. *Emotion Review*, 8(2), 144–153. <https://doi.org/10.1177/1754073914558466>
- Feng, J., Lazar, J., & Preece, J. (2004). Empathy and online interpersonal trust: A fragile relationship. *Journal of Behavior & Information Technology*, 23(2), 97–106.
- Hage, S. M., Romano, J. L., Conyne, R. K., Kenny, M., Matthews, C., Schwartz, J. P., & Waldo, M. (2007). Best practice guidelines on prevention practice, research, training, and social advocacy for psychologists. *The Counseling Psychologist*, 35(4), 493–566. <https://doi.org/10.1177/0011000006291411>
- Martins, N. (2000). Developing a trust model for assisting management during change. *SA Journal of Industrial Psychology*, 26(3). <https://doi.org/10.4102/sajip.v26i3.716>
- Parris, D. L., Dapko, J. L., Arnold, R. W., & Arnold, D. (2016, February 8). *Exploring transparency: A new framework for responsible business management*. <https://www.emerald.com/insight/content/doi/10.1108/MD-07-2015-0279/full/html>
- Schalock, R. L., Verdugo, M. A., & Loon, J. V. (2018). Understanding organization transformation in evaluation and program planning. *Evaluation and Program Planning*, 67, 53–60. <https://doi.org/10.1016/j.evalprogplan.2017.11.003>

Zalabak, P. S., Ellis, K., & Winograd, G. (2000). Organizational trust: What it means, why it matters. *Organization Developmental Journal*, 18(4), 35–49.

#### WEB REFERENCES

- Birla, N. (2020, June 13). How companies can maintain employee mental health in the time of Covid-19. *Business Standard*. [https://www.business-standard.com/article/economy-policy/how-companies-can-maintain-employee-mental-health-in-the-time-of-covid-19-120061300423\\_1.html](https://www.business-standard.com/article/economy-policy/how-companies-can-maintain-employee-mental-health-in-the-time-of-covid-19-120061300423_1.html)
- Contributor, C. (2020, August 25). *How do human resources managers benefit employees in an organization?* Small Business—Chron.com. <https://smallbusiness.chron.com/human-resources-managers-benefit-employees-organization-10431.html>
- Dave, S. (2020, March 25). Covid-19: Companies rope in psychiatrists, experts for emotional counselling of work from home employees. *The Economic Times*. <https://economictimes.indiatimes.com/news/company/corporate-trends/covid-19-companies-rope-in-psychiatrists-experts-for-emotional-counselling-of-work-from-home-employees/articleshow/74819122.cms>
- Empathy in the workplace a tool for effective leadership\**. (2020). <https://cclinovation.org/wp-content/uploads/2020/03/empathyintheworkplace.pdf>
- Ghosh, S. (2020). *Importance & ways to manage emotional well-being of employees amid COVID-19*. TCS. <https://www.tcs.com/perspectives/articles/why-the-emotional-well-being-of-your-employees-should-be-a-top-priority-during-covid-19>
- Hughes, R. (2014, November 21). How workplace counselling helps employees and employers. *Personnel Today*. <https://www.personneltoday.com/hr/workplace-counselling-helps-employees-employers/>
- Jll. (2020, May 5). *How companies are supporting employees during COVID-19*. Commercial real estate. <https://www.us.jll.com/en/trends-and-insights/workplace/how-companies-are-supporting-employees-during-covid-19>
- Kumaran, D. (2020, April). Ensuring the mental wellness of employees at the time of COVID-19. *BW People*. <http://bwpeople.businessworld.in/article/Ensuring-The-Mental-Wellness-Of-Employees-At-The-Time-Of-COVID-19/22-04-2020-189966/>
- Layoffs during pandemic shows India Inc's lack of empathy: Ratan Tata*. (2020). The Wire. <https://thewire.in/business/ratan-tata-layoffs-covid-19>
- Mishra, A. K., & Kar, A. K. (2020, June 19). *Role of human resource in the post-COVID environment*. Retrieved October, from <http://bwpeople.businessworld.in/article/Role-of-Human-Resource-in-the-Post-COVID-Environment/19-06-2020-289219/>
- Moreno, D. (2017, June 2). *7 Benefits of empathy in the workplace*. <https://www.civcom.com/blog/7benefits>

Ranipeta, S. S. (2020, May 28). COVID-19 impact: A list of companies that have laid off employees amid the pandemic. *The News Minute*. <https://www.thenewsminute.com/article/covid-19-impact-list-companies-have-laid-employees-amid-pandemic-125473>



# Training Need Identification of Nursing Professional's Competencies During Pandemic and Scale Development

*Sharanika Dhal and Snigdha Mohapatra*

## INTRODUCTION

The Healthcare Sector is one of the largest employer in the world and Nurses are the biggest part of it. According to World Health Organization (WHO), it is estimated that there are 42 million health workers in the world and 19.7 million are nurses and midwives. In a Published Report “Nursing and Midwifery in the History of the world health organization” (1948–2017) by the World Health Organization (WHO); it is projected that by 2030 the health workforce needs to grow to 71.8 million of which 37.2 million will be nurses and midwives. For doing excellence in this

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sector; this large workforce needs proper planning, guidance, theoretical and practical knowledge and also a proper policy set up which can be done by systematic competency mapping. Nurses should be best in their clinical and nonclinical practice by proper competency gap identification. The concept of competence (Bowden & Masters, 1993; Sternberg & Kolligian, 1990) and competency model development (Boyatzis, 2008) are earlier introduced by several researchers to assess competencies starting from 1970s till now to measure the job performances. Identification and development of competencies (Lindholm & Rothwell, 1999) will help them to deliver better service to the patients. That's why there should be proper competency assessment done to improve their skills which will strengthen the performance in the respective workplace (Boxall et al., 2011) and a competency assessment scale is having a great role in this whole process. Competency mapping, assessment and scale development are the subject of research required to upgrade skill or to develop competencies nowadays in each sector. Competency mapping is the process of identifying the knowledge, skill and abilities required to fulfill the job role and responsibilities (Priyadarshini & Dave, 2012). A competency assessment tool is necessary to evaluate the psychometric properties for each level of the nursing sector (Hwang and Jo 2020).

As per the global perspective and pandemic situation, there are lot of challenges now related to working environment (Letourneau et al., 2020) (Ex: Most of the work is done in virtual environment), job responsibilities, chronic illnesses availability of physical resources, etc. For handling COVID-19 situation; nurses are developing some special competencies, i.e., personal resilience (Eby et al., 2019; Mc. Donald et al., 2013), Disaster handling competencies, stress management by some creative therapies, Online working or e-learning (Cronenwett et al., 2009; Eby et al., 2017; Mercurio, 2015; Noe et al., 2014), change management, personal resilience, technological skills (Campbell & Wiernik, 2015; Clardy, 2007; Flood et al., 2019), Psychological counseling, social consciousness and nursing research, etc. This study will put emphasis on identifying competencies which will help to train them in current demanding situations and it will also facilitate the construction of a competency-based assessment scale for the nursing sector.

## LITERATURE REVIEW

The present dynamic environment in the healthcare industry needs more competent nursing staffs who will accept the challenges and issues with a positive attitude. To develop competent and well-trained staffs, competency mapping or competence-based assessment is the important tool in the area of training and development (Garavan 2011). Professional competencies can be increased by acquiring proper knowledge and skill after measuring the performance by using dimensions/factors/scale, etc. There should be always an upgradation of the scale or process of competency mapping as per the requirement. As per the self-assessment, they may be trained accordingly to improve themselves. A learning organization culture always helps them in a positive way by customized training.

### *Nursing Sector as an Important Subcomponent of Indian Healthcare Industry*

As per Indian Nursing Council, nurses are the most important part of the industry as there are around 1.79 million registered nurses and 786,796 auxiliary nurses-cum-midwives are in India and this area needs great attention as the whole hospital industry depends upon it. Due to the heterogeneous structure of nursing curriculum in India, it is necessary to do competency mapping during service.

In India, four types of nurses provide care to the patients.

There are several issues in the nursing sector (Tiwari et al., 2012) in India related to its educational curriculum and professional development. Competency mapping is necessary in service as there is improper streamlining of education and non-uniform syllabus in the basic level of courses of A.N.M., G.N.M. and B.S.c. Nursing. Area of focus for improvements in the nursing sector in India (Tiwari et al., 2012) as follows: Streamlining nursing education, enriching the curriculum, strengthening nursing faculty development and Increase use of innovative teaching and learning techniques.

## CONCEPT OF COMPETENCY

Competency is the specified skills, knowledge, attitudes and behavior necessary to fulfill a task. As many of the researchers stated that employees are the intellectual capital or tangible asset of the organization; it is necessary to invest in it and make the employees more competent. According to Rothwell and Lindholm (1999), "Job competency is the motive, trait, skill and aspects of one's self image in an organization and organizational core competency depends upon collective learning, diverse production skills and multiple streams of technologies." According to Clardy (2008) core competencies are the competitive advantages of an organization. Competency is the characteristic of an individual that helps to perform well in any type of situation. Windsor et al. (2011) mentioned that there should be some policies to make the individuals more competent to deliver good services in healthcare sector. Competencies help to show proper behavior where as its misuse leads to errors. According to O'Connor et al. (2019), competence is a central tenet of nursing practice, with the underlying premise that "patients have a right to receive quality care by competent nurse and midwives who practice in a safe environment." Competency is described as serving an individual or a community through the habitual and judicious use of knowledge, technical skills, clinical reasoning, emotional intelligence, values and reflection in daily practice (Bam et al., 2019). Competencies should concentrate on self-assessment, Ethical practices, cost control and delivery of high-quality services. Studies are shown that proper learning culture should be embedded to the organization strategies to improve the competencies of the nurses (Dias et al., 2018). Weiss et al. (2018) summarized the relevant training and availability of guidelines that required improving competencies of nurses. Nursing depends upon some of the human factors like knowledge, experience and skill for good professional practices. Baxter and Edvardsson (2018) explore the impact of critical care postgraduate certificate course on nurses self-competence and confidence. To develop a particular competence one should continue the learning process. Learning culture helps to improve the competencies of the nurses (Dias et al., 2018). Kumar et al. (2018) studied the association between the variables related to organizational cultural competence and the teamwork climate in a health system. For Ex: Teamwork process may

depend on different variables like leadership, collaboration of management with operations, communication process, service delivery, support system, workforce diversity training, data collection, public accountability and quality improvement.

## TRAINING NEEDS IDENTIFICATION OF NURSES

Training and development help the organization to produce competent staffs that are considered as an asset. Aguinis and Kraiger (2008) studied the benefits of training and development for individuals, teams, organizations and society and different aspects of training and competence-based training need assessment and its effectiveness. Competency mapping and development helps in career development. Boxall et al. (2011) described that training and career development is an important practice of HR in every sector and there are various ways of assessment. Rao et al. (2011) described about the motivational factors in healthcare sector in India, i.e., monetary incentives, educational incentives or training, workforce policies and public private partnership, subordination, supervision and leadership which enhance the nursing sector. There is National Health Policy to improve healthcare in India and more and more research should be done to improve condition or to change policies in India (Redmond et al. 2011). There are many researchers suggest to study comparative analysis of training need assessment or competency mapping of nurses for public or private sector hospitals as the culture and clients/patients are different (Franco & Tavares, 2013). There are several factors affecting professional development (Breckelmans, 2013) are as follows: Availability of resources, fund and time, Organizational strategy, Commitment of key decision-makers, Infrastructure, Support of employers and employees, Learning Culture or workplace learning, Organization culture, Teamwork and Attitude. Competency-based training assessment scale is a validated decision tool, correlated to a specific group of activities that describes key knowledge, skills and abilities for performing various activities. Aragon et al. (2014) studied the effectiveness of training that includes organizational training, managerial training, leadership training, error management training and team training. Before training, it is necessary to assess competencies by conducting job task analysis. Competency identification process is exhibited in Table 19.1 illustrating the research studies that identified various variables contextual to competencies.



**Table 19.1** Identification of various competencies of nurses

<i>Sl. No.</i>	<i>Different competencies (KSAs)</i>	<i>Authors</i>
1	Interpersonal relationship skill	Schwirian (1978), Spruill et al. (2004), Riggio and Lee (2007), Franco and Tavares (2013), McDonald et al. (2013), Wan et al. (2015), Hicks et al. (2017), Karimi et al. (2019), Skarsater et al. (2018), Boyle et al. (2019), Santo et al. (2020)
2	Building professional identity/Occupational identity	Schwirian (1978), Kirpal (2004), Kaslow et al. (2005), Franco and Tavares (2013), Brekelmans et al. (2013), Felton and Royal (2015), Kol et al. (2017), Hicks et al. (2017), Dias et al. (2018), Karimi et al. (2019), Tuomikoski et al. (2019)
3	Emotional intelligence/Emotional competence	Akerjordet and Severinsson (2008), Riggio and Lee (2007), McDonald et al. (2013), O'Boyle et al. (2011), Kozub et al. (2016), Oysy et al. (2016), Crowne et al. (2017), Santo et al. (2020)
4	Leadership development	Schwirian (1978), Davies et al. (2002), Jennings et al. (2007), Akerjordet and Severinsson (2008), Felton and Royal (2015), Campbell and Wiernik (2015), Kozub et al. (2016), Hicks et al. (2017), Crowne et al. (2017), Kumra et al. (2018), Kim et al. (2019), Tuomikoski et al. (2019)
5	Teaching and collaboration	Schwirian (1978), Davies et al. (2002), Cronenwett et al. (2009), McDonald et al. (2013), Nagel et al. (2016), Skarsater et al. (2018), Kim et al. (2019), Boyle et al. (2019), Immonen et al. (2019)
6	Planning and evaluation	Schwirian (1978)
7	Critical care management	Schwirian (1978)

(continued)

**Table 19.1** (continued)

<i>Sl. No.</i>	<i>Different competencies (KSAs)</i>	<i>Authors</i>
8	Communication skill	Schwirian (1978), Davies et al. (2002), Aguinis and Kraiger (2008), Kozub et al. (2016), Oysy et al. (2016), Campbell and Wiernik (2015), Felton and Royal (2015), Felton and Royal (2015), Kumra et al. (2018), Weiss et al. (2018), Tuomikoski et al. (2019), Kim et al. (2019), Boyle et al. (2019), Wan et al. (2019), Immonen et al. (2019), Chen et al. (2020)
9	Learning skill	Rothwell and Lindholm (1999), Dooley et al. (2004), Clardy (2007), Noe et al. (2014), Guzman et al. (2015), Hicks et al. (2017), Dias et al. (2018), Immonen et al. (2019), Chen et al. (2020), Santo et al. (2020), Salas et al. (2020)
10	Decision-making skill	Davies et al. (2002), Felton and Royal (2015), Campbell and Wiernik (2015), Karimi et al. (2019), Carter et al. (2016), Kim et al. (2019), Labrague et al. (2019), Santo et al. (2020)
11	Team management	Aguinis (2008), Kailash and Lee (2009), Cronenwett et al. (2009), Redmond et al. (2011), Salas et al. (2012), Noe et al. (2014), Campbell and Wiernik (2015), Oysy et al. (2016), Smollan (2017), Barton et al. (2017), Carter et al. (2016), Kumra et al. (2018), Brunner et al. (2018), Boyle et al. (2019), Salas et al. (2020)
12	Ethical practices	Spruill et al. (2004), Kaslow et al. (2005), Felton and Royal (2015), Boyle et al. (2019), Bam et al. (2019), Immonen et al. (2019)

(continued)

**Table 19.1** (continued)

<i>Sl. No.</i>	<i>Different competencies (KSAs)</i>	<i>Authors</i>
13	Nursing research	Sheer and Wong (2008), Redmond et al. (2011), Davies et al. (2002), Noe et al. (2014), Campbell and Wiernik (2015), Adamson and Prion (2015), Oermann et al. (2017)
14	Mentoring	Dooley et al. (2004), Anatole et al. (2012), Noe et al. (2014), Smollan (2017), Guerrero and Brenner (2016), Brunner et al. (2018), Chlan et al. (2019), Tuomikoski et al. (2019), Immonen et al. (2019)
15	General management	Davies et al. (2002), Salas et al. (2012), Noe et al. (2014), Oysy et al. (2016), Felton and Royal (2015), Kol et al. (2017), Kumra et al. (2018), Brunner et al. (2018)
16	Writing skill	Brunner et al. (2018), Carter et al. (2016)
17	Online program learning/E-Learning/Informatics	Cronenwett et al. (2009), Noe et al. (2014), Canniford et al. (2014), Smythe et al. (2016), Eby et al. (2017)
18	Clinical assessment	Godkin and Godkin (2004), Felton and Royal (2015), Lee et al. (2016), Barton et al. (2017), Weiss et al. (2018), Bam et al. (2019)
19	Organization cultural competence	Spruill et al. (2004), Clardy (2007), Aguinis and Kraiger (2008), Bazarko et al. (2013), Hicks et al. (2017), Kumra et al. (2018), Chen et al. (2020)
20	Workforce diversity management	Rothwell and Lindholm (1999), Kaslow et al. (2005), McDonald et al. (2013), Kumra et al. (2018), Kumra et al. (2018)
21	Social consciousness/Community engagement	
22	Quality improvement	Clardy (2007), Barton et al. (2009), Cronenwett et al. (2009), Felton and Royal (2015), Hicks et al. (2017), Kumra et al. (2018)

(continued)

**Table 19.1** (continued)

<i>Sl. No.</i>	<i>Different competencies (KSAs)</i>	<i>Authors</i>
23	Knowledge management	Clardy (2007), Aguinis and Kraiger (2008), Guzman et al. (2015), Carter et al. (2016), Hicks et al. (2017), Tuomikoski et al. (2019)
24	Strategic adaptation/Flexibility	Kumar et al. (2002), Aguinis and Kraiger (2008), McDonald et al. (2013), Kozub et al. (2016), Santo et al. (2020)
25	Innovative thinking (New ideas generation)	Kumar et al. (2002), Aguinis and Kraiger (2008), McDonald et al. (2013), Cashin (2014), Felton and Royal (2015), Campbell and Wiernik (2015)
26	Stress management	Bazarko et al. (2013), Bazarko et al. (2013), Regina et al. (2013), Smollan (2017), Kol et al. (2017), Eby et al. (2017), Hicks et al. (2017), Skarsater et al. (2018), Karimi et al. (2019)
27	Psychological intervention and assessment	Krishnamurthy et al. (2004), Kaslow et al. (2004), Kaslow et al. (2005), Ranue and Kthyaani B. (2019)
28	Evidence-based practices	Spruill et al. (2004), Cronenwett et al. (2009), Labrague et al. (2017), Tuomikoski et al. (2019), Zhanming et al. (2018), Immonen et al. (2019)
29	Critical thinking	Davies et al. (2002), Spruill et al. (2004), Noe et al. (2014), Smollan (2017), Carter et al. (2016), Bam et al. (2019), Immonen et al. (2019)
30	Self-consciousness or care/Self Confidence	Spruill et al. (2004), McDonald et al. (2013), Baxter and Edvardsson (2018)
31	Self-evaluation or appraisal or self-assessment	Spruill et al. (2004), Noe et al. (2014), Canniford et al. (2014), Campbell and Wiernik (2015), Markoulli et al. (2017), Bam et al. (2019)
32	Resilience	McDonald et al. (2013), Folke (2016), Eby et al. (2017), Hicks et al. (2017)

(continued)

**Table 19.1** (continued)

<i>Sl. No.</i>	<i>Different competencies (KSAs)</i>	<i>Authors</i>
33	Psychological counseling	Weiss et al. (2018), Skarsater et al. (2018), Salas et al. (2020)
34	Clinical support or Supervision skill	Noe et al. (2014), Campbell and Wiernik (2015), Smollan (2017), Kol et al. (2017), Hicks et al. (2017), Tuomikoski et al. (2019), Harvey et al. (2020)
35	Chronic disease management or prevention practices	Hicks et al. (2017)
36	Change management	Smollan (2017), Bam et al. (2019)
37	Empathy	Smollan (2017), Wan et al. (2019)
38	Clinical management	Sheer and Wong (2008), Felton and Royal (2015), Oysy et al. (2016), Kozub et al. (2016), Labrague et al. (2019), Tuomikoski et al. (2019), Immonen et al. (2019)
39	Administrative practices/Documentation	Dooley et al. (2004), Clardy (2007), Noe et al. (2014), Campbell and Wiernik (2015)
40	Technological skill	Dooley et al. (2004), Clardy (2007), Campbell and Wiernik (2015)
41	Reflective practices	Canniford et al. (2014), Carter et al. (2016), Santo et al. (2020)
42	Conflict management/Problem-solving skill	Davies et al. (2002), Felton and Royal (2015)
43	Safety management	Cronenwett et al. (2009), Barton et al. (2009), Felton and Royal (2015), Salas et al. (2020)
44	Time management	Noe et al. (2014)

*Source* Authors' analysis

## NEED OF IDENTIFICATION OF COMPETENCIES IN STRENGTHENING IMPROVEMENT OF PERFORMANCES OF NURSES

Training need identification helps to build up proper professional and personal identity by updating knowledge and skill which will help to enhance the job performance. It provides a vision to develop a good career path and present a proper identity in the service sector as person's identity depends upon interest, role, attitude, value and orientation.

Schwirian (1978) conceptualized nursing performances in six dimensions as stated below:

- Teaching and collaboration,
- Planning and evaluation,
- Critical care,
- Interpersonal care and communication,
- Leadership and
- Professional development

Maximum performance is believed to occur when the person's ability is congruent with the need of job and organization (Boyatzis, 1982). According to Theory of Action and Job performance or Basic Competency theory, there are three components as stated below, which are congruent for effective actions or behavior:

1. The individual Competencies
2. The Job Demands
3. The Organizational Environment

It studied core competencies to analyze management work. Core competencies based on superior organization routines and processes provide an ideal source for competitive advantages. Competency model helps in increasing performances by training and development (Rothwell & Lindholm, 1999). Competency gap analysis helps in psychological assessment which leads to enhance the job performances (Kaslow et al., 2004; Krishnamurthy et al., 2004). Assessment of core competencies also helps in designing customized training programs which will help in performance improvement.

Career of nurses is needed to be better developed and systematized for delivery of best care in clinical practices which can be done by proper competency gap analysis (Kirpal, 2004). According to Clardy (2008), individual performance is depending upon workflow process, cultural value and belief, technological competencies and administrative practices. According to Aguinis and Kraiger (2008), Organization performance depends upon effectiveness, profitability and sales and job performance depends upon tactic skills, innovation and communication. Competency model helps to train professionals in the required skill sets. In India there

should be an increase in the training institutions to perform better in the respective sector or it will produce competent staffs (Rao et al., 2011).

Monetary incentives, educational incentives, workforce policies, new talent acquisitions and public-private partnership will be the motivations for the nursing sector. In India subordination, supervision and leadership skills will be important for the clinical and public health dept. for nurses. Stevens (2013) gives importance to competency model builds up as it will help in the process of selection, training and development, promotions, job assignments and compensation. Personal resilience also affects job performance. It enhanced to adopt/change Vulnerable environment, to enhance work, impact interpersonal relationship, enhance group behavior, critical situation handling, etc. (Mc. Donald & Jackson, 2013). Hurst and Patterson (2014) discussed the issues relating to getting the right health and social care staff with the right skills in the right place at the right time and at the right time and in the right place. Skilled workforces always perform better in service delivery. Learning also helps to enhance performances in individual, group level organization level, etc. (Noe et al., 2014). It is seen as one of the important competencies, i.e., Patient-centered care consists of Theories or science, Self-development knowledge, Art transformative nursing, Ethical practices, social justices to understand vulnerability (Felton & Royal, 2015) required to deliver quality service as per patient's satisfaction.

Several competencies are evolved in nurses during pandemic situation like technological competencies, leadership, coordination, mentoring, stress management, personal resilience, emotional intelligence, etc. They love to work as a team and called as COVID-19 warriors. They provide psychological support and counseling during treatment of affected patients and their families. Technological competency enhances the job performance like e-health, online working, data recording, documentation by different software, etc. It helps on patient-centric system that reduces complexity (Meier et al., 2015). Campbell and Wiernik (2015) suggested competency models help in assessment of performance in a work role. There are certain skills are evolved due to the dynamic situations which will help in doing job in a better way. Ex: Clinical reasoning is a skill is required for handling critical situations. There is always a need of designing a program which can identify nurse's accurate and appropriate reasoning skills (Lee et al., 2016). Job performance will be increased by proper training need identification and that will be done by proper competency gap analysis. Professional competence is increased

by proper skill and knowledge (Kol et al., 2017). Stress management helps in increase resiliency and enhance the task performance (Eby et al., 2017) which is required to handle COVID-19 situation. HRD programs should develop more and more skills to supervise support and mentor the programs that mitigate stressful change within the context of a supportive organization culture (Smollan, 2017). The Job Characteristics Theory (JCT) developed by Hackman and Oldham, is widely used as a framework to study how particular job characteristics affect job outcomes, including job satisfaction.

The five job characteristics are skill variety, task variety, task significance, autonomy and feedback (Asiamah et al., 2019; Mayrowetz et al., 2007). Empowerment is possible by increasing communication, displaying support and providing necessary support which is seen during pandemic. To identify and characterize the core curriculum outcomes among training programs for nurse practitioners is important to enhance the performance (Hicks et al., 2019).

Some of the competencies having its own effect on the individual performance; like Emotional intelligence (Karimi et al., 2019), Stress management, Teamwork management, organization culture competence, knowledge management, etc. Adequate training, availability of resources, continuing education, use of technology, proper documentation, IT infrastructure, patient-centered care, focus on leveraging the roles of each team member, mutual respect, relationship building and communication will help in effective job performance (Boyle et al., 2019). As per the AMO Theory (Ability, Motivation and Opportunities), increase training programs are act as motivational factors to enhance job performance as it increases skill variety and job knowledge (Asiahmah et al., 2019). Salas et al. (2020) suggested that teamwork and safety are required for effective job performance and identified team level criteria that enable teamwork, i.e., psychological safety, team trust, collective efficacy, shared mental models and situation awareness. Chen et al. (2020) explored nursing cultural competence which enhances job performance consists of Cultural awareness, Sensitivity, Appropriateness Humility, etc. It is an important issue as related to culture, race, gender and sexual orientation. Leininger's theory of cultural diversity focused on nursing theories, competent care and studied patient's treatment within a culturally dynamic setting. In-depth study should be done on learning of new skills in the healthcare to improve the performance. Clinical supervision is important to support development programs and better task performance (Harvey et al., 2020).



## METHODS

### *Participants and Design*

The standard Hennessy-Hicks questionnaire is modified as per the requirement of the training needs after doing a pilot study of 170 nurses who is working in the particular hospital. In-depth interview is done with the nursing staffs which includes interns, staff nurse, senior staff nurse, senior sister in charge, senior nursing supervisor, Assistant Nursing Superintendent, Clinical instructor. To develop the modified questionnaire; different sources are used in the research procedure like some of the current practices and relevant studies obtained from the literature review, points from the appraisal process in the given organization and also from the interactions with the nursing staffs and some suggestions from the experts in the respective field. It may be described as non-probabilistic sampling method with convenient sampling is used to collect the feedbacks from the participants. The research method is analytical or empirical study.

### *The Instrument (Hennessy-Hicks Assessment of Training Needs)*

In order to identify the training needs of nursing staffs, a structured questionnaire is designed from a validated questionnaire called as Hennessy-Hicks assessment of training needs. This instrument is developed in 1996 and it consists of a core set of 30 items and can be modified as per the requirement of the research. It is highly popular to do training need assessment for allied health professional, cross-cultural studies of health-care practitioners and to identify specialist continuing development needs. It is used to collect feedback to do training need assessment without compromising its psychometric properties (Hennessy et al., 2006). It is invented in UK but widely used in the countries like Greece, Indonesia, USA and Australia (Carlisle et al., 2011).

### *Research Instrument*

It consists of 40 items showing different areas and there is a five point rating scale used to collect the feedback and rating is given by the respondents as per their preference in training needs. It is administered to 502 nurses and 330 feedbacks are collected successfully. Then the whole data is analyzed by SPSS using factor analysis method.

### *Ethical Consideration*

Before data collection, an approval has obtained from the head of the departments of the three hospitals of Bhubaneswar. All the nursing professionals are informed about the objectives of the study. The data should be kept confidential is assured to the participants.

## DATA ANALYSIS

### *Validation of the Data*

To check the validity of the instrument's structure and its reliability, an Exploratory Factor Analysis is done by using SPSS s/w. Using a Varimax rotation and Cronbach's Alpha assessment data reliability is checked. Cronbach's Alpha is 0.819 (Table 19.3) for all 40 standardized items which show data is reliable; KMO (Kaiser–Meyer–Olkin) became measures the sample adequacy and Bartlett's test of sphericity,  $p = 0.000$  showing data is significant (Table 19.4). The factor analysis yielded six factors with components are having Eigenvalues of  $>1.0$  (Presented in Table 19.2).

**Table 19.2** Sample characteristics (Demographics)

<i>Variables</i>	<i>Category</i>	<i>Frequency (%)</i>	<i>Mean (SD)</i>
Age	20–30	170 (51.5)	110 (94.9)
	31–40	159 (48.2)	33.3 (28.6)
	41–50	1 (0.3)	
Educational qualification	Diploma	218 (66.1)	165 (74.9)
	BSc. Nursing	112 (34.0)	50.05 (22.698)
Job position	Junior Nurse	170 (51.5)	110 (94.5)
	Senior Nurse	159 (48.1)	33.3 (28.6)
	Nursing Superintendent	1 (0.3)	
Experience	Less than equal to 5	150 (45.5)	110(35.5)
	5–10 Years	81 (23.6)	33 (11.2)
	11–25 years	99 (30)	

*Source* Authors' data analysis

**Table 19.3** Item analysis and retrieved components:

<i>Dimensions</i>	<i>Nomenclature</i>	<i>Construct validity (Cronbach's Alpha)</i>	<i>Cumulative variance (%)</i>
A1	Interpersonal skill	0.919	17.6
A2	Technological skill	0.312	28.1
A3	Research and analytical skill	0.863	37.54
A4	Professional development	0.785	45.15
A5	Clinical skill	0.809	51.54
A6	Mentoring	0.530	57.3
A7	Emotional intelligence	0.094	63
A8	Personal resilience	0.562	63.02
A9	Ethical skill	0.621	73.3

*Source* Authors' data analysis

## DISCUSSION

The aim and objective of the study are to identify particular training needs for the registered nurses of few hospitals of Bhubaneswar as per the requirement of the present demanding situation. Data collections, instrument selection, design and discussions regarding the training need identification have been done as per the expert advices of the selected organizations and some of the evidences from the past literatures of similar situations. Before data analysis, data reliability and adequacy checked by using the calculated value of Cronbach's Alpha and Kaiser-Meyer-Olkin Measure of Sampling Adequacy which is 0.819 and 0.621, respectively, as shown in (Table 19.3) and (Table 19.4). Data is significant as the value of Bartlett's Test of Sphericity is 0.00 (Table 19.4). As shown in Table 19.2, the nurses mean age is 28.6 years (range 20–30 years). Regarding educational qualification; 66.1% of total participants are having Diploma in Nursing and 34% are having B.Sc. in Nursing and they are educated from various private and Govt. institutions. During interviewing it is explored that theoretically may be the course curriculums are same but they need to be updated with practical knowledge about the current nursing practices. New techniques of various Dept. of the organization should be learned as per many of the senior nurses. During COVID-19 situation, training was required about the treatment of the related patients as it involved various complications. For handling COVID-19 patients, separate ward is constructed and training is given batch by batch with

**Table 19.4** Factor loading and item statements ( $n = 330$ )

<i>Item No</i>	<i>Description</i>	<i>Cronbach's Alpha</i>
Factor-1	Interpersonal skill (A1)	
22	Acceptance of other's suggestions in a constructive way	0.885
15	Co-operation with others and patient's needs	0.822
21	Adjustment in working with others	0.800
14	Identifying other's strengths and weaknesses and motivates them to do work	0.795
25	Promotes teamwork and team coordination	0.789
12	Sharing of workload with others	0.756
3	Communicating with others along with patients and their families	0.755
4	Building trust in the workplace	0.740
7	Help others to learn new things	0.594
1	Establishing relationship with patients	0.544
Factor-2	Technological Skill (A2)	
13	Writing communication skill for reporting	0.813
2	Data Recording and Data Input both clinical and nonclinical	0.759
9	Using various tools and techniques in daily activities	0.735
11	Adaptation of new technologies	0.707
24	Analyzing clinical data accurately or comprehensively	0.637
18	Use of advanced technology in clinical activities	0.617
Factor-3	Research and Analytical Skill (A3)	
34	Integration of new research findings to the nursing practice	0.917
26	Designing a clinical research study or new learning method to study new things	0.902
39	Reading books and use different techniques to learn new things in nursing practice	0.897
27	Introduction of new ideas	0.631
28	Accessing research sources (Time, money, Information and equipment)	0.607
40	Decision-making using scientific principles	0.562
Factor-4	Professional Development (A4)	
20	Identifying own learning needs	0.866
6	Self-appraisal or personal assessment	0.725
19	Use of new techniques for personal assessment	0.677
5	Use learning opportunities for personal and professional growth	0.673

(continued)

**Table 19.4** (continued)

<i>Item No</i>	<i>Description</i>	<i>Cronbach's Alpha</i>
10	Always searching for new opportunities for professional development	0.655
Factor-5	Clinical Skill (A5)	
36	Clinical assessment, planning a treatment plan and recording of data	0.897
38	Psychological counseling of patients and their family	0.865
Factor-6	Mentoring Skill (A6)	
8	Coaching to juniors and colleagues	0.914
17	Support and supervision to other staffs	0.558
Factor-7	Emotional Intelligence (A7)	
30	Conflict management	0.858
33	Manage emotions to accept changes in the environment easily	0.697
29	Beware of own and other's emotions	0.544
Factor-8	Personal Resilience (A8)	
37	Showing positive attitude	0.877
32	Adopt any critical situations easily, flexible attitude and motivating others to overcome a negative situation	0.681
Factor-9	Ethical Skill (A9)	
35	Obeying all the ethical consideration of the organization	0.911
31	Respect patient's right to choice and self-determination in nursing and healthcare	0.663

*Source* Authors' data analysis

isolation period of 14 days if any of them had contaminated during treatment. About 48.1% of senior nurses are active participants of the survey and as per them they needed more and more training about sanitization, medication, biomedical wastage treatment, psychological counseling and stress management along with the traditional knowledge Training should be done about donning and doffing of PPE kit during sample collection for testing for the junior nursing staffs. As per experiences, 30% of participants having 11–25 years of experiences and 45.5% are having less than or equal to 5 years.

As per the Exploratory Factor Analysis, it can be derived that nine constructs are derived as shown in Table 19.3. From the nine constructs, seven are consistent and two of them are not considered for study as Cronbach's Alpha are 0.312 (A2) and 0.094 (A7), respectively. So the

final identified areas of training can be; interpersonal skill, research and analytical skill, professional development, clinical skill, mentoring skill, Personal resilience and ethical skill. A2 and A7 can be studied again by taking a large no. of sample as technological skill and emotional intelligence are the important areas to be considered as per the areas of training according to some of the participants.

From Table 19.4, it is seen that 73.3% cumulative variance explained about ethical skills which are all about obeying all the organizational rules and regulations related to clinical and nonclinical practice. 63.02% of variance explained about the factor personal resilience. 63% of total variance is explaining about emotional intelligence. Communication skill, being empathetic, emotional resilience, good judgment, leadership skill, teamwork, interpersonal relationship, etc., required for patient's care (Maria & Rania, 2017). As the data is inconsistent about the factor A7; it can be further studied elaborately with new sample collection. A6 is the mentoring skill explaining about the supervision of staffs and colleagues. There is a study done at Rwanda examining that mentorship is having a great role in quality improvement in nursing sector by assessing the competencies of nurses. It describes about the positive outcomes of the implementation of a healthcare program called The Mentoring and Enhanced Supervision at Health centers (MESH) by mentorship. This study mentioned that mentors assess the presence of necessary health equipment, medication and trained staffs during their visit to the working site of nurses. Mentorship program is necessary for the competency-based assessment for any organization and also for skill development (Brenner et al., 2016). There should be a formal review done for implementing the mentorship program and a survey tool can be created to measure the gap that how well the mentors can be addressed. So it can be suggested that proper mentorship can enhance the skills in the nursing sector. 360-degree competency-based management is developed for healthcare staffs but tested for midlevel managers to identify low and top performers. Mentoring competence is required for professional development and performance improvement (Tuomikioski et al., 2019). Proper mentoring requires clinical practice, knowledge about proper patient care and feedback.

According to Hennessy et al. (2006) there are six areas identified as the areas of training described as, Clinical care and service management, managing change and the application of knowledge, case management and networking, nursing care and leadership, making decisions and

extending care provisions. It is important to identify the variables which affect patient satisfactions and healthcare quality in a hospital to build positive reputation. That can be; physical skill and expertise, physician and nurse courtesy, diet for patients, general hospital evaluation, recommendations by hospitals, core services, professional credibility, competence, communication, etc. (Naidu, 2009). The present study showed that 51.54% of total variance explained about clinical management or clinical skills (A5) of patients. An increasing demand of quality nurses in clinical and nonclinical services leads to proper training need assessment and identification process. There are other factors that are also reviewed which will help in providing proper training as follows (Tsang et al., 2017). So that it is important to maintain the expertise of the nurses by designing and implementing special education programs in particular intervals. Every sector nowadays is concentrating on how to improve the skill sets or competencies of manpower. Work-related experience and organizational commitment are necessary to motivate identity construction in an organization (Collin, 2009). Training helps in performance improvement as it is helping in reskilling and upskilling.

Professional development (A4) is necessary for nurses explained by 45.15%. As the nursing staffs are the important part of the hospital industry, they need to be improved in every aspect starting from patients care, administrative duties, managerial and supervisory skills, clinical skills, planning and organizing skills, team working, etc. (Devi & Rao, 2012). Shah and Gopal (2012) use assessment centers, individual interviewing methods and psychological tests to identify the training needs for an organization. Breckelmans et al. (2012) studied that availability of resources, fund, time and infrastructure; organizational strategy, commitment of key decision-makers, internal support, attitude and teamwork are necessary for professional development of nurses. Nurses should be perfect in assessment, planning, implementation and evaluation of healthcare. There is a positive relationship between the nurses training and building up professional identity which helps in quality service delivery. Training facilitates change management and includes proper value to the career and profession. The identity of nurses is influenced by sharing of own experiences and adoptability of the organization's culture. As much as training program implemented successfully, the knowledge, skill and ability improved (Franco & Tavares, 2013). Psychological assessment skill, critical thinking skill is necessary in clinical nursing practice (Donovan et al., 2013).

Research and analytical skill (A3) is explained 37.5% of total variance and having consistency of 0.863 as Cronbach's Alpha. The dimension is consisting of two types of competencies that is clinical research skill and analytical skill. Clinical research is necessary for upskilling as different methods and techniques are used in various organizations to handle various difficult situations in organizations; for example: in RMRC, Bhubaneswar they have used a new machine called COBAS for testing numerous COVID-19 samples at a time for investigation. Analytical is required to think, plan and execute new ideas to the nursing practice in daily activities. Training programs are helping to update knowledge and skills about modern technologies about pandemic situations. Interpersonal skill or behavioral competencies (A1) are necessary to build up trust and develop positive relationship between patients and themselves according to maximum participants. 17.6% variance is shown as per Table 19.3 about the need of training in the area of interpersonal skill development.

## IMPLICATIONS

This study may contribute to developing one fundamental instrument for the measurement of the quality and management skills of nurses in hospitals. In further, the developed instrument can be implemented and evaluated as per requirement. It is very much important that the quality of the healthcare professionals should be monitored and improved. This can be helpful to update the policies protocol about the nurses. To validate the instrument and for better result another round of study can be done soon with larger sample size and can be taken from different hospitals of different cultures. This paper is helpful for identifying new constructs in the area of training in nursing area.

## REFERENCES

- Aguinis, H., & Kraiger, K. (2008). Benefits of training and development for individuals and teams, organizations, and society. *Annual Review of Psychology*, 60, 451–474. <https://doi.org/10.1146/annurev.psych.60.110707.163505>
- Akerjordet, K., & Severinsson, E. (2008, July). Emotionally intelligent nurse leadership: A literature review study. *Journal of Nursing Management*, 16(5), 565–577. <https://doi.org/10.1111/j.1365-2834.2008.00893.x>. PMID: 18558927



- Anatole, M., Magge, H., Redditt, V., Karamaga, A., Niyonzima, S., Drobac, P., Mukherjee, J., Ntaganira, J., Nyirazinyoye, L., & Hirschhorn, L. (2012). Nurse mentorship to improve the quality of health care delivery in rural Rwanda. *Nursing Outlook*, 61. <https://doi.org/10.1016/j.outlook.2012.10.003>
- Baxter, R., & Edvardsson, D. (2018, June). Impact of a critical care postgraduate certificate course on nurses' self-reported competence and confidence: A quasi-experimental study. *Nurse Education Today*, 65, 156–161. <https://doi.org/10.1016/j.nedt.2018.03.004>. Epub 2018 Mar 13. PMID: 29579568
- Boxall, P., Ang, S. H., & Bartram, T. (2011). Analysing the 'Black Box' of HRM: Uncovering HR goals, mediators, and outcomes in a standardized service environment. *Journal of Management Studies*, 48. <https://doi.org/10.1111/j.1467-6486.2010.00973.x>
- Bowden, J. A., & Masters, G. N. (1993). *Implications for higher education of a competency-based approach to education and training*. Department of Employment.
- Boyatzis, R. E. (2008). Competencies in the 21st century. *Journal of Management Development*, 27(1), 5–12. Yale University. <https://doi.org/10.1108/02621710810840730Press>
- Brekelmans, G., Poell, R., & Wijk, K. (2013). Factors influencing continuing professional development: A Delphi study among nursing experts. *European Journal of Training and Development*. 37. <https://doi.org/10.1108/03090591311312769>
- Brunner et al. (2018), M., McGregor, D., Keep, M., Janssen, A., Spallek, H., Quinn, D., Jones, A., Tseris, E., Yeung, W., Togher, L., Solman, A., & Shaw, T. (2018). An Ehealth capabilities framework for graduates and health professionals: Mixed-methods study. *Journal of Medical Internet Research*, 20(5), e10229. <https://doi.org/10.2196/10229>
- Campbell, J., & Wiernik, B. (2015). The modeling and assessment of work performance. *Annual Review of Organizational Psychology and Organizational Behavior*, 2, 47–74. <https://doi.org/10.1146/annurev-orgpsych-032414-111427>
- Carter, W., Nesbit, P., Badham, R., Parker, S., & Sung, L.-K. (2016). The effects of employee engagement and self-efficacy on job performance: A longitudinal field study. *The International Journal of Human Resource Management*, 1–20. <https://doi.org/10.1080/09585192.2016.1244096>
- Chen, S.-C., Lai, Y.-H., & Tsay, S.-L. (2020, June). Nursing perspectives on the impacts of COVID-19. *Journal of Nursing Research*, 28(3), p e85. <https://doi.org/10.1097/NRJ.0000000000000389>
- Clardy, A. (2008). Human resource development and the resource-based model of core competencies: Methods for diagnosis and assessment. *Human Resource*

- Development Review*, 7, 387–407. <https://doi.org/10.1177/1534484308324144>
- Cronenwett, L., Sherwood, G., Pohl, J., Barnsteiner, J., Moore, S., Sullivan, D. T., Ward, D., & Warren, J. (2009, November–December). Quality and safety education for advanced nursing practice. *Nurse Outlook*, 57(6): 338–348. <https://doi.org/10.1016/j.outlook.2009.07.009>. PMID: 19942035.
- Crowne, K., Young, T., Goldman, B., Patterson, B., Krouse, A., & Proenca, J. (2017). Leading nurses: Emotional intelligence and leadership development effectiveness. *Leadership in Health Services*, 30. <https://doi.org/10.1108/LHS-12-2015-0055>
- Donovan, R. O., Doody, O., & Lyons, R. (2013 September 12–25). The effect of stress on health and its implications for nursing. *The British Journal of Nursing*, 22(16), 969–970, 972–973. <https://doi.org/10.12968/bjon.2013.22.16.969>. PMID: 24037402.
- Eby, L., Allen, T., Conley, K., Smith, R., Henderson, T., & Mancini, V. (2019). Mindfulness-based training interventions for employees: A qualitative review of the literature. *Human Resource Management Review*, 29, 156–178. <https://doi.org/10.1016/j.hrmr.2017.03.004>
- Flood, B., Smythe, L., Hocking, C., et al. (2019). Interprofessional practice: Beyond competence. *Advances in Health Science Education*, 24, 489–501. <https://doi.org/10.1007/s10459-019-09879-4>
- Folke, C. (2016). Resilience (republished). *Ecology and Society*, 21(4), 44. <https://doi.org/10.5751/ES-09088-210444>
- Franco, M., & Tavares, P. J. (2013). The influence of professional identity on the process of nurses' training: An empirical study. *Leadership in Health Services*, 26, 118–134.
- Garavan, T. (2011). *Fundamentals of human resource development*.
- Godkin, J., & Godkin, L. (2004). Caring behaviors among nurses. *Health Care Management Review*, 29, 258–267. <https://doi.org/10.1097/00004010-200407000-00011>
- Guerrero, A. P. S., & Brenner, A. M. (2016). Mentorship: A return to basics. *Academic Psychiatry*, 40, 422–423. <https://doi.org/10.1007/s40596-016-0516-0>
- Hennessy, D., Hicks, C., Hilan, A., & Kawonal, Y. (2006). A methodology for assessing the professional development needs of nurses and midwives in Indonesia: Paper 1 of 3. *Human Resources for Health*, 4, 8. <https://doi.org/10.1186/1478-4491-4-8>
- Hurst, K., & Kelley Patterson, D. (2014). Health and social care workforce planning and development—An overview. *International Journal of Health Care Quality Assurance*, 27(7), 562–572. <https://doi.org/10.1108/IJHCQA-05-2014-0062>

- Hwang, W. J., & Jo, H. H. (2020). Development and application of a program for reinforcing global health competencies in university nursing students. *Frontiers in Public Health*, 8, 263. <https://doi.org/10.3389/fpubh.2020.00263>
- Immonen, K., Oikarainen, A., Tomietto, M., Kääriäinen, M., Tuomikoski, A. M., Kaučič, B. M., Filej, B., Riklikienė, O., Flores, V.-M. M., Perez-Cañaveras, R. M., De Raeve, P., & Mikkonen, K. (2019, December). Assessment of nursing students' competence in clinical practice: A systematic review of reviews. *International Journal of Nursing Studies*, 100, 103414. <https://doi.org/10.1016/j.ijnurstu.2019.103414>. Epub 2019 Aug 31. PMID: 31655385
- Junior, R., Guedes dos Santos, J., Copelli, F., & Balsanelli, A. (2020). Enterprising tendency and interpersonal communication of nursing students. *Revista da Escola de Enfermagem da USP*, 54, 3615. <https://doi.org/10.1590/S1980-220X2018056603615>
- Karimi, A., Teimouri, H., Shahin, A., & Shaemi Barzoki, A. (2019). Competency-based recruitment and managerial succession. *Human Systems Management*, 37, 411–423. <https://doi.org/10.3233/HSM-17184>
- Kaslow, N., Celano, M., & Stanton, M. (2005). Training in family psychology: A competencies-based approach. *Family Process*, 44, 337–353. <https://doi.org/10.1111/j.1545-5300.2005.00063.x>
- Kirpal, S. (2004). Work identities of nurses: Between caring and efficiency demands. *Career Development International*, 9(3), 274–304. <https://doi.org/10.1108/13620430410535850>
- Krishnamurthy, R., VandeCreek, L., Kaslow, N., Tazeau, Y., Miville, M., Kerns, R., Stegman, R., Suzuki, L., & Benton, S. (2004). Achieving competency in psychological assessment: Directions for education and training. *Journal of Clinical Psychology*, 60, 725–739. <https://doi.org/10.1002/jclp.20010>
- Labrague, L., McEnroe-Petitte, D., Papatthanasious, I., Edet, O., Tsaras, K., Leocadio, M., Colet, P., Kleisiaris, C., Fradelos, E., Rosales, R., Santos-Lucas, K., & Velacaria, P. (2017). Stress and coping strategies among nursing students: An international study. *Journal of Mental Health*, 27, 1–7. <https://doi.org/10.1080/09638237.2017.1417552>
- Lee, H., Kim, M., Kiang, P., & Shi, L., Tan, K., Chea, P., Peou, S., Grigg-Saito, D. (2016). *Public health nursing*.
- Markoulli, M., Lee, C., Byington, E., & Felps, W. (2017). Mapping human resource management: Reviewing the field and charting future directions. *Human Resource Management Review*, 27, 367–396. <https://doi.org/10.1016/j.hrmr.2016.10.001>
- McDonald, M., Kazemi, E., & Kavanagh, S. (2013). Core practices and pedagogies of teacher education. *Journal of Teacher Education*, 64, 378–386.

- Mercurio, Z. A. (2015). Affective commitment as a core essence of organizational commitment: An integrative literature review. *Human Resource Development Review*, 14(4), 389–414. <https://doi.org/10.1177/1534484315603612>
- Nagel, Y., Towell, A., Nel, E., & Foxall, F. (2016). The emotional intelligence of registered nurses commencing critical care nursing. *Curationis*, 39(1), e1–e7. <https://doi.org/10.4102/curationis.v39i1.1606>
- Noe, R., Clarke, A., & Klein, H. (2014). Learning in the twenty-first-century workplace. *Annual Review of Organizational Psychology and Organizational Behavior*, 1, 245–275. <https://doi.org/10.1146/annurev-orgpsych-031413-091321>
- O’Boyle, E., Humphrey, R., Pollack, J., & Hawver, Story, P. (2011). Emotional intelligence and job performance: A meta-analysis. *Journal of Organizational Behavior*, 32, 788–818. <https://doi.org/10.1002/job.714>
- O’Connor, P., Hill, A., Kaya, M., & Martin, B. (2019). The measurement of emotional intelligence: A critical review of the literature and recommendations for researchers and practitioners. *Frontiers in Psychology*, 10. <https://doi.org/10.3389/fpsyg.2019.01116>
- Oermann, M., Nicoll, L., Chinn, P., Ashton, K., Conklin, J., Edie, A., Amarasekara, S., & Williams, B. (2017). Quality of articles published in predatory nursing journals. *Nursing Outlook*, 66. <https://doi.org/10.1016/j.outlook.2017.05.005>
- Priyadarshini, R. R. G., & Dave, D. (2012). Competency-based training needs assessment model. *Management and Labour Studies*, 37(3), 195–207. <https://doi.org/10.1177/0258042X13484834>
- Rao, M., Rao, K. D., Kumar, A. K., Chatterjee, M., & Sundaraman, T. (2011, February 12). Human resources for health in India. *Lancet*, 377(9765), 587–598. [https://doi.org/10.1016/S0140-6736\(10\)61888-0](https://doi.org/10.1016/S0140-6736(10)61888-0). Epub 2011 Jan 10. PMID: 21227499.
- Redmond, A. D., O’Dempsey, T. J., & Taithe, B. (2011, March). Disasters and a register for foreign medical teams. *Lancet*, 26; 377 (9771), 1054–1055. [https://doi.org/10.1016/S0140-6736\(11\)60319-X](https://doi.org/10.1016/S0140-6736(11)60319-X). PMID: 21440794
- Regina, O., Doody, O., & Lyons, R. (2013). The effect of stress on health and its implications for nursing. *British Journal of Nursing*, 22, 969–973.
- Riggio, R., & Lee, J. (2007). Emotional and interpersonal competencies and leader development. *Human Resource Management Review*, 17, 418–426. <https://doi.org/10.1016/j.hrmr.2007.08.008>
- Schwirian, P. M. (1978). Evaluating the performance of nurses: A multidimensional approach. *Nurse Researcher*, 27, 347–351.
- Shah, H., & Gopal, R. (2012). Training needs analysis for bus depot managers at GSRTC. *European Journal of Training and Development*, 36, 527–543. <https://doi.org/10.1108/03090591211232084>

- Sheer, B., & Wong, F. (2008). The development of advanced nursing practice globally. *Journal of Nursing Scholarship: An Official Publication of Sigma Theta Tau International Honor Society of Nursing / Sigma Theta Tau*, 40, 204–211. <https://doi.org/10.1111/j.1547-5069.2008.00242.x>
- Skärsäter, I., Keogh, B., Doyle, L., Ellilä, H., Jormfeldt, H., Lahti, M., Higgins, A., Meade, O., Sitvast, J., Stickle, T., & Kilkku, N. (2018, September). Advancing the knowledge, skills and attitudes of mental health nurses working with families and caregivers: A critical review of the literature. *Nurse Education in Practice*, 32, 138–146. <https://doi.org/10.1016/j.nepr.2018.07.002>. Epub 2018 Jul 7. PMID: 30007849
- Smollan, R. (2017). Supporting staff through stressful organizational change. *Human Resource Development International*, 20, 1–23. <https://doi.org/10.1080/13678868.2017.1288028>
- Spruill, J., Rozensky, R., Stigall, T., Vasquez, M., Bingham, R., & Olvey, C. (2004). Becoming a competent clinician: Basic competencies in intervention. *Journal of Clinical Psychology*, 60, 741–754. <https://doi.org/10.1002/jclp.20011>
- Sternberg, R. J., & Kolligian, J., Jr. (Eds.). (1990). *Competence considered*.
- Stevens, K. R. (2013, May 31). The impact of evidence-based practice in nursing and the next big ideas. *Online Journal of Issues in Nursing*, 18(2), 4. PMID: 23758422.
- Tiwari, R., Sharma, K., & Zodpey, S. (2012). Situational analysis of nursing education and work force in India. *Nursing Outlook*, 61. <https://doi.org/10.1016/j.outlook.2012.07.012>
- Tuomikoski, A. M., Ruotsalainen, H., Mikkonen, K., & Kääriäinen, M. (2019). Nurses' experiences of their competence at mentoring nursing students during clinical practice: A systematic review of qualitative studies. *Nurse Education Today*, 85, 104258. <https://doi.org/10.1016/j.nedt.2019.104258>
- Victoria Bam, A. K.-A. D., Ernest Asante, A. Y. L., & Pearl Adade, B. A. A. (2020). Self-assessed competencies of nurses at an emergency department in Ghana, *African Journal of Emergency Medicine*, 10(1), 8–12. ISSN 2211-419X, <https://doi.org/10.1016/j.afjem.2019.09.002> (<http://www.sciencedirect.com/science/article/pii/S2211419X1930148X>)
- Weiss, S., & Bongartz, H., Boll, S., & Heuten, W. (2018). *Applications of immersive virtual reality in nursing education—A review*.
- Zhanming, L., Felicity C. B., Peter F. H., David S. B., Sandra G. L., Dennis, W., David E., & Aziz, R. (2018). An evidence-based approach to understanding the competency development needs of the health service management workforce in Australia, *BMC Health Services Research*, 18(1). <https://doi.org/10.1186/s12913-018-3760-z>

PART VI

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## Case Studies



# Valuation of Mass Shoe Last Company Limited

*Devesh Baid*

## BACKGROUND

Mr. Neeraj Aggarwal worked with Shoe Last Pvt Ltd (SLPT) for more than two decades and retired as the Director of operations. He was a mechanical engineering graduate and had completed post-graduation in industrial and Production engineering before heading manufacturing operations at SLPT. His key role at SLPT was design of indigenous machines for manufacturing shoe last and was responsible for smooth functioning of all plants of SLPT. SLPT was India's first and currently the largest manufacturer of plastic shoe lasts. Currently, SLPT operates two state-of-the-art production facilities in Agra and Vellore, two model development centres in Chennai and Kanpur with corporate office in Mumbai—making them the only last maker with a pan-India presence.

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Earlier they also had a plant at Vadodara, Gujarat which was closed in 2014. Mr. Neeraj was stationed at Vadodara and visited other units whenever required.

## THE BEGINNING

After his retirement in September 2013 from SLPT, Mr. Neeraj thought of setting up a manufacturing unit of shoe last. Every time a shoe company prepares a new design, they needed shoe last according to the design and size. Mr. Neeraj made an estimate of investment required to set up a plant. Total cost of machinery and other fixed assets was INR<sup>1</sup> 15.08 million and working capital requirement was assessed at INR 13.33 million for 400 pairs of shoes last to be produced in one shift per day. Including incidental expenses of setting up the company and making it operational, total project was estimated to cost around INR 30 million.

As the investment was big for Mr. Neeraj alone, he approached his two of his colleagues at SLPT—Mr. Rajesh Biyani and Mr. Kamal Shah. Both were working at Agra and Kanpur plant of SLPT. Both readily agreed to join hands. It was also decided to set up unit at Agra as the location was suitable for such a company. Agra and Kanpur are hubs of shoe manufacturing in India. Once a new design is given by a shoe company, shoe last must be prepared and supplied quickly so that the company can manufacture and market shoes at the earliest. Time from design-to-market is very critical for any shoe company. Agra has a leather park, where major shoe manufacturers are located. Mr. Neeraj shifted to Agra to set up the unit.

MASS Shoe Last Company (MAS) was incorporated in May 2013 with an initial capital of INR 10 million. In June 2014, a land of 2000 square metres (sq.mt.) with shed of app 1000 sq.mt. was taken on lease at rent of INR 150 thousand per month located at a village in Agra. The rent was high, but many shoe manufacturers were in the vicinity and Leather Park was also close by so the location was most appropriate for getting order.

Mr. Neeraj had designs of all the machines required for manufacturing shoe last. While few machines were imported from China, He got rest of the machines manufactured in Vadodara and shipped them to Agra. He anticipated to start production in October 2014 but due to various

<sup>1</sup> INR currency is Indian Rupee.



operational issues, the production could commence only from May 2015. Mr. Pradeep, son of Mr. Neeraj, after the commencement of production at MAS, joined his father in this business. He was a mechanical engineer working as a maintenance engineer in a firm at Vadodara. Initially he was responsible for maintenance of the plant at MAS but gradually he had taken over the responsibility of entire production.

## INDUSTRY SCENARIO

Apart from numerous small players, there were two major players in the industry—Sanghavi Shoe Accessories Pvt Ltd and Chemrow India Pvt Ltd. There were no listed companies under this segment. Even the other major players were micro and small enterprises so the information about sales, profitability, and growth for shoe last segment of industry was not available. The demand for shoe lasts was a derived demand and depended upon introduction of new designs by the shoe manufacturers. Sales and performance of shoe last Industry were, therefore, based on performance of the footwear industry.

Globally India stood second after China in footwear production. It produced 2.1 billion pair accounting for 13% of total annual global production of 22 billion pair which is much below China's share of 60%. 90% of the production was consumed domestically while the remaining 10% was exported primarily to European markets. In value terms, the export was estimated at Rs 18,000 Crores and the total market size was INR 500 billion. Of the footwear market, leather footwear market accounted for 20% and the balance was accounted for by synthetic footwear. The footwear exports from India had grown at a compound annual growth rate (CAGR) of 20% in Indian rupee terms during the five-year period ending March 2015. India's share was 1.9% in the global export market of US\$120 billion, which was much lower than the China's share of 40%.

The average footwear consumption in India stood at 1.66 pair per annum which was very low as compared to the developed countries' average of 6–7 pair per annum and the Global average of 3 pairs per annum. This gap coupled with increasing disposable incomes, rising middle class, and changing consumer preferences provides a tremendous opportunity for the Indian footwear market to grow at a rapid pace going forward. According to the forecasts KPMG Report (2016), it was expected to grow from the current market size of 10 billion USD in 2016

to 25 billion USD by 2020, 50 billion USD by 2025, and 80 billion USD by 2030. Shoe last industry was expected to follow same growth trends as share of rubber and leather industry in value terms was same. It was one of the 25 top priority sectors for Make in India programme launched by the Government of India 2014. Generally, the industry was considered green with no real burden on country's natural resources. It was also considered environment friendly as it did not produce significant effluents, liquid or water waste, and noise pollution. Effluents, if any, could be dealt with relatively easily. Land requirements and electricity consumption were low as compared to large industries such automotive, refining, etc., and it was quite labour intensive relative to other industries. It was also easy to skill labour and start operations in the footwear industry.

Both organised and unorganised sector had equal share in value terms in domestic market. There were almost 15,000 SMEs operating largely in the unorganised sector with relatively few entities operating in the organised sector. The primary reason for the unorganised and small scale set up of Indian footwear industry was historical restrictions of licensing and SME reservation of the sector, which continued till 2001. Since then, the government had permitted 100% foreign direct investment through the automatic route for the footwear sector. The government of India was also setting up dedicated footwear complex and footwear components parts where footwear clusters were located. There had been active interest in collaborating with Indian footwear companies from some of the European countries like Italy, Spain, and Portugal.

## MANUFACTURING PROCESS AT SHOE LAST

The basic raw material for manufacturing shoe last is High-Density Polyethylene (HDPE) and Linear Low-Density Polyethylene (LLDPE). LLDPE is used to reduce hardness. HDPE and LLDPE are used in the ratio of 5:1. Many companies like Reliance Industries, Indian Oil Corporation Ltd (IOCL), Gas Authority of India Ltd manufacture and supply HDPE and LLDPE granules and it is readily available. MAS normally bought these two raw materials from IOCL, Kanpur. Even reprocessed granules were also added for preparing the shoe last. This reduced the cost without compromising much on the quality. MAS prepared reprocessed granules from its rejections and purchased the used shoe lasts from shoe companies. Every company differentiated its shoe last by adding a master colour. MAS used light blue as its master colour. The step-in

manufacturing process was passing the mixture (HDPE, LLDPE, reprocessed granules, and master colour) through injection moulding machine for preparation of moulds. The mixture was then heated at the high temperature and later poured in the moulds of required size. Once the rough blocks (shoe mould) were ready, it was passed through water and were put in the wooden boxes for cooling. It took six to eight hours for the rough blocks to cool. They were ‘made to stock’ based on forecasted demand. On confirmed order for shoe lasts, these rough blocks were then finished as per the requirement. This helped to meet the order supply in a short time, which was crucial in the industry.

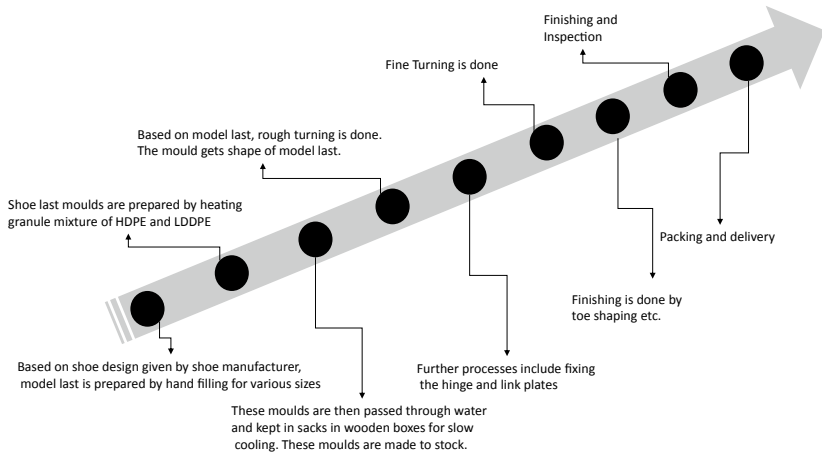
The shoe last is a die which helped in making the shoes. Shoes cannot be made without the use of a shoe last. Initially, the sample of the shoe last (model last) is developed by hand filling with the help of highly skilled person. This model is then used to make a shoe last (YouTube video of shoe last manufacturing is available at [https://www.youtube.com/watch?v=Cb\\_e5h2Ac90](https://www.youtube.com/watch?v=Cb_e5h2Ac90)). When the model last is received for production, rough blocks of appropriate size are converted as per the order specification. Machines at the heart of the manufacturing process are CNC machines for rough turning and fine turning. These machines had been imported from China. Rough turning is done after end cutting and centring the rough block. Other processes include drilling holes in the rough block, cutting the block into two parts with a particular profile, slotting it, and then fixing the hinge and link plates with pins. Thereafter fine turning operation is carried out. Further, toe dog and heel dog which are formed during rough turning, drilling, and fine turning operations are cut and toe shaping is done using toe dog cutting machine and toe shaping machine. Then sleeve hole and sleeve fixing are done and plate as per customer requirement is fixed at bottom of the last. Finally, finishing and inspection are carried out before packing and dispatch. A brief of shoe last manufacturing process is given in Fig. 20.1.

## FINANCING THROUGH BANK

A term loan of INR 10 million was sanctioned by The Oriental Bank of Commerce in January 2015 which was later transferred to the Axis Bank in May 2016. The Bank was changed to avail benefit under Credit Guarantee Fund Trust Scheme for Micro and Small Enterprises.<sup>2</sup> The tenure

<sup>2</sup> The Credit Guarantee Fund Scheme for Micro and Small Enterprises (CGS) was launched by the Government of India (GoI) to make available collateral-free credit to the

of the term loan was seven years with a moratorium period of eighteen months with first instalment of INR 215,172 due from July 2016. The term loan was hypothecated against plant, machinery, and other fixed assets of the firm worth INR 15.8 million. Also, a cash credit limit of INR 10 million, which was earlier sanctioned by the Oriental Bank of Commerce for working capital (WC) was transferred to a bank in May 2016. The working capital loan was against hypothecation of raw material, stock in process, finished goods, stores and spares, receivables, and other current assets. Collateral security of INR 15.6 million was given for securing cash credit limit in the form of residential properties and LIC policies by the promoters. In April 2016, MAS was rated as OBC SME5



**Fig. 20.1** Manufacturing process of Shoe Last (*Source* Author)

micro and small enterprise sector. Both the existing and the new enterprises are eligible to be covered under the scheme. The guarantee cover available under the scheme is to the extent of maximum 85% of the sanctioned amount of the credit facility. The guarantee cover provided is up to 75% of the credit facility up to INR 5 million (85% for loans up to INR 500 thousand provided to micro enterprises, 80% for MSEs owned/operated by women and all loans to NER including Sikkim) with a uniform guarantee at 50% for the entire amount if the credit exposure is above INR 5 million and up to INR 10 million.

and the working capital loan was renewed by the bank at an interest rate of MCLR<sup>3</sup> plus 3%. The same rate was charged for both the loans.

## FINANCIALS

The sales by the firm both in terms of quantity and revenue had grown over the two years of operations. This trend was evident if one were to compare on quarter-to-quarter basis (Exhibit 20.1). However, due to low-capacity utilisation and high fixed operating and financial cost, the firm's entire capital had been wiped out (Exhibits 20.2 and 20.3). Although looking at the industry scenario, it was expected that the sales would increase over the next few years and the firm should report profit as a consequence. The cost of direct material for one pair of the shoe last was INR 122.52 (Exhibit 20.4). Other manufacturing costs and administrative expenses at different level of production were estimated as given in Exhibits 20.5 and 20.6. Cost structure and profit at different level of sales were estimated as given in Exhibit 20.7. However, MAS did not have sufficient funds to meet its working capital requirement. As the debt was out of question and promoters were also not in a position to provide further equity, additional equity from new shareholders (private equity) seemed to be the only way out. This necessitated valuation of the firm so that the price of new equity to be issued can be fairly determined.

## VALUATION OF MAS

MAS approached a consultant for raising equity through private investors. Before investors could be approached it was necessary to value the firm and determine the price at which stock could be issued. The consultant thought of using the two prominent methods—the discounted cash flow technique and the relative valuation based on market multiples—for valuation. These methods are most suitable for conventional manufacturing industries. For doing valuation through the discounted cash flow technique, the cash flows, and the cost of capital (both debt and equity) had to be estimated. Cost of debt can be computed rather easily as the debt was only from the bank and the promoters (Exhibit 20.3). As MAS was a private limited firm and as there were no shoe last firms listed on any exchange, estimating the cost of equity was not easy as CAPM-based cost of equity estimate required estimation of beta (sensitivity to the

<sup>3</sup> MCLR stood for marginal cost-based lending rate and referred to the minimum interest rate of a bank below which it normally cannot lend.

market). For estimating beta and the cost of equity, firms in footwear industry were looked. BSE had 10 firms listed under footwear industry. Footwear industry itself was divided into leather based and non-leather based (rubber, PVC etc.). Since a shoe last is used only by manufacturers of leather shoes, sandals, etc., firms dealing in leather-based products were chosen. Out of these 10 firms, based on Reuter's database,<sup>4</sup> three firms Bata India Ltd, Liberty Shoes Ltd, and Mirza International Ltd were identified for computation of beta. Market capitalisation and beta values of these firms were estimated as given in the Exhibit 20.8. Beta of these firms varied from a low of 1.08 to a high of 1.82. Footwear industry beta and cyclical consumer goods and services sector beta values, respectively, are 0.84 and 1.31.

Risk-free rate was measured as the yield on the 10-year Indian government bond which was 6.81% as of April 2017. Risk premium was measured based on a survey study of 41 countries Fernandez et al. (2015). Median risk premium for India stood at 8.3% while mean was 8.4%. Difference in mean risk premium was found at -0.1% compared to figures reported in a similar survey done in 2013. Relative measures of valuation include various multiples such as P/E ratio, price to sales ratio, price to book value ratio, and price to cash flow ratio. Values as per Reuters for footwear industry and cyclical consumer goods and services sector are given in Exhibit 20.9. Exhibit 20.10 gives a snapshot of three major players of footwear industry in leather segment.

## MEETING WITH CONSULTANT

Based on the above information, consultant set down with Mr. Neeraj and Mr. Pradeep to discuss the certain issues relating to firm and valuation. First issue was about depreciation charged during last two years which has significantly reduced the book value, resulted in reporting heavy losses, and eroded entire capital base. This happened as depreciation was charged in accounting books as per income tax laws for ease of calculation. Assets were highly underutilized. Revaluation of balance sheet was considered as it will reflect true situation. In that case 10% depreciation on straight line

<sup>4</sup> The Thomson Reuters Business Classification (TRBC) is an industry classification of global companies; it is owned and operated by Thomson Reuters and is also the basis for Thomson Reuters Indices. Each company is allocated an Industry, which falls under an Industry group, then Business Sector, which is then part of an overall economic sector. TRBC consists of 10 economic sectors, 28 business sectors, 54 industry groups, 143 industries, and 837 activities.

method was considered appropriate. However, for income tax purposes depreciation will be charged at 25%. Also, allotment of shares was done for application money received earlier from promoters and other investors.

Another issue was about the investment in capex required to maintain the current capacity. Based on the experience of Mr. Neeraj an amount equal to depreciation over five years was thought appropriate for capex investment in fifth year. Last issue was about working capital. This industry is a working capital-intensive industry. Working capital will increase with increase in sales as per operating cycle of four months (fifteen days of raw material, fifteen days of WIP, and another three months for finished goods and debtors). Since Mass Shoe Last is new firm with excess capacity, sales of the firm were expected to grow at double the growth rate till 2020, one and half time of growth rate till 2015 and same till 2030 of expected growth for footwear industry and thereafter a modest Hindu growth rate of 5% was thought appropriate. Based on the above information consultant agreed to determine the value of the firm and appraise Mr. Pradeep about the same within a weeks' time.

## APPENDICES

See Exhibits [20.1](#), [20.2](#), [20.3](#), [20.4](#), [20.5](#), [20.6](#), [20.7](#), [20.8](#), [20.9](#), and [20.10](#).

**Exhibit 20.1** Sales for last six quarters at MASS (in INR)

<i>Month</i>	<i>Sales units</i>	<i>Revenues (Rs)</i>	<i>Average S.P per unit (Rs)</i>
July 15–Sept 15	5975	3,201,099	536
Oct 15–Dec 15	7123	3,799,506	533
Jan 16–Mar 16	7313	3,874,935	530
April 16–June 16	9332	5,011,284	537
July 16–Sept 16	9154	4,805,085	525
Oct 16–Dec 16	7675	4,051,104	528

*Note* Drawn from internal company records of monthly sales

**Exhibit 20.2** Trading and profit and loss account (in INR)

<i>Trading and profit and loss account</i>							
<i>Particulars</i>	<i>Dec-16(Prov)</i>	<i>Mar-16</i>	<i>Mar-15</i>	<i>Particulars</i>	<i>Dec-16</i>	<i>Mar-16</i>	<i>Mar-15</i>
Opening stock	2,658,374	0	0	Sales Account	25,158,638	11,501,363	0
Purchase	16,104,207	5,704,153	0	Closing Stock	6,669,582	2,658,374	0
Direct expenses (Ele, Mfg, Freight, Loading, Sanit	5,476,093	2,358,381	0				
Gross profit	7,589,546	6,097,203	0				
	31,828,220	14,159,737	0		31,828,220	14,159,737	0
Accounting and audit charges	14,000	212,650	47,000	Gross Profit	7,589,546	6,097,203	0
Bank charges & comm (Inc loan expin 1st year)	163,697	10,830	269,866	Income Tax Refund	1580	0	0
Bank interest	1,678,434	2,239,462	229,899	Other Income - Scrap Sale	458,600	0	0
Building renovation and maintenance	3679	152,711	753,327	Rebate & Discount	0	0	139
Computer repair and maintenance	10,915	0	0	Exchange Rate Difference	0	0	5129
Consumables stores (1nd year Mat Trial Prod)	274,503	40,404	123,004				
Conveyance expenses	235,325	286,348	121,141				
Exchange rate difference	4657	2993	0				
Custom duty and cess	13,137	0	0				
Depreciation	0	2,811,594	2,473,282				
Electric repair and maintenance	31,361	69,085	2100				
EPF and ESI contribution	59,677	52,996	0				



<i>Trading and profit and loss account</i>						
<i>Particulars</i>	<i>Dec-16(Prov)</i>	<i>Mar-16</i>	<i>Mar-15</i>	<i>Particulars</i>	<i>Dec-16</i>	<i>Mar-16</i>
						<i>Mar-15</i>
Exhibition Exp and guest house Exp	0	162,062	74,420			
Factory Exp	31,918	61,212	0			
Factory lease rent	1,565,316	1,834,000	1,530,000			
Factory license fee (Val in 1 & 2 Year)	2500	5600	16,004			
Festival Exp	178,659	89,014	1800			
General Exp	12,480	17,796	54,059			
Generator fuel and maintenance	64,107	468,971	52,986			
Insurance Exp	0	87,997	91,351			
Job contract Exp	0	841,455	0			
Legal and provisional charges	22,000	3000	0			
Machine repair and maintenance	493,308	600,127	20,380			
Miss Exp	5643	0	17,096			
Packing material and printing Exp	12,713	23,001	4100			
Postage and courier charges	361	5433	5935			
Printing and stationary Exp	76,347	144,128	12,393			
Production incentive	45,267	0	0			
Rebate and discount	126,846	36,055	0			
ROC Expenses	62,000	1000	227,494			

(continued)

**Exhibit 20.2** (continued)

<i>Trading and profit and loss account</i>						
<i>Particulars</i>	<i>Dec-16(Prov)</i>	<i>Mar-16</i>	<i>Mar-15</i>	<i>Particulars</i>	<i>Dec-16</i>	<i>Mar-16</i>
Sales promotion Exp	2250	4785	0			
Service tax (Inc Penalty in 2nd Yr Rs 7362)	9199	24,912	0			
Staff salary and guard	1,459,557	1,936,249	121,876			
Staff welfare Exp	228,759	238,588	7349			
Telephone bill Exp	52,304	64,493	15,537			
Tour and travelling Exp	78,566	75,828	104,448			
Tax (Deferred)		-344,397				
Net profit	1,030,241	-6,163,179	-6,371,579			
	<b>8,049,726</b>	<b>6,097,203</b>	<b>5268</b>		<b>8,049,726</b>	<b>6,097,203</b>
						<b>5268</b>

*Note:* Financial for period April 2016 to Dec 2016 are provisional as per books of accounts. No depreciation has been provided for the period. Financial for period ending March 2015 and March 2016 is as per audited financial statements submitted for tax return

**Exhibit 20.3** Balance sheet from 2015 to 2017 (in INR)

<i>Particulars</i>		<i>31-Mar-15</i>	<i>31-Mar-16</i>	<i>31-Mar-17</i>
A	<i>Equity and liabilities</i>			
1	Shareholders' funds			
	(a) Share capital (Issued and paid up)	300,000	300,000	300,000
	(b) Reserves and surplus	-6,739,187	-12,902,366	-11,872,125
		<b>-6,439,187</b>	<b>-12,602,366</b>	<b>-11,572,125</b>
2	Share application money	<b>10,600,000</b>	<b>11,775,000</b>	<b>14,775,000</b>
3	Non-current liabilities			
	(a) Long-term borrowings ( <b>Term loan from bank</b> )	9,620,453	10,104,394	9,869,077
	(b) Deferred tax liabilities	0	0	0
		<b>9,620,453</b>	<b>10,104,394</b>	<b>9,869,077</b>
4	Current liabilities			
	(a) Short-term borrowings ( <b>Cash credit limit from bank</b> )	3,317,594	9,610,275	9,611,372
	(b) Trade payables	1,054,798	1,931,045	3,136,198
	(c) Other current liabilities	154,243	1,685,144	1,163,701
	(d) Short-term provisions	0	0	129,281.00
		<b>4,526,635</b>	<b>13,226,464</b>	<b>14,040,552</b>
	<b>TOTAL LIABILITIES</b>	<b>18,307,901</b>	<b>22,503,492</b>	<b>27,112,504</b>
B	<i>Assets</i>			
1	Non-current assets			
	(a) Fixed assets			
	(i) Tangible assets	10,907,013	12,356,111	12,551,058
		<b>10,907,013</b>	<b>12,356,111</b>	<b>12,551,058</b>
	(b) Long-term loans and advances	0	0	0
	( c) Other non-current assets	650,000	633,550	633,550

(continued)

**Exhibit 20.3** (continued)

<i>Particulars</i>	<i>31-Mar-15</i>	<i>31-Mar-16</i>	<i>31-Mar-17</i>
(d) Deferred tax assets (net)	0	344,397	0
	<b>650,000</b>	<b>977,947</b>	<b>633,550</b>
2 Current assets			
(a) Inventories	0	2,658,374	6,669,582
(b) Trade receivables	14,000	5,117,485	6,997,526
(c) Cash and cash equivalent	2,737,093	472,370	81,523
(d) Short-term loans and advances	3,999,795	921,205	179,265
( e) Other current assets	0	0	0
	<b>6,750,888</b>	<b>9,169,434</b>	<b>13,927,896</b>
<b>TOTAL ASSETS</b>	<b>18,307,901</b>	<b>22,503,492</b>	<b>27,112,504</b>

*Note* Reserves and Surplus for March 2015 includes loss of 367,068 for previous financial year ending March 2014

**Exhibit 20.4** Material cost per unit of Shoe Last

<i>Particulars</i>	<i>Quantity/Unit</i>	<i>Rate (Rs)</i>	<i>Amount (Rs)</i>
<i>Basic material</i>			
HDPE (kg)	0.250	91.00	22.75
LLDPE (kg)	0.050	92.70	4.64
Reprocess granules (kg)	0.700	68.00	47.60
Mater batch (kg)	0.003	154.92	0.46
			75.45
<i>Hardware</i>			
Heel plate (kg)	0.075	54.84	4.11
Buttress nails (Nos)	12	0.06	0.72
Filler (Nos)	2	0.40	0.80
Slidomatic hinge (Nos)	2	6.55	13.10
Link plate big (Nos)	2	4.95	9.90
Pin (Nos)	6	1.84	11.04
Sleeve (Nos)	2	2.80	5.60
Colour code (Nos)	2	0.90	1.80
			47.07
<b>TOTAL MATERIAL COST</b>			<b>Rs. 122.52</b>

**Exhibit 20.5** Other Mfg. Cost at different levels of capacity utilisation (in INR)

<i>Other manufacturing cost</i>	<i>200 pairs/day</i>	<i>250 pairs/day</i>	<i>300 pairs/day</i>	<i>350 pairs/day</i>
Electricity cost	30.77	30.77	30.77	30.77
Wages	86.54	86.54	86.54	86.54
Fuel	14.42	14.42	14.42	14.42
Indirect consumables	4.81	6.01	7.22	8.42
AMC (compressor and DG)	0.35	0.35	0.35	0.35
Maintenance spares	9.62	9.62	9.62	9.62
Job work for recycling	4.48	5.6	6.72	7.84
Job work grading	2.63	2.63	2.63	2.63
<b>TOTAL</b>	<b>Rs. 153.62</b>	<b>Rs. 155.94</b>	<b>Rs. 158.27</b>	<b>Rs. 160.59</b>

**Exhibit 20.6** Administrative expenses at different levels of capacity utilisation (in INR)

<i>Administrative expenses</i>	<i>200 pairs/day</i>	<i>250 pairs/day</i>	<i>300 pairs/day</i>	<i>350 pairs/day</i>
Rent of factory (Agra and Kanpur)	36.92	29.54	24.61	21.1
Security services	1.54	1.23	1.2	0.88
Consultation expenses	2.08	1.66	1.39	1.19
Freight Expenses	3	3.75	4.5	5
Conveyance and travelling expenses	9.5	10.5	11.5	12
Advertisement ETC. Exp	2.4	2.4	2.4	2.4
Misc. and other expenses	3	3.5	4	4
Telephone and other exp	0.4	0.6	0.8	1
Stationary exp	2.3	2.5	2.75	3
Packing exp	1	1.25	1.5	1.5
P.F and ESI	8	8	8	8
<b>Total cost of sales</b>	<b>Rs. 70.14</b>	<b>Rs. 64.93</b>	<b>Rs. 62.65</b>	<b>Rs. 60.07</b>

**Exhibit 20.7** Profit per unit at different levels of capacity utilisation (in INR)

<i>Capacity utilisation</i>	<i>200 pairs/day</i>	<i>250 pairs/day</i>	<i>300 pairs/day</i>	<i>350 pairs/day</i>
Average S.P	525	525	525	525
Total cost of sales	399.05	396.17	396.04	395.96
Finance cost	99.89	79.91	66.59	57.08
Total cost of sales per pair	498.94	476.08	462.63	453.04
<b>PROFIT PER PAIR</b>	<b>Rs. 26.06</b>	<b>Rs. 48.92</b>	<b>Rs. 62.37</b>	<b>Rs. 71.96</b>

**Exhibit 20.8** Footwear companies beta values

<i>No</i>	<i>Name</i>	<i>Beta (Company, Industry—Footwear, Sector—Cyclical consumer goods and services)</i>
1	BATA INDIA LTD	1.08, 0.84, 1.31
2	LIBERTY SHOES LTD	1.53, 0.84, 1.31
3	MIRZA INTERNATIONAL LTD	1.82, 0.84, 1.31

*Note* Beta values taken from [www.in.reuters.com](http://www.in.reuters.com) on 12.04.2017

**Exhibit 20.9** Relative ratios

	<i>Industry</i>	<i>Sector</i>
P/E ratio (TTM)	22.48	24.77
P/E high—Last 5 Yrs	26.2	33.27
P/E low—Last 5 Yrs	8.2	14.88
Price to sales (TTM)	1.74	4,676.82
Price to book (MRQ)	1.7	2.74
Price to tangible book (MRQ)	2.31	3.1
Price to cash flow (TTM)	14.86	523,108.86

TTM stands for trailing twelve months and MRQ stands for most recent quarter

*Note* Ratios taken from [www.in.reuters.com](http://www.in.reuters.com) on 12.04.2017

**Exhibit 20.10** Comparative financials of major footwear players

	<i>Bata</i>	<i>Liberty</i>	<i>Mirza</i>
LTP (In INR)	570.95	169	86.1
52 W high (In INR)	613.55	209	110.5
52 W low (In INR)	400	129.15	69
Results (in Cr.)	Dec-16	Dec-16	Dec-16
Sales	640.81	126.91	228.05
PAT	37.71	1.15	17.17
Equity	64.26	17.04	24.06
Face value	5	10	2
Ratios			
OPM %	11.39	7.56	17.42
NPM %	5.89	0.91	7.53
EPS (In Rs)	2.93	–	1.43
CEPS (In Rs)	4.19	2.7	2.05
PE	49.34	–	12.19
Ownership	Mar-17	Dec-16	Mar-17
Promoter & promoter Grp	6,80,65,514	1,05,20,146	88,755,981
Indian	–	10,520,146	88,755,981
Foreign	6,80,65,514	–	–
Public	60,462,026	6,519,854	31,550,019
Institution	36,096,704	30,912	699,416
FII	–	–	–
DII	36,096,704	30,912	699,416
Non-institution	24,365,322	6,488,942	30,850,603
Bodies corporate	–	–	–

Note Data taken from [www.in.reuters.com](http://www.in.reuters.com) on 12.04.2017

## REFERENCES

- Fernandez, P., Ortiz, A., & Acin, I. F. (2015). *Discount rate (risk-free rate and market risk premium) used for 41 countries in 2015: A survey*. IESE Business School. Downloaded from [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2598104&download=yes](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2598104&download=yes)
- KPMG Report. (2016). *Indian footwear, leather and accessories*. Downloaded from <http://cfla.co.in/wp-content/uploads/2016/08/Footwear-Leather-Accessories-in-India-06.2016-1-KPMG.pdf>



## Do Women Directors Add Value? A Study of India Inc.

*Supriti Mishra and Pitabas Mohanty*

Boards have been found to be largely male dominated across countries. Women are found to be under-represented in the top management of companies all across the globe. A report by Catalyst (2008) suggests that currently only 4.2% of CEOs' positions in Fortune 500 list of companies are held by women. According to a study by Deloitte, percentage of women in the boards across the globe varies from as low as 1.4% in Japan to as high as 39.7% in Norway. Following enough debates and discussions about lack of representation of women in the board of directors, governments have come up with regulations to ensure the inclusion of women on the board.

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Section 149 (1) of Companies Act of 2013 and Clause 49 of Securities Exchange Board of India (SEBI) made it mandatory for all the listed companies in India to have at least one woman director from 31 March 2015. In May 2018, SEBI further stipulated that the large companies in India must have at least one woman independent director by March 2020. These regulatory mandates raise questions about the actual benefits of such measures for Indian companies. However, India is not alone in taking such initiatives (Afsharipour, 2015). Governments in both Norway and Spain have gone a step ahead and made it mandatory for the companies to have at least 40% women on the board (Catalyst, 2008). Spain, France, and Belgium have similar laws with compliance deadlines in three phases-2015 (Spain Equality Law, 2007), 2017, and 2018 (Catalyst, 2011). Germany and Sweden have adopted a “comply or explain” approach (Catalyst, 2011).

There has been often debate about whether it is really useful to have more women on the Board (Erhardt et al., 2003). Various studies have enumerated the benefits of having women in boards (Erhardt et al., 2003; Liu et al., 2014; Lückcrath-Rovers, 2013). A report from Credit Suisse, conducted between 2005 and 2011, shows that companies across the world with at least some female representation performed much better than those with no women on the board. Similar studies by McKinsey and Thomson Reuters in different time periods find positive correlation between board diversity and firm performance. Investors also react positively to the appointment of women directors (Kang et al., 2010). Other studies, however, report mixed results. While the presence of women directors affects the accounting performance positively, they are not related to market-based performance measures (Post & Byron, 2014).

With this background, this paper makes an attempt to (i) briefly review the academic literature to see why companies may not appoint more women directors and what benefits companies obtain by having women directors and (ii) examine Indian data to see if companies with more women on the Board have are indeed more profitable.

## LITERATURE REVIEW

Board diversity as a research agenda has risen into prominence recently. Female representation on corporate boards has also become the focus of policy agendas. Women on the board increase organizational creativity

and innovation, produce more effective problem-solving, promote corporate monitoring, decrease the private benefits of managerial control, enhance the effectiveness of corporate leadership, and encourage a better understanding of the complexities of the business environment (Carter et al., 2010; Richard et al., 2007; Robinson & Dechant, 1997). As a result, women directors have a positive effect on the organizational integration of knowledge that increases corporate governance efficiency (Adams & Ferreira, 2009; Francoeur et al., 2008; Milliken & Martins, 1996). Studies establish a positive relationship between performance (Tobin's Q) and diverse boards (Carter et al., 2003). Apestegua et al., (2012) establish that diversity is related to corporate performance. Changing the gender composition of Boards has long-lasting impacts on firm performance (Adams & Funk, 2012).

Though there are many research establishing a business case for women board members, few other researchers are skeptical about such a stance (Ferreira, 2015). Companies having more women on the board are not necessarily more profitable nor do they generate higher stock returns for their shareholders. In fact, it has also been found that companies that are well-governed, suffer when they hire women directors for the Board. Research studies in the context of countries such as USA and Australia do not establish any significant relation between firm performance and board diversity (Carter et al., 2010; Chapple & Humphrey, 2014). Few studies (Adams & Ferreira, 2009) even establish a negative relation between gender diversity and company performance. Studies document decrease in the firm value with the introduction of 40% gender quota for directors in Norway (Ahern & Dittmar, 2012; Matsa & Miller, 2011).

There could be various reasons for women directors negatively impacting a firm's performance. First, despite being equally qualified as their male counterparts (Burke, 1997), women directors usually lack experience when they join a board (Singh et al., 2008). Women executives often face breaks in their careers and do not undertake challenging assignments in the early stages of their careers compared to their male counterparts. Second, women directors do not receive adequate mentoring thereby losing chances to serve on multiple boards (McDonald & Westphal, 2012). Watson and McNaughton (2007) suggest that women are more conservative and risk averse than men and exhibit less risky behavior in personal financial decisions. Past research documents that firms run by female CEOs make less risky financing and investment decisions (Faccio et al., 2016; Srinidhi et al., 2011) which might adversely impact a firm's profitability.

## DATA AND METHOD

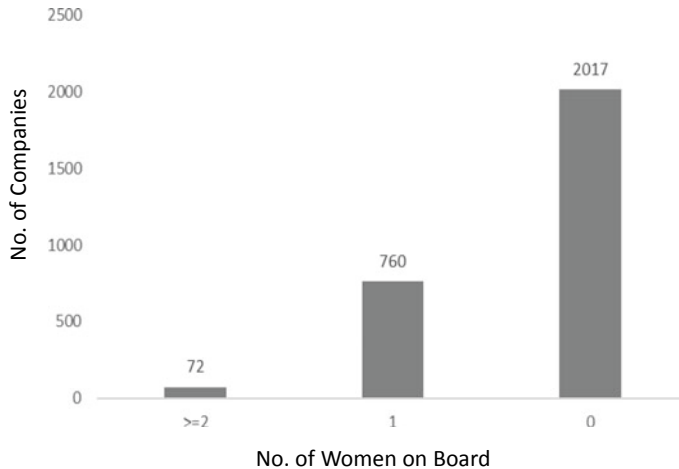
We conduct an exploratory research to find out whether the boards of directors of Indian companies are well represented with women directors and whether their presence adds to firm value. To measure gender diversity on corporate boards, studies often use the percentage of women holding board membership in corporates and the percentage of companies with at least one woman on their board. We studied data of all companies listed in either the Bombay Stock Exchange (BSE) or National Stock Exchange (NSE) in India for which the relevant data were available in the Prowess database of Centre for Monitoring Indian Economy (CMIE). We looked at the composition of the board for the fiscal year ending 2015 for 2870 companies and 20,999 directors.

Subsequently, we examined the profitability data of these companies to see if companies having women board members are more profitable. Extant research on corporate governance uses mostly accounting-based measures such as ROA, ROE, net margin or the capital market-based measures such as the stock returns or capital market-based measures (Bhagat & Bolton, 2008; Rob et al., 2004). We looked at the ROE data for the 3-year period of 2013, 2014, and 2015 to examine the profitability of these companies. We computed the ROE by dividing the average return on equity over the 3 years period of study. As the ROE in a particular year may get affected by some unusual situations, it is always better to look at a longer time period. Hence, we considered 3 years for the study.

## ANALYSIS AND DISCUSSION

This study examines whether Indian corporate boards are well represented by women directors. Further, this study finds out if the presence of women directors adds to the profitability of Indian firms. Our initial examination of the presence of women directors in 2870 Indian companies showed that out of 20,999 directors in the corporate boards, there were nearly 1806 or about 8.6% women directors. In as many as 2017 companies, there were no women directors (Fig. 21.1).

In 760 companies, there was only a woman director on the board. In the remaining 72 companies, there were two or more women directors on the board. We find similar trends in the corporate boards in the USA



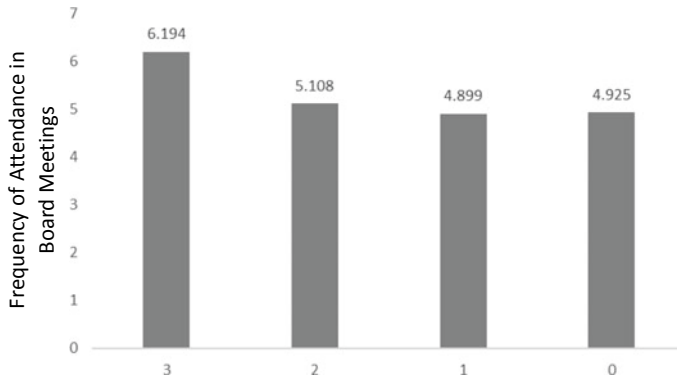
**Fig. 21.1** Women in Indian corporate boards (*Source* Authors)

that we find in India. As US companies are not the focus of this study, we do not mention it in detail.

We also find better attendance records in boards having women members in India. We also find another interesting result while analyzing the board membership data. Attendance of male directors in board meetings increases if the board has at least one woman director. Boards having male CEOs, have one-and-half times more women on the board than boards having women CEOs. One of the reasons for this could be that women lighten up the atmosphere in board rooms (Huse & Solberg, 2006), thereby increasing board attendance of members from other genders (Fig. 21.2).

As far as firm profitability is concerned, we find two interesting trends in India. First, companies having women directors on the board are less profitable compared to companies having no woman on the board. We also find that this difference is more severe for women independent directors. These findings are consistent with past research. It is similar to what other researchers have found out in the context of developed economies such as the USA, Australia, Canada, and UK (Carter et al., 2010; Chapple & Humphrey, 2014).

As can be seen in Table 21.1, there is no significant difference with respect to profitability in companies having male and female executive



**Fig. 21.2** Attendance in board meetings (*Source* Authors)

**Table 21.1** ROE during 2013–2015 with different criteria for board membership

<i>Criteria for board membership</i>	<i>ROE-2013 (%)</i>	<i>ROE-2014 (%)</i>	<i>ROE-2015 (%)</i>
At least one female board member	5.31	4.17	4.35
All male board members	7.03	5.86	5.76
Companies having all male executive directors	6.67	5.61	5.54
Companies having at least one female executive director	6.76	5.58	5.49
Companies having all male independent directors	6.69	5.63	5.60
Companies having at least one female independent director	4.77	3.84	3.94

*Source* Authors

directors. However, companies that are less profitable have some women directors on the board. Particularly, companies with female independent directors are less profitable compared to those with male independent directors. Of course, these results do not imply any causal relationship between women board members and company profitability. It might be possible that poorly performing companies get pressurized by their shareholders to have more diversified boards. In such a scenario, we would

get an inverse relationship between profitability and diversified boards, at least in the short run.

Our results are consistent with findings from past research (Carter et al., 2010; Chapple & Humphrey, 2014). Though mandatory provisions to include women in corporate boards to ensure board diversity is being practiced across the globe, researchers point out that any regulation that forces firms to do things beyond their current practice, will impose some costs. When firms are forced to recruit female directors so that they can comply with the law without ensuring parity in the qualification and related criteria, it can reduce profitability. As women traditionally make fewer investments in their education and work experience (Tharenou et al., 1994), it is difficult to find more qualified women for senior roles including board membership.

Dearth of qualified women directors may indicate two things. First, CEOs like to be surrounded by people having similar experience, background, perspective, value, and gender. Hence lack of qualified women directors may discourage them to meet board diversity at any cost by appointing less qualified women board members. Second, most of the boards across world have only one woman member in the board. This suggests that such appointments are probably made more as a compliance and image building exercise than for any strategic considerations.

## CONCLUSION

Using board membership data for all the listed companies for which we could get data from the Prowess database of CMIE for the fiscal year 2015, we find that most of the boards in India do not have any women directors and a few boards have only a token membership of women directors on the board. We also surprisingly find that boards having a woman CEO have fewer women members on the board than in boards having male CEOs. Also, companies that have more independent women directors are less profitable compared to companies with boards having no women directors.

Study findings may change as time progresses. A three-year study may not be adequate to establish anything. With only 8.6% of the total board members in India being women, there is tremendous shortage of qualified women personnel to serve the corporate boards. India Inc. must gear up to welcome more women to the Board whereas women must warm up to boost the performance of companies by bringing diversity

and quality decision-making to the board room. However, simply looking at the relationship between appointment of women directors and profitability, without taking into consideration other important factors such as socio-cultural, political, or behavioral factors into consideration, could be misleading. Women generally face the glass-ceiling effect. Even if they succeed in breaking through that they face the challenges from gender-stereotyping during the appointment of directors into the board. Though mandatory norms for inducting women director into boards address this concern to some extent, but the influence of traditional socio-cultural factors in predominantly male-dominated managements, act as a deterrent. Future research must include the mediating or moderating role of such factors while studying the efficacy of women directors in adding to firm values.

Recent surveys show encouraging trends in India. According to a recent study on “Women on Board 2020” by MyHiringClub.com and Sarkari-Naukri.info, India’s global rank is 12th regarding the presence of women members on board. The survey finds out that 55% of 628 listed companies in India have women directors, which is 14% higher than the previous year (Mint, 2020). However, to make these increasing number of women directors more value adding, there must be systematic efforts toward mentoring and training them, and free them from gender-stereo biases. This will lead to more inclusive corporate boards across countries including India.

## REFERENCES

- Adams, R. B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics*, 94(2), 291–309.
- Adams, R. B., & Funk, P. (2012). Beyond the glass ceiling: Does gender matter? *Management Science*, 58(2), 219–235.
- Afsharipour, A. (2015). The one woman director mandate: History and trajectory. *CORPORATE GOVERNANCE IN INDIA: CHANGE AND CONTINUITY* (Ed. Indian Institute of Corporate Affairs). (Oxford University Press, Forthcoming).
- Ahern, K. R., & Dittmar, A. K. (2012). The changing of the boards: The impact on firm valuation of mandated female board representation. *The Quarterly Journal of Economics*, 127(1), 137–197.

- Apestequia, J., Azmat, G., & Iriberry, N. (2012). The impact of gender composition on team performance and decision making: Evidence from the field. *Management Science*, 58(1), 78–93.
- Bhagat, S., & Bolton, B. (2008). Corporate governance and firm performance. *Journal of Corporate Finance*, 14(3), 257–273.
- Burke, R. J. (1997). Women on Corporate Boards of Directors: A needed resource. In R. J. Burke (Ed.), *Women in corporate management* (pp. 37–43). Springer Netherlands. [https://doi.org/10.1007/978-94-011-5610-3\\_5](https://doi.org/10.1007/978-94-011-5610-3_5)
- Carter, D. A., D'Souza, F., Simkins, B. J., & Simpson, W. G. (2010). The gender and ethnic diversity of US boards and board committees and firm financial performance. *Corporate Governance: An International Review*, 18(5), 396–414.
- Carter, D. A., Simkins, B. J., & Simpson, W. G. (2003). Corporate governance, board diversity, and firm value. *Financial Review*, 38(1), 33–53.
- Catalyst. (2008). *Catalyst census of women board directors of the Fortune 500*. Catalyst.
- Catalyst. (2011). *Increasing gender diversity on boards: Current index of formal approaches*. Catalyst.
- Chapple, L., & Humphrey, J. E. (2014). Does board gender diversity have a financial impact? Evidence using stock portfolio performance. *Journal of Business Ethics*, 122(4), 709–723.
- Erhardt, N. L., Werbel, J. D., & Shrader, C. B. (2003). Board of director diversity and firm financial performance. *Corporate Governance: An International Review*, 11(2), 102–111.
- Faccio, M., Marchica, M.-T., & Mura, R. (2016). CEO gender, corporate risk-taking, and the efficiency of capital allocation. *Journal of Corporate Finance*, 39, 193–209.
- Ferreira, D. (2015). Board diversity: Should we trust research to inform policy? *Corporate Governance: An International Review*, 23(2), 108–111.
- Francoeur, C., Labelle, R., & Sinclair-Desgagné, B. (2008). Gender diversity in corporate governance and top management. *Journal of Business Ethics*, 81(1), 83–95.
- Huse, M., & Solberg, A. G. (2006). Gender-related boardroom dynamics: How Scandinavian women make and can make contributions on corporate boards. *Women in Management Review*, 21(2), 113–130.
- Kang, E., Ding, D. K., & Charoenwong, C. (2010). Investor reaction to women directors. *Journal of Business Research*, 63(8), 888–894. <https://doi.org/10.1016/j.jbusres.2009.06.008>
- Liu, Y., Wei, Z., & Xie, F. (2014). Do women directors improve firm performance in China? *Journal of Corporate Finance*, 28, 169–184.



- Lückerath-Rovers, M. (2013). Women on boards and firm performance. *Journal of Management & Governance*, 17(2), 491–509. <https://doi.org/10.1007/s10997-011-9186-1>
- Matsa, D. A., & Miller, A. R. (2011). Chipping away at the glass ceiling: Gender spillovers in corporate leadership. *American Economic Review*, 101(3), 635–639.
- McDonald, M. L., & Westphal, J. D. (2012). Access denied: Low mentoring of women and minority first-time directors and its negative effects on appointments to additional boards. *Academy of Management Journal*, 56(4), 1169–1198. <https://doi.org/10.5465/amj.2011.0230>
- Milliken, F. J., & Martins, L. L. (1996). Searching for common threads: Understanding the multiple effects of diversity in organizational groups. *Academy of Management Review*, 21(2), 402–433.
- Mint, 2020. India ranked 12th in women member presence on companies' board globally. <https://www.livemint.com/news/india/india-ranked-12th-in-women-member-presence-on-companiesboard-globally-11583674190248.html>. Accessed on December 8, 2020.
- Post, C., & Byron, K. (2014). Women on boards and firm financial performance: A meta-analysis. *Academy of Management Journal*, 58(5), 1546–1571. <https://doi.org/10.5465/amj.2013.0319>
- Richard, O. C., Murthi, B. S., & Ismail, K. (2007). The impact of racial diversity on intermediate and long-term performance: The moderating role of environmental context. *Strategic Management Journal*, 28(12), 1213–1233.
- Rob, B., Nadja, G., & Roger, O. (2004). Empirical evidence on corporate governance in Europe: The effect on stock returns, firm value and performance. *Journal of Asset Management*, 5(2), 91–104.
- Robinson, G., & Dechant, K. (1997). Building a business case for diversity. *Academy of Management Perspectives*, 11(3), 21–31.
- Singh, V., Terjesen, S., & Vinnicombe, S. (2008). Newly appointed directors in the boardroom: How do women and men differ? *European Management Journal*, 26(1), 48–58. <https://doi.org/10.1016/j.emj.2007.10.002>
- Spain Equality Law. (2007). *Ley Orgánica de Igualdad. Ley Organica 3/2007, de 22 de marzo, para la igualdad efectiva de mujeres y hombres*. BOE no 71 de 23/3/2007.
- Srinidhi, B. I. N., Gul, F. A., & Tsui, J. (2011). Female directors and earnings quality. *Contemporary Accounting Research*, 28(5), 1610–1644.
- Tharenou, P., Latimer, S., & Conroy, D. (1994). How do you make it to the top? An examination of influences on women's and men's managerial advancement. *Academy of Management Journal*, 37(4), 899–931.
- Watson, J., & McNaughton, M. (2007). Gender differences in risk aversion and expected retirement benefits. *Financial Analysts Journal*, 63(4), 52–62.



# Role of Technology Business Incubator (TBI) in Sustaining Start-Ups: The Case of Startup Incubation and Business Innovation Lab (SIBIL)

*Rajeev Verma, Jyoti Verma, and Ranjani Kumari*

## INTRODUCTION

India is progressing fast on the track of development, with relentless efforts being made toward strengthening infrastructure and promoting industrial growth. In these lines, the Government of India launched Startup Policy, 2016 to boost entrepreneurship and encourage start-ups with job creation at micro level. Action plan of this initiative is largely focusing on three areas namely, business handholding; funding support; industry-academia partnership and incubation. The key features of this

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policy include funding support to the start-ups like seed grant up to 1 million, free of cost valuation for start-ups, success fee @2% of investment for mobilizing investment from state-registered angel investors and zero cost for filing patents. Any manufacturing and service led firm working toward innovation, new product development or improvisation of products, processes or services is considered under this scheme. Scalable business models with a high potential of employment generation are also being considered under this scheme. In continuation of this, we are discussing a case of incubation center situated in the state of Bihar in India working for the implementation of startup scheme.

To make incubation happen, government has selected resourceful higher academic institutions in the state as host institutes. Startup Incubation and Business Innovation Lab (SIBIL) is one such initiative supporting this cause in the state of Bihar. Chandragupta Institute of Management Patna (CIMP) is a host institution for SIBIL. Incubation center provides facilities like mentoring, plug and play office, co-working space, etc., to start-ups (Exhibit 22.1). The objectives of SIBIL include, creating physical infrastructure and support systems necessary for business incubation activities; facilitating networking with professional resources including mentoring, expert consultation, business advisory; facilitating knowledge creation, innovation and entrepreneurial activities. Each incubation center commands certain competencies and on similar lines SIBIL majorly focuses on E-commerce-based services, Health-tech, Fin-tech and Edu-tech services.

Based on the general guidelines of Startup Policy 2016 of Government of Bihar, SIBIL has also been planning to get engaged in providing specialized services to existing MSMEs in the region in terms of facilitating technology commercialization and transfer, new product development, patent filing and commercialization. Till March 2021, SIBIL has received more than 450 applications from the Department of Industries, Government of Bihar for mentoring and incubation under the Bihar Startup Policy 2017. Apart from the Government-sponsored projects, this start-up center is also facilitating nationwide students to start their own venture under Startup India.

The CEO of SIBIL, Mr. Nair strongly believes in the need of redefining the Indian version of Innovation by educating new entrepreneurs on what exactly is Innovation and how it can be scaled up. In the new age of innovation, technology led start-ups such as data and analytics are one among the most preferred by the entrepreneurs

followed by health, educations, renewable energy, agriculture and manufacturing. The startup landscape for India looks promising due to the rising confidence of angel investors, improvement of technological penetration and promising schemes launched by government. He believes that with right guidance incubate, investors and incubators will further enrich the startup ecosystem. But with the advent of Novel Coronavirus 2019 (Covid-19), the whole landscape of startup seems to be vulnerable, they are facing several formidable challenges both, from a business as well as from an operations' perspective. Most of the start-ups have witnessed a decline in demand, except for start-ups dealing with essential services. Further, Moody highlights that in the Q2-3, FY 20-21, several investors have pulled back from closing current funding rounds. Thus, one of the major challenges faced by the start-ups has now become fund sourcing<sup>1</sup>. This post-COVID business landscape has also put a case on sustenance of incubation centers as many of the start-ups have failed to sustain. In this situation what should an incubator like SIBIL do to support these start-ups and maintain its own sustenance?

### RATIONALE OF THE CASE STUDY

The incubation process led by SIBIL is over 5 years old. Since then, it has incubated 125 start-ups (as of March 2021). In Bihar, the formal incubation process is only over a decade old with handful of incubation centers. It is only with the advent of Bihar Startup policy 2016, 19 technology business incubators (TBIs) have been set up in different locations. In the process of strengthening incubation process, firms have been given a focused approach to understand their unique requirement. These institutes integrate various components associated with the system of innovation. However, to fulfill this case study, we have identified SIBIL as our core organization.

The guided rationale behind the selection of SIBIL comprises various indicators and attributes such as active engagement in knowledge creation, collaborative research at the incubation center, market research and extent of commercialization of products. SIBIL is the only incubation center in East India that has combined facility to manufacture project prototypes in its respective incubation center. However, along with this,

<sup>1</sup> SS Rana & Co, Impact of COVID-19 on Start-ups, <https://www.lexology.com/library/detail.aspx?g=43b26766-1842-4db8-b360-80e55d2090fe>, 2 June 2020.

the legal status of SIBIL is also different from the entire country. While almost all TBIs either have company or society acts as their legal status, the SIBIL incubation center is a part of its parent institute, CIMP.

## METHODOLOGY

The firm level data was collected from SIBIL and research organizations monitoring incubation process in the country, i.e., Invest India. The data from incubation center has been collected from November 2020 to March 2021. The secondary data has been collected from the annual reports, registrar of companies apart from collecting primary data from entrepreneurs and incubatee. In addition, data analysis has been carried out using IBM SPSS.

It has been observed that the concept of incubation has shifted merely from progress sharing to handholding into new product development and marketing research. As of demand of the incubates the task of incubation centers extends from knowledge creation, safeguarding and transfer of knowledge. The type of support firm needs from an incubation center includes knowledge creation and transfer, commercialization, marketing research, handholding in new product development and informed decision-making. However, the earlier studies on incubation process were focused more on providing physical facilities such as combined office space, logistics and management support. With the changing times, these requirements have seen a major shift and companies are more and more looking for accelerators to expand in their business operations. Our current case studies are also talking about two such firms that are engaged into the active incubation processes and seek guidance in marketing research, which is being supported by SIBIL.

**Case 1:** the first case originates from the interaction of Mr. Nair, CEO of SIBIL with Mr. Kumar, MD and CEO of Hanuman Inc. The preliminary discussions were held way back in January 2020. Hanuman Inc. is a medical service provider startup incorporated in the year 2016 as health-tech startup. They are mainly into the business of medical diagnostics, pathology lab testing, 24×7 home delivery of medicines and emergency ambulance services. It works through a mobile application which is very popular amount city locals in Patna, Bihar. Its main competition comes from apps like 1mg, *Pharmeasy* and *Netmeds* that largely operate at national level. Importantly, Hanuman being confined to a single city limits offers services at much faster rate. In one of the winter afternoons in

January 2020, Mr. Kumar shared a thought of expanding their customer base by offering various sales promotion and discounts to its prospective customers. This seems commonsensical to him as for ages people consider discount as a means of increasing consumer base. Nair being a marketing professional, understood discounts do not built a brand, it kills. Nair shared that for short-term goals do not jump into sales promotion or discounts. With more than 0.1 M downloads, the app has been in the reach of 5 percent of the city population. To further expand the business, Nair suggested to make a strong consumer base using loyalty program so as it rewards and encourages all who are dedicated app customers. Mobile application-based start-ups face largest difficulty in terms of consumer churning. The average churn rate of the industry is around 38 percent and it varies based on the type of service. Kumar was clueless about research techniques used for prediction of loyal customers.

Nair explained that prediction analytics is required to understand the underlying phenomenon. Based on the customer relationship database, Nair's research team has been able to identify a set of loyal customers and their innate attributes. His approach is to develop a discriminant function that can predict the future behavior of any prospective customer. However, he understands such models are not free from errors and hence model precision is of much importance. The exercise of model prediction got completed by June 2020. However, due to COVID protocol and subsequent lockdown in the country, it has been observed a surge into the mobile application-based home delivery business. New customers joined at the rate of 18 percent and their retention rate increased to 80 percent. Company also launched a dedicated loyalty card with minimum cashback of 20 percent. Company witnessed an increased footfall of 32 percent and increase in number of loyal customers by 11 percent within first 2 quarters of FY 2020–21. Trend continued till Q4 of FY 2020–21 and company witnessed an increase of revenue by 45 percent. It is a phenomenal milestone in the journey of small startup. Kumar understands that prediction analytics-based discriminant model had a role to play into it. However, we also cannot negate the impact of COVID into the online consumer surge. To reflect, he thought of underpinning the success factors. The support information is attached into Appendix 1.

**Case 2:** Kartkio India Pvt. Ltd. is an online e-commerce platform targeting young Indian consumers. Company primarily deals in the trendy and fashionable dresses targeting consumers from tier-2 and tier-3 cities.

Company started its operation in the year 2017 and till date having a dedicated consumer base of around 1500 unique consumers covering around 400 postal pin codes in the country. However, the scale of operation of the firm remains small and even today total of 2650 SKUs are only sold on the platform. Revenue just met company's day-to-day operation and even today breakeven has not been achieved. Vikram, CEO being a management graduate desires to segment its customer base to develop a targeted marketing approach. They desire to segment their potential customers based on their attitudes and perceptions. Vikram shared his intentions with Mr. Nair regarding conducting a suitable marketing research. Incubation team initially carried a preliminary research and the variables that could have some impact on consumer preferences were identified. These variables were converted into a questionnaire in the form of statements. Respondents were asked to provide their responses to each statement on a 5-point Likert scale. The purpose of this study was to find out the right target segment for the prospective customers. With this, company is not only able to minimize its marketing expenditure but also able to reduce its marketing efforts. Appendix 2 shares tables of the cluster analysis outcome.

These case studies highlight that how SIBIL support and lend its expertise into the firm's journey of growth and sustainability. Technology incubators like SIBIL play a very significant role in the growth and sustenance of start-up in the country. In all the above cases, companies may replicate their learning and witness better growth and opportunities.

## IMPACT OF COVID-19 ON START-UPS

Overall whole investment sector has been adversely impacted due to the Novel Coronavirus 2019. Among all the business sectors, start-ups are the most vulnerable and are facing huge challenges. The value of investment in India fell off nearly 81.1%, from \$1.73 billion in March 2019 to \$ 0.33 billion in March 2020. Therefore, the major challenge the new start-ups are facing is sourcing funds, resulting cash flow issues for many start-ups<sup>2</sup>. There was a dip of 50 percent in overall funding during the lockdown versus pre-COVID-19 levels; around 40 percent start-ups were negatively

<sup>2</sup> SS Rana & Co, Impact of COVID-19 on Start-ups, <https://www.lexology.com/library/detail.aspx?g=43b26766-1842-4db8-b360-80e55d2090fe>, 2 June 2020.

impacted and 15 percent of the Indian start-ups were forced to discontinue operations due to COVID-19.<sup>3</sup> The lockdown implemented across the nation and in various states not only impacted the daily business operations, but it made many start-ups to prepare contingency plans to limit workforce and to decrease employee salaries. Various start-up founders have also taken pay-cuts to limit the losses faced.

## OPPORTUNITIES AND CHALLENGES FOR INCUBATORS IN POST-COVID ERA

### *Opportunity*

Although COVID-19 has brought tragedy of massive proportion, it has also acted as a breeding ground for new problems requiring new innovations. This is a big drive for action from start-ups to innovate and incubators to help and support them in a way which can be sustainable. In this type of tough situations, the incubators like SIBIL and its advisors are found to adopt very different approach to add value to start-ups and they play a very crucial role in shaping the future of innovation-oriented start-ups. In contemporary world there is huge uncertainty and recession is more frequent so there is a constant need of support of these advisors for the new start-ups. More information technology-based innovation ideas are required for the post-COVID business ground due to Coronavirus guidelines.

### *Challenge*

This pandemic has changed the way the incubators operate, incubators need to reflect and re-strategize if they want to remain relevant in the new post-COVID world. Policymakers and grant-making organizations are concerned about the high incubators mortality rates and low success rates of their graduating start-ups. These advisors and institutions do not have much financial success in comparison to other entities in the value chain of the incubation process, and as public funds are becoming scarce,

<sup>3</sup> Covid impact: 40% of Indian start-ups hit, but recovery is strong, says report, <https://www.thehindubusinessline.com/news/covid-impact-40-of-indian-start-ups-hit-but-recovery-is-strong-says-report/article32854724.ece>, 14 October 2020. Note: All the names used in the study are fictitious in nature.



these incubators are being asked to re-evaluate their business models to help generate revenues and become self-sustainable organizations. With the changing business landscape of post-COVID, the incubators need to be more technological oriented to adapt to the new requirements of the start-ups.

### WHAT SHOULD BE THE SIBIL'S FUTURE ACTION PLAN?

SIBIL plays a very important role in supporting and providing expertise to the innovative start-up, as we can see in the described cases and they are also very good in their expertise like market research, which is helping the start-ups to flourish. But there is not much financial success being the incubator. On the other hand, side there is huge opportunity of new innovations with the start-ups in the post-COVID era. Along with this there is huge threat also for the incubation centers due to the changed way of market operations, which needs to be re-worked for mentoring the start-ups in the post-COVID era. After analyzing the situations with all the opportunities and challenges, what should be the future action plan by SIBIL? What should SIBIL do to make themselves sustainable in the new post-COVID business world? How should they re-evaluate their business models to help generate revenues and become self-sustainable organization?

### CONCLUSION

The main purpose of these case studies is to highlight the learning trajectory in and around companies in the incubation centers. With the help of existing empirical evidence, we would like to highlight the learning associated with each of the case. It also highlights the efforts related to seed funding, research support and commercializing technologies. This case poses a challenging question to the budding entrepreneur and businessman to understand the present situation and how these organizations should work to remain self-sustainable. With time, it requires the mapping of the incubation center for the collective learning so as firms across states learn from the past set examples and with the ongoing condition they need to modify and rework their strategies to sustain.

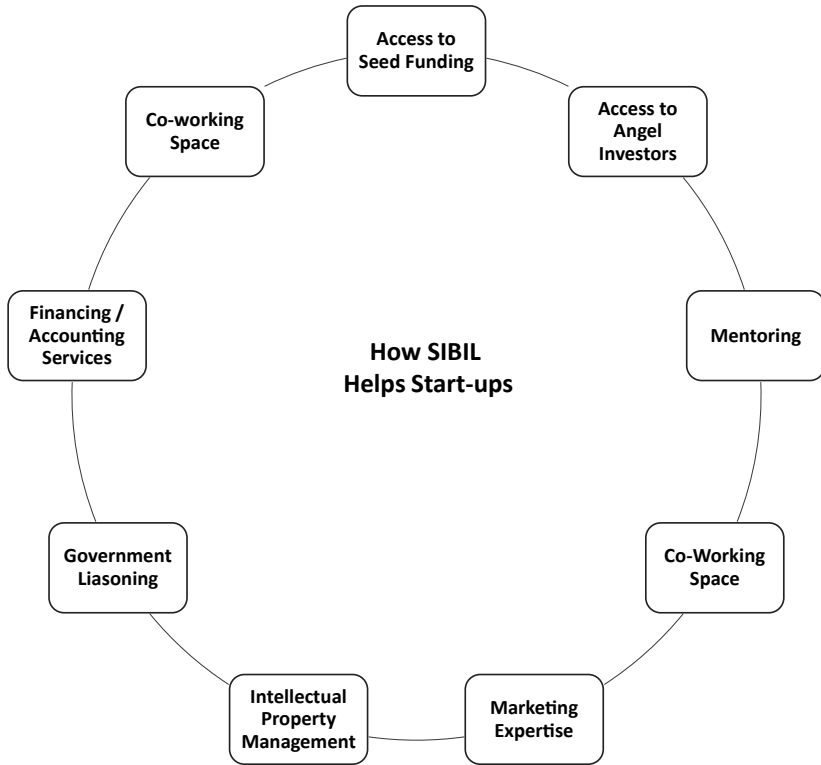


Exhibit 22.1 SIBIL’s core functions (Source Author’s developed)

## EXHIBIT

See Exhibit [22.1](#)

### *Appendix 1. Summary of canonical function (Hanuman Inc)*

See Tables [22.1](#), [22.2](#), [22.3](#), [22.4](#)

### *Appendix 2. Summary of K-means clustering (Kartkio India Pvt. Ltd.)*

See Tables [22.5](#), [22.6](#), and [22.7](#)

**Table 22.1** Eigenvalues

<i>Function</i>	<i>Eigenvalue</i>	<i>% of Variance</i>	<i>Cumulative %</i>	<i>Canonical correlation</i>
1	1.811 <sup>a</sup>	100.0	100.0	.803

<sup>a</sup>Model 1 eigen value

**Table 22.2**

Standardized canonical discriminant function coefficients

	<i>Function 1</i>
Age <sup>a</sup>	.907
Income	.924
Yrs. Married	.285

<sup>a</sup>Factors studied

**Table 22.3** Canonical discriminant function coefficients

	<i>Function 1</i>
Age	.194
Income	.000
Yrs. Married	.160
(Constant)	-9.076

**Table 22.4** Functions at group centroids

<i>Risk</i>	<i>Function 1</i>
High	- 1.269
Low	1.269

*Note* Classification accuracy is 80 percent

**Table 22.5** Final cluster centers

	<i>Cluster</i>			
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
Email <sup>a</sup>	1.60	3.50	2.80	2.75
quality_pr	2.40	3.33	2.20	2.50
think_tw	3.60	2.17	3.20	3.75
TV	3.00	3.33	2.60	3.00
car	3.60	3.83	2.60	2.50
fastfood	4.40	3.50	3.40	4.00
hlth_cons	2.20	4.00	1.40	3.50
forgn_cos	2.40	1.83	4.60	2.75
women	3.20	2.00	1.80	4.50
politics	2.80	4.00	3.00	3.25
movies	3.00	3.50	4.20	4.00
settle_abr	1.60	3.17	3.60	4.00
brded_pdots	2.00	3.83	2.40	4.00
week_out	2.00	3.83	2.40	4.00
ccard	4.20	2.50	1.80	3.75

<sup>a</sup>Items covered for clustering

**Table 22.6** ANOVA

	<i>Cluster</i>		<i>Error</i>		<i>F</i>	<i>Sig.</i>
	<i>Mean square</i>	<i>df</i>	<i>Mean square</i>	<i>df</i>		
email	3.317	3	1.266	16	2.621	.086
quality_pr	1.406	3	1.396	16	1.007	.415
think_tw	2.739	3	1.599	16	1.713	.205
TV	.489	3	1.158	16	.422	.740
car	2.322	3	1.640	16	1.416	.275
fastfood	1.100	3	1.619	16	.680	.577
hlth_cons	7.400	3	.812	16	9.108	.001
forgn_cos	7.522	3	.874	16	8.607	.001
women	7.050	3	.787	16	8.952	.001
politics	1.550	3	1.472	16	1.053	.396
movies	1.417	3	1.269	16	1.117	.372
settle_abr	5.239	3	1.077	16	4.864	.014
brded_pdots	4.972	3	1.252	16	3.971	.027
week_out	4.972	3	1.252	16	3.971	.027
ccard	6.050	3	.866	16	6.989	.003

*Notes* The *F* tests should be used only for descriptive purposes because the clusters have been chosen to maximize the differences among cases in different clusters. The observed significance levels are not corrected for this and thus cannot be interpreted as tests of the hypothesis that the cluster means are equal

**Table 22.7** Number of cases in each cluster

Cluster	1	5.000
	2	6.000
	3	5.000
	4	4.000
Valid		20.000
Missing		.000

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