



Edited by

Jagdish N. Sheth · Varsha Jain ·

Emmanuel Mogaji · Anupama Ambika

Customer Centric Support Services in the Digital Age

The Next Frontier of Competitive Advantage

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1

Customer-Centric Support Services: An Introduction to the Next Frontier for Competitive Advantage in the Digital Era

Varsha Jain, Jagdish N. Sheth, Emmanuel Mogaji,
and Anupama Ambika

Introduction

The notion of customer service is not new; however, the stakes in today's service economy are more significant than ever. With rapid digital transformation, businesses and customers have more access to each other, increasing service demand (Abdulquadri et al., [2021](#); Kraus et al., [2022](#)).

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Hence, customer service can become the singular competitive differentiator for organisations in this digital era. Businesses should modernise their customer service strategies, become customer-centric, and leverage the digital revolution (Lee & Lee, 2020). As customer-centric service through the prudent use of technology becomes critical, academicians and future managers must be educated on the imminent changes and the facets of digital customer service (Jain et al., 2023). Therefore, this book intends to inform academics about the breadth of digital, customer-centric service experiences across the customer journey, advantages, disadvantages, and best practices based on the research from global experts.

The objective of this book is to understand how customer service can become the singular competitive differentiator for organisations in this digital era. Today, the pandemic-driven constraints and boundaries, unprecedented overhauls in customer live, and the accelerated pace of digitisation demands businesses to compete on new turfs while keeping the costs low (Chemma et al., 2022; Khalil & Abdelli, 2022). Organisations have to focus on customer-centricity and ensure that the customers have the correct information, direction, and consistent support to steer through the challenges of the new world (Inversini et al., 2020; Nik Hashim et al., 2022). Scenario, as mentioned above, presents a unique opportunity for companies to overhaul the old-fashioned customer service models and capitalise on the digital revolution. Hence, this book aims to guide academicians about the scope of digitised and customer-centric service experiences across the customer journey.

The critical offering entails improved reader awareness and knowledge of the below key areas:

1. The essential success factors, enablers, and critical processes for customer services in the digital age
2. The strategies for the creation of competitive advantages through customer service

3. The frameworks and factors that can contribute towards customer-centric seamless services.
4. Service design and opportunities across customer journey through pre-purchase, purchase, and post-purchase stages.
5. Strategies to develop, maintain, and enhance customer relationships through service.
6. Compelling models for upselling and cross-selling opportunities through better service in the digital age
7. Understanding the role of customer-centric, digitised customer service in the well-being of all stakeholders
8. Opportunities for effective customer engagement and experience through customer services in the digital age

This book contains 12 chapters, across four themes, which include an introductory/editorial chapter. There are 22 contributing authors from different countries including the United States, United Kingdom, India, and Vietnam. These contributing authors are considered experts in the field and have offered contributions to theories, knowledge, and discussion around customer-centric support services as the next frontier for competitive advantage in the digital era. The subsequent chapter presents an outline of the book and a concluding remark.

Book Outline

There are 10 chapters in this book, excluding the introduction chapter. Chapters 2, 3, and 4 (Kumar & Sethia, 2023; Maity, 2023; Ukpabi & Ukpabi, 2023) deal with the pre-purchase phase of the customer journey. Chapters 5–7 (Nguyen & Mogaji, 2023; Wadhvani & Jain, 2023; Nowlin, 2023) deal with the purchase phase, and chapters 8–12 (Moorthy & Parvatiyar, 2023; Vatavwala et al., 2023; Tuzovic, 2023; Hassan & Pandey, 2023; Srinivasan et al., 2023) deal with the post-purchase phase of the customer journey, along with opportunities, challenges, and outcomes. The book focuses on key dynamics that enable a firm to develop customer-centric services across the different phases of the customer journey. The chapters discuss various organisation capabilities enabling them to sense and respond and how they influence customer service

performance. Firms with these capabilities (specifically, customer orientation and customer response capability) will reap the benefits in the form of desired customer outcomes like customer acquisition, customer retention, enhanced customer experience, customer satisfaction, customer trust, positive WOM, increased CLV, etc.

In Chapter 3, Maity (2023) discusses how the customer service function can help customers during every step of the decision-making process, leading to improved customer experience. There are many channels through which information is sought by customers, like social media, chatbots, websites, apps, email, phone, SMS, etc. Rather than the customer struggling for the required information, the customer service function's goal should be to proactively provide the required information to the customer at each stage of the decision-making process. Maity (2023) further explains a VoC (Voice of Customer) program to generate customer insights that can then be processed using Machine Learning techniques to meet customer information requirements proactively. We can say that this interaction with customers through the VoC program gives a firm the advanced capability of customer orientation and the ability to respond to customer needs. Based on customers' position in the marketing funnel (top of the funnel – Awareness and interest; middle of the funnel – Desire and action; bottom of the funnel – Loyalty), firms may use a combination of different means of information sharing. For example, AI chatbots, blogs, etc. may be enough at the top of the funnel, while more human touch in the form of agents might be needed for customers at the bottom of the funnel. This strategy will be efficient and also cost-effective.

Chapter 4 (Ukpabi & Ukpabi, 2023) deals with the interaction of the customer service function with the marketing team in the pre-purchase phase of the customer journey. Customer service is one of the critical factors for a customer to choose a brand. The authors present this chapter as a case study displaying the collaboration between customer service and marketing teams in applying service design tools leading to the enhanced customer experience of the students. Applying the multilevel service design model (Patrício et al., 2011), the case study tries to understand the issues immigrants face in acquiring vocational education and how to enhance their learning experience. Furthermore, this service design model is used to design a service delivery mechanism that tries to co-create customer experience. As a result, we can see a greater customer orientation

and response capability due to the collaboration between customer service and marketing teams.

Chapter 5 (Nguyen & Mogaji, 2023) provides insights into easing the decision-making process of the customer. Customers must deal with insufficient and irrelevant information while making risky purchase decisions (Soetan et al., 2021). Most of the time, a customer starts with a large number of options during the information search stage and selects a set of options to be considered carefully. Then the customer makes comparisons among the alternatives upon various parameters with varying degrees of importance to make a final decision. The chapter explores how the customer service function of a firm can make this decision-making process easier for the customer and, in the process, earn the customer's trust.

In chapter 6 (Wadhvani & Jain, 2023), the authors emphasize the importance of recommendation systems in the digitalized world and how it enhances customer experience leading to desired results for firms employing these recommendation systems. Inputs to the recommendation systems are user profiles (online and offline customer behaviour) and community data. With the help of recommendation systems, firms can offer their customers a relevant and personalized offering (Mogaji et al., 2020). These lead to the generation of desirable customer outcomes of satisfaction, trust, and positive WOM. This chapter provides a conceptual framework for integrating recommendation systems in consumer services. There are three main recommendation system types: content-based, collaborative filtering, and hybrid. Many examples are provided from different industries and contexts where recommendation systems have been used successfully. Practitioners should be able to use the conceptual framework to assess their implementations of recommendation systems.

Chapter 7 (Nowlin, 2023) deals with the impact of the collaboration of the customer service function with the sales team on customer satisfaction and sales performance. What the collaboration of customer service function with the marketing team achieves in terms of enhanced customer experience due to co-creation in the pre-purchase phase, a collaboration of the customer service function with the sales team achieves in the

purchase phase of the customer journey. Nowlin (2023) presents the processes for achieving effective customer service and sales collaboration.

Chapter 8 (Moorthy & Parvatiyar, 2023) emphasizes the importance of relationship management in today's digitalized world. Customer service and support functions (aftermarket) are seen as revenue rather than cost centres. However, the authors explain that the aftermarket has enormous potential to establish profitable enterprises and gain a sustainable competitive edge by fostering customer satisfaction and engagement. Furthermore, aftermarket enterprises are often of a long-term nature and necessitate a relationship approach. This chapter provides a framework for reforming aftermarket businesses by synthesising commercial and academic knowledge.

Chapter 9 (Vatavwala et al., 2023) emphasizes the role of customer service in enhancing cross-selling and up-selling in B2B markets. Most firms cannot achieve their cross-selling and up-selling targets due to the myopic focus on only the transactional database. In this chapter, the authors list out the critical factors leading to failure in the achievement of cross-selling and up-selling targets like the personnel factor of lack of customer focussed orientation (Li et al., 2011) and lack of knowledge of products in salespeople (Schmitz, 2013). The chapter presents a conceptual framework with three important success factors, namely collaboration, personnel characteristics, and customer characteristics. Collaboration leads to a deeper integration of customer service functions with the sales team. Personnel capabilities need to be improved so that there is clarity in the product and service portfolio which increases the cross-selling and up-selling ability of the sales team. Finally, customers with the potential for cross-selling and up-selling should be identified.

Chapter 10 (Tuzovic, 2023) emphasizes the key role of frontline employees in the performance and success of a firm. Due to the emergent technologies of AI, ML, and robotics clubbed with disruptive forces like the rapid digitalization of the world, COVID-19, etc., firms have started to explore the perspective of a human-robot (AI chatbots, robot machines) workforce. This chapter focuses on the convergence of the human and robot workforce (Robot frontline assistants, FLAs) and the key factors in this digital transformation. A framework for the human-robot frontline workforce is presented with the 'Service Encounter Triad' concept. The

first component of this triad is human FLAs which can provide human touch and empathetic service. The second component of this triad is robot FLAs which can provide automation and efficient service. The third component is a hybrid human-robot frontline team that can provide service with a mix of all the desired properties. This triad can lead to customer outcomes (customer satisfaction, loyalty, etc.) and firm performance (profits, productivity, etc.).

Chapter 11 (Hassan & Pandey, 2023) discusses customer-centric digital services' role in improving customers' well-being. Present case studies from different industries like civil aviation (Indigo), manufacturing (Bolt IoT), finance & banking (Paytm), food delivery (Swiggy), and e-education (Unacademy) are presented. We can see the play of enhanced organizational capabilities of customer orientation and customer response leading to competitive advantage for these companies.

Chapter 12 (Srinivasan et al., 2023) discusses the challenges and opportunities that emerged due to the COVID-19 pandemic for firms and the economy. A conceptual framework for the post-pandemic world is presented, which shows the impact of macro environment shifts and consumer impacts of COVID-19 on the nature of customer services of firms. This chapter lists many opportunities like fortifying new sources of customer value, effectively using new technologies, creating better connections with employees and customers, etc. The authors also discuss the challenges like addressing customer frustration sources, service employee burnout, etc.

Conclusion

Chapters in this book have provided some relevant theoretical contributions and managerial implications with regard to customer-centric support services. Chapters have been written by expert in practise and academia. We appreciate the dedication and effort of all the contributing authors who has worked tirelessly to get this project across the finish line. We are also grateful for the reviewers who have contributed by providing feedback to enhance the quality of all the submission. We acknowledge that we may not have been able to cover all possible grounds on to

customer-centric support services, but we anticipate that chapters in this book will stir up these conversations and open opportunities for further future research. We hope readers of this book – including researchers and practitioners will find the insight worthily to improve their learning, research, and business operations.

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Part I

Theme 1: Pre-purchase Stage



2

Customer-Centric Support Services in the Digital Era

Amit Kumar and Pankaj Setia

Introduction

Becoming customer-centric has become crucial for modern organisations (Sheth et al., 2023). Customer centricity is defined as ('Definition of Customer Centricity: Gartner Marketing Glossary', 2022), ... *ability of people in an organisation to understand customers' situations, perceptions, and expectations. Customer centricity demands that the customer is the focal point of all decisions related to delivering products, services, and experiences to create customer satisfaction, loyalty, and advocacy.* Furthermore, Fader (2020) adds the need to focus selectively on a set of customers. Also,

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Fader (2020) elaborates on what it takes to transform from a product-centric firm to a customer-centric firm. A firm needs to put in place mechanisms and equipment to collect all types of data about customers from all possible touchpoints (interaction between a customer and the firm), acquire the expertise to generate actionable insights from this data, get support from the upper management, and empower different teams like marketing, sales, customer service, etc. to act.

Technology has become a crucial driver of customer service performance, leading firms to build advanced capabilities to sense and respond to customer needs. Specifically, customer orientation and customer response represent two such capabilities (Setia et al., 2013). Therefore, it has become imperative for firms to develop these capabilities on the customer side. Furthermore, these capabilities are being built across different interaction stages of the firms with the customer – pre-purchase, purchase, and post-purchase (Sheth et al., 2023).

This chapter presents a reflective commentary on the customer-side dynamics of firms, explaining how the sense (customer orientation) and respond (customer response) capabilities are being built across the three interaction stages. While an integrative literature review approach has been adopted to critically review and synthesise the literature on this subject matter, it is anticipated that this chapter contributes to research on customer-centric support services as the next frontier for competitive advantage in the digital era (Sheth et al., 2023).

Customer Service Outcomes

A focus on becoming customer-centric is driven by customer service outcomes that firms focus upon to acquire a competitive advantage. Various customer service outcomes are of interest to the firm, as listed in Fig. 2.1. Most notably, it may lead to both customer acquisition and customer retention. Maity (2023) discussed information as a service with core concepts involved in consumer information search and consumer decision-making. Ukpabi and Ukpabi (2023) explored how customer service can improve customer experience in the pre-purchase phase. Nguyen and Mogaji (2023) discussed how customer service can lead the firm to earn customers' trust, while Wadhvani and Jain (2023) focused on the

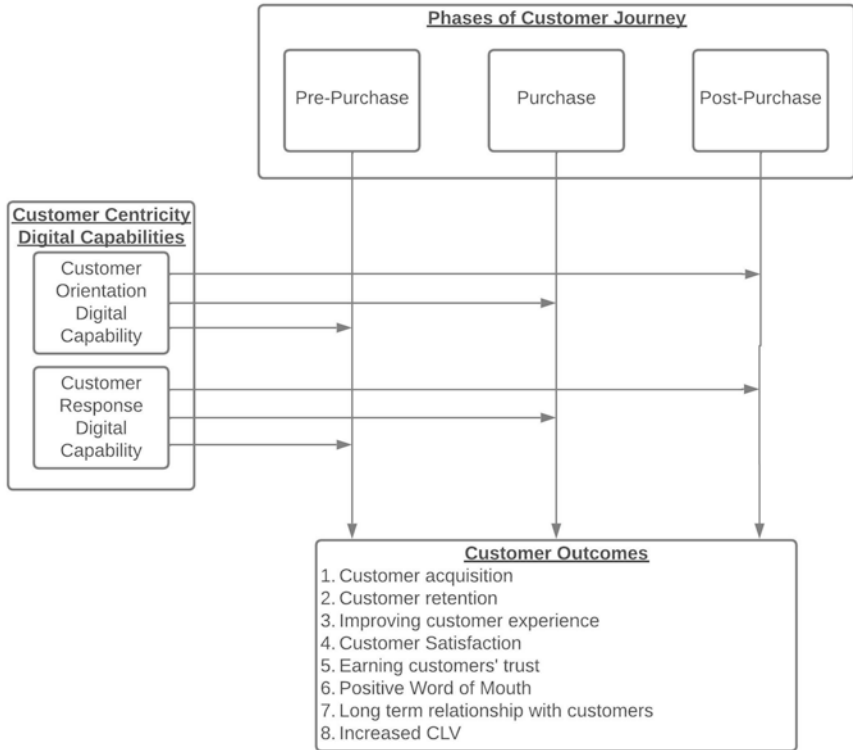


Fig. 2.1 Customer orientation digital capability and customer response digital capability applied in different phases of the customer journey leads to desirable customer outcomes

multichannel consumer service integration of recommendation systems, discussing the integration of recommendation systems in a multichannel customer service setup leading to desirable outcomes like customer satisfaction, trust, and positive word of mouth.

The collaboration of key stakeholders in an organisation is imperative for achieving the set of customer service outcomes. This notion was corroborated by Nowlin (2023)'s discussion on the collaboration between customer service and sales teams leading to improved customer experience in the purchase stage of the consumer journey. Moorthy and Parvatiyar (2023) elaborated on the importance of managing transformative customer relationships through stakeholder engagement in the

digital era, suggesting that brands need to be aware of the expectations of their customers and make effort to manage these expectations.

In achieving customer service outcomes, Vatavwala et al. (2023) suggested the need for enhancing upselling and cross-selling in business-to-business markets, and how perceived confidence in supplier firm personnel is critical for any upselling and cross-selling opportunities. Tuzovic (2023) has also focused on the role of frontline agents (FLAs) and how the triad of human FLAs, robot FLAs, and hybrid (human-robot) FLAs lead to customer outcomes of satisfaction and loyalty. Building on the prospects of digital technology for enhancing consumer satisfaction, Hassan and Pandey (2023) explained customer-centric services' relevance to customer well-being, while recognising that even though technological advancements have helped brands co-create values for their customers, there are still inherent challenges in ensuring the high well-being of customers.

The impact of the pandemic was also acknowledged in achieving customer service outcomes, especially with regard to consumer wellbeing (Khalil & Abdelli, 2022). Srinivasan et al. (2023) pondered over the important opportunities and challenges with customer service in the post-pandemic context, they developed a framework that first identifies the impact of pandemics on the marketing environment forces and consumers and discuss how these environmental shifts affect customer service status, delivery, expectations, and interactions.

Customer Orientation (Sense) and Customer Response (Respond) Capabilities

Many customer-centric initiatives focus on enhancing the organisation's customer orientation, customer response, or both. The two capabilities inform the firm how to serve the customers better. Originally proposed together in the works of Setia et al. (2013), the two capabilities are often built through digital technologies.

Customer Orientation Capabilities

Customer orientation capability changes the perspective of the employees of a firm. The idea is to develop a mind-set in the employees to put the customer's needs before the firm's continuously. In contemporary times, keeping customers' needs first helps the firm make profits. Customer orientation capability is defined as the ability of a firm to continuously monitor the needs of the customer and formulate their business strategies with a focus on the needs of the customer (Setia et al., 2013). Angulo-Ruiz et al. (2014) have listed many works out there showing a positive impact of understanding customers' needs (customer orientation capability) on operational performance and forward-looking performance (Akdeniz et al., 2010; Dutta et al., 1999; Krasnikov & Jayachandran, 2008). The employees of a customer-oriented firm tend to approach customers with compassion, which may increase customers' trust in the firm. It also leads to developing a long-term relationship between customers and the firm (Mogaji et al., 2020). This trust and long-term relationship of customers with the firm will lead to increased profits for the firm.

Customer Response Capabilities

This capability involves responding to both the present as well as future needs of the customer (Setia et al., 2013). While customer orientation capability allows the firm to find the customers' needs, having customer response capability is essential to meet those needs. Hence, customer response capability is another crucial factor for customer-centric services. The customer knowledge process is defined as a set of activities leading to the generation of knowledge about customers' current and potential needs for any new product (Li & Calantone, 1998). Jayachandran et al. (2004) identify customer response expertise and speed as two dimensions of customer response capability. They argue that the customer knowledge process improves the level of trust and speed of response to customers' needs. Setia et al. (2013) define customer response capability as the

ability of a firm to meet the identified needs and wants (identification through customer orientation capability) actively.

Together the customer orientation and customer response capability of a firm will lead the firm to move from an age-old make-and-sell strategy to a sense-and-respond strategy (Bradley, 1998). The make-and-sell (product-centric) strategy may have been the most optimal in the case of mass marketing and segmented marketing. The twentieth century saw the transition from mass marketing to segmented marketing, and the twenty-first century is transitioning from segmented marketing to customer-centric marketing (Sheth et al., 2000). This transition is facilitated by technological change and information availability. Due to the proliferation of digital technologies, it is far easier to collect and maintain information about individual customers now more than ever, enabling marketers to market to them.

In the digitalised world, a major part of the spectrum forming customer interaction is technology (digital) driven. Hence, both customer orientation capability and customer response capability are digital in nature today. The COVID-19 pandemic has only accelerated this transformation. Most touchpoints (interaction points between firms and customers) use the internet. Hence, strong digital technology expertise is required to supplement the customer orientation capability and customer response capability. A touchpoint is a place or point of interaction between a firm and its customers. This is the instance when both can get to know each other. Lemon and Verhoef (2016) identify four customer experience touchpoints: brand-owned, partner-owned, customer-owned, and independent/social/external. Brand-owned touchpoints are all owned by the brand or the firm, like websites, apps, brand/product advertisements, experience showrooms, etc. Through websites and apps, the firm can track its customers and easily extract information about them, including their preferences. This information can include location, demographic, income levels, product preferences, etc. Customer-owned touchpoints are always under the control of the customers. In many products, the firms can make such an arrangement that they receive some sort of information from these touchpoints. Firms can receive information directly from their products like apps, mobile phones, computers, tablets, and IoT products. This information can contain details

on location, usage, downtime, logs, etc. Independent/social/external touchpoints are WOM, blogs, review websites, social media, etc. Most of these are again digital and can be tracked by firms. Through all these touchpoints, firms can create a rich database of customers' information which can then be used to generate actionable insights. Firms can also find the select set of customers who are most important to them. These customers are expected to generate the most value (in terms of desirable customer outcomes like revenue, positive WOM, social media influence, etc.) for the firm. Hence today, firms need customer orientation digital capability and customer response digital capability to succeed.

Impacts of Customer Orientation and Response Capabilities: Role of Offerings

Setia et al. (2013) outline the two capabilities as antecedents to customer service performance. The impacts of customer orientation and response capabilities on service performance gain prominence as the firms focus on differentiating themselves through their offerings – products or services. Even with generic products, differentiation is often a preferred approach. This differentiation is introduced in the core product (or service) or the associated features of the product (or service). A product is defined as a bundle of benefits when a customer makes a purchase (Corey & Others, 1975). This package includes the core product and the associated features. These features cover a very wide spectrum. Furthermore, the differentiation may be done anywhere in the product's life cycle. For example, differentiation may be achieved through the packaging of the product, the disposal of the product, or the way the product is delivered to the customers. When differentiation is not possible in the core product, say Domestic flights with only economy class seating, it can be introduced through the associated features. In this case, many airlines try to market their offerings on features like on-time arrival, priority check-ins, and baggage arrival. In all the cases, the core product remains the same, economy class seat. Such differentiation requires the firm to focus on customers' needs and address them quickly.

Often, such focus may also lead to creation of new products (or services). For example, Levitt (1980) gives a range of product possibilities. At the core, the offering is a *generic* product. It is the smallest package a firm needs to offer to stay in the market. Next is the *expected* product. This is the package with the least number of features a customer expects in a product to be even considered by them. Next is the *augmented* product. This is the package with more features than the customer is expecting. These might be features that the customer might never have thought about. Whenever a customer interacts with a firm, the firm gets to know about the customer's expectations and should be able to offer the expected product.

But many other firms can also offer the expected product (or service). Offering the expected product will not make a firm the preferred supplier for the customer. To differentiate, a firm has to offer augmented products to the customer, indicating the need to sense and respond to specific customers. Different customers will have different preferences for the product. A discount might make a difference for some customers, and the price may not matter for some. Some customers might need deliveries in a particular time slot, while others might not value it. The customer orientation capability of a firm allows it to find the augmented features that will be useful or desirable to the customer. It happens through gathering knowledge about the customer. This information is not only limited to the potential transaction with the customer but will entail understanding the placement of the potential transaction within the customer's value chain. It will also involve understanding the customer's future value chain (Day & Wensley, 1988).

Moderating Effects of Phases of Customer Journey

In a customer's purchase journey, three phases can encapsulate a customer's experiences: pre-purchase, purchase, and post-purchase. All the experiences of a customer before the actual purchase itself falls under the pre-purchase phase. In this phase, customer experiences start from need

recognition, generally followed by information search and consideration of alternatives. By the end of the pre-purchase phase, the customer has several alternatives. In the purchase phase, the experiences are limited to the final decision-making concerning the product and the actual purchase itself. All the experiences of the customer post the actual purchase falls under the post-purchase phase. It ranges from the experiences starting from delivery and usage to disposal and perhaps a repurchase decision.

When a firm with customer orientation digital capability and customer response digital capability approaches the different phases of a customer's purchase journey, it leads to different impacts in each phase. It transforms the whole experience of the customer. Customer-centric support services dynamics of the firm in different phases of the customer journey are listed in Table 2.1.

Conclusion

The chapter recognises the growing prospects of technology for enhancing the customer journey experience. The chapter elaborates upon the key dynamics that enable an organisation to build customer-centric services across the phases of the customer journey – the pre-purchase, purchase, and post-purchase. The chapter concludes that underlying most customer-centric initiatives is a focus on building customer orientation and customer response capabilities. While an integrative literature review approach has been adopted to critically review and synthesise the literature on this subject matter, it is anticipated that this chapter contributes to research on customer-centric support services as the next frontier for competitive advantage in the digital era (Setia et al. 2013; Sheth et al., 2023). The reflective nature of this chapter needs to be acknowledged and likewise its inherent limitations. The study was highly conceptual, thus opening an opportunity for future research to explore and empirically validate the identified theoretical trends.

Table 2.1 Customer-centric support services dynamics in different phases of the customer journey

Phase of Customer Journey	Customer Orientation Digital Capability (Sense)	Customer Response Digital Capability (Respond)
Pre-purchase -> collaboration of marketing and customer service teams	<ol style="list-style-type: none"> 1. Gather customer and product information (being searched or enquired by the customer) from all touch points; create user profiles for all customers 2. Interact with customers with empathy: call centre, chat, face-to-face interaction 	<ol style="list-style-type: none"> 1. Provide desired information about your products, including reviews at the touch points 2. Provide product recommendations based on the customer profile and enquiry 3. Provide easily accessible information regarding policies of return, pricing, shipping, quality, etc.
Purchase -> collaboration of sales and customer service teams	<ol style="list-style-type: none"> 1. Enrich the customer profile with the preferred mode of payment, transaction details, preferences of product characteristics, and other personal information 2. Availability of customer service agents on the preferred mode of communication: phone call, chat, showroom, stores, etc. 	<ol style="list-style-type: none"> 1. Provide desired information to customers to help them to decide on a product 2. Provide personalised product recommendations (augmented product) based on the customer profile 3. Provide access to preferred order placement method and payment method

(continued)

Table 2.1 (continued)

Phase of Customer Journey	Customer Orientation Digital Capability (Sense)	Customer Response Digital Capability (Respond)
Post-purchase -> shared knowledge between IT and customer service teams	<ol style="list-style-type: none"> 1. Enrich the customer and product profile with how the customer is using the product: either through a survey or through sensors 2. Availability of customer service agents on the preferred mode of communication for help with product usage, updates, repair, etc.: phone call, chat, showroom, service centres, stores, etc. 	<ol style="list-style-type: none"> 1. Provide invoices, order tracking, delivery, installation, etc., in a hassle-free way on all modes like mobile, email, etc. 2. Provide usage guides, spares, replacements, etc., as and when required by the customers 3. Proactive service and reaching out to the customers: based on product profile and customer preferences 4. Based on customer profile, new products to be recommended: upselling and cross-selling

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3

Information as a Service

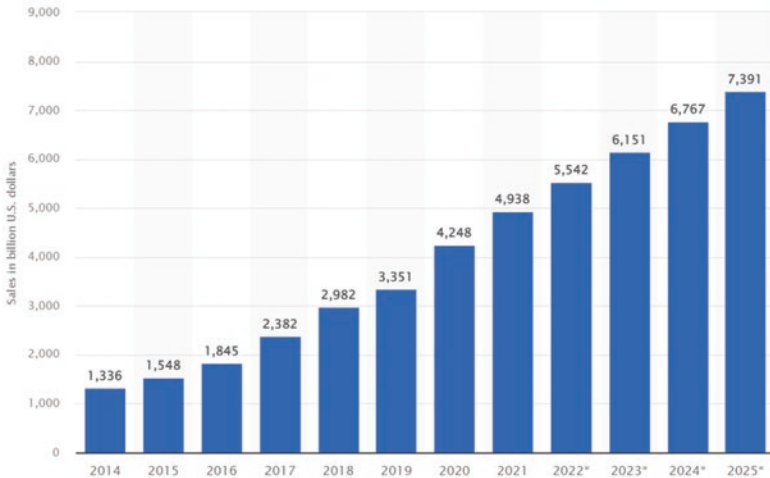
Moutusy Maity

Introduction

The Internet (accessed through various devices, including mobile phones, tablets, laptops, and home TV) is one of the channels that the consumer uses for undertaking information searches when deciding what product/service to purchase. The global e-commerce market is expected to grow to US\$ 7.391 trillion by 2025 from US\$ 5.542 trillion as of 2022 (Statista .com, 2022) (Fig. 3.1). E-commerce as a percentage of retail sales worldwide is expected to grow from 21% in 2022 to 24.5% by 2025 (Fig. 3.1b). Often, the Internet is the first channel of choice for many consumers to obtain information about a majority of products and services.

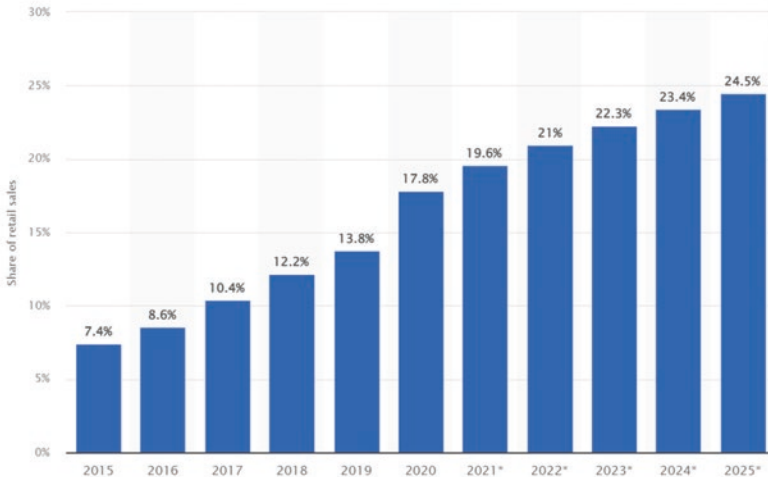
Information search on the Internet includes researching the web, which encompasses searching for information on specific websites, interacting with live agents (or chatbots) via live chat options on such websites, reading reviews, and interacting with company representatives or

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Details: Worldwide; 2015 to 2020

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Fig. 3.1 (a) Retail e-commerce sales worldwide from 2014 to 2021 (with forecasts from 2022 to 2025). (Courtesy: <https://www.statista.com/statistics/379046/worldwide-retail-e-commerce-sales/>, last accessed on August 26, 2022. (b) E-commerce as a percentage of total retail sales worldwide from 2015 to 2020 (with forecasts from 2021 to 2025). (Courtesy: <https://www.statista.com/statistics/534123/e-commerce-share-of-retail-sales-worldwide/>, last accessed on 26 August 2022)

other consumers on social media forums. Therefore, it is not enough for website managers to ensure that consumers get to their websites. Additionally, they must ascertain that the consumer's experience with information search is fulfilling and rewarding when on the website. Given the Internet's importance in information search, marketers must use existing consumer/customer interaction channels to provide information that will aid consumer decision-making. In this context, channels providing customer service are poised to serve as conduits through which consumers can seek information.

Mini Activity 1

Think of a product or service that you are looking to purchase. How are you undertaking an information search for this product/service? What channels or touchpoints are you reaching out to obtain information? Is the kind of information you seek available through that touch-point? What challenges do you face as a consumer looking for the right information? What would be some suggestions that you would like to provide the company so that they improve how they make information available to consumers?

The Online Consumer: Decision— Making Process

Problem Recognition

The act of problem *recognition* typically occurs through a variety of possible routes. The consumer may recognise a need (or want) and then goes online to search for information regarding that product or service. For example, the consumer may purchase a laptop computer and may thus reach out to the company through different channels to fulfil the need for information. The problem recognition may manifest itself as the consumer interacts with content on the Internet (i.e., they may purchase a laptop after coming across an advertisement about that laptop computer or after reading some consumer reviews).

Information Search

Research suggests (e.g., Beatty & Smith, 1987) different variables that affect consumer information search, including *situational, potential payoff, knowledge and experience, individual difference, cost, market environment, and conflict and conflict resolution*. These factors determine the extent and amount of information searches undertaken by consumers.

Mini Activity 2

According to you, what factors might affect an individual's online information search? Make a list of factors that you think to affect your Internet use to search for information (for a product/service that you may wish to buy).

Evaluation of Alternatives

Information search leads to an enhanced understanding of consumer options in the marketplace. They are in a position to determine the consideration or evoked set (i.e. options that consumers are actively considering), the inert set (i.e. options may serve as possible consideration), and the inept set of products (i.e., options that are not considered at all – these are options towards which consumers are negatively disposed and are probably not going to consider these).

Choice

Once the user examines the available information, the consumer is ready to make a choice/purchase.

Post-Purchase

The post-purchase phase of the consumer decision-making process is where the customer evaluates the purchased product/service, which is often instrumental in deciding whether the user is likely to purchase the same product/brand again or not.

Customer Service and Support

Customer service is the support function companies/organisations offer customers before and after purchasing a product or service. The organisation needs to ensure that value is offered to customer service channels. Customer service may be enhanced by ensuring that customer service representatives serve existing and potential customers (i.e. general consumers) with any information need they may have.

Consumer decision-making has often been conceptualised as a five-step process. For example, the classical buyer decision-making process consists of *problem recognition*, *information search*, *evaluation of alternatives*, *purchase*, and *post-purchase* (Howard & Sheth, 1972; Engel et al., 1973; Nicosia, 1982). Typically, the consumers are subjected to marketing and other stimuli, after which they search for information and possibly make a purchase decision. In this chapter, we suggest ways organisations can address the information search needs of consumers through customer support service channels.

Customer Service and Customer Support Channels

Channels through which organisations provide service and support to consumers and customers include phone, e-mail, social media, company website, short messaging service (SMS), in-person or on-site support, and traditional mail. Service is probably one of the biggest drivers of loyalty today. Focusing on service is essential for building customer loyalty and driving business growth. Consumers expect brands to provide support (including information) through the entire journey of information search post-purchase and beyond.

One must reconceptualise the channels mentioned above to serve as those that provide functional and technical information and support. Often, customer service is expected to be available for help throughout the entire customer journey; customer support, on the other hand, is usually restricted to mean technical help (e.g. installation, troubleshooting). While that has been the traditional approach, how can each channel identified here help consumers during the information search stage, and

how will that benefit the organisation? Each of these channels can provide information to consumers/customers throughout the purchase journey:

Social media: Organisations may use different social media platforms (i.e. Twitter, Facebook, and Instagram) to respond to questions and requests for information (in addition to resolving customer complaints). The accessibility that social media provides to a consumer offers one of the leading ways in which consumers may contact a brand at any time (i.e. 24×7). This channel can be a cost-effective way for organisations to address consumers' information needs and direct them to specific resources as required.

Chatbots: Online chat agents are used by organisations on websites to offer consumers an opportunity to quickly resolve their queries by the chatbot itself or be directed to a customer service representative, if required. The chatbots may be trained to respond to frequently asked questions, while more complex questions may be directed to a human agent. The provision for automating conversations with consumers is a way of providing information around the clock and is cost-effective.

Frequently Asked Questions (FAQs): Preparing a section on the website that provides answers to frequently asked questions (FAQs) is an essential feature which can double up as a source of information (in addition to resolving complaints). Since a service rep need not be involved, consumers can easily receive the required information. FAQs may be used for providing both functional and technical information. For example, FAQs may be useful for providing technical information through do-it-yourself (DIY) and product videos. Such videos may serve as a source of general information and installation-related (or other technical) information.

Phone: While speaking with a customer service representative is often comforting and engenders trust, reaching out to a service representative for information may not always be possible for the organisation to arrange for, since the costs are high. However, complex queries and explanations by a customer service rep may help some consumers obtain the necessary clarification before purchasing. An interactive

voice response (IVR) menu may be used to address general queries. In contrast, artificial intelligence (AI) – the driven choice – may assist in answering common questions and then route the call to a customer service representative as required.

SMS/Mobile: Customer service messages are often sent via SMS. Such a service may also be used as a channel for providing information to consumers. Many organisations have also established phone numbers that may be reached via WhatsApp. Such access often provides an alternative to IVR menus offered over the phone.

Email support: This support channel remains one of the most-used options for newsletters and service redressal. E-mail support can also provide information to consumers seeking information in the pre-purchase stage. Consumers often prefer E-mails as they can be customised, and consumers can explain their queries and concerns clearly.

In-person (Or traditional in-store): Speaking with a live human being is undoubtedly the best experience that a person may have for addressing customer queries. Such service can be provided to consumers, which makes it easy for them to learn about the product/service and for customer service representatives to build customer relationships.

The Role of Customer Service Throughout the Consumer Journey

As the consumer moves from one stage of decision-making to the other, organisations/companies must reach consumers just when they are likely to decide or choose a product/service. For example, a decade and a half ago, [Amazon.com](https://www.amazon.com) began offering targeted product recommendations to consumers logged in and ready to buy. With the mobile channel (i.e. apps, mobile browser), the consumer may navigate several channels before making a purchase decision online (i.e. through mobile or e-commerce). Media consumption is fragmented and attention spans are low. In addition to essential, the customer expects the company to respond (across various channels) even before a purchase is made. Insight 3.1 discusses ways in which marketers can gain a customer.

Insight 3.1

How can marketers ensure that the consumer begins and ends their journey?

- (a) Reach the consumer when the consumer is searching for solutions. For example, in 2015, Google introduced the concept of micro-moments, which are specific opportunities that may be identified as instances when consumers are looking to fulfil a need (i.e. the consumer is searching on the Internet to ‘learn’ or ‘do’ or ‘discover’ or ‘watch’ something). The marketer may undertake behavioural targeting to identify what kind of behaviour may be targeted with what kinds of offers.
- (b) E-commerce companies may wish to adopt a *mobile-first strategy* as research demonstrates that accessing the Internet through a mobile device often supersedes access through the desktop environment in India.
- (c) E-commerce companies and other websites must recognise that the consumer may often move back and forth between mobile and tablet/laptop/desktop environments during the decision-making phase (i.e. information search, evaluation of alternatives, and purchase/choice). The marketer needs to identify mechanisms that will allow the marketer to be present across all channels.
- (d) Consumers look for more interaction with the company before purchasing. Through their research, according to McKinsey (2009), marketers must come up with fresh strategies to include their brands in the initial consideration set that customers form when they start their decision-making process. Additionally, marketers need a more organised manner to meet client expectations and handle word-of-mouth due to the shift away from one-way communication or from marketers to consumers, towards a two-way interaction.

Voice of Customer (VoC) Programme

As the consumer moves from one stage of decision-making to the other, it is imperative for organisations/companies to ensure that consumers get the required information throughout the decision-making process and just when they are likely to make a decision or choice about a product/service. A Voice of Customer (VoC) programme allows a company to find out what customers need, what customers expect from a company, and what customers' interests and behavioural patterns are; an analysis of such data allows the company to undertake steps to address consumer/customer needs and figure out how the company may help them.

A VoC programme allows an organisation to collect customer feedback, provide much-needed information on business and product/service, and offer customer insights that can be leveraged to create a strong customer experience. The focus of such a programme has been to ensure continuous improvement of customer experience. We offer that the information collected through this programme can also be used to provide information to consumers when they are looking for information at every stage of the decision-making process. Figure 3.2 presents the changing realities for the marketer.

The following methods are often employed to collect consumer/customer feedback about products/services and can then be used to obtain and keep up-to-date the information that consumers may require during the information search stage and can be provided to consumers through channels identified in section “[Customer Service and Customer Support Channels](#)”:

Customer Interviews, Focus Group Discussions Consumer/customer interviews have always been conducted by organisations to understand user behaviour and the user's point-of-view regarding the product/service. Interviews may be held in person or online. In-depth interviews are undertaken where a single person converses with a representative/interviewer and elaborates on the issue. Such engagements allow the organisation to understand user needs and expectations. Similarly, focus group discussions can be held to obtain similar insights.

Changing Realities for the Marketer...

Marketing Research

Data collection and analyses are part of marketing research.

Usually involves collecting the data that answers specific questions.

The assessment of the impact of specific changes in a feature is a core concern in marketing research.

Involves analyzing both quantitative and qualitative data.

Marketing Analytics

Technology-led data collection and analyses may be considered as marketing analytics (i.e., analysis enabled by technology).

Assembles massive amounts of data which tends to be observational and multi-format. A data mining approach is often used.

Prediction is a core concern in marketing analytics (that often applies machine learning techniques to analyze data).

Involves analyzing massive amounts of structured, semi-structured and unstructured data

Fig. 3.2 Marketing research and marketing analytics. (Courtesy: Author)

Customer Surveys Consumer/customer surveys may be given out for user participation online or offline. Such surveys are usually structured (i.e. include close-ended questions) but may also include open-ended questions. An understanding of customer experience and satisfaction is often collected through customer surveys. Feedback forms may be provided to obtain open-ended feedback about specific aspects of customer experience and expectations. Such surveys include recently undertaken transactions, relationship surveys (i.e. undertaken regularly), and satisfaction surveys.

Social Media While consumers/customers easily access social media channels, companies/organisations have little control over what is said or posted by consumers/customers on these channels. This nature of user interaction and posting of content on social media by users may sometimes pose challenges for companies/organisations, as the content posted might not be favourable toward the organisation. However, this allows organisations to unobtrusively listen to consumer/customer conversations and learn about them. Service redressal opportunities often present

themselves through such conversations. At the same time, the insights obtained may be used to devise strategies for improving products and services. The information obtained through such social listening (i.e. learning about consumer expectations and needs) can also be used to understand the kind of information consumers require during the information search stage; such information can be made available across various channels discussed in section “[Customer Service and Customer Support Channels](#)”. The content posted by users is usually unstructured (i.e. text, emojis, audio, video), which may be analysed (text mining, image analytics) to obtain the necessary information.

Live Calls/Chat Such chat may be undertaken on the organisation’s website, social media, and live calls. Once again, these are sources of consumer insights and can be used to update FAQs and other channels that provide consumers with information.

Consumer/Customer/User Behaviour on the Website User behaviour obtained through web analytics provides a wealth of information about user activities on an organisation’s website (i.e. new/existing visitors, important keywords, geographies from which users are visiting the website, the popular pages that users are visiting on the website, the pages on which visitors are spending more time on, the pages from which people are bouncing, the queries generated, through the search box on the website, amongst many others). This information can be an invaluable source to understand users’ information needs, which can then be updated and adequately maintained.

Online Customer Reviews Besides social media platforms, users post their product reviews and ratings on platforms dedicated to reviews/ratings. Insights from such platforms may be used to strengthen the information resources that the organisation maintains and aid in the information search stage of consumers.

E-mail Communication E-mail-based communication has often served as a channel through which users/consumers provide feedback to organisations. The learnings obtained from such feedback/complaint may be

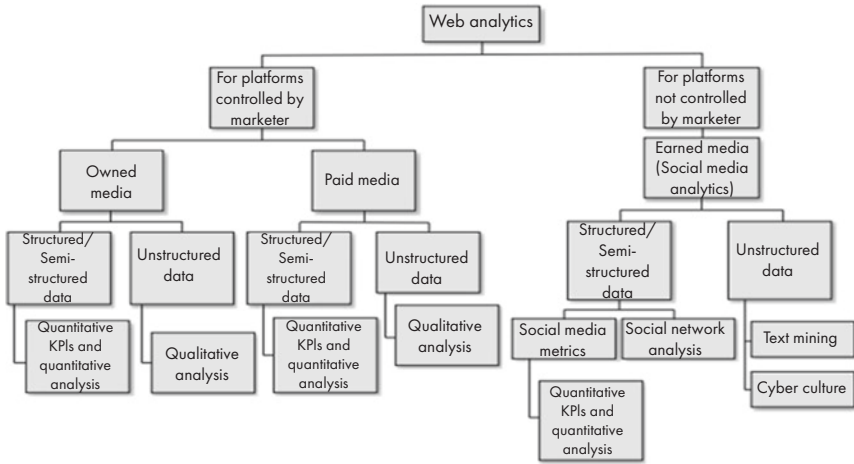


Fig. 3.3 Paid, owned, and earned media in the digital context. (Courtesy: Author)

used to update the information databases maintained by the company and make that available to consumers as and when needed, especially during the information search stage.

The organisation must ensure that information is collected through paid, owned, and earned media. This can then be used to power resources provided at the various stages of the marketing funnel. A representative set of data sources are identified in Fig. 3.3.

Obtaining Consumer Insights

The data obtained from the above-discussed methods can be processed using machine learning (ML) techniques to obtain insights that inform users in the various marketing funnel stages (as discussed in section “[Information Search and the Marketing Funnel](#)”).

While machine learning is based on the idea that machines should be able to learn and adapt through experience, AI refers to a broader idea where machines can execute tasks ‘smartly’. Artificial Intelligence applies machine learning, deep learning, and other techniques to solve problems. Machine-learning techniques have been widely adopted in the corn

products, such as IVR menus (i.e. consumers speak with or interact through keyboard options or digital diaries that remind users of certain tasks (i.e. personalising content based on the user's behaviour). Such applications are learning systems that have been provided with a large dataset of desired input-output behaviour (i.e. training data) and are optimised to predict outputs on a similar dataset that was not part of the training dataset (Jordan & Mitchell, 2015). Some commonly used types of algorithms in machine learning are discussed in this section.

Supervised Learning Supervised learning is a subcategory of machine learning and artificial intelligence. The defining characteristic of supervised learning is that labelled datasets are used to train algorithms to classify or predict outcomes. Supervised learning methods are the most prominent machine-learning methods used in practice. A few popular algorithms are widely used in supervised learning methods, including logistic regression, gradient-boosting decision trees (GBDT), and deep learning.

Unsupervised Learning Unsupervised machine learning is another subcategory of machine learning that comprises methods where input data is provided without any specific output data. This type of machine learning aims to uncover patterns in the dataset that has been provided – such patterns are usually unknown to the researcher before the process. A few often-used unsupervised learning methods include principal component analysis (PCA) (i.e. a technique that reduces a large number of variables to a handful of features) and clustering methods used to group and segment the given data.

Reinforcement Learning Input data in reinforcement learning provide certain signals that require the algorithm to devise a course of action or suggestions that allow it to score the best possible grade. The input data does not provide any clear output signal. The model keeps improving based on the reinforcement it receives from the models developed in the interim. Since properly labelled data is not available, the procedure of reinforcement learning is computationally intensive. It is difficult to build algorithms that can learn signals in noisy environments (given the

lack of clearly labelled outputs) (Chen et al., 2018). A common application for reinforcement learning is ad content optimisation. For example, researchers from the Baidu search engine discovered that search quality could be improved by using deep reinforcement learning to optimise the content of ads shown to its users (Fei et al., 2019).

These machine-learning techniques must be applied to structured and unstructured data (as appropriate) to make predictions or recognise patterns from that data such that the information is useful to consumers, which may be provided at the different stages of the marketing funnel to serve consumer information search needs.

Information Search and the Marketing Funnel

As the consumer moves from one stage of decision-making to the other, organisations/companies must reach consumers just when they are likely to decide or choose a product/service. Figure 3.4 represents the funnel

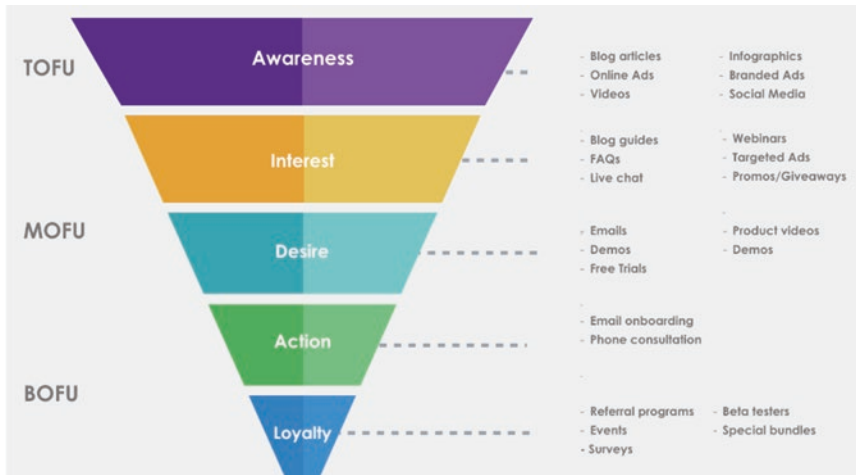


Fig. 3.4 Providing users with much-needed information tunnel (TOFU), Middle of the Funnel (MOFU), Bottom of the Funnel (BOFU). (Courtesy: <https://www.pix-elme.me/blog/marketing-funnel> (Last accessed on 5 Sept 2022))

through which a user moves as she evolves into an interested buyer. The figure also identifies sources that may act as conduits providing users with much-needed information.

It is important for the organisation to carefully use a mix of human agents and chatbots in interacting with consumers (and providing them with the required information) at the different stages of the marketing funnel. The top of the funnel usually creates awareness and interest. At this stage, a mix of blog articles, videos, engagement on social media, and advertisements are likely to work towards creating awareness and engagement. For those users seeking information at the top of the funnel, organisations can use AI-driven chatbots to interact with consumers in providing them with information. The deployment of chatbots at this stage is useful since the queries that consumers have when starting the information search process are likely to be fairly simple; human customer service representatives may not be required for such simple transactions, thus making the use of chatbots attractive and cost-effective. Chatbots can be deployed 24 × 7, are much faster than a human agent, and are easily scalable. It should also be noted that this strategy may be successful for organisations where many e-queries are received. The success of this strategy is likely to depend on the extent and quality of training undertaken to create the chatbots.

While many positives are associated with using automated response systems, there are several limitations. First, since chatbots can handle interactions that follow a fairly straightforward ‘script’, low versatility is expected, and they are not suited for handling complex queries. Therefore, while chatbots are efficient in some cases, their effectiveness in handling queries, especially at the middle and bottom of the funnel, remains to be seen. In addition, chatbots are likely to be low in relational intelligence, which may impede carrying out complex transactions and answering complex information queries. Finally, chatbots must be used, so the organisation knows the common complex queries passed on to human agents or other information sources (e.g. websites, rating and review sites, and consumer forums).

Other sources can provide information as forums or move through the marketing funnel, as identified in section “[Customer Service and Customer Support Channels](#)” and illustrated in Fig. 3.4.

Knowledge Management System

In recent years, many organisations have started deploying Knowledge Management Systems (KMS) that help customer service representatives find and provide the right and pertinent information to consumers who raise such queries. KMS is an information management system that follows the practice of creating, putting together, and sharing/distributing relevant and actionable content; such content is made available to customer-facing teams, such as support agents, field staff, retail stores, and other partners. It also includes digital channels, such as chatbots, help portal pages, social media, and support community. The attempt is to create a unified platform that makes it easy to find the right information at the right time across all the channels through which users seek information. Deployment of AI and ML, along with using of natural language processing (NLP) technologies, allows us to obtain insights from the data collected through the VoC programme that contributes to the KMS.

To deliver a delightful experience, customer service representatives must be empowered with information that allows them to help the consumers so that the consumer may be in a position to take an informed decision. While implementing digital innovations, including chatbots or virtual customer assistants, having a KMS provides a constant supply of information to the digital assets is indispensable. In addition, human agents must be aware of new updates and products, likely to lead to higher consumer interest in the product/service.

A KMS is likely to increase the overall productivity and efficiency of human agents, reduce the average number of minutes for resolving consumer queries, increase customer satisfaction (C-SAT) scores and net promoter scores (NPS), help consumers with faster and more accurate decision-making, and easily locate information within the KMS. However, KMS is not a one-time activity and requires constant information that needs to be provided.

Privacy

Issues related to online privacy and data protection have a variety of ethical and legal ramifications associated with them. Issues range from the tracking of user behaviour, data collection, nature, and quality of information (or whether it is misinformation or disinformation), user data application, and data storage. Therefore, it is important that managers need the practices associated with those mentioned above acceptable and somewhat questionable processes. What are some best practices in these contexts? Are there statutes that are laid down by the law? In case there are no legal requirements, what practices are (un)ethical?

Informed Consent: Collecting Data from Users/Consumers

Many companies, notably those that have to communicate with several target audiences, view market research as a crucial part of their marketing strategy. The results of this kind of research are frequently used to guide strategy, guide resource allocation, and assist brands in understanding and engaging with their target audience in a variety of ways. A nearly century-old technique is gathering information from customers of a brand or product to understand their attitudes.

The user or customer, the research company, and other businesses or organisations who claim to employ the research's findings are generally the three stakeholder groups involved in the procedures involved in data collecting and utilisation. There is an implicit understanding that the research firm will promise to protect the data collected from the user/consumer (i.e. protect the identity and privacy of the user/consumer), which is occasionally made explicit by contracts signed amongst the stakeholder groups in this data collection, analyses, and reporting process. Users of a product or brand who give their agreement to the company collecting the data typically have faith in the organisation and want their identity and sensitive personal information to be preserved. Consumers are frequently given the assurance that the results would be provided in aggregate form and that their personal information won't be

shared with outside parties. Typically, these businesses are expected to adhere to particular standards for data storage and utilisation. Similar to this, data collection organisations may also observe consumers, but the implicit promise – or the norm – of data usage stays the same.

All of the aforementioned began in a world where users frequently had to explicitly give consent and participate in the data collection process, which is still the case in the context of offline data collection. However, the digital channels and the enthusiastic adoption of these channels by the majority of users and consumers worldwide have made granular data collection regarding users and consumers a seamless and unobtrusive process for firms generally. Companies that only exist online must compel customers to take actions on their websites in order to fulfil their brand and business promises. The brand promise is frequently to provide unparalleled reach and connections by exploiting and implementing information and communication technology by the company and the user, as on many social networking websites.

These businesses can tap into a vast ecosystem of methodologies and tools to obtain an increasingly comprehensive view of the user by capturing each click made, archiving every word ever written, and noting every image posted on their websites today thanks to the abundance of tools and methodologies available to these firms that operate in the virtual domain. Additionally, businesses today use communications, social listening, and semiotics to comprehend how customers respond to media and brand messages. These businesses include online social networks and retailers.

Ethics of Data Collection from Users/Consumers and Use of Data

Ethics (or moral philosophy) is a branch of philosophy that includes identifying, defending, and recommending desirable behaviour instead of wrong or undesirable). The English word ‘Ethics’ is derived from the Greek word *ethos*, meaning ‘character, moral nature’. Very broadly speaking, ethics are shared values; ethics are not laws. However, ethics differentiate right from wrong and can be the basis for laws.

The transition from overt to covert tracking of individual behaviour is the key change in data collection. The topic of whether the standards (and even laws) governing the use of data by businesses must alter in light of evolving data collection technologies must therefore be posed and investigated. Understanding the incentives that drive normative behaviour around data use is of particular relevance to business stakeholders and society at large in the context of the use of information technology by enterprises to connect with their consumers.

Users and customers of online stores, virtual social networking sites, and virtual social networking sites are frequently aware that businesses frequently monitor their online behaviour. Do the users find this Panopticon view of themselves disturbing? Maybe a little, but not enough to have consumers quit utilising these business websites, and consequently, the range of potential actions that these websites enable. Consumers frequently don't realise that businesses other than the proprietors of these websites are collecting this data; these businesses are referred to as 'third-party firms' or simply 'partners'. The data collection procedure is often highly technological, making it difficult for the user to know who is collecting their data. Additionally, the owner websites and affiliated businesses are frequently in charge of disclosing the consumer data gathered and making it accessible to other client organisations that may now utilise this data for direct engagement with the customers. Clearly, the user had not consented to this usage of their data.

It appears that there are some differences in how businesses acquire and use data about online user activity and how they do so for offline user activity. The standards governing the gathering and use of data collection and users typically depend on certain defined standards by businesses, most of which are driven by self-regulation and call for the participant's informed consent. The sharing and dissemination of that data faced substantial hurdles even though technically a data collection agency in the pre-Internet era – and data collected offline today – might share the collected data with partner companies. Typically, data is gathered using the old-fashioned pen and paper method, and it only offers insights into the consumer in terms of the questions that were posed to them. Data can now be collected and used in soft formats in the post-Internet era. These data can often yield specific insights about the user, who is typically the

users. To learn more about user behaviour, questions are typically asked, unstructured data is gathered, and data mining techniques are then used. Client organisations find the granularity of the data to be particularly appealing because they frequently use these user-specific insights to micro-target their messaging and communications.

These data collecting and usage realities about the inhabitants of the virtual world, which have been brought to light by social media platforms and their partner organisations, suggest that a self-regulatory strategy is both desirable and unlikely to succeed. It is probably necessary to take a stricter stance on this matter in accordance with specific regulations that may be required by authorities. It is likely necessary to revisit the standards that governed data gathering and usage in the years before the Internet as legally required and thoroughly regulated procedures. Although many have expressed the necessity for such a mandate, including the governments of several nations, it is not simple to trace the virtual data trail of pure-play businesses.

For example, unsolicited email – or spam – as it is referred to today, began in the 1990s and was considered an acceptable way of reaching the target audience. However, that position has changed over the last decade, and any company sending out commercial e-mail messages needs to identify itself as a sender (i.e. the business name and address), there should be a clear and easily available unsubscribe option, and if a consumer chooses that option, then the business must respect this (e.g. CAN-SPAM Act 2003 (USA)). While there is probably a social consensus that spam is bad, many unsolicited emails exist. There is also much technology devoted to trying to control spam. However, most companies do not want to be seen as spam.

Another example of users being subject to unsolicited data collection procedures that they were unaware of is the study that Facebook conducted in the year 2014, where the social media website manipulated the News Feeds of more than 650,000 users (Forbes.com, 2014) to induce specific emotions in the participants; the social media company claimed that it wanted to study user/participant emotion contagion. This kind of experimentation was not well-received by users of Facebook. Managers must note that while much of the work that data scientists do have the

potential to deliver, a set of shared ethical values is necessary if companies wish to reap the benefits of data science. When put into practice, such values can minimise the harm that such data collection and analysis fictionalises to individuals and society.

To enforce the mechanism of informed consent, participants must be aware before the data collection takes place – i.e., the consent has to be prospective; consent obtained retrospectively (i.e. after the data has been collected) is usually not acceptable.

What Is Data Privacy?

Such practices, as noted above, give rise to questions of data ownership, data control and copyright, and deployment/use, storage and disposal of the collected data. For example, who is the owner of the collected data? The company that has collected the data? Does an individual owner have any control over this data?

Privacy is the ability of an individual or group to seclude themselves or information about themselves and thereby express themselves selectively. When something is private to a person, it usually means that something is inherently special or sensitive to them (see Insight 3.2).

Insight 3.2

‘Privacy is a value so complex, so entangled in competing and contradicting dimensions, so engorged with various and distinct meanings, that I sometimes despair whether it can be usefully addressed at all’ – Robert C. Post

Data sourced from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5124066/>

https://openyls.law.yale.edu/bitstream/handle/20.500.13051/1114/Three_Concepts_of_Privacy.pdf?sequence=2&isAllowed=y

‘Perhaps the most striking thing about the right to privacy is that nobody seems to have any very clear idea what it is.’ – Judith Jarvis Thomson

Data sourced from:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5124066/>

<https://www.jstor.org/stable/2265075>

Privacy concerns must be addressed in the context of data collected about users on the online channel (e.g. Big Data). How do managers ensure value is obtained from the data while avoiding the possible negative effects? What are some trade-offs that managers must be aware of? For example, when people put content on social media (e.g. Instagram, Facebook, YouTube, Twitter) for public consumption, are they aware that their data is being tracked? Users/consumers have disclosed this information of their own accord on a public forum. Should this be considered public data or private data? In addition, companies can make many deductions about individuals based on the data they collect about them. Given this context, managers must understand how user/consumer privacy may be managed.

Some managers/researchers think that since the data has been posted on a public platform, the data is public, the data is a public good that may be used, and the data can be used to make better products and services. On the other hand, another school believes that it is difficult to distinguish between public and private data; using data without the user's consent violates user privacy.

Data Validity

While data can be collected from users, used for understanding user behaviour and for training algorithms that undertake various tasks (i.e. based on machine learning and artificial intelligence), the validity of such data needs to be ensured. It is important to understand some of the reasons that may contribute to errors in data analyses, such that the error may have undesirable and grave consequences. For example, errors may be in the data itself or how the data is used in the analysis contributes to training the algorithm. Data with errors and models built on faulty premises (e.g. an unrepresentative data training set, a small sample size of data) is likely to lead to undesirable decisions. For example, say a company needs to build a predictive model for users over 60 years of age, but the data for the predictive model is based on the data of teenagers. Such a

mismatch in the data required to build the predictive model may have disastrous consequences. As another example, take the case of specific behaviour (e.g. complaints regarding a product or service) exhibited by people who use Twitter. Is such behaviour representative of the population as a whole? A little attention to the demographics and other characteristics of Twitter users is likely to reveal that Twitter users have specific characteristics that are not representative of the population as a whole. The complaints may be legitimate in the second example, revealing a population segment. Therefore, paying attention to this issue (that only Twitter users have raised) is important.

Similarly, sentiment analyses involve dependency on natural language processing (NLP) dictionaries, which may be limited (e.g. only English dictionaries). Comments example, comments on social media by users from India may be a mix of English, Hindi, and a vernacular language. The extent of extracting meaning from the data will depend on the dictionaries used. Therefore, there may be errors in processing this data. Of course, there are other errors as well (i.e. human and subjective errors), which include data entry errors. As another example, how does one ensure that the information on the Internet is reliable, not misinformation or disinformation? False information (regardless of intent to harm or deceive) is *misinformation*, while information created and disseminated with the intent of deceiving or causing harm is *disinformation*. Disinformation may be regarded as a subset of misinformation.

In sum, data collection and analyses are not value-neutral processes. Just because the data collection is automated and algorithms undertake analyses and predictions, managers should not assume that the data is free of biases. Faulty results may be obtained due to low-quality data and questionable modelling techniques. Decisions made on such results may harm individuals and society in general. Therefore, managers need to understand the processes (data collection and analyses) and try and avoid pitfalls.

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4

The Role of Service Design in Enhancing Marketing-Customer Service Collaboration

Dandison Ukpabi and Grace Dandison Ukpabi

Introduction

As competition intensifies, firms continuously craft and deliver the best customer experiences. Therefore, firms must concentrate on the service encounters and be aware of the pre, during, and post-service experiences. Thus, Forbes (2019) reports that customer prioritisation by firms has led to 80% growth over firms that do not prioritise the customer. The same report concludes that about 96% of customers overwhelmingly agree that customer service is critical to their brand choice. The theoretical foundation of customer experience has been applied in different service contexts. This is because the intensity of competition has predisposed firms to not

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only attract new customers but also retain existing customers. Empirical evidence has linked customer experience, customer loyalty, and firms' profitability (Srivastava & Kaul, 2016; Gao et al., 2020; Williams et al., 2020).

The popularity of customer experience has gained more traction with the emergence of service design. A little over 25 years since its emergence (Mager et al., 2020), service design has grown within the practitioner and academic circles. Service design has been gaining popularity recently because it integrates the different touch points within the service ecosystem (Clatworthy, 2012). It starts with understanding the customer and his needs, mapping the customer journey for the given service, and delivering the right service (Jaakkola & Terho, 2021). A successful service design project involves interlacing the marketing team, customer service, the customer, and other relevant actors within the service delivery ecosystem (Joly et al., 2019). Service design enhances the conceptualisation of the service prototypes and mirrors the customer's perception in every stage of the service encounter, thus enabling service providers to render customer-centric services. In addition, service design allows firms to rigorously analyse and control new offerings to address service failure and quality (Vink et al., 2021). Earlier, Patrício et al. (2011) suggest that service design provides the transition from understanding the customer experience to devising service solutions that meet the customer's needs. However, the growth of service design still faces daunting challenges across practitioners, scholars, and contexts. For instance, some views service design issues as complex and in some cases, undesignable (Suoheimo et al., 2020), while it has also been argued that major economies (e.g. the United States) have not yet appreciated the value of service design across industries and professional lines (Frog, 2021).

A thorough literature search, to the best of our understanding, reveals an apparent lack of literature on the application of service design to vocational education services, especially where such vocational educational training provides opportunities for the integration of immigrants to a new country to provide them with the requisite skills and vocational know-how to earn a living in the new country. Accordingly, this study is a case example of integrating service design thinking into the vocational

education of immigrants. The case example is a Finnish vocational education institution based in Central Finland and, for the sake of privacy, would be referred to as ‘the college’ throughout this study. The college recruits students monthly into its programmes, divided into three main departments: catering, homecare, and parties and events. While there are native Fins as college students, most of its students are immigrants in different stages of their integration programs. Students are expected to conclude their studies after 2 years of intensive training.

Thus, the study has two key objectives: (a) to understand the challenges of immigrants in acquiring vocational education and (b) to apply service design to enhance their learning experience. The rest of the study is structured as follows: the next section provides the literature review. Sections “[Research Methodology](#)” and “[Data Analysis and Results](#)” treat research methodology and data analysis very well. The last section provides the discussion and study implications.

Theoretical Background

The theoretical positioning of service design has generated heated debate and is often controversial amongst service science scholars who have adduced multiple theoretical standpoints (Ng et al., 2011). At the basic level, some argue that service design has its root connection to design thinking (Edman, 2009; Ojasalo & Ojasalo, 2015). The proponents of this thought dwell more on the practice-based understanding of design thinking and link it to reflections-in-action (Schön, 1983), which emphasises the practicalities of designing, such as the tools and methods. Design thinking also emphasises empathy, intuition, and the iterative processes of decoupling the components parts from the whole (Edman, 2009). Design thinking mirrors service from the user’s perspective and sees the user as the co-creator of the service (Dam and Siang, 2018). Even more, the emergence of service-dominant logic valorises the design thinking in service research within seven fundamental premises. Service-dominant logic’s overarching theoretical assumption is that value is the fundamental premise for all exchanges and that all actors, including the customer,

within the value chain are co-creators of value (Vargo & Lusch, 2004). By integrating design thinking and service-dominant logic in service design literature, the position of the customer/user as a critical and indispensable actor in the service delivery ecosystem is amplified (Edman, 2009).

The Relationship between Customer Experience and Service Design

In the past few years, increased scholarly attention has been devoted to the customer experience because of its link to loyalty and profitability (Srivastava & Kaul, 2016). It is defined as a ‘customer’s cognitive and affective assessment of all direct and indirect encounters with the firm relating to their purchasing behaviour’ (Klaus, 2013, p. 227). However, a more integrated definition views it as comprising ‘the cognitive, emotional, physical, sensorial, and social elements that mark the customer’s direct or indirect interaction with a [set of] market actor[s]’ (De Keyser et al., 2015, p. 1). This definition offers insight into how understanding the totality of the customers’ personal and other connecting elements helps the firm to satisfy the customer.

From the standpoint of service-dominant logic (Vargo & Lusch, 2004), customer experience is not designed but co-created. Teixeira et al. (2012) argue that service designers must understand the context of the customer and all the processes along the customer journey, including offering the customer opportunity for interactions along different service touchpoints. In this context, the firm is not relying on its experiences and skill set to deliver a predicted pleasurable customer experience. Still, it acts as a facilitator in which the customer is involved in co-creating their experience. In practical terms, firms employ either the reductionist approach (Ng et al., 2011) or the multilevel service design (Patrício et al., 2011) to deliver the co-created customer experience.

The reductionist approach proposes that a system must be broken down into different components, and each of these components must be analysed, studied, and understood to be able to gain an understanding of the higher level phenomenon (Vink et al., 2021). However, the practicality of the reductionist approach has been questioned in light of modern

complex systems. Those who hold this view contend that modern services comprise multiple layers, disciplines, and interfaces that require different levels of interaction with service providers, thus, rendering the reductionist approach practically challenging for service designers (Patrício et al., 2011; Teixeira et al., 2012; Joly et al., 2019).

Multilevel service design recognises the deficiencies of modern services and proposes better alternatives. It proposes that services must be approached and understood from four layers: studying the customer experience; designing the service concept; designing the service system, and designing the service encounter (Patrício et al., 2011). Studying the customer experience employs different qualitative data collection methods (e.g. in-depth interviews, focus groups, observations) to gain a detailed understanding of the customer experiences. At the designing of the service stage, the firm first decomposes the customer value constellation and designs a concept that integrates the different customer value constellations. In stage three, the firm gains an understanding of the service experience through interactions with different actors and designs the service architecture and the service system navigation. At stage four, the firm designs the service encounter with the service experience blueprint (Patrício et al., 2011).

Service Design in HEIs and Immigrants' Experiences in Vocational Educational Institutions

Amongst the different tiers of education, higher educational institutions (HEIs) have mainly benefited from the application of service design research. For instance, Baranova et al. (2011) found that in applying service design, the administrative system of the University of Derby has recorded significant improvements in terms of quality of information, online enrolment for students, staffing, queuing time, and overall student satisfaction. Wolfe (2020) contends that in the face of increasing pressure on HEIs to outperform and outlast their peers, service design provides a sustainable opportunity for effective change in the HEI sector. In a literature review study, Joshi and Alavaikko (2020) found that studies utilising service design in HEIs applied the method in co-creating and co-designing

students' experiences, group design, service studio, storyboarding, and involvement inclusion.

The key mission of vocational education institutions is to imbue life skills and competencies in students (Pambudi & Harjanto, 2020). However, several studies point out that immigrants face language (Weibert et al., 2019), information technology skills (Farshbaf Shaker, 2018), and socialisation challenges (Golan & Babis, 2019), and these challenges not only affect their integration processes but also inhibit their potentials in the new country (Gericke et al., 2018; Newman et al., 2018). As current integration methodologies fail to address these issues holistically (Gebhardt, 2016), service design could offer some relief. This is particularly important in light of Joshi & Alavaikko's (2020) call to extend service design to the vocational education sector. Thus, this study follows the multilevel service design by first seeking an understanding of the students' experiences of the vocational institution through different data collection methods such as interviews, focus groups, and mystery shopping. Then, the study goes further to design the service system and encounter by employing some service design tools.

Research Methodology

This study followed Patrício et al.'s (2011) postulation of the dimensions of multilevel service design. First, it sets out by studying the customer experience. Accordingly, this study employs in-depth interviews, focus group discussions, and online mystery shopping. The study adopted in-depth interviews and focus group discussions with the service staff and students. In-depth interviews help to gain a comprehensive understanding and insight into the nuances, emotions, and feelings of actors of the study phenomenon (Vaportzis et al., 2017; Kauppinen-Räsänen et al., 2019). Similarly, a focus group consists of a panel discussion whereby a moderator investigates and explores the research phenomenon while conducting a discussional session with a group comprising 5–8 persons (Nyumba et al., 2018). A focus group usually helps to provide holistic information which is connected with research objective and enhance a clear understanding of the phenomenon.

Table 4.1 Summary of data collection types and participants

Item	Data collection type	Number	Detail
1.	In-depth interviews	2	The rector and a member of the service staff
2.	Focus group	25	All participants are students of the institution
3.	Mystery shopping	3	A fin, Chinese, and Nigerian

Thus, the institution's rector and a service staff member were interviewed. The interview with the rector was held on 27th August 2020, while that of a service staff member was held on September 2nd September 2020. The interviews were recorded with a digital device. The study transcribed the data into scripts, followed by repeated reading. The interviews were supplemented by mystery shopping. Similarly, three mystery shoppers were engaged. Since most of the students are foreigners who are primarily enrolled in their integration programme, the mystery shoppers were drawn from a diverse range of cultures: Fin, Chinese, and Nigerian. They were briefed to examine the institution's website from a cultural perspective, specifically identifying the college's offerings, service staff and their specialisations, and other touchpoints. Table 4.1 shows the participants of the data collection sessions.

Data Analysis and Results

In this section, we will analyse the data and present the results. The authors adopted content analysis through repeated reading of the interview scripts. The themes that emerged from the content analysis formed the groupings for the discussion below.

Understanding the Needs of the Students

As Patrício et al. (2011) recommended, a focus group is one of the tools for studying the customer experience. In this study, focus group discussions were held with the students of the following departments: events

and parties, catering and home care, and cleaning. The first focus group was held with the events and parties department on 26th August 2020. The second meeting was held with the catering department on 15th September 2020, while the last meeting was held with home care and cleaning services students on 4th September 2020. The focus group discussion reveals four key issues: collaboration opportunities, language opportunities, skills in computer operation, and food.

Platform for Collaboration

One core issue amongst the students is that they need collaboration. The session reveals that the students need closer bonding. As most of the students are immigrants and refugees who have fled different political, economic crises, they wish to acclimate to the new culture fully. They emphasised the need to make friends and socialise with others. One of the students said

'I am interested in knowing more of my coursemates than what is presently obtainable.'

The time designated for learning and teaching looks grossly inadequate to provide the bonding opportunity students crave. They highlighted that they want to make friends amongst themselves and with the native Fins. They also highlighted that making friends with the native Fins would allow them to integrate into the Finnish system and culture more seamlessly. A majority of them are refugees, and the need to make friends and socialise with fellow students and native Fins is even more necessary because it will help them heal from the trauma they suffered in their home countries.

A collaboration opportunity could provide a more practical way to create the learning experience. It is argued that peer learning is more effective than teacher-to-student (Harrington et al., 2014). Additionally, a forum that allows students to ask questions and learn from peers would be a great way to accelerate their understanding of the issues discussed in class. Moreover, doing things in common to socialise can fight off lonely

feelings and depressive tendencies. The socialisation opportunities could be physical or online where, for instance, they can share in celebrations such as birthdays, childbirth, graduation, and so on. We argue that while socialisation solidifies the students' bonding, it also fosters camaraderie amongst students.

Language Skills

Finnish language skills pose another challenge to international students. The college uses Finnish as the primary language of instruction. While the students acknowledge that the college has organised additional lessons for them, they were unanimous in echoing the need for additional efforts to help their Finnish language skills. Some students who have less education, essentially from their home countries, face challenges in writing and speaking. They requested for more lessons to enhance writing and speaking skills that would prepare them sufficiently for their career after graduation.

Note-taking is a critical component of the learning process. Some noted that because of their poor Finnish language skills, they usually get scared when given homework. One of them said:

'Each time I wake up and realise that I will have to go to school, I am always worried that assignments will be given. And scared of interpreting the recipe.'

The Finnish language skills are of utmost importance to them because the college is part of their integration pathway. Thus, mastering the Finnish language (spoken and written) is a critical requirement for attaining the certification level they need. To help their integration, we suggest the college organise more Finnish language classes for the students. The college can achieve the additional Finnish language classes by embedding them into the curriculum and noting the different academic levels of the students. Furthermore, since the students have admitted that there are ongoing Finnish language classes, the college can increase the time allocation for the classes.

When the college's budget permits, it can customise the Finnish language sessions for the students by identifying their different levels and giving them special sessions commensurate to their language skills. The benefit of such personal sessions is that it does not only speed up their mastery of Finnish language skills, it also has the possibility of fostering the socialisation experience of the immigrants and also provide an avenue for their healing for those who have suffered different forms of psychological trauma in their home countries.

Basic Computer Skills

Most of the students from developing countries lack computer/technology skills. Computer skills are of utmost importance because the college uses a learning management system with which the students are expected to be conversant. With some of them without grade school experience, using computers and smartphones to access the learning management system is challenging. Sometimes, their assignment includes searching online for cleaning, recipes, and home care materials. Most of them shared their frustration during the COVID-19 lockdown, during which they stayed home to join classes and complete their homework. Some admitted that their more computer-compliant partners and children assisted them during that period.

These students may continue to suffer these difficulties in silence. We argue that the college can embed an introductory computer skills course into its curriculum. Currently, the practice in which the college assumes the same level of computer knowledge for both the immigrant and native Finnish students may prolong the challenges for these immigrant students. Additionally, the college can also pair immigrant students with native Fins who may be willing to help in bridging these gaps.

Besides embedding ICT training into the college's curriculum will benefit the students, it will also help to imbue a sense of confidence in them during the homework sessions. Currently, most students are aided by their partners and children to complete their computer-based homework. Therefore, a situation where they can handle such a task will significantly boost their social and psychological state.

Views on Food Services

The students also hinted that the daily provision of food is both a psychological and health booster for them. Though some immigrant students found it difficult to get accustomed to Finnish food, they now enjoy it. One area for improvement, however, is that the college should, instead of providing international cuisines from countries not represented by the student population; rather integrate the immigrant students to showcase their local cuisines to their international peers. Furthermore, as the college comprises immigrant students from different countries, featuring their food will provide the students with a sense of belonging. They also suggested that some days should be set aside as special days for the college to celebrate cultural food fiesta.

The Perspective of the Service Provider

Since multilevel service design involves the co-creation of experience between the customer and the service providers (Patrício et al., 2011), this study also had an interview session with the rector. The interview with the rector reveals that the college understands the challenges encountered by immigrant students and is working to mitigate them as much as possible. The rector revealed that they understand most of the student's challenges, especially the language skills training. To this end, he mentioned that the college is working out the best strategies to speed up their Finnish language skills. In addition, he plans that the number of staffs would be increased to balance the student/staff ratio, which is necessary for more effective communication between the teacher and the student.

When he was asked what specific attributes that make the college peculiar compared to other colleges offering similar courses, the rector stated that it lies in the flexibility of their programmes. He argued that in some vocational colleges, the student usually concludes their programmes with the cohort they started with. However, the college is different because the programme is learner-paced, which implies that the student can conclude their programmes at their pace. This also implies that students can conclude their programme faster based on previous work experience and study diligence.

The study also interviewed a member of the catering department. The interview aimed to understand how the daily provision of meals impacts the students' experience. The school has free and quality food service for all students. Besides eating at school, students can also buy food and take it home at a considerably cheap price. School meals are also helpful to struggling and low-income families. School meals are provided to increase student enrolment. Additionally, school meals are regulated. Thus, relevant authorities ensure that the dietary and nutritional components are of high quality, which may not be so with foods provided in some homes. When asked how food helps to improve the student's learning and experience, she opined that it helps the concentration of the students. She further stated that improper feeding could impact students' concentration and class performance. She stated that the students are served twice daily meals and that the effect has been tremendous on class attendance.

Results of Mystery Shopping

As noted earlier, mystery shopping was also used to collect the required data besides in-depth interviews and focus group discussions. Mystery shopping, a technique used to measure the quality of service offering by disguising the shopper as a true customer, has been used in different service contexts (Yaoyuneyong et al., 2018; Tarantola et al., 2012; Staudacher et al., 2021). Though the ethicality of mystery shopping has been questioned (Ng Kwet Shing & Spence, 2002), it has seen increasing use, especially within technology-enhanced services (Mulder & Snijders, 2022). Mystery shopping in our study was limited to the website due to COVID-19 outbreak (Health Crisis). Thus, the only way we could conduct mystery shopping was through the college's website, being the sole platform to access the college's offerings. Therefore, a briefing session was held with the shoppers in which they were told to evaluate the college's website subject to its look, information availability, and information accessibility. These three areas were considered cardinal because most of the college's applicants resort to their website first before contacting them. The findings of the three shoppers are analysed and presented in Fig. 4.1.

Observed outcomes			Suggested key points		
Look	Information availability	Accessibility	Look	Information availability	Accessibility
Items are categorized in a good order	Contains information pertaining to admission	Contains a blog where previous students share their stories	The page looks dull but could be improved	The form should not be in PDF but in a web link style	Make it easy for visitors to see the college's web page
Information for students easy to find	Language used not too complicated	Contains links to other pages	The website needs to be updated regularly	More lead text to guide the visitor on the school's values	Provide more links to other stakeholders
e-application easy to find and can be understood	Contains information pertaining to admission	Links to other stakeholders is available	Use of pictures could be employed	User friendliness is average. More interactivity is needed	More linking pages to link the visitor to other important sites
Navigation bar is well written	Contains social media pages such as Facebook	The position and size of the application link can be increased			

Fig. 4.1 Observed outcomes and suggested key points from mystery shopping

Discussion and Implications

The study aimed to understand the challenges of immigrants in acquiring vocational education and apply service design to enhance their learning experience. Guided by the central purpose of marketer-customer service collaboration, the study applied Patrício et al. (2011) multi-level service design model by first studying the customer experience. In this first stage, in-depth interviews and focus group discussions were held with marketers (service providers) and customers (students). Findings reveal that the college is performing well in some areas, such as information on the website, teacher-student relationships, and Finnish language skills. However, focus group discussions with students highlight areas that require improvement. Service design utilises several tools to highlight the service gap to proffer improvement. Subsequently, following Patrício et al.'s (2011) design of the service system and the service encounter, this section will utilise service blueprinting to conceptually map out the service that meets the students' expectations. The tools include a service blueprint and a value proposition canvas.

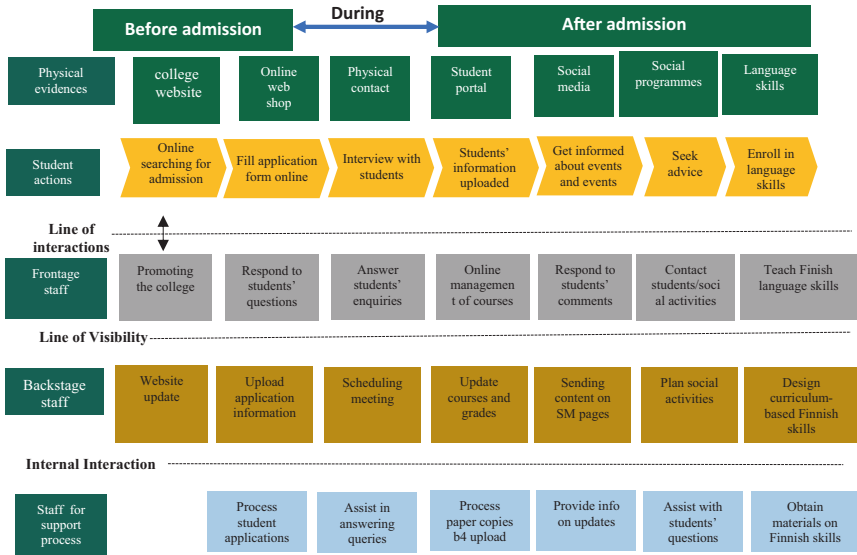


Fig. 4.2 Service blueprint to foster learning experience of immigrant vocational college students

In Fig. 4.2., we utilise a service blueprint to show critical steps and touchpoints from application to graduation. A crucial rationale for the popularity of service blueprinting is that it showcases the centrality of the customer and aligns all internal processes towards delivering excellent customer service (Bitner et al., 2008; Ryu et al., 2020). Our service blueprinting follows Ryu et al. (2020) online-to-offline service blueprint. This new model integrates the elements of the online and offline service touchpoints to deliver holistic customer service.

Based on the findings of mystery shopping, information on admission and other information on the college’s website are not sufficiently clear, particularly from the perspective of a non-native Fin. Therefore, this study systematically presents the necessary steps new applicants need to take to enhance their experiences.

The service blueprint is divided into two sections: pre- and post-admission. The pre-admission columns detail all the necessary information the applicant needs to be acquainted with. The first column in the service blueprint highlights elements of the physical evidence that

characterise student touchpoints. For instance, in the second column, 'college website', the immigrant students need to know that information about the college can be obtained from an internet-enabled computer system. This might be challenging for some, especially when aligned to the experience from their home countries where they depended on the manual form of information retrieval. The service blueprint further highlights that after applying the candidate will wait for a response, after which the decision will be made available via text messages or email. Another important highlight of the service blueprint is the line of visibility and line of interaction. Almost all the immigrants are of African and Asian backgrounds, where physical contact with service providers is considered a cultural necessity and a form of social obligation (James, 2019). The service blueprint is important because it not only re-orientates the immigrant students about the differences in the new culture but also clearly identifies where and when physical contact becomes necessary.

Critically important for the student to know is that below the line of visibility, there are important activities that take place at the backend. Staff involved in these roles may have physical contact with the students. Still, the awareness about these activities' existence helps the students appreciate the various range of information available to them and the role of different service staff. From a marketing/service staff point of view, the service blueprint clearly defines roles and activities necessary to improve the college service delivery mechanism. Currently, these activities and responsibilities are mixed up, and there are no clearly defined lines of operation. The service blueprint provides the college with critical service touchpoints. Identifying these roles helps the college efficiently organise internal processes and identify critical roles requiring more attention in resource allocation and training necessary to deliver satisfactory services regularly.

Implications

Theoretical Implications

Theoretically, our study builds upon the multilevel service design (Patrício et al., 2011) to design a service delivery mechanism that co-creates the customers' experiences. Some studies have adopted the multilevel service

design in different contexts: hospitality and tourism (Chen & Chen, 2021), health records (Teixeira et al., 2019), and beauty service (Lee et al., 2019). Our study extends the multilevel service design to vocational educational services, particularly on the seamless integration of immigrants into a new culture. Several integration programmes are fraught with challenges (Gebhardt, 2016) because of the differences in the social and cultural values of the immigrants as compared to the receiving city. Our study suggests that service design is an essential tool in developing a broad-based integration programme capable of meeting the challenges of immigrants, thus, not only answering Joshi and Alavaikko (2020) call to extend service design to the vocational education sector but also demonstrating its critical relevance to the immigration literature.

Practical Implications

From a practical point of view, more attention should be given to the local language. There is an existing language lesson at the college, but it is insufficient compared to the student's needs. For instance, if college budget is feasible, personal sessions can be scheduled with the students who are experiencing language issues. These sessions are planned after understanding the students challenges, as the idea is to help them. In addition, for those students who have psychological challenges, private sessions can be scheduled to help them. Furthermore, integration programmes should strongly emphasise computer skills training.

The percentage of persons with computer skills is higher in Europe and the United States of America, which constitutes the largest immigrant destination than the countries where these immigrants hail from. Most of the students were not taught even the basic computer skills and even few of them have not completed their graduation. Therefore, working with mobile phones and computers for homework and other school-related work was quite challenging for them. These students echoed their challenges even during the lockdown, where they were studying from home and were asked to attend the online sessions. Most of them even mentioned that they have to be dependent on their family members such as husband or children who were exposed to the ICT tools and can help them in completing their work.

Moreover, the college can initiate this socialisation opportunity by inviting alumni so that they can share their experiences periodically. In addition, social media platforms such as WhatsApp and Facebook can be created where feelings and emotions can be shared and responses can be received from others. Interestingly, this collaborative platform will be critical in blurring the common social, cultural, and ethnocentric tendencies amongst students from different backgrounds.

Conclusion and Limitations of the Study

Service design is gaining popularity in both academia and practitioner circles. This study advances the application of service design as the connecting point for marketer-customer collaboration in a vocational education setting. Using mystery shopping by independent web analysts, in-depth interviews from the marketing team, and focus group discussion sessions with the focal customers, we provided a service blueprint that refocuses the marketing strategy of the vocational college and centralised every service and marketing activity of the college on delivering excellent customer experience. One apparent limitation of the study is that the service blueprint is just one of the service design tools – there could be one more fitting than the chosen tool. Future research could explore service design with an experimental research approach that would be more practical in relaying the customers' experiences.

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Part II

Theme 2: Purchase Stage



5

Digital Strategies for Aiding Ease of Decision-Making in the Services Sector

Nguyen Phong Nguyen and Emmanuel Mogaji

Introduction

Decision-making in the current technological era has become a complex undertaking owing to the multiplicity of factors to be considered during this process (Chemma et al., 2022; Khalil et al., 2022). It has necessitated the need to harness digital insights and business intelligence's power to make informed decisions that will enhance commercial growth (Abdulquadri et al., 2021). The need for digital decision-making strategies arises from the digital transformation and Industry 4.0 trends. Digital transformation encompasses the integration of digital technologies into the company activities to enhance performance and deliver better customer experiences (Güler & Büyüközkan, 2019).

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The Industry 4.0 revolution augments this system by combining cyber-physical systems with other technological integrations to enhance communication and create dynamic value chains (Ali et al., 2022). Digital decision-making strategies are also necessary, given the rapid changes in consumer decision-making patterns, thanks to the increasing utilisation of information communication technologies (Liu et al., 2021). Data-driven decision-making (DDDM) is a vital digital strategy for accurate decisions. This decision-making strategy promotes business success through adaptability to the ever-changing business environment (Levin & Datnow, 2012). Other digital decision-making strategies encompass advanced data analytics, business intelligence, retail and customer analytics through data mining, Big Data, and cognitive computing.

This chapter aims to analyse digital decision-making strategies in the service sector and provide relevant managerial and policy implications. To achieve this aim, the study adopts an integrative literature review approach to critically review and synthesises the literature on Data-driven decision-making (DDDM), advanced data analytics and retail and customer analytics, which enables us to develop a new theoretical framework and perspective (Snyder, 2019) to enhance the better understanding of digital strategies for aiding ease of decision-making in service. In doing this, the study contributes to the existing body of work on Data-Driven Decision-Making, Business analytics and data-driven customer service (Ahn et al., 2022; Dwivedi et al., 2021; Soetan & Kieu, 2020), with theoretical implications for academic researchers, managers, and policy-makers exploring marketing prospects, digital transformation, and service quality in a data-driven business environment.

This chapter summarises the literature on DDDM, Business intelligence and Analytics. Recommendations and practical implications for the stakeholders subsequently follow this section. Finally, the chapter concludes with a concluding remark highlighting the study's limitations and the agenda for future research.

Literature Review

Data-Driven Decision Making (DDDM)

Data-driven decision-making (DDDM) involves using data to make informed and verified business decisions. It deploys modern analytics tools, including interactive dashboards, to minimise biases and align managerial decisions with business strategies (Mogaji, 2023). This decision-making strategy involves relying on verified analytical data while working toward business goals. It has led to the increasing importance of data science which involves analysing large amounts of raw data to make intelligent business decisions. DDDM enables the business to generate real-time insights and predictions for optimal performance (Wang et al., 2018). This strategy has led to the emergency of computational leadership science (CLS). CLS combines data science tools and data processing to enhance leadership through network analysis, simulations, artificial intelligence (AI), and other digital approaches. The use of DDDM encompasses the identification of data sources, organisation, and assessment, aligning the data systems and adjusting the systemic processes (Donhost & Anfara, 2010).

According to Hossfeld (2017), digitalisation has important implications for organisational decision-making. Its impacts are associated with the increasing availability of digital data through Big Data, automation, and digital customer access. The algorithmic models deployed in DDDM enable the systems to orient their data towards the desired outcome through goal-setting (Wohlstetter et al., 2008). Upadhyay and Kumar (2020) further indicated that analytics (data-driven) business decisions enable the firm to maintain its strategic advantage. DDDM is harnessed in supply chain management for demand estimation using customer behaviour patterns (Rai et al., 2019; Nguyen & Mogaji, 2023). Such integrations result in accurate demand forecasts and enhance distribution and efficient supply chain management. According to Tao et al. (2018), smart factories also utilise AI to implement DDDM for timely business decisions. Neural networks (NN) are also utilised for forecasting purposes by incorporating non-linear relationships in the data and

discerning unpredictable and uncertain demand patterns (Kumar et al., 2019; Amirkolaii et al., 2017).

DDDM combines machine learning (ML) and simulation-based optimisation techniques to establish demand accuracy and adapt supply-to-demand forecasts (Li et al., 2015). The ML technique encompasses the application of clustering and neural network (NN) methods to enhance the accuracy of demand forecasts (Bandara et al., 2020). It takes the time series dataset from historical sales as the input using a comma-separated-values (CSV) file. The application of this technique enhances efficiency in the retail supply chain through the clustering approach. Clustering is applicable for data segmentation to generate valuable insights that will be integrated into the supply chain management decisions (Kharlamov et al., 2020). Simulation-based optimisation (SBO) synchronisation receives information from ML to adapt the supply chain to the forecast uncertainties and real demand drawn from historical sales. According to Xu et al. (2021), DDDM models can be deployed to address collection and delivery points (CDP) problems amongst online retailers. Data analysis of the purchase behaviour can be integrated into ML algorithms to optimise CDP locations using suitable optimisation models. According to Brynjolfsson et al. (2011), DDDM models are also essential in enhancing productivity and the firm's market value through efficient asset utilisation. Brynjolfsson and McElheran (2016) further established that DDDM had been significantly adopted in the U.S. manufacturing sector. Many firms track and utilise data in their decision-making, and the level of adoption is directly related to the firm's performance.

DDDM is driven by the increasing availability of Big Data, including accounting system data, point-of-sale (POS) data, and social media data (Ballou et al., 2018). According to Brands and Holtzblatt (2015), businesses have been gradually transforming from the traditional transaction-based accounting approach towards more sophisticated technological integrations encompassing the application of data analytics. Currently, companies in most industries are working on exploiting data for a competitive advantage (Provost & Fawcett, 2013). There have been increasing cases of automated business decision-making by computers associated

with the increasing power of computers. The decision-making approach is more relevant where companies have hundreds of millions of customers, as predictive analytics allows it to implement direct marketing, help-desk management, online advertising, and relevant product recommendations (Tambe & Hitt, 2012). Advancements in data-analytic thinking have also made it possible for businesses to assess investment opportunities, increase revenues, and decrease costs. Diván (2017) indicated that the social impacts of DDDM revolve around its anchorage on the organisation's history by modelling its experiences from its historical measures. Evaluations are necessary to establish the state of the services and orient the decision-making to the different situations under consideration (Sutherland & Cook, 2017). DDDM serves as a suitable way to limit the basis of decision-making to intuition because it is subjective and prone to error.

According to Liu et al. (2021), artificial intelligence (AI) technologies, including deep learning (DL), reinforcement learning (RL), and deep reinforcement learning (DRL), are harnessed in DDDM. DL is a representative algorithm of ML whose main function is extracting features from uncertain systems utilising multi-layer neural networks. RL has dynamic feedback, and the agent implements optimisation via the interaction with the uncertainty's environment in response to the system dynamics (Li et al., 2022). DRL functions as a combination of DL and RL. Deep Q-learning (DQN) is amongst the basic structures of RL, which features various improvements in value-based techniques. These decision-making tools are applicable in business scenarios where the entity needs to increase its market share and reduce costs while maintaining the venture's profitability. Gautam and Bhimavarapu (2022) evaluated the application of DDDM in finance with major findings cementing the importance of making informed decisions through financial data analysis (FDA). Cross-sectional data is applicable in financial decision-making in valuation and pricing decision making while time series data is mostly applicable in systematic risk assessment and asset pricing (Patil & Rastogi, 2019).

Business Intelligence (BI)

Business intelligence (BI) entails a set of technologies and processes that utilise data to understand and analyse the performance of a given business (Aldossari & Mokhtar, 2020). BI differs from Advanced Data Analytics as it uses less sophisticated tools and is mainly deployed for descriptive analytics. The latter can be utilised in both predictive and descriptive analytics. The foundations of BI are anchored on Structured Query Language (SQL), Data Warehousing, Extraction Transformation and Loading (ETL), Relational Database Management Systems (RDBMS), and Apache (Rouhani & Lecic, 2018). BI systems are integral in organisational decision-making as they combine operational data with analytical tools to generate vital and actionable insights. It helps improve the quality and timeliness of the inputs needed in the decision-making process. BI enables the decision-makers to comprehend the organisational capabilities, trends, state of the organisational systems, and future market scenarios alongside the operational technological and regulatory environment (Almeida et al., 2020). It also encompasses the competitive intelligence (CI) segment that involves the systematic and ethical process of gathering, analysing, and managing external information that is imperative to the organisation's operations, decisions, and plans. CI enables the firm to maintain a competitive edge in the marketplace by providing an in-depth understanding of the competitors and the competitive environment (Hartley & Seymour, 2015). The strategic application of BI involves using the information for strategic decision-making.

In contrast, its tactical application entails building viable frameworks for data reporting and analysis, and the operational function is centred on addressing organisational challenges involving scattered data (Bestman & Wogboroma 2016). These functionalities rely on Organisational Learning (OL) techniques to enhance innovation and effectiveness and gain a competitive advantage in the market. A combination of Analytics Intelligence, Content Intelligence, and Continuous Intelligence of BI is vital in evaluating leadership effectiveness and implementing strategic planning, human resource management (HRM), customer, operation, and information management systems (Jayakrishnan et al., 2018).

According to Kiani Mavi and Standing (2018), BI enhances organisational performance in terms of internal strategy through efficiency and productivity and external strategy to gain a competitive advantage over other organisations. Its implementation also helps the decision-makers to analyse and determine suitable courses of action in complicated organisational and operational environments. The other benefits of BI include cutting down on unnecessary costs, revenue increments, increased profitability, and better resource allocation. According to Tavera Romero et al. (2021), BI is a product of the Industry 4.0 evolution and has numerous positive impacts on the organisational business and economic decisions in different operating environments. Its positive impacts have been recorded in governmental, academic, and social institutions. Special applications of BI include counter-intelligence, business sustainability, customer and business relationship management, and attaining organisational objectives. Ain et al. (2019) also established that BI had many uses in the organisational setting in terms of management support, change management, support, and training, structural empowerment, enhancing service quality, communication, project management, and business strategy alignment.

Advanced-Data Analytics

Advanced-Data Analytics entails autonomous or semi-autonomous customer and business data utilising sophisticated tools and techniques (Marasco & Kontokosta, 2016). These tools are advanced beyond the traditional business intelligence tools and enable the organisation to uncover deeper insights, make valid predictions, and generate appropriate predictions. It encompasses extensive data, quantitative and statistical analysis, fact-based management techniques, and predictive and explanatory models to determine business decisions (Akerkar, 2014). The advanced data analytics tools include ML, data mining, forecasting, pattern matching, semantic analysis, visualisation, multivariate statistics, and cluster analysis. Others include sentiment analysis, simulations, graphical analysis, network analysis, and complex event processing (Mogaji et al., 2021). It encompasses using advanced data science

techniques to predict patterns and determine the probability of future events. Advanced data analytics helps the organisation by addressing problems that cannot be solved through traditional business intelligence (Molnár et al., 2018). Its major advantages include accuracy in forecasting, enhanced risk management, faster decision-making, and deeper actionable insights. The approach applies to supply chain optimisation, business operation, risk management, and target marketing.

According to Akerkar (2014), advanced data analytics enables the use of computing to gain insights from data sourced from the internal systems within the organisation and third-party data providers. It has found vast applications in customer analytics, supply chain analytics (SCA), public domain analytics, and fraud and risk analytics. In customer analytics, the main focus is on its marketing applications through customer profiling and segmentation, brand reputation analysis, social network analysis, and marketing mix optimisation alongside the management of customer experiences (Edwards et al., 2017). SCA applications include inventory optimisation, demand forecasting, transportation, pricing, scheduling, storage management, and risk mitigation. Public domain analytics include the design of energy grids, smarter traffic systems, and public safety management. Advanced data analytics regards information as a strategic asset later subjected to descriptive, predictive, and prescriptive analytics to establish business performance (Mogaji, 2023). Descriptive analytics deploys various techniques to identify patterns and trends, including data modelling, regression analysis, and visualisation. The predictive analysis revolves around establishing the probability of future events in real-time and in batch through data mining, root cause analysis, forecasting, pattern matching, predictive modelling, and Monte-Carlo Simulations (Seebacher, 2021). Finally, prescriptive analytics utilises data to determine suitable courses of action based on descriptive and predictive analytics input.

Nalchigar and Yu's (2018) framework for business-driven data analytics illustrates the applications of advanced data analytics to make business decisions, assess these decisions, draw insights from the data, and achieve various analytics goals using indicators and soft goals. It is achieved

through data preparation, the design of suitable data catalogues, pattern discovery, clustering, classification, and prediction. Elgendy and Elragal (2014) also established that advanced data analytics encompasses using algorithms to analyse large datasets and extract valuable patterns and relationships. It has been extensively applied in social media analytics to facilitate comprehension of reactions and discussions amongst different groups in different online communities. The application is similar to Social Network Analysis (SNA), whereby the main focus is on such relationships' relationships, patterns, and implications (Agbo et al., 2020). A major difference between social network analysis and social media analysis is that the former captures social relationships and patterns between different networks of people, while the latter majors on the conversations between social media users through text mining and sentiment analysis. Text mining deploys DL algorithms, including Support Vector Machines (SVM) and Naïve Bayes, to scan through large amounts of unstructured textual data and identify valuable relationships, facts, and assertions (Gökerik et al., 2018). Sentiment analysis relies on natural language processing (NLP) to unearth opinions on whether the data is positive, negative, or neutral. Advanced data analytics has also found vast applications in visual discovery and Advanced Data Visualization (ADV) (Ransbotham et al., 2016). ADV enables comprehensive data exploration through a combination of interactive visualisation techniques and various methods of data analysis. It takes advantage of human perceptual and reasoning capabilities alongside providing an intuitive visual representation that facilitates the perception and reasoning of the analyst. Advanced data analytics is also valuable in marketing through its functionalities of customer intelligence that enable informed marketing decision-making, customer segmentation, and customer retention and satisfaction. Fan et al. (2020) have also indicated that advanced data analytics techniques can be deployed across the service spectrum, including effectively managing building operations using data mining and ML algorithms. According to this study, data-driven models can be applied to different aspects of the building lifecycle, starting with the building design, operation, policy-making, and control.

Retail and Customer Analytics

Retail and customer analytics are essential in the current competitive retail environment. It helps capture value for retailers through sales forecasting, micro-segmentation, remarketing, and dynamic pricing using vast amounts of unstructured and structured customer data (Wedel & Kannan, 2016; Hossain et al., 2020). The interactions between customers and the business generate huge amounts of data that can be harnessed to enhance service efficiency. Retail and customer analytics is implemented by focusing on technology-enhanced and customer-centric communication. The resource-based view (RBV) theory is utilised to deliver a competitive advantage through the firms' tangible and intangible assets (Lee & Grewal, 2004). Analytics enables the firm to offer distinct products through personalisation by spotting trends in the market to establish the customers' real-time desires. Spotting trends is vital in marketing intelligence as it reveals unknown insights through consumer data analytics from various sources, including social media conversations and internet tracking data (Andreassen, 2015). Analytics also enables the firm to discern consumer behaviour that can be utilised in personalising product recommendations through collaborative and content filtering (Wedel & Kannan, 2016; Zhang & Wedel, 2009).

According to Gawankar et al. (2019), the increased utilisation of digital technologies, including Big Data analytics, has led to the emergence of data-driven retail supply chains. It is part of the Retail 4.0 evolution, where the main focus is on utilising available technologies to attract and retain customers (Kamble et al., 2019). A Retail 4.0 environment enables organisations to provide enhanced services and customer experiences by transforming the entities into DDDM units (Lee & Lee, 2020). Big Data analytics avails valuable insights that can be utilised in value creation and strengthen customer relationships through more effective policies and practices. Big Data-driven supply chains avail large quantities of information to organisations through real-time tracking of performance parameters (Kamble et al., 2019). It is a vital integration aimed at providing an experience-based approach through all available channels of customer engagement, including online stores, physical stores, mobile

communications, and social media. Consumer and market data serve as the main component of this retailing environment, where the main focus is on understanding trends and changes in consumer preferences. Big Data analytics is also harnessed for profiling customers, designing the store layout, analysing store traffic, and planning inventory (Campbell et al., 2020).

Big Data analytics is continuously applied in real-time diagnosis and prognosis of organisational practices. The major focus of Big Data analytics is on the descriptive and predictive analytics aspects, which function well in combination with cloud computing, IoT, and other AI systems (Bousdekis et al., 2021). Decision-making algorithms harness Big Data analytics' capabilities to simulate possible business scenarios to inform decision-making. This aspect reduces the overall cost of market research and other requirements needed to implement complex business decisions (Petrillo et al., 2020). Furthermore, data analytics avail a data-rich environment that makes it possible to implement quality improvement programmes through continuous goal setting, monitoring and evaluation, and linking the results to the individual and collective organisational outcomes (Gill et al., 2014; Mandinach, 2012). However, the decision-makers must understand the benefits and limitations of the data, relevant data types for the required decisions and the appropriate use of data in decision-making to make this data more valuable.

Big data analytics is a disruptive technology that will reshape the future of business intelligence (Fan et al., 2015). It is vastly applied in developing marketing intelligence which encompasses drawing insights from data to be applied in marketing-related decision-making. This approach combines data mining techniques to extract patterns or predict customer behaviour from large databases. The most commonly used data mining methods include classification, association mining, regression, and clustering (Chandramana, 2017). This data is utilised in customer segmentation and profiling by identifying customers with similar interests and responding to certain marketing signals. It is also applicable in product ontology and the management of product reputations through clustering and association mining techniques. Big data analytics is increasingly being applied in promotional marketing analysis and recommendation systems (Chen et al., 2012). In promotional marketing analysis, it helps

establish how different customers respond to certain promotional strategies alongside the impacts of other factors such as place and pricing. Product recommendation systems are also deployed to enhance product awareness and promote products to potential customers (Grewal et al., 2017). These systems rely on user-ratings frameworks incorporating content-based association mining and collaborative filtering methods. Big Data analytics is also applicable in the design of pricing strategies, competitor analysis, community dynamic analysis, and location-based advertising (Begley et al., 2018). It enables the use of log data in pricing strategy determination by estimating the demand levels, deriving demand elasticity, and optimising pricing choices. Automated competitor analysis applications deploying Big Data analytics discover potentially competitive products and their contexts alongside identifying potential business competitors (Mogaji, 2023). Location-based advertising functionalities rely on location-based services (LBS) to avail personalised information on the users that can be harnessed in personalised engagement marketing (PEM). In dynamic community analysis, GPS traces are utilised to uncover the location-based dynamics of various communities, which makes it possible to predict changes in their product preferences (Mogaji, 2023).

Retail and customer analytics encompasses a significant technological evolution of the retail industry due to its application in different marketing applications. It is extensively applied in shelf space analytics and optimisation, where the major focus is appropriate space allocation to enhance overall sales and optimise profitability (Kaur et al., 2020). Product analysis integrations are also utilised to establish customer interactions with the product. These analytics combine with social media analytics to draw insights from consumer behaviour that is later harnessed in customer segmentation. According to Giri et al. (2019), customer analytics is essential in implementing quick responses to changes in customer preferences based on the information on customer behaviour drawn from real-time tracking systems. This intervention helps in minimising losses and promoting the sustainability of the business.

Additionally, it provides vital data that can be used to customise consumer profiles, provide personalised recommendations, and increase loyalty programmes through its effective Know-Your-Customer (KYC)

mechanisms. Griva et al. (2021) proposed using a customer visit segmentation approach to enable marketers to understand customer behaviour per visit better and to develop more tailored and compelling shopping experiences. Customer analytics is also suitable for sustaining a competitive advantage through analytics-driven value chains (Akter et al., 2020). This approach harnesses the resources, knowledge, and marketing orientation aspects to create direct and indirect impacts on the customers.

Discussion

Technology will continue to play an integral role in business management (Abdulquadri et al., 2021; Chemma et al., 2022), and it is becoming more imperative for business managers to be aware of this digital transformation and put measures in place to enhance their financial viability and sustainability. In addition, companies that want to survive in this digital age must recognise and explore the huge prospects of data-driven services marketing and data-based decision-making (Kumar et al., 2013; Hutchinson et al., 2010; Mogaji, 2021). An enormous amount of data is being generated across different touchpoints, and organisations need to collect, manage, and use it to improve their business operations and enhance consumer experience (Dwivedi et al., 2021; Mogaji et al., 2023).

Though this chapter has focused on the retail sector, it is imperative that the insights provided can apply to many other industries and sectors. This application could be in the banks within the financial sector that can analyse consumer data to provide personalised credit offers to customers, recognise fraud, and provide credit ratings and scores (Mogaji & Nguyen, 2022; Mogaji et al., 2022; Nguyen & Mogaji, 2022). Media and entertainment sectors like Netflix and Paramount can use analytics to know what type of movies people are watching, what time they are watching, and what interests them; this insight can be used in commissioning newer projects, offering recommendations and also for advertising purposes (Hadida et al., 2021; Fagerjord & Kueng, 2019). Likewise, the universities can benefit from learning analytics to evaluate how well their students are engaging with the virtual learning environments (VLEs), their

attendance and visits to the library, which can be used in determining students who need assistance and even predict future grades (Jain et al., 2022; Sharma et al., 2022).

However, the application of these tools revolves around the internal business environment, which can be influenced by the financial capabilities to invest in the tools. Many companies may not be able to afford these analytical tools and software, which inhibits their ability to understand their consumers and provide an enhanced service. Soetan et al. (2021) and Mogaji et al. (2022) explored digital transformation in developing countries. They recognised that their access to technology in many developing countries inhibits businesses' progress in advanced data analytics and data-driven decision-making. Likewise, the data capabilities to train the algorithm pose a challenge, especially for businesses where data must be properly collected and managed. As Khalil et al. (2022) found in their study of small- and medium-sized enterprises (SMEs) across six developing countries, this unstructured data can affect many brands' data-driven decision-making strategies, as they do not have enough structured data to shape their business operations using digital analytics. The human resources and capabilities to manage this tool are also important. Ensuring companies have staff with expertise and experience to use the tools and provide insights through analytics and predictive intelligence. Mogaji and Nguyen (2022) explored managers' understanding of artificial intelligence in marketing financial services and advised the need to recruit and train staff with the expertise to manage business intelligence and data analytics. The discussion of these digital strategies for aiding ease of decision-making in service has revealed some significant managerial implications, which will be discussed in the next section.

Managerial Implications

Decision makers should leverage the immense capabilities of DDDM to make informed decisions that will promote the organisation's growth. The wealth of insights available through DDDM, combined with BI, enhances decision-making confidence that supports organisational evolution and financial growth. Leaders should also focus on implementing

the appropriate data reporting tools and equip themselves with the knowledge and skills for accurate data measurement and analysis to make better data-driven decisions. Another key consideration entails the need to reduce over-reliance on the gut instinct in decision-making and ensure that razor-sharp metrics, figures, facts, and insights back all organisational decisions. Based on the benefits of digital decision-making strategies, organisational leaders should consider making these strategies at the core of their operations to scale new heights and make the business or institution more adaptable to a continuously transforming landscape. Additionally, the organisation needs to develop a data-driven culture by harnessing its real-world application to turn insight into actions that drive organisational growth.

The integration of DDM, BI, Advanced Data Analytics, and Retail and Customer Analytics should be at the core of every organisational leader's considerations because of their relevance in guarding against biases and trend and pattern identification. Such integration will be meaningful in verifying the logic used to make decisions and ensuring the organisation has adaptability. These strategies should also be extensively utilised in change management by eliminating guesses from transformational decisions. It will help the decision-makers identify the causes for a given set of results and implement suitable adjustments or safeguards to ensure the process runs successfully. Investments in sophisticated data collection and analytics are another major consideration for every business leader to enable proactive decision-making, especially in the marketing and sales segments. Given the ever-changing nature of consumer dynamics, digital decision-making tools support proactive decision-making by identifying historical patterns and utilising the data to predict future trends. These tools will also enable decision-makers and organisational leaders to stay ahead of the curve by anticipating low-profile but high-impact events that will transform business and institutional operations.

The vast amounts of datasets and accompanying tools to mine valuable insights from the data should provide a good benchmark for decision-makers to compare operational results. Harnessing such techniques and tools will make it possible to assess results from previous tactics and

establish improvements and segments that need to change. The tools should also be extensively deployed in SMART goal setting by mining useful indicators from customer and retail analytics, BI, and various advanced data analytics applications. Another important consideration for decision-makers revolves around assessing the current state of usage of digital decision-making strategies and making appropriate adjustments to keep up with the changes. This consideration is especially significant in the evolving technological environment, where new and advanced developments continuously render existing tools and techniques obsolete.

Furthermore, it is vital for the competitive business environment, where the major aim is to gain a competitive advantage over other players. In terms of competition, investments in data analytics tools are a crucial weapon to beat the competition through competitor analysis alongside internal assessments that provide a clear indicator of the business position. Lastly, leaders should consider digital decision-making tools harnessing data analysis and processing to gain better knowledge of their customers and implement personalised offers.

Policymakers should consider developing open data policies to enable easier access to vital data for decision-making purposes. These policies should focus on transparency, accountability, and value creation through enhanced data availability. The data in question includes public information on government projects and all other metrics collected on behalf of the people that can be adequately deployed in decision-making. Suitable examples include data on the construction of important projects such as dams and other social amenities, natural disasters, and the socioeconomic status of given locations. This data will enable the decision makers to implement responses that target specific problems, designed to attain certain impacts and tailored to specific scenarios.

Policymakers should also consider developing organisational data storage policies that will make it easier to store and retrieve data as needed securely. These policies should focus on revamping the data storage capacities and capabilities through cloud computing and other integrations and acquiring suitable analytics tools and software. The organisational data storage policies should also clearly define the data types, storage timelines, storage location, retrieval mechanisms, and budgetary

considerations to support such integrations. Lastly, special concerns should be accorded to the need for ethical data processing and implementation policies that promote ethics in data collection, storage, and utilisation.

Conclusion

This chapter focused on digital strategies enabling easier decision-making, including DDDM, BI, advanced data analytics, and retail and customer analytics. DDDM supports informed and verified business decisions, minimises biases in decision-making, and enables organisations to make fast and comprehensive decisions. BI is majorly applicable in business performance analysis, and its inputs are vital in enhancing the timeliness and quality of decision-making inputs and overall improvements in organisational performance. Advanced data analytics is relevant for unearthing deeper insights and making valid predictions by harnessing internal data alongside that of third-party providers (Abdulquadri et al., 2021). Finally, retail and customer analytics are essential for the current competitive retail environment by enabling sales forecasting, dynamic pricing, PEM, and the creation of data-driven supply chains.

Overall, the increasing significance of digital strategies in decision-making implies that decision-makers and organisational leaders should utilise these tools to enhance confidence in decision-making, reduce over-reliance on gut instinct, and develop a data-driven culture in organisations (Khalil et al., 2022). In addition, policymakers should consider integrating open data policies for easier access and deploy suitable policies for secure data storage and ethical data processing (Chemma et al., 2022).

While effort has been made to synthesise existing literature on this matter, there are some limitations to this study, and readers should interpret the provided insights in the context of these limitations. First, the study was highly conceptual, thus opening an opportunity for future research to explore and empirically validate the insights provided in this chapter. Second, like any other conceptual paper (e.g. Ahn et al., 2022; Soetan & Kieu, 2020), the study gave a holistic view of DDDM and

digital strategies for aiding ease of decision-making in service, and no data has been collected to validate the propositions empirically. Future studies can contextualise and validate the conceptual framework in business contexts. Notwithstanding, the study offers future research opportunities to understand better how to use data to aid in ease of decision-making in the services sector. Like others who have started this theoretical insight, this study will likely spur future research and expand our knowledge about the subject matter. Future studies must collect qualitative and quantitative data from the key stakeholders to understand their challenges and opportunities for using data to aid in ease of decision-making in service.

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6

Multichannel Consumer Service Integration of Recommendation Systems

Ketan Wadhvani and Varsha Jain

Introduction

The advent of the internet has radically transformed buying behaviour and consumer culture around the globe. The modern-day consumer has immense options from innumerable services and service providers, accompanied by exposure to enormous amounts of information on multiple platforms. However, all data is irrelevant to the consumer, which causes information overload. This information overload complicates consumer decision-making and poses severe challenges to marketers. A recommendation system alleviates this problem of information overload and provides recommendations to help consumers make their purchase decisions.

Recommendations play a vital role in the purchase stage. The recommendation systems are data filtering techniques that collect and analyse consumer data using various methods. They employ artificial intelligence

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and machine learning to predict consumer preferences by analysing their behaviour, providing recommendations in online and offline spaces, and allowing companies to provide better, personalised, relevant services to consumers and increase their profitability.

The global recommendation systems market is forecasted to reach \$17.3 billion in 2028 at a CAGR of 33% (Grand View Research Inc., 2022). Recommendation systems (RS) are now used by service providers across industries, including e-commerce, media streaming service platforms, online dating platforms, banking, health care, edtech, gaming, and social media. For example, the Google play store and App store Apple observe and collect data regarding users' gameplay activities and preferences and provide similar recommendations from similar genres to users, transforming how users discover games. Netflix and Spotify follow a similar strategy to recommend content to their users, assisting them in the content discovery and consumption process. Online dating platform, Bumble, also uses a recommendation system to significantly understand users' dating preferences and recommend matching profiles to them (Jena, 2022a).

Recommendations are suitable options out of copious alternatives available to the consumers, aiding their decision-making power and ultimately empowering them. It churns out irrelevant information clutter and provides personalised options that cater to their needs and preferences (Zhao et al., 2017). Recommendation systems are tools for businesses to assent their efforts towards consumer centricity and consequently fulfil various business objectives such as enhancing user experience, improving customer retention, increasing sales, and regularly analysing the market. However, certain pitfalls accompany these opportunities that businesses must be cautious about while integrating recommendation systems into their service ecosystem. These challenges relate to technical aspects such as cold start, data sparsity, scalability (Fayyaz et al., 2020), and ethical issues about privacy rights, data validity, and algorithm fairness (Egger et al., 2022; Payne, 2021). Lastly, the rapid transition of businesses from offline to online due to the COVID-19 outbreak has essentialised recommendation systems for businesses and consumers and

is accompanied by unprecedented opportunities and challenges. The onset of the pandemic resulted in radical shifts in consumer preferences, data, and buying patterns that jolted the recommendations systems placing service providers in a peculiar and uncertain situation (Data, 2020).

Nevertheless, the recommendation systems adapted to this new normal with the flux of the data stream. At the same time, the significance of recommendation systems increased in health care for medical diagnosis and prevention during the pandemic (Jain et al., 2021). However, the pandemic also highlighted the flaws of data dependency on these machine-learning systems. Moreover, it accentuated the need to make recommendation systems more robust and well-rooted in understanding consumers' cognitive characteristics (Data, 2020).

In academic literature, recommendations and recommendation systems have been discussed from a multidisciplinary perspective in psychology (Aljukhadar et al., 2017), marketing (Bodapati, 2008), services (Shen, 2014), technology (Geng et al., 2019), media and communications (Susarla et al., 2016) to study various technological aspects and its techno-social, economic, and cultural impact on users. These studies discuss multiple elements of recommendations, such as psychological reactance and trust in recommendations (Aljukhadar et al., 2017), novel designs and algorithms for practical suggestions (Geng et al., 2019), and evaluating offers and techniques from user perspectives (Pearl et al., 2012). Furthermore, in services, the research on recommendations encompasses different contextual areas such as e-commerce (Xia et al., 2021), health care (Yang & Gao, 2021), education, tourism (Kolahkaj et al., 2020), and social media (Buettner, 2017). These studies highlight the importance of recommendation systems, typology, adaptability, and effects on consumer behaviour and develop or investigate design aspects for e-commerce, algorithms for healthcare, and effective recommendation approaches in tourism.

Recommendations and recommendation systems in literature have been studied from various theoretical lenses (Li & Karahanna, 2015). Theoretical underpinning is vital to advancing and developing future research in any area (Hunt, 2018). In recommendations literature,

theories from multiple disciplines have been employed to understand their design, adoption, and effectiveness. Martínez-López et al. (2010) propose a conceptual model to understand psychological elements that affect the consumer adoption of recommendation systems using constructs from classic theories, the Technology Acceptance Model, the Theory of Planned Behaviour, and the Theory of Reasoned Action. Diffusion and adoption-related theories (Chau & Lai, 2003; Greer & Murtaza, 2003) and Trust-related theories (Qiu & Benbasat, 2009; Wang & Benbasat, 2008), Consumer search theory (Ho et al., 2011), Social Influence Theory (Li & Karahanna, 2015), Involvement Theory (He et al., 2018), and Social Exchange Theory (Tsekouras et al., 2022) have been widely used by researchers in recommendations literature.

However, there is a need to comprehensively understand the integration of recommendations and recommendation systems in the overall service ecosystem. In this chapter, we study service recommendations' functional and technical aspects and propose a multichannel customer service integration framework for recommendation systems. The subsequent sections discuss recommendation systems and services, their antecedents, processes, outcomes, and applications in various services. The final sections conclude the discussion and provide the chapter's practical, theoretical, and societal implications.

Multichannel Consumer Service Integration of Recommendation Systems in the Service Ecosystem

The proposed framework for multichannel consumer services integration of RS (Fig. 6.1) comprises three parts. First, it helps understand how recommendations are made using various techniques and contextual consumer behaviour data and its resultant consumer response and actions. Second, this framework is a process model which shows how recommendations are generated in the service ecosystem and the components that support the recommendation process. This process model highlights the

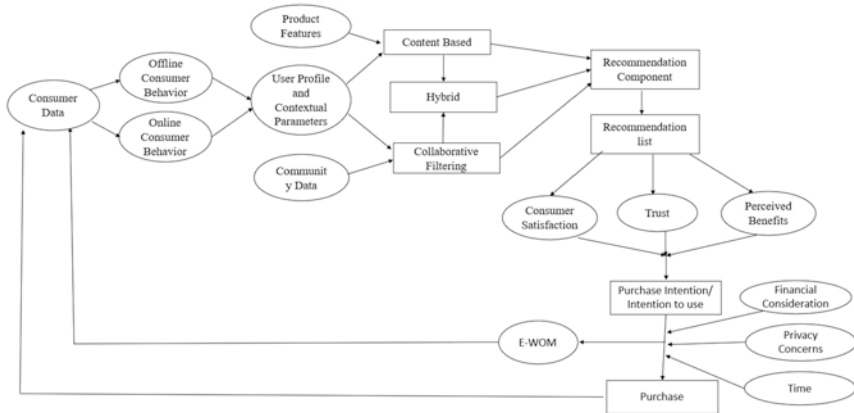


Fig. 6.1 Multichannel consumer service integration of recommendation systems in the service ecosystem

events and steps in the recommendation process and shows the final consumer outcomes (Mohr, 1982). Third, RS employs data points on consumer behaviour online and offline to create a user profile and predict their preferences using RS.

The user profiles aligned with other product-specific or users' specific data based on selected filtering technique provides a recommendation to the consumers. The consumers evaluate these recommendations based on three parameters: consumer satisfaction, trust, and perceived benefits (Jiang et al., 2010; Walter et al., 2008). If these consumer parameters are fulfilled, the consumer forms a purchase intention, which may lead to purchase decisions (Choi et al., 2017). Users' privacy concern, time, and financial consideration moderates this relationship between intent and purchase. Price, related expenses, and time pressure weaken or strengthen the purchase intent affecting the purchase decision. The positive assessment of consumer recommendations also leads to word-of-mouth as consumers share their opinions and experiences. Purchase and e-WOM further generate additional data points that can be used to understand user profiles better, leading to the consistent appreciation of recommendations (Yang et al., 2015).

Online and Offline Consumer Behaviour Antecedents

Online and offline consumer behaviour refers to the consumer decision-making process in these spaces (Chan et al., 2003). With the advent of the internet, interactions between brands and consumers have increased exponentially. The modern-day consumer interacts with brands at multiple touchpoints. The new touchpoints wherein consumers can interact with brands, browse their offerings, and make a purchase decision in a computer-mediated environment have transformed consumer buying behaviour. When consumers interact with brands at these touchpoints, the data generated is added to the consumers' profile which can be used by humans and computers to predict their preferences and cater to their needs in the best way possible (Ahn et al., 2007). For example, a consumer's retail purchase in an IKEA store will help to understand his interest and preferred design, type, and range of home décor products. IKEA will then use this data to recommend similar products in notifications and website feed when consumer browses for products online. These consumer activities help predict and map consumer buying journeys and allow brands to provide consumers with compelling, relevant, and personalised services.

In RS, online and offline consumer behaviour are antecedents of the recommendations process. Online and offline consumer behaviour helps identify and understand consumer profiles based on recommendations. These user profiles are made through various data points on individual consumers derived from their interactions in online and offline spaces. Thus, the input data containing information about consumers and services play a decisive role in recommendations accuracy and consumer response (Huang et al., 2020).

This input data can be classified into two categories: explicit and implicit. Detailed data relates to electronic word of mouth (e-wom), wherein consumers actively provide and exchange information about the product or service, their experience, views, or opinions on electronic media. The consumer provides this information through feedback,

reviews, ratings, and other user-generated content while interacting with the brands at various touchpoints in their buying journey (Beheshti et al., 2020). In implicit data, the consumer plays a passive role. Information is collected based on real-time browsing activities, media streaming patterns, purchases, searches, downloads, and other consumer interactions with the platform and recommendation systems (Cantador et al., 2008). Lastly, consumers' psychographic and demographic factors are also considered to develop a comprehensive consumer profile that would further help RS understand and predict consumer needs. Other information apart from consumer data includes product and community data used by different RS techniques to make recommendations. The implicit and explicit consumer data is updated regularly as per their activities and interactions online, enhancing the quality of data and making RS more effective.

Recommendation System Techniques Process

Recommendation systems powered by advanced technologies, including artificial intelligence (AI) and machine learning (ML), have transformed how consumers make choices in the marketplace. These recommendations are made using various filtering techniques, each employing distinct user datasets to predict consumer preferences. This chapter discusses three primary filtering techniques: content-based, collaborative, and hybrid (Das et al., 2017). The content-based technique is a first-generation technique that uses product data and user data to predict and recommend services. Collaborative filtering developed in the later phase uses community data and makes recommendations to users based on others with similar interests. Finally, the hybrid technique employs more than one filter for a practical recommendation function. This technique helps in negating or reducing the shortcomings of one and complements it by adding the utility of multiple methods (Thorat et al., 2015). The following sections detail these techniques' origins, evolution and development, filtering process, applications, benefits, and challenges.

Content-Based Filtering

Content-based filtering is a user-oriented technique employed by first-generation recommendation systems (Burke, 2007), where user recommendations are based on product attributes and user preferences. The basic assumption behind employing this technique is that the users will prefer services like the ones they have used or searched for. The underlying idea of this technique was implemented in the 1960s for 'selective dissemination of information; (Hensley, 1963), a business intelligence system to match and allot new documents based on user's interests. With the advent of the web, the content-based filtering technique was widely used in various domains, such as providing personalised recommendations about relevant web pages (Pazzani et al., 1996).

Various eCommerce sites employ this technique to provide personalised recommendations to users. Content-based filtering technique uses keywords and attributes to offer relevant recommendations based on user profiles. Attributes are assigned to the product, service, or content. It helps to acquaint the algorithm with the item and its features. For example, Netflix, a media streaming platform, rates and assigns attributes to its content based on the emotional effect, plot, tone, and other categorical tags. The recommendation system uses these tags or features to create clusters that can be recommended to align user profiles.

The user profile is created based on their online and offline behaviour, interaction with the platform, and recommendations provided by the recommendation system. User information examined by the recommendation system includes users' purchases, browsing history, searches, downloads, and streaming patterns. User feedback for services and ratings is also critical in creating user profiles. The recommendation system prepares a unique model for individual users based on their preferences (Thorat et al., 2015). The items with relatively more attributes preferred by users are recommended first, and others appear based on the same ranking process. For example, suppose a user's past bookings and search history show their preference to book leisure and luxury stays. In that case, the recommendation system will recommend hotels from the same category and price range whenever they log in for browsing options or a new booking.

The interest in content-based techniques has gradually declined due to their limitations and the introduction of collaborative filtering technique, which is socially oriented. Collaborative filtering, unlike content-based filtering techniques, provides service recommendations based on user preferences as well as services endorsed by other users with similar interests (Liao & Sundar, 2021). Content-based filtering offers relevant suggestions to users, like the services they majorly consume or search on the platform. However, it may also create monotonicity and make the user experience dull and uninspiring. Scalability is another challenge, as assigning attributes is a cumbersome process that must be repeated every time a new product or service is added to a platform. Moreover, maintaining accuracy and consistency in assigning attributes is crucial and challenging. The content-based filtering will be ineffective in the absence of this consistency.

However, to make this technique more robust, certain developments have been made by including additional data inputs about recommendable services, such as metadata, features, user-provided tags, and comments (Lops et al., 2019). Other developments include using new algorithmic approaches to analyse and process the information to provide recommendations. In some cases, content-based filtering techniques are more effective than other techniques. For instance, a new e-commerce or travel website may avert cold-start issues of collaborative filtering in the initial phases by employing content-based filtering, which does not need other users' data to provide recommendations (Pearl et al., 2012). This lack of dependency on other users' data also allows content-based recommendation systems to recommend niche offerings that might not interest most users. As a result, they are relatively easier to develop, and the recommendations are relevant and transparent to the consumers as they know why a particular service is recommended.

To sum up, the content-based filtering technique uses the product and individual user data to provide personalised and relevant consumer recommendations based on their interest and preferences. They do not rely on community data, while their heavy dependency on individual user preferences to recommend may subdue consumer experience. The following section discusses the process and application of collaborative filtering and how it differs from content-based filtering.

Collaborative Filtering

Collaborative filtering is a socially oriented technique for recommendation systems that provides recommendations based on ratings of other users. It uses community data and clusters of consumers with similar preferences to build a neighbourhood group and make recommendations to a consumer based on their neighbours' purchase behaviour. Collaborative filtering emerged as a solution in the early 1990s when manual collaborative filtering RS, such as Tapestry, was launched (Goldberg et al., 1992), allowing users to query for items based on the opinions of other users. Further advances led to the development of automated collaborative filters such as GroupLens and Jester. The collaborative filtering techniques have since remained effective and widespread, standalone and hybrid, when combined with other algorithms and methods.

The collaborative filtering technique follows a user-based approach, i.e., recommendations are made based on the correlation between the preferences of the consumer to that of other users or neighbours. The underlying assumption behind collaborative filtering is that users with similar interests or preferences will rate an item similarly, so they can be aggregated to provide a reasonable prediction (Ekstrand et al., 2011a, b). There are two types of collaborative filtering, memory-based which predicts and recommends based on the ratings given by all the users, and model-based, which uses a set of ratings to build models such as a Bayesian classifier to predict and recommend to a consumer (Adomavicius & Tuzhilin, 2005).

The collaborative filtering technique collaborates multiple agents, preferences, and data sources. The workflow of collaborative filtering involves understanding the user preferences and other contextual factors to prepare the user profile. These user preferences and profiles are then matched to other users to form clusters or neighbourhoods. Finally, the likes and choices of the neighbours are aggregated, and the recommendations are made from this collaborative item list based on weights and ratings.

Collaborative filtering-based recommendation systems are widely used on social platforms such as YouTube and Reddit. YouTube exposes users to a variety of similar and new content based on user preference, streaming behaviour, and the activity of other users with similar tastes. Furthermore, likes, dislike, and subscribe options allow users to provide feedback and explicitly communicate their preferences to the algorithm. Reddit has a similar upvote feature to recommend relevant content as judged by the community. As the number of users increases, the content relevant to the group's shared interest also increases.

Unlike content-based filtering techniques, collaborative filtering is a user-based approach and does not require assigning attributes. Thus, domain knowledge is not required, negating the need for accuracy and consistency, making content-based RS ineffective. Due to the collaborative aggregation of products and services, the consumers are exposed to new interests based on neighbours' activities eliminating monotonicity. However, the most significant challenge in collaborative filtering is a cold start caused due to data sparsity. The new users will have to interact sufficiently with the platform and RS to train the algorithm and make relevant recommendations (Gopalswamy & Mohamed, 2019). The addition of a user base further complicates this problem and hampers scalability. These bottlenecks can be treated if the recommendation system establishes a relationship between the items, making the recommendation process faster and more scalable (Sarwar et al., 2001). Unethical practices such as shilling attacks, which involve fake ratings and reviews, hinder the performance of collaborative filtering recommendation systems. In these attacks, unscrupulous user profiles are added to the database, which leads to inappropriate recommendations (Kaur & Goel, 2016). In the next section, we briefly discuss other recommendation system techniques.

Hybrid Recommendation System

A hybrid recommendation system is any RS that combines any two or more recommendation techniques (Burke, 2007). The collaborative filtering technique is often hybridised with other approaches to avoid issues

related to cold start (Burke, 2002). Through hybridising multiple techniques, it is possible to overcome the shortcomings of both methods and achieve synergy. For instance, the cold-start issue of collaborative or knowledge-based systems can be avoided by combining it with content-based filtering (Barragáns-Martínez et al., 2010). While collaborative filtering can contribute by identifying clusters or neighbourhoods for even niche interests solving the grey sheep problem, which is not possible in the other two techniques. The grey sheep problem of RS refers to the instances where user interest is so unique that developing their accurate profile becomes difficult, resulting in irrelevant recommendations (Alabdulrahman & Viktor, 2021). These RS have become increasingly popular in the past few years due to higher efficacy and accuracy than sterile techniques. Netflix uses hybrid RS by deploying content-based and collaborative filtering. It provides recommendations based on user streaming preferences based on their content consumption and from users with similar likes or patterns of content consumption. The recommendation techniques are combined based on strategies such as weight, switching, mixed, feature combination, feature augmentation, cascade, and meta-level hybrid (Burke, 2005). These combination strategies follow different workflows and processes and should be selected based on the platform's and consumers' requirements. The ideal combination results in better recommendations providing better utility and ultimately enhancing the consumer experience.

The businesses may use multiple or standalone RS techniques per their requirements, consumers' nature, and offerings. The processes to predict and make recommendations will vary with each method and impact the recommendations list displayed to the consumer. However, from a service perspective, it is critical to understand the outcomes of recommendations by evaluating the effect and resulting consumer response to these recommendations. These outcomes of recommendations are discussed in the subsequent section.

Outcomes

The recommendations provided by RS depend on filtering techniques employed based on the business's objectives. Thus, companies must consider various aspects such as the nature of their offerings, consumer profiles and segments, accuracy and consistency in input data, and business technical and functional capabilities. Although these factors are required for the adequate performance of RS, the consumer response to recommendations determines the success of RS and the overall recommendation strategy. This section discusses consumer response variables that help evaluate recommendations' effectiveness and performance.

Consumer Satisfaction

The effectiveness and assessment of RS performance depend on consumer response and actions towards the recommendations. One aspect of consumer response is consumer satisfaction derived from recommended options. Regarding accuracy and diversity, consumer satisfaction from RS can be evaluated through two metrics (Kim et al., 2021). First, the accuracy of recommendations can be ascertained based on the fit between actual and predicted preferences. When RS fails to predict consumer preferences, its offers will not be relevant to the consumers. The failure is about the strategic objectives and leads to recommendation failure. For instance, content-based filtering highly depends on product data and attribute assignment. Inaccurate attribute assignment negatively affects the accuracy and consistency of content-based filtering and provides irrelevant recommendations. RS failure leads to low consumer satisfaction and negative consumer response and actions.

Another metric that affects consumer satisfaction is recommendation diversity. Recommendation diversity is focused on the variety and newness of recommendations while ensuring they align with the consumers' preferences. If a consumer is recommended the same items, they are shown regularly or have purchased already, and consumer satisfaction is negatively affected, leading to low purchase intention. This issue can arise

in both content-based and collaborative filtering techniques. Hence, businesses must ensure no redundancy due to repetition, and consumers are exposed to novel and relevant service or product options (Kotkov et al., 2020).

Trust

Trust in RS refers to the consumers' confidence in the system. Trust is linked with various aspects, such as transparency, interface, credibility, and accuracy. Consumers tend to trust RS when they consider that their recommendations are correct and unbiased. The consumers return to RS that they consider trustworthy and help them make better decisions. Transparency also helps increase consumers' trust and confidence in recommendations, as consumers will understand why an irrelevant request was made and how it can be stopped (Felfernig et al., 2008).

Furthermore, the user interface for RS can also affect consumers' trust. These include factors such as layout, content, and typography of RS. Lastly, accuracy damages consumers' trust in recommendations like consumer satisfaction (Pu & Chen, 2007). Thus, transparency, design, and accuracy are three factors of proposals that affect consumers' trust.

Perceived Benefits

Perceived benefits are a buying construct related to the perception of satisfaction or utility derived from recommendations. It helps to understand the cognitive consumer response towards recommendations. Higher perceived benefits lead to a positive attitude, resulting in stronger behavioural intention (Ajzen, 1991). In RS, if the consumer perceives higher benefits from the recommendations, the purchase intention strengthens, leading to purchase (Al-Debei et al., 2015). However, consumers will perceive less satisfaction from irrelevant or redundant offers resulting in lower purchase intention.

Consumer Actions and Moderators (Privacy Concern, Financial Consideration, and Time)

Consumer satisfaction, trust in recommendations, and perceived benefits are detrimental to positive/negative consumer responses and actions towards recommendations made by RS. These success factors for service recommendations must be ensured while integrating RS into the overall service ecosystem. The higher level of these three dependent variables will help build positive purchase intentions/intention to use, which may result in positive consumer actions such as purchase and e-WOM. The likelihood of purchasing based on intent is moderated by privacy concerns, time, and financial considerations (Beldad & Hegner, 2018). Consumers evaluate recommendations and purchases based on price and other financial reviews. The time component also moderates this relationship and weakens purchasing prospects if time pressure is high (Peng et al., 2019). Privacy concern also acts as a moderator between the recommendations and consumer actions. Their purchase intention will be weakened if users' privacy concerns for RS are tremendous and vice versa (Yun et al., 2013).

Purchase decisions and e-WOM generate consumer behaviour data in online and offline spaces, which can be added back to the input data. The additional data on consumer behaviour enhances and enriches the RS understanding of consumer preference. Resultantly, recommendations' accuracy and relevancy improve further auguring consumer satisfaction, trust, and perceived benefits of advice.

Applications of Recommendation Systems: Online and Offline

Recommendations in E-commerce

Recommendations have been a significant area of research in e-commerce for the last three decades as they have played a crucial role in the success of several e-commerce platforms, including Amazon, Shopify, Alibaba,

Flipkart, and eBay. They are used in e-commerce to suggest product and service recommendations to consumers. These offerings are recommended based on varied techniques or multiple techniques. Based on the adopted strategy, the RS provides recommendations on parameters such as top sellers, platform verified or assured products, demography, and personalised based on user preferences. RS automates personalisation on e-commerce platforms, enabling individual personalisation for each consumer based on their user profiles derived from information on their online and offline consumer behaviour (Lin, 2014). The primary objective of using RS in e-commerce is to empower consumers by clearing the information clutter and helping them make purchase decisions. Moreover, it promotes cross-selling and converts browsers into buyers, increasing the profitability of these platforms. The superior RS performance of the e-commerce platform also helps build competitive advantage by enhancing consumer experience leading to consumer loyalty towards the platform and building long-term.

Amazon is one of the pioneers and early adopters of recommendation systems (Linden et al., 2003). Its personalised RS is well known for its accurate, relevant, and valuable recommendation, which has taken this e-commerce giant to the pinnacle. Amazon's RS is powered by artificial intelligence and machine learning. It focuses on three dependencies, Product-User, User-User, and Product-Product, to provide a personalised set of recommendations that adds value to their shopping journey. The algorithm also collects consumer data points, primarily user behaviour and demographics, and maintains product attributes data to match them with relevant user profiles like other e-commerce sites (Krysiak, 2021). The large assortment of products and a vast consumer base have helped Amazon collect and generate enormous data, making Amazon RS enriched and more effective in predicting consumer preferences than competitors. These superior capabilities have significantly boosted Amazon sales over the years, and 35% of their sales are credited to their proprietary RS.

RS and Media Streaming Services

The content consumption patterns and the medium have evolved. Television and movie theatres are no longer the only sources of media entertainment. The OTT and other media streaming service platforms have transformed how consumers discover and stream content. One of the most popular video streaming platforms is Netflix, Hulu, Prime Videos, and YouTube. Similarly, audio streaming services such as Spotify and YouTube music have gained immense popularity in the past few years. This shift from traditional media to streaming services gained massive momentum due to the COVID-19 pandemic (Singh, 2021). These platforms witnessed a high level of adoption and recorded a considerable number of subscriptions as lockdowns were imposed all around the globe. However, the restrictions have eased with time. Consumers of all ages have started using these platforms for entertainment and convenience.

The streaming service platforms initially used content-based filtering to provide recommendations based on user profiles and product attributes. With the development of other RS techniques in web 2.0 and web 3.0, hybrid RS has helped diversify content recommendations based on product attributes and collaborative consumption patterns. For example, Spotify, an audio streaming service, is acclaimed due to its recommendations accuracy and collections feature based on the consumption patterns of its users. It employs multiple ML models to understand consumer preferences and recommend music. The platform curates a list of music according to consumer preference and displays similar songs in the 'Made for you' section. The Spotify algorithm ensures novelty and diversity, and a recommendation system discovers one-third of new artists on the platform (Pastukhov, 2022). Thus, music promotions and marketing are no longer limited to social media, tours, and shows. Still, artists and marketers must understand the experience and attempt to understand RS to prepare an algorithmic strategy.

RS in Online Dating

Recommendation systems play a crucial role in online dating platforms. Media uses these to match consumers based on shared interests and frameworks explicitly and implicitly transmitted by the user. The algorithm is trained to address issues and attain the benefits of online dating. The RS on dating platforms use location filters, the information provided by the consumers, their swipe or engagement practices, and overall behaviour on dating platforms. Models of user profiles are prepared through this input data, compatibility scores with other users are calculated in the preference model, and a match is found.

Tinder is one of the most popular mobile dating applications, which follows a location-based approach. Its objective is to help people meet through their platform and make recommendations based on relevancy scores to build a long or meaningful relationship (Tiffany, 2019). Another popular dating app Bumble goes further ahead and provides three different network discovery opportunities, dating, friends, or meeting new people. However, Bumble relies on user profiles and behaviour and goes beyond other RS. It allows users to express themselves through various vibrant and quirky questions. The RS analysed the swipe through time for these questions and uploaded photos to help consumers find the right person. Similar approaches are followed by other dating apps, such as Hinge and OkCupid, with algorithmic alterations to meet their product or service objectives (Jena, 2022a).

RS in Gaming

The RS has transformed the way people discover games like other content types. RS in gaming suggests matches based on users' like and dislike and preferred genre and help generate high-quality recommendations considering the attributes of different games. For example, the app store by Apple and Androids' Google play store captures user preferences and behaviour on the platform. It tracks gameplay on various applications to understand the user profile holistically. The profile is then matched to the relevant product or user groups based on the RS strategy or technique

employed. Alie and Metarecommendr are a few gaming recommendation systems that use hybrid methods to recommend gaming and other types of content, such as videos, music, and image (Jena, 2022b).

With the rise of Metaverse and gaming as one of the frontrunner industries here, the integration of RS in the 3D world ecosystem will further increase the scope and utility of RS in gaming. The recommendations will not be limited to games but also extend to in-game products and services, such as Avatar attire and accessories, tools, virtual durables, and ad-blocking. Metaverse presents a myriad of opportunities for RS implementation, which will be a 3D extension of e-commerce and gaming recommendations.

RS in Social Networking Sites (SNS)

‘People you may know’ and ‘Suggestions for you’ features on LinkedIn and Instagram have rapidly helped build a network society in the digital space (Sun et al., 2015). Today, social networking sites have more users than the population of any country in the world. The success of SNS is also attributed to RS, which has helped build networks and grow these SNS platforms (Valios & de Oliveira, 2011). The dependency on RS on social media is three-fold to recommend content, user base, and relevant advertisement delivery to users.

RS is used to develop networks on social networking sites. For example, Facebook RS suggests people based on location, contacts, and mutual connections. LinkedIn users based on the user profile, designation, occupation, location, and connection patterns. Another crucial aspect of RS in SNS is recommending relevant content to consumers. In this case, content recommendations can be classified into two categories: organic and sponsored content. Organic content is recommended on Feed and Discover options to keep consumers engaged on social media and help them explore new content based on their interests. The rise and success of TikTok, followed by Instagram reels and increased user screen time, shows how content recommendations can help build and sustain engagement on social media.

The sponsored advertisements are delivered to users based on implicit and explicit data or feedback through their purchase and browsing behaviours, clickthrough, and other interactions with the advertisements, such as saving, liking, sharing, or comments. Furthermore, user activity on other platforms, such as e-commerce sites and product or service queries on search engines, is also used to understand user interests. The RS aligns these user preferences and interests with the product attribute and collaborative patterns to recommend products, services, and other sponsored content to SNS users.

Discussion and Conclusion

The development of the internet, smart devices, SNS, and other platforms and systems powered by artificial technologies and machine learning have led to several web applications for consumers and businesses. However, the changes in consumer culture, digitisation of every aspect, information clutter and overload, and multichannel coexistence of services and consumers have complicated buying behaviour and consumer decision. Recommendations play a crucial role in helping and empowering consumers to make decisions by providing personalised and relevant items and decreasing information overload. Furthermore, these recommendations play a pivotal role in service delivery, business growth, and consumer satisfaction in various industries, such as e-commerce, media streaming services, social networking sites, dating, and gaming platforms.

Recommendations help businesses in enhancing consumer experience and build stronger purchase intent. In addition, they help build loyalty and promote cross-selling, ultimately increasing the revenue and profitability of companies. Recommendation systems provide recommendations based on fitment between user profiles, contextual factors, product data, community data, and demographic and psychographic factors depending on the adopted filtering technique. There are primarily three recommendation systems or RS filtering techniques: content-based, collaborative, and hybrid. Content-based filtering assigns attributes to products or services, and recommendations are made by aligning them with

relevant user profiles. However, the risk of consistency in attribute assignment and possible monotonicity in submissions are a few of this technique's challenges.

Collaborative filtering overcomes this issue by providing recommendations from an allied pool of users with similar interests, ensuring novelty and uncertainty. However, the technique has some problems related to a cold start and provides irrelevant recommendations in the initial implementation phases due to the unavailability of consumer data. The shortcomings of both techniques can be controlled through a hybrid approach. Hybrid recommendation systems combine multiple filtering techniques such as content-based, collaborative, knowledge-based, and demographic, thus resolving the drawbacks of one by complementing through capabilities of other styles.

The framework proposed in the chapter integrates these recommendation systems in the service ecosystem using multichannel user behaviour. It helps understand the recommendation process, antecedents, i.e., online and offline consumer behaviour, and recommendations' consumer outcomes, which helps evaluate RS performance and enables businesses' strategic decision-making. These consumer outcomes, consumer satisfaction, trust in requests, and perceived benefits have been adopted from information systems and service research literature, which helps determine the purchase intention and subsequent purchase decisions. The positive purchase intentions also lead to the generation of e-WOM due to consumers' satisfaction with recommendations. The purchase intention helps understand the consumers' propensity to purchase and is moderated by privacy concerns, financial considerations, and time pressure while making a purchase. Lastly, the purchase decisions and e-WOM are data points on consumers. Thus, consumer response and actions on recommendations generate additional data points that strengthen the understanding of online and offline consumer behaviour, which goes back into the RS process as input data. The consistent occurrence or repetition of the above-discussed process continues to build better and more accurate user profiles resulting in optimal recommendations and nourishing the recommendation systems.

Theoretical Contributions and Practical Implications

Recommendations and RS have become crucial for businesses to reach consumers and provide relevant and personalised solutions. In this chapter, we explain how the recommendations process work and provide a conceptual framework for integrating RS into consumer services contributing to the existing literature on RS and its benefits. The framework identifies online and offline consumption behaviour as antecedents that provide implicit and explicit data for recommendations. Researchers can use the framework and its different components to map recommendations' journeys in various service contexts and provide empirical support to the framework. The framework shows how recommendations are generated and subsequently evaluated by consumers. We propose three consumer outcomes, satisfaction, trust, and perceived benefits, which lead to purchasing intention and e-WOM. Lastly, privacy concerns, time, and financial considerations are moderators for purchase intention leading to purchase decisions. Future research may study the intensity of the effect of these moderators, especially users' privacy concerns which are not discussed extensively in recommendations research. This framework contributes to RS theory and helps understand the service ecosystem's recommendation process and consumer actions. The chapter provides case studies and examples from various industries and discusses applying different RS techniques.

The framework will help practitioners map their recommendation process through the model and envision its process, flow, and expected performance in their strategic decisions. This framework can be used across industries employing RS to provide consumer recommendations. Recommendations play a significant role in empowering consumers by helping their decision-making process. In this chapter, we highlight the responsibilities of businesses and RS towards consumers and their objectives of recommendations. Recommendations are generated through consumer data, which may lead to privacy concerns amongst users. Companies must follow the best industry standards and practices for data protection and transparency to alleviate the fears of privacy and data issues.

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7

A Conceptual Exploration of How B2B Salesperson Fear of Innovation Influences Role Stress and Customer-Perceived Service Quality

Edward Nowlin

Introduction

Firms continuously pursue innovation as it is critical to firm growth and survival but comes at a price for the sales force. Innovation creates pressure and stress on the sales force from several directions. First, the innovation creates a more complex product for salespeople to sell. For example, research notes that salespeople are confronted with selling increasingly complex products requiring greater customer education (Johnson & Sohi, 2014). In addition, an industry study indicates that 70% of salespeople describe their job as highly complex (Salesforce.com, 2022). Second, innovation has changed customer expectations as buyers demand more complex and customised solutions and individual service and support from salespeople (Cuevas, 2018; Viio & Grönroos, 2014). Third,

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practitioner research suggests that innovation has a selling strategy by changing selling activities with the inclusion of sales automation and enablement tools shifting changing prospecting and lead generation with the intent of making selling more efficient and purposeful (Smulders, 2021). Ultimately, these technology-driven changes have encroached upon salespeople from several directions and have done so for some time, perhaps only increasing the intensity of change. For example, more than 20 years ago, Rackham and DeVincents noted:

Sales forces are caught in the middle. On one side, their customers have changed dramatically in terms of how they purchase and what they expect. On the other side, their own corporations have shifted, going through downsizing, restructuring, and cost-cutting. Traditional boundaries such as those between sales and marketing have crumbled. Salespeople have to cope with more products, introduced faster with shorter life cycles, and less competitive differentiation. (1999, p. ix)

While research has explored the relationship between technostress and technology-enabled sales performance (Tarafdar et al., 2014), it has yet to examine the relationship between technology innovation and customer-perceived service quality. Therefore, this chapter aims to theoretically explore whether technological innovation negatively influences role stress and knowledge-sharing resistance, affecting customer-perceived service quality.

The rest of the study is structured as follows: section “[Innovation](#)” provides the literature review, identifies the different types of sales technology, and the theory section. Section “[Propositions for Salesperson Fear of Technological Innovation](#)” includes the propositions for salesperson fear of technological innovation. Finally, the last section provides the discussion and study implications.

Innovation

Innovation refers to introducing and applying new products, processes, or technologies to the firm, creating efficiency and usefulness (Wang & Miao, 2015). Meaning it represents the power to change or transform

business, customers, and ultimately salespeople selling these products and/r services. However, change can be unpredictable. For example from history, Gutenberg's printing press from around 1436 dramatically changed Europe in several ways: (a) it increased the *speed, reach, and consumption* of news by printing short, lightweight, and easily transportable news pamphlets; (b) it significantly *accelerated the rediscovery and sharing of knowledge* during the Renaissance by *decreasing the expense* of hand-copied books from the cost of a house to only a month's salary of a teacher; (c) it *increased the accuracy, quantity, and speed* of sharing scientific knowledge and research; but (d) it left the unique skillset of highly trained artisans, who diligently and laboriously hand-copied manuscripts and illuminated them with art, *obsolete* (Roos, 2019).

As noted by definition above, innovation is embedded with efficiency and speed, enabling increased consumption with the assumption that it makes things better. However, what is not directly stated is the notion that innovation (or creation) has a component of destruction. Efficiency comes at the cost of replacing, leaving behind, or rendering an existing product or process obsolete. The above example of the Gutenberg printing press led to increased literacy rates but at the cost of an entire profession of book copiers throughout Europe. It contributed to the Italian Renaissance, printing previously lost great works by Cicero, Plato, and Aristotle, and it enabled the rapid spread of the Protestant Reformation with broadsheets of Martin Luther's *95 Theses* being printed in London as quickly as 17 days after it was nailed to the church door in Wittenberg (Roos, 2019). The speed of communication represents a significant paradigm shift.

The advent of the internet also supposedly represented a 'paradigm shift' and 'a whole new economy' in which the old rules no longer apply (Rosenbloom, 2002, p. 61). One of the 'paradigm shifts' predicted was the notion of disintermediation in which wholesalers, retailer stores like Wal-Mart, and malls would be replaced by e-commerce via the internet. This notion was driven by the fact that the internet enabled the direct connection between manufacturers and consumers (Rosenbloom, 2007). From the sales perspective, the prediction suggested the demise of the frontline (B2C) salesperson being replaced by technology. In effect, the internet would replace the sales function with technology. Instead, what

occurred was intermediation. While malls and retailers did not disappear, a new channel to purchase products was added, termed intermediation (Rosenbloom, 2007).

Perhaps unsurprisingly, the addition of new technology seems to be accompanied by questions about the obsolescence of the sales profession. Predictions for the end of the sales profession have repeatedly been made over the last century. A 1916 *New York Times* article questioned the need for salespeople. Later, E.B. Weiss' book *The Vanishing Salesman* likewise predicted the death of sales (Zoltners et al., 2016). Now, most recently, a 2015 Forrester report predicted that 1 million B2B salespeople would lose their jobs between 2012 and 2020 to self-service eCommerce, the rise of inside sales, and a shift from offline to online sales (Hoar, 2015). In addition, the Bureau of Labor Statistics predicts a decline in sales occupations between 2018 and 2028 (Rieley, 2020). Even theoretical research questions whether artificial intelligence (AI) will displace the sales function (Dugan et al., 2023). While some other recent practitioner articles suggest the obsolescence of the sales profession (e.g. Altman, 2017; James, 2014), fewer articles reaffirm its stability (e.g. Zoltners et al., 2016).

In sum, innovation has the power (a) to transform the ease of communication and relationship development, (b) to increase the speed of discovering new technology, enhance process efficiencies, and (c) to increase the speed, quantity, and accuracy of knowledge sharing. Unfortunately, all of these advancements come at a cost. Meaning knowledge advancement can only come at the cost of knowledge obsolescence. Sometimes the return on investment (ROI) from innovation is unclear whether it is a net positive or a negative. Sometimes, innovation costs are semi-hidden, with only hindsight providing the only vantage point to determine ROI. Ultimately, innovation is a double-edged sword, which was true more than 500 years ago with the creation of the printing press as it is true now, in that it can only give in exchange for something else. Thus, this chapter identifies the development of different sales technologies that have influenced the sales process and how they have influenced the sales force.

The Evolution of Sales Technologies

For sales technology, the objective is the same as that of the Gutenberg printing press: increasing the speed, efficiency, and accuracy of information. Tippins and Sohi (2003) suggest that information is the ‘invisible asset’ that can be used to leverage other firm’s assets. When firms can acquire information about customers and markets, they become sensitive to changes in the marketplace, resulting in a competitive advantage over slower, less-informed competitors (Barney et al., 2001). Research suggests that information technology (IT) is a resource to facilitate the effective collection and utilisation of information (e.g. Tippins & Sohi, 2003), and Schneider et al. (2021) identify customer and market information to be of paramount importance. In addition, the research identifies that information technology is critical for firm growth and an important tool for increasing B2B sales force performance. Next, I identify the various forms of sales techniques that have developed over the last 25 years. They include (a) sales force automation, (b) customer relationship management, (c) sales technology, (d) information and communication technology, and (e) sales enablement (see Table 7.1).

Salesforce Automation (SFA)

Early research indicates it suggests that salesforce automation tools (SFA) are used to enhance customer relationship management processes by ‘improving the speed and quality of information flow among the salesperson, customer, and organisation’ (Speier & Venkatesh, 2002, p. 98). Research generally identifies the objective of SFA as increasing sales efficiency by converting routine tasks into electronic processes or implementing electronic tools to improve the efficiency of sales activities. The underlying source of efficiency comes from facilitating or increasing the speed of routine tasks to free up the salesperson’s time to spend more time selling (Hunter & Perreault, 2007; Limbu et al., 2014). Interestingly, the tasks associated with SFA are extraordinarily broad, ranging from relatively mundane but important tasks like contact management, scheduling, mapping sales routes, and retrieving product information to active

Table 7.1 Types of sales-related technology

Source	Technology	Definition	Objective
Speier and Venkatesh (2002)	Salesforce Automation (SFA)	Sales force automation (SFA) occurs when firms computerise routine tasks or adopt technologically tools to improve the efficiency or precision of sales force activities.	Improving the speed and quality of information flow amongst the salesperson, customer, and organisation.
Erffmeyer and Johnson (2001)			Converting manual sales activities to electronic processes
Reinartz et al. (2004)	Customer Relationship Management (CRM)	Systematic process to manage customer relationships across all customer contact points to maximise the relationship's value.	To improve customer service, satisfaction, and retention by implementing CRM solutions
Srivastava et al. (1999)		Business processes that identify customers create customer knowledge, build customer relations and influence firm perspectives and products.	
Zoltners et al. (2001)		Using technology to manage customer relationships.	
Hunter and Perreault (2006, 2007)	Sales Technology (ST)	The degree to which salespeople depend on technology to examine and synthesise data and understand the implications of data relevant to the demands of their sales jobs.	Sales technology (ST) refers to information technology that facilitates or enables sales tasks' performance. ST tools include most technology, from spreadsheets, databases, and sales forecasting tools to contact management programs, cell phones, email, and search engines.

(continued)

Table 7.1 (continued)

Source	Technology	Definition	Objective
Limbu et al. (2014)	Information and Communication Technology (ICT)	Information and communication technology (ICT) infrastructure, training, and support to enhance salesforce capabilities.	ICT facilitate sales activities like using market intelligence, submitting sales call reports, developing forecasts, and managing customer contacts.
Peterson and Dover (2020)	Sales Enablement	'Cross-functional assimilation (marketing, training operations, management, automation, etc.) of content, processes, and technology that readies a firm to assist the customer's journey more productively'.	Some of the main elements of sales enablement capabilities include (1) content, (2) learning and development, (3) coaching, (4) cross-functional collaboration, and (5) technology.

selling activities like prospecting, making sales presentations, creating sales plans, recording buyer objections, and configuring product specification (Gohmann et al., 2005; Honeycutt et al., 2005). This range of use intimates that firms varied in their objectives of SFA. However, almost all tasks are ultimately associated with increasing the speed and quality of information flow between the salesperson, customer, and firm (Speier & Venkatesh, 2002). Interestingly, research notes that most SFA projects failed to generate promised efficiencies (Gohmann et al., 2005; Honeycutt et al., 2005).

Customer Relationship Management (CRM)

Customer relationship management experienced significant growth between 2000 and 2005, with firms investing more than 200 billion in CRM solutions (Maklan et al., 2011). Research suggests that the motivation for firms to implement CRM applications is to identify evolving customer needs and tastes to improve customer services, satisfaction, and

retention (Mithas et al., 2005; Jones et al., 2005). The reach of CRM is potentially quite wide, with some firms merely perceiving it as an investment in technology. In contrast, other firms view it as a way to develop and maintain customer relationships (Reinartz et al., 2004). It is also described as (a) a way to standardise and automate business practice (Tanner et al., 2005), (b) a way to centralise information, standardise processes and create employee work transparency (Li & Mao, 2012), (c) a business strategy built upon information technology to provide a thorough and reliable understanding of the firm's customers (Zikmund et al., 2003), (d) a multifunctional process to have continuous connectivity with customers (Day, 2001).

From a sales perspective, CRM refers to how much salespeople depend on technology to capture, integrate, and understand the implications of relevant and consistent information to the needs of their sales role (Hunter & Perreault, 2007). Ultimately, the incredible diversity of how CRM could be perceived and strategically utilised proves a challenge for most firms. Research notes that some 70% of CRM investments failed to increase revenue or, worse, a loss (Reinartz et al., 2004).

Sales Technology (ST)

Hunter and Perreault (2007) are almost singular in their conceptualisation of sales technology, taking an information technology (IT) perspective. Their conceptualisation of ST is how IT enables sales activities. And their omnibus perspective includes spreadsheets, scanner data analytical programs, sales forecasting tools, cell phones, and search engines. Their perspective encompasses the entire scope of IT that salespeople use, including CRM and SFA tools in performing the selling function (Limbu et al., 2014).

I also include Tippins and Sohi's (2003) conceptualisation as part of this ST paradigm. It suggests that IT competency alone is insufficient in yielding performance outcomes from ST. Rather, organisational learning is the critical enabling component, translating IT competency into firm performance.

Information and Communication Technology (ICT)

Ported from the information system literature, ICT includes sharable platforms and databases, networking technologies, computer technology, and audio and visual technology. Limbu et al.'s (2014) study represents one of the very few studies investigating the relationship between ICT and job satisfaction in the B2B sales context. Their study finds that ICT infrastructure, training, and support improve non-selling tasks, increasing salesperson job satisfaction. Interestingly, these findings intimate one of the promises of SFA, in that it would increase the efficiency of non-selling tasks, improving performance. This research represents a relatively unexplored and promising body of research.

Sales Enablement

Sales enablement is an emerging topic in B2B sales research. The development of sales enablement has occurred in tandem with significant changes in the B2B sales context. Specifically, B2B sales have increased in complexity and length as selling firms have adopted solution selling (Rangarajan et al., 2020). In addition, the number of individuals who are part of the buying centre has significantly increased (Hartmann et al., 2018). For example, a recent study by Gartner Inc. suggests that 6.8 people are involved in the purchasing process (Toman et al., 2017). Furthermore, Singh et al. (2019) suggest that customer demands require technology, including artificial intelligence, to provide thoughtfully created content in a timely fashion. Ultimately, sales enablement is the alignment and fusion of technology/CRM processes and capabilities like organisational learning to prevent choke points of needed resources and provide optimal sales support continually (Peterson et al., 2021). In this way, salespeople can effectively provide for the dynamic needs of customers (Fig. 7.1).

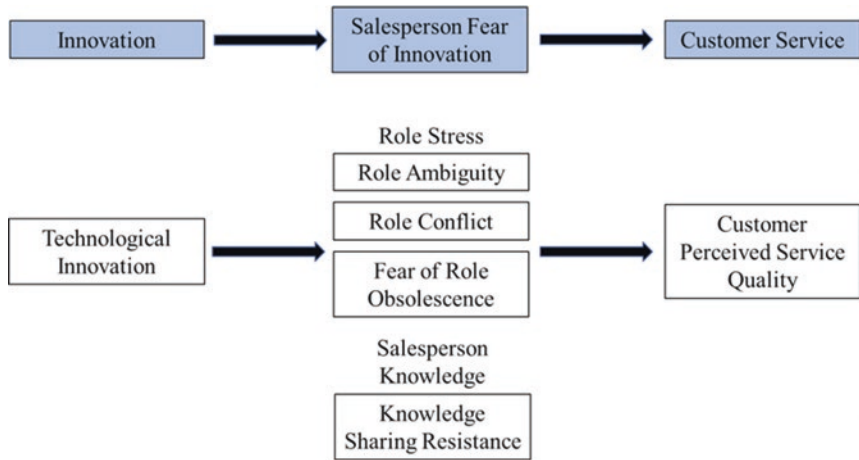


Fig. 7.1 Framework for salesperson fear of innovation

Salesperson Fear of Technology

Salespeople have seemingly always had an uneasy relationship with technology. Above, I identified that there seems to be a preoccupation in the practitioner literature with the connection between technological innovation and the obsolescence of the sales force (e.g. Hoar, 2015). Each new development represents a destabilisation of the status quo and the threat of the end of the sales profession. Innovation creates new processes and technologies at the cost of discontinuing old processes. The Gutenberg example above suggests that technological change can mean that an entire profession can become obsolete, as with book copiers. Hence, the new technology represents potential destabilisation and opportunity, creating uncertainty and stress for salespeople because salespeople are unclear about how these changes will affect them and their customers.

Transactional Theory of Stress

The transactional theory of stress (Lazarus & Folkman, 1984) underpins my theoretical framework. The transactional theory of stress asserts that

individuals evaluate demands (stressors) placed on them as either challenging or hindering. Challenge stressors (or demands) promote personal development, whereas hindrance stressors undermine and constrain personal and work-related accomplishments (Cavanaugh et al., 2000; Kraimer et al., 2022). In addition, stress results from the primary appraisal of environmental change (i.e. technological change), whereas the secondary appraisal relates to coping mechanisms (Lazarus & Folkman, 1984). During the primary appraisal, salespeople assess the significance of technological change, which is the primary psychological process connecting performance outcomes. Thus, the transactional theory of stress identifies the relevance of the focal construct of salesperson fear of technology and how salespeople's appraisal of the stressor influences the performance outcome of customer-perceived service quality.

The transactional theory of stress suggests that the primary appraisal affects the type of outcome salespeople experience, like strain, motivation, and performance (Lazarus & Folkman, 1984; LePine et al., 2005). For example, hindrance appraisals deplete salespeople's focus and energy, causing more strain and the inability to focus on several demands. However, challenge appraisals motivate salespeople to use their knowledge and capabilities to negotiate job-related challenges successfully. And a salient by-product of challenge appraisals is that they promote learning and growth outcomes (LePine et al., 2005). I argue that salespeople consider technological development as a hindrance, creating three different types of stress: (1) internal stress from the firm and its expectations to sell the new technology, (2) the stress of learning and understanding the nuanced complexity of the new technology they need to sell, and (3) external stress from customers as it relates to service quality.

Even the new technology itself comes in two different forms: (a) technology directly related to how salespeople perform their job (sales technology); (b) technology focused on providing value to customers. Sales technology research identifies high failure rates associated with sales technology like SFA and CRM. For example, Block et al. (1996) suggest that 61% of all SFA projects demonstrate no tangible benefit (Block et al., 1996). Even recently, Scott (2018) suggests that one-third of CRM projects fail. While perhaps not explicitly stated, I argue that salespeople have

contributed to those failures through their lack of participation. Another reason for salespeople's unease with technological innovation is the opposing goals of salespeople from the goal of technology. On the one hand, the technology aims to increase the speed, accuracy, and quality of information flow within the firm (e.g. Speier & Venkatesh, 2002). On the other hand, salespeople have the goal of achieving sales goals. In terms of technological innovation for business customers, Sharma et al. (2007) connect the high rate of high-technology product failures ranging up to 75% with the dynamic elements of technological innovation such as the increasing pace of change and rapid obsolescence, product complexity, and increasing buying centre complexity (due in no small part of the high costs and speed of obsolescence perceived by business customers). All these factors have combined to create a hindrance to appraisal by salespeople.

Based on the transactional theory of stress, I posit that a salesperson's fear of technology affects the salesperson's role and knowledge-sharing behaviours. Specifically, I suggest that new technology increases salesperson role stressors (role ambiguity, role conflict, and fear of role obsolescence) and knowledge-sharing resistance. In turn, these behaviours will negatively affect customer-perceived service quality.

Propositions for Salesperson Fear of Technological Innovation

Effect of Technological Innovation on Salesperson Role Stressors

Technological innovation refers to developing new products that serve a function to provide customers with the additional or new value. The motivation for new product development is that it signals to customers that the new product offers advantages over existing alternatives (Mukherjee & Hoyer, 2001). Because new product development signals new value, firms relentlessly pursue new and superior technological products to offer customers. Consequently, the complexity of these products

is also increasing the task complexity for salespeople in terms of selling the products. Therefore, I argue that technological innovation increases salesperson role stress.

Salesperson role stressors include role ambiguity and conflict (Boles & Babin, 1994). Role ambiguity refers to the perception that the salesperson does not have the information required to execute a job or task, creating feelings of helplessness in the salesperson (Onyemah, 2008). Role conflict results from perceptions of incompatible demands and expectations about employees' functions and responsibilities (Rizzo et al., 1970). Kahn et al. (1964) suggest that rapid technological change creates high levels of role stress. The constant need for salespeople to continuously learn and update their knowledge is burdensome, interfering with the job. While learning the information is a vital part of their job, the time it requires conflicts with other roles like selling (Rizzo et al., 1970). Tarafdar et al. (2014) refer to the stress related to technology for salespeople as 'technostress', finding that technostress is positively related to role stress. Thus, I offer the following:

- P1:** The greater the speed of technological innovation, the greater the salesperson role ambiguity.
- P2:** The greater the speed of technological innovation, the greater the salesperson role conflict.

Role obsolescence refers to the belief that technology will eliminate the need for the sales role in the firm. I offer that role obsolescence is a third type of role stress in which salespeople believe/fear that technological innovation threatens their positions. Above, I showed that salesperson obsolescence is a frequent theme in the business practitioner literature, especially as innovations are introduced. Thus, I argue that innovation represents a potential source of fear for salespeople.

- P3:** The greater the speed of technological innovation, the greater the concern for salesperson role obsolescence.

Salesperson Knowledge

Salespeople aim to prevent the dissemination of their knowledge across the firm (Anaza & Nowlin, 2017). Research even suggests that salespeople will go out of their way to disguise their knowledge hiding efforts from colleagues (Chaker et al., 2021). The motivation for hiding and protecting their knowledge is that their knowledge and capabilities are linked to their performance. Research suggests that salesperson knowledge directly impacts their performance (Leong et al., 1989). Sharma et al. (2007) find that knowledge relates to almost 50% of performance variance. This research, coupled with together idea of sales performance, is a comparative process. Sales performance can only be determined within the context of another sales performance. For example, if Salesperson A sold eight units last quarter, without understanding other salespeople's performance, it is impossible to determine whether that performance is good. If we add that the average sales performance was four units sold, then Salesperson A is an incredibly high performer. However, the salesperson is a poor performer if the average performance is 12 units sold.

Sharing knowledge with sales colleagues has little benefit for salespeople. On the contrary, it could potentially increase the performance of the knowledge recipient while diminishing the relative impact of the knowledge holder's performance. While knowledge sharing helps firm performance, it only hurts the knowledge holder's performance. In addition, firms frequently use internal competition to increase individual motivation and performance (Krishnan et al., 2002). Unfortunately, under these conditions, sales colleagues transform into competitors for scarce resources like recognition and monetary rewards (Anaza & Nowlin, 2017). Hence, sharing weakens salespeople's power and influence within the firm (Szulanski & Cappetta, 2003). In sum, the motivation for salespeople to resist technology adoption is the same as that of resisting knowledge. In effect, technology represents an increasingly efficient way to share knowledge quickly and accurately, in diametrical opposition to individual salespeople's interests. Thus, I offer the following:

P4: The greater the speed of technological innovation, the greater the resistance to salesperson knowledge sharing.

Customer-Perceived Service Quality

I suggest that role stress negatively impacts customer-perceived service quality. Service quality refers to the firm activities that increase the intangible aspects of the firm, like delivery, expertise, and appearance of the salesperson (Atuahene-Gima, 1995). Bitner (1990) argues that during the service encounter, the salesperson's actions are the service as perceived by the customer. Research indicates that role stress negatively impacts job outcomes (Boshoff & Mels, 1995). And Boshoff and Mel's (1995) findings reveal an indirect negative relationship between role stress and internal service quality. Brown and Peterson (1993) find that role stress negatively impacts salesperson performance and job satisfaction in their meta-analysis. And Tarafdar et al. (2014) find that role stress negatively influences technology-enabled performance. Thus, I offer the following:

P5: The greater the salesperson role ambiguity, the less the customer-perceived service quality.

P6: The greater the salesperson role conflict, the less the customer-perceived service quality.

P7: The greater the concern for salesperson role obsolescence, the less the customer-perceived service quality.

I argue that salesperson resistance to knowledge sharing will negatively impact customer-perceived service quality. Furthermore, although knowledge sharing is a way to safeguard and protect a salesperson's performance from sales colleagues, it counterintuitively, negatively impacts the customer outcomes like customer relationship-building performance and problem-solving (Chaker et al., 2021). Thus, I offer the following:

P8: The greater the resistance of salesperson knowledge sharing, the less the customer-perceived service quality.

Discussion

This chapter aims to introduce and provide a framework for salesperson fear of technology. The framework identifies that salesperson fear affects the salesperson's role and the salesperson's knowledge. Furthermore, it suggests that technological development could negatively affect customer service quality. Finally, this research offers several contributions.

First, this chapter introduces salesperson fear of technological innovation to the sales technology literature. This focal construct is composed of how it affects the salesperson's role, specifically role ambiguity and uncertainty. This research also introduces role obsolescence as part of how it affects a salesperson's role perception. Another aspect of salesperson fear includes how it affects knowledge resistance or unwillingness to share knowledge. In addition, the paper also offers a nomological framework for salesperson fear of technological innovation. Within this framework, I connect technological development with salesperson fear of innovation and customer-perceived service quality. Finally, I argue that technological development creates two types of internal pressure on salespeople: (1) internal pressure from the firm and its expectations to sell the new technology and (2) external pressure from customers to produce quality customer service amidst changing needs and changing technology.

Second, this chapter describes the evolution of the various sales technologies along with example articles (see Table 7.1). The different sales technologies include (a) salesforce automation, (b) customer relationship management, (c) sales technology, (d) information and communication technology, and (e) sales enablement. Sales technologies are still developing, with a strong likelihood that some form of artificial intelligence (AI) will be next. How and under what conditions remain unclear. However, all of the sales technologies for salespeople represent a form of facilitation and fear. They facilitate by providing salespeople with a central place to collect, store, and access useful information about prospects and existing customers. In the process, it creates informational transparency between the salesperson and the firm, which salespeople fear. To be succinct, salesperson knowledge is the salesperson's most important resource. It is the source of their selling capabilities and perceived proprietary knowledge about their customers. And inevitably, firm leadership will make choices

that benefit the firm first (and the greater number of customers), even at the expense of a salesperson's customer.

Finally, the framework suggests a connection between technological development and negative customer-perceived service quality. This proposed relationship is counterintuitive, in that the starting point for technological development is to provide additional value to address customers' dynamically changing needs. Salespeople are important to service providers to customers, and their salesperson's fear could undermine service quality.

Managerial Implications and Future Research

This chapter also offers several managerial implications. First, technological development should not just be considered from a pure value contribution perspective but also should consider how and in what way(s) it will affect customer service quality and how it will affect the service provider. Future research should investigate the relationship between new technology's value and the fear it produces in their important service providers. In addition, research should consider whether this fear influences the potential profitability of the new product development and how it impacts service quality. Second, while not included as part of the framework, another implication is that managers should take action to alleviate salesperson fear related to technological development. It is also quite possible that sales leadership should also be seen to be involved in settling salesperson fear. Ultimately, there may be a level of mistrust between salespeople and firm leadership, which enhances salesperson fear of technology. And future research should explore if there is mistrust and what the tipping point may be.

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Part III

Theme 3: Post-purchase Stage



8

Co-creating Aftermarket Value in the Digital Era: Managing Transformative Customer Relationships through Stakeholder Engagement

Janakiraman Moorthy and Atul Parvatiyar

The sale, then, merely consummates the courtship, at which point the marriage begins. How good the marriage is depends on how well the seller manages the relationship. The quality of the marriage determines whether there will be continued or expanded business, or troubles and divorce. In some cases, divorce is impossible, as when a major construction or installation project is underway. If the marriage that remains is burdened, it tarnishes the seller's reputation. – Ted Levitt (HBR, 1983: p-87)

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Introduction

Aftermarket refers to the opportunities for sales, marketing, and service provisioning for a product's continued functioning after its initial purchase and throughout the product use life cycle. Most durable products for business and household use, such as appliances, automobiles, and even software systems, have substantial aftermarket potential for selling spares, peripherals, accessories, after-sales services, and upgrades. The market and profit potential in aftermarkets are enormous. For instance, McKinsey & Co. reported that the global automotive aftermarket in 2017 was worth €800 billion, wherein North America and Europe accounted for €270 and €240 billion, respectively (Kempf & Heid, 2018). The automobile aftermarket grows 3% annually and is likely to grow to €1.2 trillion by 2030. In the aerospace and defense sectors, the maintenance, spare parts, and personal training activities could offer 1.4 times the gross margins of the OEM business if aftermarket operations are planned right. In these sectors, aftermarket services represent 80% of the lifecycle value of the product (Iyer et al., 2020). It is similar in several other industries, including printing equipment, fitness machines, and transport vehicles, such as trucks, buses, railways, and shipping.

Despite the opportunities, many companies narrowly view the aftermarket and consider it a cost center instead of a strategic opportunity. For example, Bain & Co. observed that most companies lack a clear strategy for providing aftermarket services and solutions (Staebe et al., 2020). Instead, they outsource the after-sales services to independent providers/technicians to meet local support needs. But these outsourced activities are seldom integrated into the company's strategic customer engagement plans and opportunity planning to enhance value realization. It has not occurred to most product-service providers that a well-executed after-sales service strategy can strengthen customer loyalty with continued customer engagement that facilitates cross-selling, up-selling, and next-selling (Lim et al. 2022).

Even though customers naturally are interested in a continued relationship with their suppliers (Sheth & Parvatiyar, 1995), marketers, through their self-destructive habits and the lack of strategic thinking concerning after-sales service, often sow the seeds for customer defection. It is often forgotten that initial sales value propositions are promises made

by marketers to customers (Lanning, 1998). Customers buy these promises that include after-sales support and expect the marketer to fulfill it. The challenge, however, is when marketers depend solely on the frontline salespeople to deliver on these promises, especially when they have competing new customer acquisition goals. To fully meet the aftermarket customer needs, organizations must set up a structure, culture, reward system, and a socialization process that drives frontline personnel to engage strategically with customers and product users in the aftermarket arena. Continued success in product-service usage over its lifecycle is a critical factor that encourages customers to upgrade, replace, or recommend a product/equipment to others. Unless a proper strategy for after-sales services is an integral part of customer relationship strategy, customer support will remain in a firefighting mode, reactively dealing with customer issues as they keep emerging instead of proactive customer engagement with strategic intent.

Unfortunately, many companies treat aftermarket services as an avoidable "pain" than as an opportunity to establish long-term relationships with customers to enhance revenues and profitability (Lele, 1997; Sheth et al., 2020). Their logic is that the aftermarket is uncertain, notoriously challenging to manage, and is characterized by sporadic demand, often requiring the support of several generations of products that may not be in production. An increase in cumulative customer base and product installations indeed requires maintaining 20 times more SKU inventory of spares than for the original equipment manufacturers (OEM market), thus, increasing the need for additional costs relating to service personnel deployment and training in geographically diverse and dispersed markets (Cohen et al., 2006). As such, the aftermarket service business gets often structured as a cost center and internally focused on administrative efficiencies instead of serving and championing customer interest.

Ideally, the aftermarket business should aim to create customer value by enhancing customer experiences and engaging them in value co-creation. Moorman and Day (2016, p. 6) observed that aftermarket service excellence could provide a "superior ability to perform essential customer-facing activities" that could improve customer and stakeholder-related outcomes on economic value, experiences, and engagement. Organizations that achieve aftermarket excellence by appropriately using their marketing skills, accumulated knowledge, and well-designed

structure, systems, and processes can outperform competitors. Sheth (2017) suggested that a good strategy would be to develop a joint venture-type relationship with customers, co-creating mutual value. It would imply engaging stakeholders with a mutual commitment to leverage complementary resources and capabilities.

This chapter aims to establish how aftermarket stakeholder engagement can transform long-term customer relationships and become an impetus for value co-creation, mutual value realization, and strategic competitive advantage. Notably, in the context of the prevailing digital era, aftermarket stakeholder engagement can be more easily facilitated by utilizing new tools and technologies that would make the entire aftermarket process more efficient and effective. However, the mind-set must shift from considering aftermarket activities as a cost center to a strategic investment for customer engagement throughout the lifecycle of product-service usage. The aftermarket is a good arena for learning the user journey's inflection points that require support intervention to ensure customer success and value co-creation.

Moreover, aftermarket business can be viewed as a set of cost and revenue flows. Costs pertain to customer support services while revenues accrue from subscriptions, expanded selling, upselling, cross-selling, next selling, renewable sales, leasing, and long-term service contracts. Figure 8.1 depicts how the customer experience journey (Lemon & Verhoef, 2016) and the aftermarket cost and revenue flows (Levitt, 1983) could be integrated. The aftermarket revenue analysis framework by Ted Levitt (1983) categorized the presales aspect as the cost side and post-sales as the revenue side of the entire sales-support cycle. In the case of mobile telephony services and insurance businesses, the positive revenue to the company happens much later after the initial customer acquisition. Levitt (1983) further argued that the company has several opportunities to influence revenue flows. The company-customer interactions can create value for both if companies offer a superior user experience to retain customers and reap benefits through upselling, cross-selling, referrals, and positive word of mouth (WOM). These would result in substantive company profits.

The remaining sections of this chapter are structured as follows. In the next section, we review the extant literature on after-sales service, customer journey and touchpoints, customer experience and engagement,

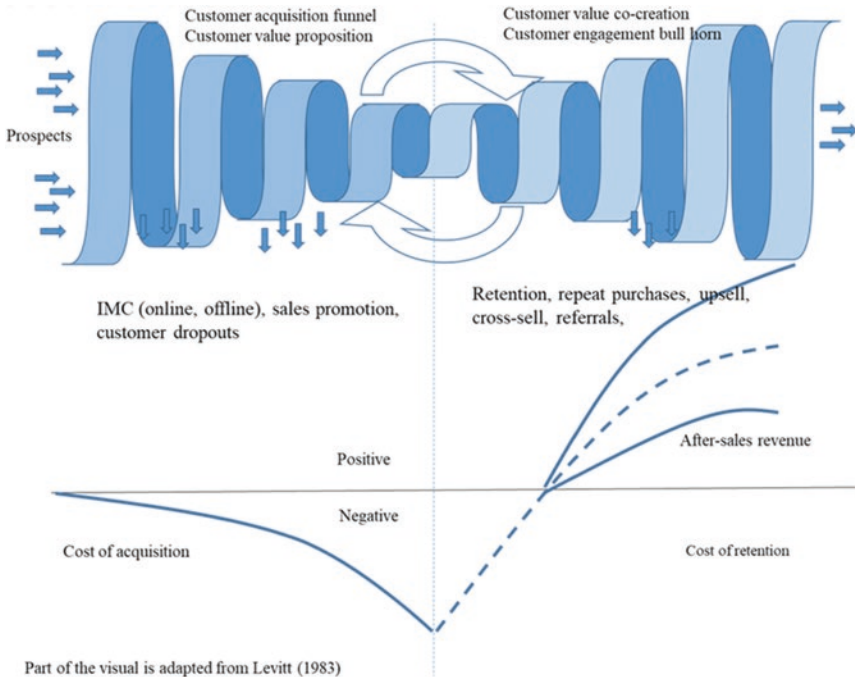


Fig. 8.1 Pre- and post-sales process

value co-creation, relationship marketing, and customer-centricity to highlight prevailing concerns, research findings, and strategy recommendations relevant to the aftermarket. Next, based on learnings from the extant literature, we present a framework for transforming aftermarket business into a strategic business unit within the organization. Finally, we suggest implications for practice and future research.

Review of Literature on the Customer Journey and Aftermarket Customer Support

Today's customers are more demanding, value-seeking, empowered, and impatient. Increasing "servitization" necessitates better customer support to realize the product's full potential. Both services and product companies realize the importance of aftermarket support for building long-term

engagement and profitability. The aftermarket is a significant relationship-building, value co-creation, and revenue-generating opportunity in the service ecosystem. The customer's success in using the marketer's products and services is critical to winning additional business from the customer and a great way to convince others to use the products.

Stakeholder Support Services and Customer Success

Customer support is essential to creating value throughout the customer journey to achieve customer satisfaction and continued engagement. It also creates relational advantages, enhances a firm's competitiveness, and increases profits (Cohen et al., 2006; Levitt, 1983; Sheth et al., 2020; Spencer-Matthews & Lawley, 2006). Customer support is critical in many industries, such as automobile, aerospace, appliances, manufacturing machinery, banking, insurance, and telecommunications. Even in consumer products and goods (CPG), since profitability depends on repeat purchases, customer support is becoming necessary as companies adopt omnichannel strategies, including product returns and brand community engagement.

As Sheth et al. (2020) pointed out, Watkins Liniment, in 1868, was among the first companies to offer a money-back guarantee to customers. The idea succeeded in becoming now a common practice among many marketers. However, in a hyper-competitive global market with demanding and uncompromising customers, it is imperative to think about enhancing customer experience beyond the point of purchase. Pine and Gilmore (1998) argue that staging experiences to entice customers to purchase products or increase on-premises consumption is valuable. However, delightful customer experiences need to extend well beyond the moment of purchase to moments of product use and during follow-up customer support services. Therefore, many have argued that top management should consider customer service strategically to enhance customer retention (Cohen et al., 2006; Parvatiyar, 2011; Rigopoulou et al., 2008; Sheth et al., 2020). Doing so can augment the overall value of products and services, creating better customer experience and competitive differentiation (Levitt, 1983; MacMillan & McGrath, 1997). Parvatiyar (2011) observed

that customers begin to churn when their emotional needs are not well taken care of by marketers. The service-dominant (S-D) logic and customer engagement have advocated for customer support to be a central consideration of marketing thinking and as a means to develop customer relationships for competitive advantage (Lusch & Vargo, 2006; Lusch et al., 2007; Pansari & Kumar, 2017; Sheth, 2011).

The extant literature has also shown that customer support services positively influence customer satisfaction (Berezan et al., 2015), brand loyalty (Sharma, 2011), customer-company relationship, and future purchase intentions (Rigopoulou et al., 2008). Lele and Sheth (1991) argued that improved customer satisfaction would build a competitive advantage. It has been proven empirically that superior customer support creates sustainable competitive advantage by increasing customer loyalty, positive word-of-mouth, repeat purchases, referrals, and upscaling, leading to higher revenues and profits (Crotts & Ford, 2008; Sharma & Lambert, 1994). Cohen et al. (2006) empathize with the need to design a profitable customer support system. However, Kurata and Nam (2010) found that without emphasis on enhancing customer experience, customer support focused on profit maximization fails to maximize customer satisfaction. Thus, as an alternative, Sheth et al. (2020) proposed a model for repositioning customer service as a profitable business, wherein customer service is the primary focus. Still, proper business considerations could make it profitable and customer-serving.

The progress in customer support research initially focused on the operational aspects, such as managing spare parts inventory or service network design (Cohen & Lee, 1990). However, many pointed out a lack of research on customer service delivery to enhance customer relationships (Sheth et al., 2020; Spencer-Matthews & Lawley, 2006). Thus, in recent years, literature has emerged on customer success management, transcending from a buzzword into the latest permutation in customer relationship management practice (Hilton et al., 2020). Several academic articles have appeared pointing to the age-old service problem where B2B customers fail to realize the value and become dissatisfied, leading to churn and reduced profitability of the vendor firm (Hochstein et al., 2020). With the growth in subscription and leasing-based business models, customer success philosophy has percolated into boardroom

discussions, and CEOs are actively exploring the best way to achieve it. Several companies, particularly in the software industry, have established customer success teams to quarterback the customer lifecycle and drive adoption, renewals, up-sell, and advocacy (Mehta et al., 2016; Eggert et al., 2020; Prohl-Schwenke & Kleinaltenkamp, 2021). Yet literature is still sparse on corporate transformation processes that would integrate customer success programs with after-sales service and aftermarket customer relationship practices. However, since team member engagement is critical to delivering effective after-sales services and ensuring customer success, we examine below the extant literature on team member engagement for building a solid culture for providing aftermarket customer support.

Employee Engagement and Company Culture

The S-D Logic (Lusch & Vargo, 2006) insists that all businesses are fundamentally service businesses. Hence, frontline employees play a significant role in service delivery, honoring brand promises, and creating customer experience (Berry, 2009; Hausknecht & Langevin, 2010). Employees represent the brand and the company from the customers' perspective (Berry, 2009). Recognizing the value of employees in managing service delivery and customer engagement, some companies began implementing the "employee first" principle (Nayar, 2010). Service team member roles were considered critical in achieving customer satisfaction and service failure prevention (Albrecht et al., 2016; Lim et al., 2017). In addition, employee engagement helps better accomplish customer retention goals (Kumar & Pansari, 2016; Menguc et al., 2017). Seijts and Crim (2006, p. 2) found that "72% of highly engaged employees believe that they can positively influence customer service, versus 27% of disengaged employees." Thus, they concluded that "employee engagement can not only make a real difference; it can set the great organizations apart from the merely good ones." However, managers implementing team member engagement initiatives must simultaneously plan to create an appropriate culture to support it (Menguc et al., 2017).

Customer Experience Journey in the Digital Era

Although traditional sales planning conceptualizes the customer journey into two distinct phases—presales and post-sales—the sales funnel ends on customer acquisition and ignores the potential revenue-generating future opportunities during post-sales. This approach has been criticized by many marketing scholars (Bonchek & France, 2014) and practitioners (Court et al., 2009). Bonchek and France (2014) argue that marketing can no longer rely on the sales funnel because buying process has changed due to multiple communication channels, distribution channels, and modes of customer interaction enabled by digital technologies. Thus, Court et al. (2009) suggested an alternative model of mapping the iterative customer journey, where prospects are not assumed to be at the top of the funnel. Instead, prospects are believed to travel through various touchpoints—before, during, and post-purchase phases. This approach focuses on customer-lived experiences. With proper cross-selling and upselling, the customer moves from awareness to action instantaneously as part of the customer experience journey. They argue that the model should enable and empower customers for value realization.

Lemon and Verhoef (2016) elaborate on customer experiences as an iterative dynamic journey, and the touchpoints are embedded in the travel, which is influenced by past experiences and external factors. The proliferation of touchpoints, multifold increase in information, and omnichannel purchase options make the journey more jagged, spiral, wiggly, cyclical, and with breaks (Siebert et al. 2020). Thus, we believe these journeys must be considered for stakeholder engagement to influence consumption and experience in the co-creation process. We concur with Hollebeek et al. (2021) and Hamilton et al. (2021) that customers are not traveling alone in their customer journey but with stakeholders as companions or even adversaries. In the case of B2B, companions can be members of the buying center and family members, friends, or co-workers in B2C markets. So, although the user is the main stakeholder in aftermarkets, companies must consider other stakeholders who may influence future purchases and participate in the co-creation process. The stakeholders include the users, buyers, competitors, sales team members,

customer service staff, supply chain team members, channel partners, technology providers, and senior executives from customer and supply organizations. Identifying relevant stakeholders at different moments and touchpoints becomes the most crucial aspect of successful aftermarket execution.

Stakeholder Decision and Experience Journey and Companionship (SDEJ)

Customers are transient due to changes in the life cycle, income, learning, and preferences represented by a sales funnel metaphor. Therefore, consumers rarely traveled the customer decision journeys (CDJ) alone. Hollebeek et al. (2022b) proposed the idea of a stakeholder decision and experience journey (SDEJ). The SDEJ is a set of stakeholders' trajectory of role-related touchpoints and activities, enacted through stakeholder engagement, that collectively shapes the stakeholder experience with the firm to mitigate the limitations of CDJs, which overlooked the characteristics and influences, and interactions with other stakeholders. SDEJ helps understand stakeholders' needs, expectations, goals, motivations, and challenges. Based on this understanding, firms can plan and orchestrate the journeys in mutually beneficial ways, improving their relationship, experience, and engagement (Venkatesan et al., 2018). SDEJs intersect with relevant touchpoints of different stakeholders (Lemon & Verhoef, 2016) and can impact stakeholders' journey, positively or negatively (Hollebeek et al., 2022b).

Hamilton et al. (2021) suggest that companies need to consider themselves as a companion in the SDEJ while interacting with customers. They refer to it as a social customer journey with six components: motivation, information search, evaluation, decision, satisfaction, and post-decision sharing. Figure 8.2 depicts a simplified stakeholders' journey. Five stakeholders are included in the depiction: the focal company sales team, the customer service team, the customer firm with the user and buyer, and the competitor. The crossovers indicate the touchpoints identified by highlights. The dark dots indicate the touch points where the sales team, users, and buying agents come together. The circles indicate

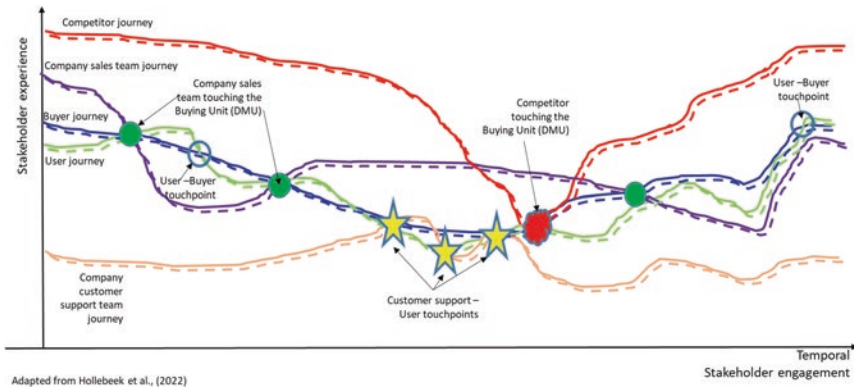


Fig. 8.2 Stakeholders' decision and experience journey

internal interactions between buyers and users. The stars show the user and customer service touchpoints. And the cloud represents the competitors' interaction with the customer teams, which can distract the focal company.

SDEJs are path-dependent, based on cumulative learning and experiences. Hence, the customer support system must be designed to foster continuous interaction with stakeholders to create value and leave a positive experience at every touch point. Aftermarket staff must interface with the entire customer/user organization, who play various roles, such as initiators, facilitators, influencers, recommenders, and gatekeepers. In addition, they should actively look for coaches and establish a stronger bond with them.

However, all stakeholders' touchpoints are not equal in importance or complexity. At each touchpoint, there is an implied and embedded SDEJ. Lemon and Verhoef (2016) identified four categories of touchpoints: brand-owned, partner-owned, customer-owned, and social/external/independent (p. 76). Kuehnl et al. (2019) classified brand-focused CDJs into three categories: cohesive, consistent, and context-sensitive touchpoints. In the retail communication context, Baxendale et al. (2015) recognized six touchpoints: brand advertising, retailer advertising, in-store communications, word-of-mouth, peer observation (seeing other customers), and traditional earned media such as editorials. Consumer

context has a significant role in shaping stakeholder demand, preferences, behavior, urgency, satisfaction, and other outcomes (Chandler & Vargo, 2011). In any case, touchpoints are primarily identified from the company perspective, with a few exceptions. However, taking an outside-in view, one can identify two types of customer touchpoints: routine and stressed customer touchpoints, and two ways in which the aftermarket value can be delivered at the customer touchpoints: regular/routine value offerings and enhanced or ingeniously designed value offerings.

Routine customer touchpoint interactions are typical follow-up situations for the customer to determine if things are okay and for regular maintenance activities. Essentially, during ordinary conditions of customer touchpoint interaction by the aftermarket team, the objective is relationship maintenance. So, if the aftermarket value offerings are routine during regular customer touchpoints, one can expect relationship maintenance between the customer and the selling organization.

However, there are situations of interaction with customer touchpoints under stress. Customer stress occurs throughout the CDJs, including environmental, social, and internal demands that require adjustments by the customer (Roy & Jain, 2020). For example, Berry et al. (2015) studied cancer patients to build loyalty for the healthcare provider and emphasized designing “high-emotion” services to reduce their anxiety and stress. In the case of B2C markets, the stress can be related to altered perceptions, emotional upheavals, psychological stress, and social imbalances due to the level of anxiety about confirmation or disconfirmation of expectations in the value co-creation process. In B2B situations, it can be due to economic and personal factors (i.e., change in prices, increase in cost, the attitude of sales or support staff, change in company policies, etc.), causing similar psychological and emotional anxieties as in consumer markets. For instance, the breakdown of a machine may be considered an economic loss and emotional stress for workers and executives in the customer organization who are committed to meeting their promises to their own customers (Varca, 1999). Similarly, the non-functioning of a home appliance, such as the dishwasher, causes substantive emotional stress for the household consumer.

A standard/routine aftermarket service provided to customers during periods of stress could wreck a relationship because the customer may

ultimately feel that the service provider did not recognize the customer's stress in this condition and did nothing extraordinary to alleviate their condition. On the other hand, if innovative/ingenious value-added offerings are made at touchpoints where customers are under stress, it can develop into more positive relationship patronage by the customer after that. Ingenious offers are solutions to problems that reduce customer stress and are often innovative, context-focused, timely, and superior to competitive offers. Berry et al. (2015) observed that early responses to stressed customers facing intense emotions could better prepare them for dealing with the upcoming events or next steps. Customers highly appreciate innovative and contextually relevant additional aftermarket services by the provider. It usually results in continued relationship patronage or enhanced long-term relational bonding between the customer and the service provider.

Figure 8.3 depicts a customer touchpoint and aftermarket value classification matrix matching companies' offerings to consumer contexts

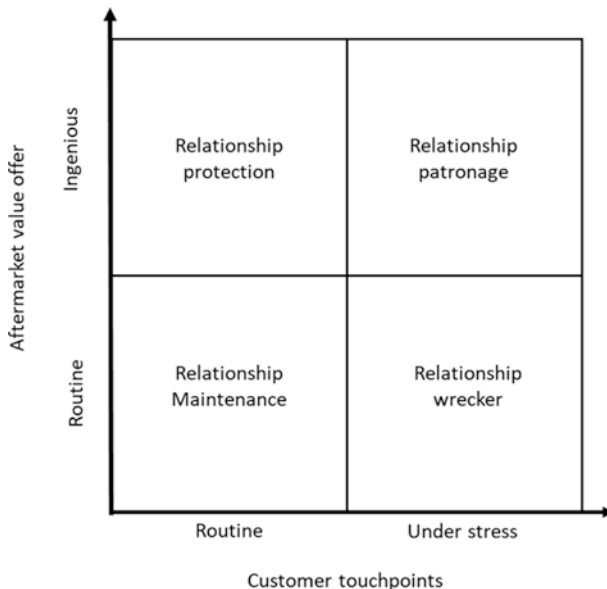


Fig. 8.3 Customer touchpoints and aftermarket value classification matrix

and their relational implications. The offers in routine-routine quadrants are relationship maintainers. Routine offers for stressful contextual touchpoints can be relationship wreckers opening opportunities for competitors to engage with customers who may start questioning the company's role in value co-creation. On the other hand, an ingenious solution to a routine consumer context can help the customer learn about new opportunities, upsell and cross-sell in the future, and protect the customer from churn or poaching by the competitor building stronger relationships and trust. In the aftermarket context, research opportunities exist in understanding the interaction effects of contextual touchpoints and aftermarket services and how SDEJs and touchpoints impact value co-creation.

Stakeholder and Customer Value Co-creation

Over half a century ago, in an influential article, Levitt (1960) instilled the understanding that customers buy value, not goods. More recently, Vargo and Lusch (2004) expounded the concept of "value in use" based on the reasoning that consumers buy products for their functional benefits. Similarly, Mittal and Sheth (2001) explained the link between customer loyalty and value using the concept of "value space." Firms can offer value through goods and services and augment it by enhancing performance, price, and personalization. Performance value relates to product and service quality, innovation, and customization. The price value is reflected in the fairness and genuineness of the price. Genuine price is what consumers are willing to pay to buy a product for its associated benefits that deliver the expected performance. The fair price is consumers' perception of what it takes for a firm to produce and sell the product in the market for a reasonable profit. The personalization value relates to convenience, purchase support, ease of access, quick response, and relational advantage. Performance and price are two primary values on which personalization value can be built (Mittal & Sheth, 2001). Target costing, technology, and other methods can be applied to create consumer value. Overall, aftermarket support can reduce the consumer's total payoffs for

time and energy costs associated with product use, thus increasing the overall ownership value or use value.

Consumers also realize and experience value through the active participation of the marketer during consumption (Pralhad & Ramaswamy, 2004; Sheth, 2019). Value-in-use can be created and enhanced in all phases of the buy-use cycle—before, during, and post-purchase (Helkkula & Kelleher, 2010). Hence, “value resides not in the object of consumption, but in the experience of consumption” (Frow & Payne, 2007, p. 91). Experiential value transcends the customers’ lived experiences that extend beyond the current service context to past and future occasions (Helkkula et al., 2012, p. 59). Ramaswamy and Ozcan (2018) explained co-creation as the ‘enactment of creation through interactions’ involving an assortment of interactive systems of human and material entities (e.g., devices) afforded by technological advancements.

Furthermore, Ramaswamy and Pieters (2021) propose that in a “hyper-connected and interdependent world,” businesses will become co-creational “living” enterprises and that organizations purposefully will learn and adapt through experiential interactions. This conceptualization has far-reaching consequences for the aftermarket strategy and implementation. It emphasizes the involvement of multiple stakeholders: humans, focal organizations, competitors, digital artifacts, and brands. Following the S-D Logic, we can, thus, contemplate that the stakeholder journey and co-creation of experiences are beyond the confines of the specific interaction between the firm and the customer, including the past, present, and future experiences and expectations. Therefore, customer support service providers must track the evolving experiences of stakeholders beyond the interactions and activities at touchpoints (Heinonen et al., 2010). A comprehensive frontline information system with analytical and insight-generation capabilities is needed to map customer dynamics and deliver personalized value. The aftermarket team members should be empowered and equipped to seize opportunities to offer value-added solutions to meet customer needs and requests at all touchpoints.

Aftermarket-Stakeholder Engagement Framework

Aftermarket support can be effectively used to enhance stakeholder engagement and profit improvement. Several concepts and theories in relationship marketing, customer-centricity, customer experience, customer engagement, stakeholder journey, and value co-creation provide supportive guidance to aftermarket activity planning for stakeholder engagement. Drawing upon the relevant concepts in those areas, we propose a framework for transforming the aftermarket support service function from a cost center to a strategic business unit. As shown in Fig. 8.4, the aftermarket transformation requires a two-dimensional shift— from episodic, short-term-oriented firefighting mode to a more customer lifetime-oriented continuous engagement to develop relationship patronage. The long-term consideration encompasses lifetime customer value,

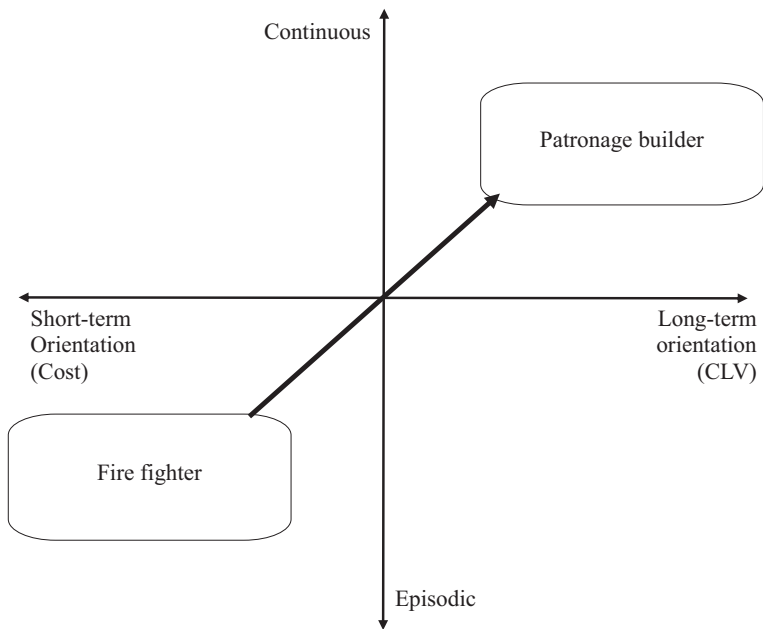


Fig. 8.4 Aftermarket transformational shift: from firefighter to patronage builder

employee value, and engagement value (Kumar et al., 2010; Parvatiyar & Sheth, 2001). The strategy of a planned continuity of interactions for value co-creation is supported by the argument that continuity is an essential differentiator in the interconnected customer environment (Siggelkow & Terwiesch, 2019). Ramaswamy and Ozcan (2013) have further suggested that a value co-creation strategy should be based on “engage and discover” and not “command and cascade.” The discovery process needs continuous involvement of the aftermarket team members with all stakeholders who can potentially affect the value realization. Heinonen and Strandvik (2015) extend value co-creation based on Lusch and Vargo’s (2011) SD Logic to past, present, and future customer expectations and experiences. They argue that service providers need to understand the stakeholders’ continuously emerging experiences beyond episodes resonating with the metaphor of hunters and farmers for only sales-oriented and relationship-oriented firms, respectively.

Figure 8.5 shows specific elements of transformational change needed to transition from the traditional to the more futuristic aftermarket strategy. It provides a granular version of the repositioning framework for customer support service (Sheth et al., 2020). The futuristic approach should reflect the dynamic nature of consumers, competition, and the business environment, including technological developments, sustainability, analytics, and regulatory considerations. In addition, the aftermarket offer mix should be in sync with the product and service mix to meet customer expectations and develop positive experiences.

Aftermarket Value Co-creation Strategy

Sheth et al. (2020) recommend seven customer-centric interconnected actions to make customer support services a strategic business activity with a profitable and long-term relational focus: (1) carving out customer service as a standalone business; (2) creating a new top management role of a Chief Customer Support Officer reporting to the CEO/COO of the organization; (3) establishing a customer insight center; (4) offering support services; (5) reforming organizational culture, processes, and

Focus Elements	Traditional View	Modern View
Customer journey	Repetitively same →	Dynamic, Traveler (CDJ, SDJ), Companions
Customer value	Receiver →	Co-creator, Stakeholder value
Company role	Value delivery →	Value discovery, Unleashing, Value network
Competition	From within industry →	Trans industry, Convergent, Startups, Digital Apps
Partners (Suppliers, Channel partners, etc.)	Linear chain →	Network, Constellation
Dominant logic	Products, goods →	Service, Value
People (Team members)	Operand →	Operant (Facilitator, explorer, discoverer, Innovator)
Processes	Standardized →	Personalized
Technology	Legacy →	Transient, Emergent, Digital
Analytics	Pattern recognition →	Predictive, Interpretive, Multimode (Numeric, text, voice, and visual)
Culture	Internally focused and bureaucratic →	Customer/stakeholder centered, Innovative, Empathetic, Risk tolerant
Systems	Control →	Enabling, Empowering
Metrics	Short-term →	Long-term (LTV, SLV, ELV)
Product	Goods, Service →	Solution, Servitization, Digitalization, Platforms
Price	Cost, Competition →	Value, Subscription, Pay as use
Distribution	Multichannel →	Omnichannel, Portability, Access
Communication	Information →	Integrated Marketing Communication, Education
Promotion	Sporadic →	Continuous, Immediacy, Geo-specific
Brand	Company created and owned →	Company-initiated, Customer/stakeholder-owned, Brand communities

Fig. 8.5 Elements of aftermarket transformational shifts

systems, (6) deploying frontline information system; and (7) developing superior human resources. These transformational changes primarily aim to raise the organizational stakes in the aftermarket and give due importance to customer support. Moorman and Day (2016) also identified four critical elements for marketing excellence: (a) capabilities, (b)

configurations including structure, (c) metrics, rewards systems, culture, and leadership, and (d) employees. They also identified seven mobilization elements: (i) anticipation, (ii) adaptation, (iii) alignment, (iv) activation, (v) accountability, (vi) attraction, and (vii) asset management, which can be synthesized into specific action points for transforming the aftermarket performance. Based on the learnings from these recommendations, we identify seven related elements for aftermarket excellence. The aftermarket support service can be visualized as a strategic engine for long-term stakeholder engagement, as depicted in Fig. 8.6. It comprises two main components: the aftermarket support platform and the organizational enablers. A good support platform would consist of an information system, insights engine, innovation process, implementation plans, and intervention triggers. The enablers (as shown in the outer shell of Fig. 8.6) include the structural elements of organization design, culture, policies, and leadership. A brief description of the aspects of the aftermarket support service platform and enablers are discussed below. How well the aftermarket business unit builds the service platform and manages the enablers determines its performance in the long term.

Aftermarket Value Co-creation Platform

(i) Information system: Big data is considered the “new oil” and opens tremendous opportunities to understand stakeholders using high velocity, wide variety, and voluminous data generated not only from the touchpoints but from several other sources (Moorthy et al., 2015). The aftermarket provides data at service touchpoints, including face-to-face interactions, call centers, emails, chatbots, blogs, reviews, etc. If adequately processed for insights, such data could help companies understand stakeholder behavior, attitudes, sentiments, interactions, relationships, and social networks. The data can also help explain customer expectations and preferences and predict future behavior. Various data storage and management tools can be effectively utilized for developing the aftermarket information system. These systems can link data from multiple devices, including smartphones and tablets, to capture and retrieve real-time information. Aftermarket team members can now grab

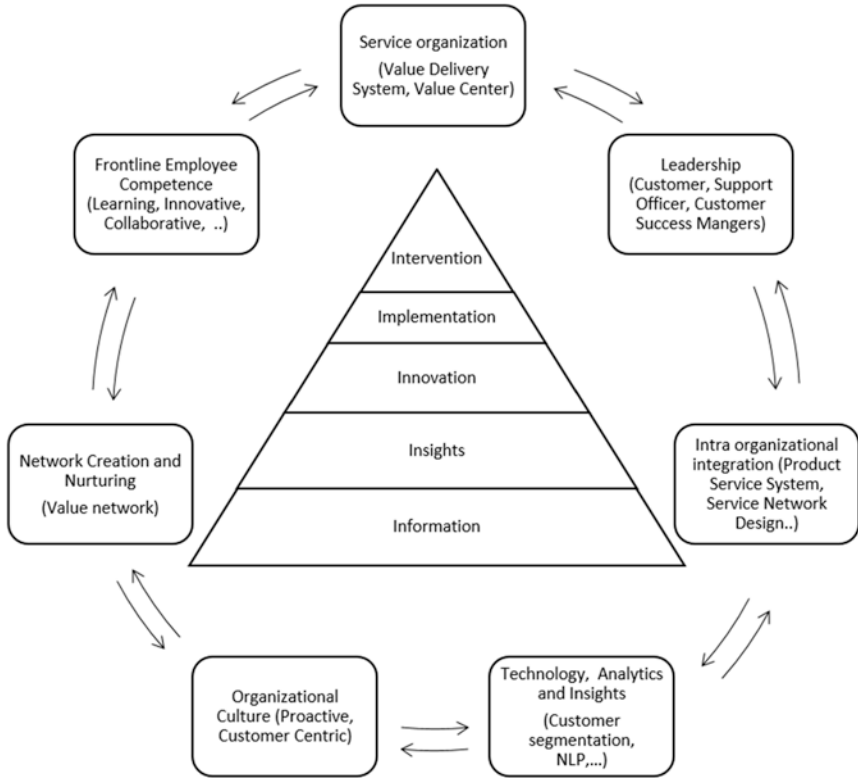


Fig. 8.6 Aftermarket transformation platform and process enablers

and share data proactively for value co-creation (Lages & Piercy, 2012). A strategic Frontline Information System (FLIS) is critical to effectively managing customer relationships at the front (Parvatiyar & Sheth, 2001). Properly built information systems, with appropriate analytics, can facilitate the personalization of services and offerings to various stakeholders.

(ii) Insights engine: Insights are strategic assets that help understand context-specific causes and effects (Barnes, 2022). Customer insights are distinct from customer information, as information requires transformative analysis to generate insights (Smith & Raspin, 2011; Smith et al., 2006). Customer insights help the firm to respond to business opportunities and threats and accomplish customer-focused growth (Langford &

Schulz, 2006; Smith & Raspin, 2011). The goal of generating market insight is to co-create value for the stakeholders involved. For example, Accenture (Schmidt et al., 2021) reports that OEMs have implemented high technology for collecting intelligence on their product installations for predictive maintenance. But they don't have insights into how the dealers and service providers respond to customer requests triggered as alerts and don't know how to react.

In the packaged goods industry, Unilever has created a process of generating and disseminating customer insights to the frontline, wherever and whenever required (van den Driest et al., 2016). In effect, the company has developed the ability to transform data into insights about customer motivations to inform strategies (van den Driest et al., 2016). The "insight engine" lays the foundation for creating innovative solutions that meet consumer needs.

(iii) Innovation process: Converting insights into innovative solutions and market offerings is the most effective competitive strategy. A process must be in place to encourage the aftermarket team to think creatively, based on market insights, about what value co-creation will be most appealing and competitively defensible. In general, protecting innovations from competitive duplication in the service industry is challenging. It requires continuous innovation and improvements. It requires an innovative culture with appropriate support systems and processes. Per the SD logic, the innovation value depends, in addition to human characteristics, on time and space, the cost involved, and other contextual factors. Consumers value their experiences differently for the same service based on the context. Aftermarket companies must continuously innovate to meet such context-specific differences. Moreover, sustainable value creation involves all stakeholders: the customers, the service providers, and the suppliers.

Hollebeek et al. (2022a, b, c) highlight the importance of the relationship between industrial design innovation and stakeholder engagement. They assert that the focus of the literature has been chiefly on customers while ignoring (or underplaying) the critical role played by other stakeholders in the service innovation process. They suggest the concept of "omni-stakeholder" in industrial innovations, including all stakeholders who have a role in co-designing the industrial innovation that impacts

stakeholder engagement. Not surprisingly, many companies use information technologies as a platform for strategy innovation (Ramaswamy & Ozcan, 2013).

(iv) Implementation plans: Industry leaders worldwide perceive the problem of taking advantage of opportunities as the “ability to translate insights into actions” (Simon et al., 2016). Aftermarket strategy implementation involves translating strategic decisions into detailed and integrated programs, tasks, tactics, and associated actions, supported by appropriate resources for effective implementation (Morgan et al., 2019). Although crucial, aftermarket strategy implementation is challenging for most firms (Piercy, 1998). Bonoma (1984) observed that many companies are strategy-sophisticated but implementation-poor. It is generally harder for marketing managers to implement a marketing strategy than design one because it needs to create and sustain a climate that motivates employees to perform effectively (Thorpe & Morgan, 2007). Hence, the implementation must be well-planned and coordinated to achieve results. It requires clear thinking on several action elements, wrapping them into programmatic activities, proper resource allocation on support systems, and matching policies to guide the team members.

Malshe et al. (2022) found that sales and marketing team members have different self-interests within the organization and, therefore, need to be motivated individually to align their self-interests with the aftermarket strategy and implementation goals. Petersen et al. (2022) proposed a Customer-Based Execution Strategy (CBES) to encompass a “tactical plan for creating value for customers by obtaining value from these customers in return through enhancements in customer engagement” (p. 567). It could apply as well for the aftermarket support service execution. A systematic and robust plan of action can foster customer-centric aftermarket strategy execution.

(v) Intervention triggers: Intervention is linked to the monitoring process and associated metrics to measure goal accomplishment. The metrics and measures are part of the control mechanism to trigger intervention for undertaking corrective action or seizing new opportunities. The adage “what gets measured is what gets managed” may have some truth, but it could also be detrimental to the overall aftermarket purpose and goals (Caulkin, 2008). Traditional cost center focus of aftermarket

business and associated measurement metrics may distract us from the proactive interventions for strategic stakeholder engagement. Cornfield (2020) of Accenture Interactive asserts that although several companies have announced that they are customer-centric, they still focus on company-centric metrics. Instead, he recommends using Customer Performance Indicators (CPI) to align with company Key Performance Indicators (KPIs). All stakeholders, such as marketing, operations, customer service, and finance functions, directly or indirectly involved in the value co-creation process need to use CPIs as their metrics for monitoring operational performance and intervention triggers. Since the aftermarket involves multiple stakeholders, alternative metrics and intervention triggers could be based on the *balanced scorecard* approach (Kaplan & Norton, 2005; Neely et al. 2002; Parvatiyar & Sheth, 2001; Chirumalla et al., 2013). For monitoring performance by customer support services, Patti et al. (2020) recommend the following three measures: (1) customer perceptual measures such as satisfaction, loyalty, and trust, (2) operational measures such as waiting time, response times, up and down times of customer machines, and (3) outcome-based measures such as customer churn, retention, WOM, referrals, and customer lifetime value (CLV).

Whatever the metrics for monitoring and triggering aftermarket intervention, it is essential that it has a complete view of all key stakeholders and include all aspects of the aftermarket customer journey and experience (Kumar et al., 2010; Kumar, 2018).

Aftermarket Support Enablers

In addition to provisioning and instituting the aftermarket support platform, organizations must create a conducive environment for the aftermarket team to implement the aftermarket strategy successfully. These include creating an appropriate organizational structure with clear roles and responsibilities for internal and external stakeholders, requisite executive sponsorships, reward systems, policy directives, and a culture that encourages empowered action by aftermarket team members to achieve the strategic vision. We call these enablers that help managers use the aftermarket support platform more efficiently and effectively for value

co-creation and leveraging multidirectional interactions and influences. Given below is a description of some of the enablers.

(a) **Aftermarket strategic business unit:** Deloitte & Company observed that the lack of a focused service organization coupled with the resistance to change prevents manufacturers from delivering superior value and benefiting from the aftermarket business potential (Wellener et al., 2020). Excellence in aftermarket support for stakeholder engagement requires a mind-set change and a deliberate organizational design. Treating it as a cost center will often lead to a resource crunch, insufficient workforce to do the tasks, inadequately trained staff, and low morale. In addition, since it is a customer-facing function, it will eventually impact the quality of interactions with customers and create negative experiences and disengagement. As a result, leading organizations across industries have begun structuring aftermarket support as a profit center and an independent strategic business unit. Academic thinkers have also supported the idea of making aftermarket a strategic business unit with its networked partners and internal and external alliances to serve all stakeholder needs best and provide superior customer value (Frow & Payne, 2011; Lusch & Webster, 2011; Venkatraman, 1997; Verhoef & Lemon, 2013).

Moreover, academic research is being directed to study how the aftermarket needs to be redesigned for the future. According to the Marketing Science Institute (MSI), “in a rapidly changing world, virtually all markets are re-evaluating how they should do marketing. Different structures, new processes – everything is on the table” (MSI Priorities, 2014, p. 7). As a result, the configurations of marketing networks (considered to be the fourth industrial revolution) are being shaped by such developments as—micro-manufacturing, artificial intelligence (AI)-mediated consumption, distributed innovation clusters, and distributed marketing (Achrol & Kotler, 2022).

These driving forces offer opportunities for network-managed value co-creation. However, it is also subject to considerable volatility, uncertainty, turbulence, and changing customer expectations. Nevertheless, the reorganization of aftermarket customer support is imperative (Sheth et al., 2020).

(b) Aftermarket leadership: Transforming aftermarket business and gaining sustainable competitive advantage requires visionary leadership and a supporting team. Sheth et al. (2020) emphasized the need for creating a new position titled Chief Customer Support Officer (CCSO), reporting directly to the CEO or COO to provide the customer perspective in the strategic planning process. The role of the CCSO is to ensure that users realize the full potential of the products and services they have bought. It also aims to enable customers to utilize their resources to profitably undertake their own business instead of being bogged down by the non-functioning or challenges of using the vendor's products.

The CCSO is expected to instill a customer-centric culture and advocate for customers in the boardroom. In several software product companies, a similar role of Chief Customer Success Manager (CCSM) has been created (Hilton et al., 2020). There is also a Customer Success Association (CSA) that articulates the task of CCSM of developing "a long-term, scientifically engineered and professionally directed strategy for maximizing customer and company sustainable proven value." CCSMs are expected to follow a customer-centric strategy in helping customers succeed through value co-creation.

Customer success management necessitates firms' proactive involvement in usage or value realization processes. CCSMs must capture and analyze data, generate insights for innovation, trigger value co-creation, and identify new revenue or joint venturing opportunities. In addition, the CCSM has to actively engage with the users and other stakeholders to understand the challenges associated with current and future usage of products/services and accordingly implement plans. As stated earlier, the primary objective of customer success management is to unlock the full potential of the firm's offerings to its users and other relevant stakeholders (Hochstein et al., 2020). The CCSM function differs from CCSO because CCSM focuses on product adoption, facilitating training, developing user advocates, creating user experts and product champions, and facilitating continual improvement for value realization by all stakeholders (Hilton et al., 2020). CCSMs are also meant to ensure that significant benefits accrue to customers from the investment in the new product or service. CCSMs thus could imbue a partnering relationship with stakeholders. In the aftermarket business, the CCSMs assume a significant

role of proactively prioritizing customer experiences and engagement toward maximizing value in use.

(c) Organizational integration: Cross-functional integration is essential for resource sharing, pooling skills, and conflict resolution in an after-market organization. Shapiro et al. (2004) criticized organizations for operating as silos and advocated a process orientation to serve customers in every stage of order processing. Departments are subsystems of an organizational system, and cross-functional integration is the “process of achieving unity of effort among the various subsystems in the accomplishment of the organization’s task” (Lawrence & Lorsch, 1967, p. 4). Multiple departments in service delivery (customer service, logistics, manufacturing, accounts, and finance) must work as a unified system to enhance aftermarket value delivery. Several firms use different mechanisms to foster cross-functional integration. For instance, P&G, Walmart, Coca-Cola, and McDonald’s use dedicated Key Account Management teams drawn from various departments responsible for customer experience and engagement (Sheth et al., 2020). Cognizant Technologies uses an organization structure termed *two-in-the-box*, where the customer-facing manager and product manager are jointly responsible for the customer (Kumar & Moorthy, 2008). The performance metrics are devised to assess the team and not the individuals. It is essential to resolve inter-departmental conflicts to nurture departmental integration for better organizational performance (Kohli & Jaworski, 1990; Narvar & Slater, 1990). Aftermarket businesses should actively engage in collaborative activities and work together as a team to make strategic decisions, develop implementation plans, and assess the performance of these strategies and techniques. Top management sponsorship, supportive organizational structure, adaptive systems, and facilitative processes are critical for superior value delivery.

(d) Technology and analytics: New technologies, such as the Internet of Things (IoT), Virtual Reality (VR), Augmented Reality (AR), Mixed Reality (MR), Virtual Assistants, Chatbots, 3D printing, Additive manufacturing, Drones, 5G mobile access with AI and analytical power, are dramatically transforming the customer experience (Achrol & Kotler, 2022; Hoyer et al., 2020; Porter & Heppelmann, 2015). IoT is considered a game changer in the aftermarket business model as it enables a firm

to offer and manage product functionalities and track performance through real-time data that predicts troubleshooting and increases uptime.

IoT-enabled printers by several companies, such as HP, Xerox, Lexmark, etc., track customer usage remotely and dispatch ink cartridges before they are exhausted. It removes the drudgery of customers going to the retail shop and buying suitable cartridges. The monthly usage patterns offer advice to upgrade or downgrade the monthly subscription. HP offers its printer cartridges as monthly subscriptions to retain customers. Chatbots and Textbots have also gained traction in presales and aftermarket sales, service efficiencies, and effectiveness. Developments in computing technologies, voice analytics, text analytics, and deep machine learning (ML) algorithms are improving the customer experience. For example, Haugelans et al. (2022) found that introducing anthropomorphic chatbots creates a positive customer experience.

3D printing technologies have further enhanced the aftermarket supply chain, spare parts, and inventory logistics, reducing the requirement for inventory to service legacy and discontinued products such as machinery, automobiles, and appliances. 3D printing can reduce the need for holding lots of spare parts stock in service legacy for discontinued products in the case of machinery, automobiles, and appliances. With jet infusion technologies, HP manufactures on demand to reduce costs. VR technologies further enable service providers to create an immersive experience, mainly to train users and other stakeholders. Moreover, four VR features—sensory perception, interactivity, three-dimensional and contextual displays, and collaborative interaction—can influence the customer experience in real and virtual settings (Wedel et al., 2020), influencing post-consumption behaviors such as repurchase intentions, loyalty, satisfaction, and advocacy (Flavián et al., 2019).

AI, ML, and big data analytics are improving customer behavior's predictive and explanatory aspects. Both structured and unstructured data analysis with ML algorithms can help service providers predict and deploy proactive strategies to improve customer experience. McKinsey & Co.) reported that successful customer experience transformation is increasingly becoming analytics-led (Guy et al., 2019). It plays a crucial role in “understanding what individual customers value, and hence prioritizing which features to build and offer to which customers” (Grüntges et al.,

2021, p. 7). McKinsey & Co. also reported that after-sales services are moving toward real-time surveillance and predictive offerings. However, there are concerns regarding the dark side of technology and analytics application in aftermarket service operations. For example, AR/VR technologies can negatively impact customers, causing confusion, dissonance, and boredom (Batat, 2021). Thus, the marketer has to weigh the advantages and disadvantages of deploying specific technologies for service delivery.

(e) Organizational culture: Customer-centric firms provide experiential value based on customer data analytics and insights (Simon et al., 2016). However, over-performers foster customer-centric culture by aligning corporate strategy, structure, analytics capabilities, and insight generation to customer experience design. In addition, widespread digitalization increases competition, and to be successful, firms need to embrace a customer-centric culture. Payne and Frow (2005) suggest processes to become customer-centric: business strategy and customer integration, value co-creation, omnichannel operations to reach all customer touchpoints, information systems including data management and analytics, and appropriate metrics. Shah et al. (2006) also suggest cultivating advocates who continuously provide focus and redirect people and processes to customers. Furthermore, the active involvement of senior executives becomes the driving force for nurturing and sustaining the customer-centric organizational culture. Ultimately, customer service managers must connect with customer requirements to avoid negative customer experiences (Shapiro et al., 2004) and establish inter-functional coordination and customer-centricity.

In addition to a customer-centric culture, a conducive service climate needs to be established at all levels (Schneider & Bowen, 1995). Company transformations are complex, especially when the future is uncertain and resources are limited. As shown in Fig. 8.7, it requires a two-dimensional shift from reactive service to proactive actions and from value-delivery mode to value co-creation mode. Most importantly, top management must move away from a myopic-reactive stance to a proactive stance with foresight that encourages the organization to engage with customers for value co-creation continuously (Sun et al. 2006). It requires transformation at multiple levels – organizational culture, process and procedures,

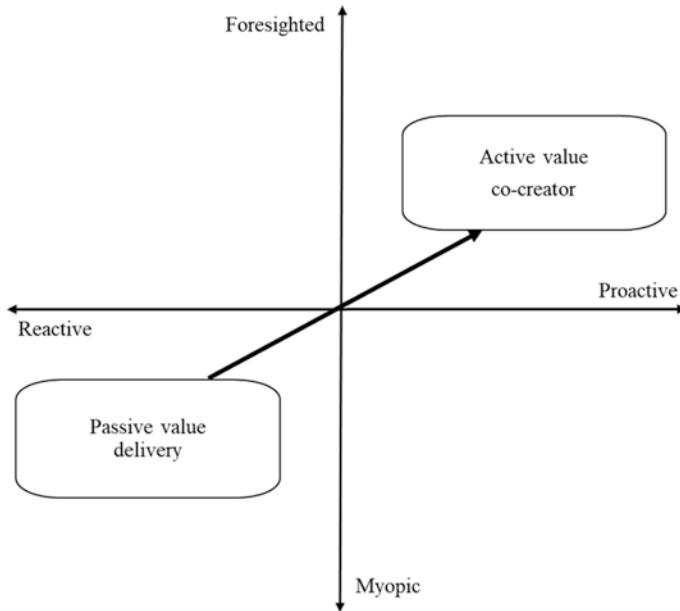


Fig. 8.7 Aftermarket cultural shift

and technological systems (Bolton et al., 2014; Parvatiyar, 2011; Sheth et al., 2020).

(f) Networks and value constellations: Multiple organizations work together as network partners for aftermarket value creation. These organizations dynamically configure and reconfigure as networks (Achrol, 1996; Håkansson & Snehota, 1995) or constellations (Normann & Ramirez, 1993), and ecosystems (Frow & Payne, 2007; Lusch et al., 2010). Ramaswamy and Ozcan (2018) advocate value co-creation through a network of interacting entities, including humans, organizations, and artifacts such as digital agents. Achrol and Kotler (2022) consider distributed marketing network configuration in value co-creation as the fourth industrial revolution that has emerged due to hyper-turbulent, heterogeneous, and rapidly changing business environments demanding firms to become more open to the environment. Four main factors influenced the emergence of distributed network configuration: (i) Micromanufacturing technologies, such as 3D printing and additive and

flexible manufacturing, enabling the postponement of production close to customer demands. (ii) Interconnected consumers with near-perfect information made possible by firms like Amazon and eBay for omnichannel distribution. (iii) Innovation clusters shifting from large corporations to small startups. And (iv) “platformization” of the marketing network, including brands, distributed suppliers of service providers, and manufacturers.

These factors are likely to change the aftermarket environment significantly. Since a stakeholder’s salience depends on several factors, aftermarket managers should carefully prioritize the role of all stakeholders. The networks are influenced by hard facts and the managers’ perceptions, their power to influence the firms’ decision-making, the legitimacy or appropriateness of these organizations’ claims, and the urgency of meeting the expectations and demands (Frow & Payne, 2011). Aftermarket value networks are complex and dynamic due to the involvement of several stakeholders and uncertainties in predicting demand. Thus, many aftermarket networks are designed to reduce costs and not increase user experience and engagement. According to Venkatraman’s (1997) value center concept, the network could become a value co-creating relational mechanism. For instance, IKEA, whose business model is built on DIY customers worldwide, has reconfigured the supply-chain network in the Indian market by including logistics partners for product installation / assembling, given that India does not have a DIY culture. Similarly, enterprise software product firms work with value-added distributors and integrators such as Accenture, Infosys, and Deloitte for business process improvement, software customization, product training, troubleshooting, and future sales.

Building trust among stakeholders in complex networks is essential yet challenging (Ballantyne & Varey, 2006). It requires a dialogical approach to facilitate information and knowledge sharing among the key shareholders. The S-D Logic also favors an interactive system for better understanding and stakeholder trust-building. Firms that undermine the aftermarket business and outsource to third parties without a transparent strategic process lose customer trust. Authentic communication among stakeholders is critical in overcoming differences and skepticism (Ballantyne & Varey, 2006; Bhattacharya & Korschun, 2008).

(g) Empowered frontline team members: Frontline team members play a vital role in the aftermarket value co-creation by interacting with customers at each touchpoint. However, there is little organizational and societal appreciation for customer service professionals. Frontline team members are often poorly trained, highly overworked, stressed, and underpaid (Dagger et al., 2013). They face disgruntled and sometimes uncivilized customers in their daily work life and encounter avoidable abuse. Thus, when dissatisfied frontline employees' attitudes and actions percolate into customer interactions, it creates negative customer experiences. No wonder a high level of depression, stress, and anxiety have been associated with frontline service workers (Oh et al., 2017)

As an alternative, many firms have infused technology into customer touchpoints, wherein the service is performed automatically or by customers themselves instead of relying on frontline service personnel. Technology, therefore, is used to mediate customer—frontline, customer—digital interface, or fully automated interactions (Giebelhausen et al., 2014; Pozharliev et al., 2021). AI, ML, Bigdata, and other analytical support systems help track customer behavior and facilitate stakeholder experience and engagement. As such, the customer service role itself is evolving. The frontline team members must upsell, cross-sell, innovate, and identify new opportunities beyond serving customers. For this to happen, frontline team members must be well-informed and knowledgeable about the customer's business and their own company's products and services.

Furthermore, frontline team members should be flexible, innovative, and empowered to undertake the varied demands of customer service (Dagger et al., 2013; Gilmore, 2001; Jackson & Sirianni, 2009). The frontline transformation is an iterative process involving strategizing, implementing, assessing the outcomes, and further refinement (Quentin et al., 2021). Traditionally, aftermarket frontline team members worked in silos and communication or information sharing was not optimal (Sheth et al., 2020). However, developments in CRM and cloud technologies have made it now possible to mitigate this situation. New ideas offered in servitization (Zhang & Banerji, 2017), service design (Stickdorn et al., 2018), and manufacturing process redesign with new tools and frameworks could be helpful in the transformation of frontline

empowered activity to enhance customer experience. Also, it should be noted that training plays a critical role in developing the requisite front-line competency and capabilities. Infusion of digital technologies and analytics requires additional training beyond traditional product knowledge, telephone skills, and communication training. Most importantly, top management must provide direction for frontline transformation and sustain the changes to realize the desired goals.

Conclusions, Managerial Implications, and Future Research

The aftermarket potential is enormous, and firms can build a long-term profitable business by carefully studying the emergent business environment, such as stakeholder dynamics, technology, competition, and the firms' ability. Servitization suggests using new tools (e.g., IoT and Mobile Apps), novel pricing models, integrated marketing communication, and omnichannel integration. Historically, aftermarket services were treated as a cost function. Hence, it often fails to capitalize on emerging opportunities. It requires a new mind-set to consider aftermarket efforts as value co-creation opportunities that can generate sustainable competitive advantages for the firm by establishing long-term relationships with users and other stakeholders. It is essential to focus on users and other stakeholders who are companions or distractors in their decision-making, consumption, and post-consumption journeys. Such change necessitates acquiring new resources, structures, competencies, and capabilities. Top management must have the foresight to explore emergent trends and develop organizational agility to quickly unlearn, learn, and relearn new ways to execute required strategies and operations. Also, customer support and service functions and professionals' importance must be recognized and elevated.

Aftermarket customer engagement can provide opportunities for long-term value co-creation as they are the critical link between the company and its users. It can open up new avenues for generating more revenues and profits for the firm and increase value to customers and other

stakeholders. Some direct benefits of superior aftermarket support services are increased customer satisfaction, improved user experience, more customer engagement with higher retention, repeat orders, positive WOM, referrals, and advocacy. In essence, it can enhance the sustainable competitive advantage of the firm. However, the aftermarket division must be treated as a strategic business unit with full P&L responsibility to realize its full potential.

In this chapter, we provided a strategic framework to assess the organization's current status and set the direction for transformation into a relationship patronage-building enterprise. We recommend two interconnected subsystems to achieve the expected change: an aftermarket support platform and organizational enablers. The aftermarket support platform consists of five elements: (1) Information system, including stakeholder and competitor-related data collection, storage, analysis, and dissemination to the relevant users. (2) An insights engine leveraging the captured information to identify specific occasions for intervention. (3) Innovation process that combines insights with the creation of value offerings to specific customers. (4) Implementation plan, including activity and action planning, program monitoring, system adoption, and policy specifications. And (v) Intervention triggers that focus on measuring, tracking, and proactively responding to service and new business opportunities.

The organizational enablers further enhance the capability of the aftermarket enterprise to support customers and co-create value with them. Seven types of organizational enablers are specified in this chapter: (i) Structure aftermarket services as a value center and not a cost center. The fundamental shift is to make it a win-win for all stakeholders, where users can fully access the marketer's expertise. (ii) Creation of a position of a Chief Customer Success Manager (CCSM) reporting directly to the CEO or COO, who becomes a customer advocate for the enterprise and champions the cause of customer business development. (iii) Cross-functional integration to support all customer-facing functions and interfaces. (iv) Technology systems and analytics competencies and capabilities. (v) Customer-centric culture. (vi) Networked partnerships for value delivery and co-creation. (vii) Empowered frontline team. Sheth et al. (2020) assert that such enablement forms the backbone of the

aftermarket service business. Aftermarket team member roles are changing from customer support to active relationship builder, salesperson, customer information generator, innovator, and creator of experiences and engagement. The context of their work is also changing due to digitalization, the infusion of ICT, and mobile technologies. The frontline team members must understand the evolving context of their customer's business and be equipped with digital, technical, functional, and behavioral skills to support the customer in value co-creation. Aftermarket business transformation is not easy and quick to achieve. Substantive effort and leadership commitment is required in designing and executing the enablers and provisioning resources for the support platform. The complexity and challenges in the aftermarket transformation lend opportunities for future research.

The proposed framework for aftermarket transformation could be verified through empirical studies evaluating the efficacy of specific subsystems and enablers in achieving aftermarket vision and goals. For example, studies can explore the role of technology in aftermarket value co-creation, experience, and engagement. The levels of competencies and capabilities required by the frontline team members in specific situations can also be examined. To what extent AI, Analytics, and ML used in aftermarket practices enhance customer experience is another fertile area of research investigation.

Knowledge creation for transforming aftermarket customer experience and engagement strategy requires an interdisciplinary perspective. Further studies on this topic could contribute significantly to our understanding of relationship marketing, co-creation, service operations, service design, servitization, cross-functional team management, team member morale, customer socialization, information technology-led transformations, flexible manufacturing, and so on. Scholars from these domains work in silos, and cross-fertilization can significantly enrich the understanding of the aftermarket phenomenon and help extend the aftermarket knowledge. Such integration will enhance learning and influence practice through integrated frameworks and prescriptions for aftermarket strategy formulation, implementation, and transformation (Parvatiyar & Sheth, 2021).

In a complex service, ecosystem value co-creation involves varied and multiple stakeholders who may not have converging objectives and vary on resource endowments, skills, technology, and power. The heterogeneity of such aftermarket service ecosystems is amplified by temporal and spatial dynamism. Inherently, the management has to play a balancing act in the complex ecosystem during all phases of the stakeholders' journey to co-create value for customers without detrimental impacts on entities like the natural environment, flora, and fauna (Sheth & Parvatiyar, 2021). Hence, it is essential to create in-depth knowledge of the simultaneity of value creation and destruction for wider acceptance by practitioners and other stakeholders. As a result, aftermarket firms must develop foresight and agility to earn a sustainable competitive advantage.

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9

Enhancing Upselling and Cross-Selling in Business-to-Business Markets: The Critical Need to Integrate Customer Service and Sales Functions

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Introduction

Business-to-business firms have recognised that upselling and cross-selling to existing customers enhance revenues at lower costs when compared to acquiring new customers (Kamakura et al., 1991; Johnson & Friend, 2015). Recognising the potential, researchers and practitioners focused on relationship marketing, which focused on continuing

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business relationships and increasing opportunities for upselling and cross-selling (Sharma & Sheth, 1997).

Unfortunately, the results have not been encouraging despite the focus on upselling and cross-selling. Less than 20% of firms achieve their cross-selling goals (Liu, 2021), and nearly 75% of entire cross-selling offerings fail (Schmitz, 2013). In addition, only 3% of the retailers have more than a 10% upsell/cross-sell conversation rate (Mathew, 2015). Research has examined the reasons for the lack of success in upselling and cross-selling with insightful findings. For example, Johnson and Friend (2015) find that sellers rely on the transactional database to examine the success of cross-selling and up-selling strategies without considering the salesperson's behavioural traits, and Kamakura, Wedel, De Rosa, and Mazzon (2003) focus on the lack of examination of sales actions. Focusing on personnel factors, Li, Sun, and Montgomery (2011) found the lack of customer-focused orientation and the inability to gauge customers' varying choices as critical factors; Zboja and Hartline (2010) focused on the lack of employee efforts, and Schmitz (2013) found that salespeople lacked knowledge about the product portfolio and there were differences amongst industrial salesforce teams. Some firms focused on deploying customer relationship management (CRM) software to enhance upselling and cross-selling, specifically in firms that sell multiple products and services (Jeng, 2011). However, the failure rate (lack of goal achievement) of CRM software was very high (over 90%).

Based on the lack of success in upselling and cross-selling in business-to-business markets, our research focuses on developing a deeper understanding of the phenomena. The customer service function is typically responsible for customer service and primarily for upselling and cross-selling to customers in many firms (Aksin & Harker, 1999). We suggest that the customer service function is typically a stand-alone function, and for effective upselling and cross-selling, a deeper integration with the sales function is required. We also suggest that the integration will require reduced boundaries between the customer service and the sales function and increased digitalisation, which enhances data sharing. In addition, supplier firms will need to train their personnel and enhance the customer selection process. We develop a framework in the business-to-business marketing context and elaborate on implications for theory and practice.

The next section discussed the literature in this area. Then, we highlight the research gaps and develop a framework. In explaining our framework, we highlight important success factors for upselling and cross-selling. The final sections discuss the implications for theory and practice.

Literature Review

Upselling and Cross-Selling

In this section, we discuss cross-selling first, followed by upselling. Cross-selling is the firm's initiative or strategy to promote products and services in addition to the ones the customer already possesses (Butera, 2000). Cross-selling includes selling related or unrelated items to the customer's previous purchase (Kamakura, 2008). In the Ansoff (1965) model, cross-selling is one of the four strategies to generate market growth – new products to existing customers (Mundt et al., 2006; Johnson & Friend, 2015). In contrast, market growth through upselling focuses on selling more existing products to existing customers, another strategy highlighted by Ansoff (1965). Upselling is achieved through increased volume sales to existing customers or increasing the level of product or service, i.e., selling upgraded products and services for higher prices (Kamakura, 2008).

Cross-selling substantially benefits suppliers and customers (Schmitz et al., 2014). The primary reason is that the cost of selling to existing customers is lower than the cost of finding new customers (Kamakura, 2008; Johnson & Friend, 2015; Rothfeder, 2003), and Andrews (1999) finds that cross-selling has better response rates than cold calls. In addition, Kamakura (2008) highlights that firms know more about their existing customers' needs and choices and can better satisfy their customers' requirements (Kamakura et al., 2003), leading to a higher share of customer wallet and mind, and also higher switching costs for buyers leading to reduced customer churn (Kamakura et al., 2003).

For supplier firms, cross-selling increases their customer knowledge (Ngobo, 2004), creating more opportunities for growth, higher profitability, and stronger ties with customers (Kamakura et al., 2003);

Kamakura, 2008, Schmitz et al., 2014). In addition, cross-selling increases customer satisfaction (Zboja & Hartline, 2010), improves the buyer's procurement process, and increases customer benefits through volume rebates (Kamakura et al., 2003; Schmitz et al., 2014). Finally, of course, upselling also offers similar benefits.

Due to these significant benefits and lack of success, upselling and cross-selling need further investigation to enhance our understanding of the area to provide recommendations for better outcomes. The next section highlights the extant literature on upselling and cross-selling. Next, we highlight some important studies on cross/up-selling, followed by studies highlighting the intersection of services with upselling and cross-selling, and finally, studies from the business-to-business marketing domain. We initially examine studies from business-to-consumer and business-to-business contexts to understand the subject better. We then narrow our focus to the research in the business-to-business context to identify the gaps in the literature.

Studies on Upselling and Cross-Selling

This section discusses a limited number of important studies in upselling and cross-selling. Kamakura (2008) highlights the advantages associated with cross-selling, increasing the firm's share of the customer wallet, enhancing opportunities for customer relationships, and improving customer retention rate. Kumar, George, and Pancras (2008) examine the customer perspective and discuss the antecedents and consequences of cross-buying, which is described as a customer buying additional related or unrelated products/services from the same supplier (Ngobo, 2004). Kumar, George, and Pancras (2008) identify exchange characteristics, a firm's marketing actions, and customer and product characteristics as important drivers of cross-buy. Reinartz, Thomas, and Bascoul (2008) find that challenging expectations and cross-buying are not drivers of behavioural loyalty but an outcome. They found that behavioural loyalty impacts the number of categories customers buy and the spending dispersion level about these categories. Finally, Shah and Kumar (2008) find

that all profitable customers may not necessarily buy more products, and all customers who buy more products are not necessarily profitable. They suggest that firms need to deliberate when cross-selling to customers.

The Customer Service Function and Upselling and Cross-Selling

Since our context is customer service, this section discusses a limited number of important studies on services, upselling, and cross-selling (Table 9.1). We highlight nine articles; seven studies examined cross/upselling impacts in the financial services industry in the business-to-consumer context. The studies that examine the service industry focused on topics such as prospect identification for cross-selling (Kamakura et al., 1991; Kamakura et al., 2003); the role of relationships in cross-selling (Verhoef et al., 2002; Ngobo, 2004; Jeng, 2011); reinforcing mechanism through cross-selling for loyalty programmes (Lemon & Wangenheim, 2009); and cautionary or dark side of cross-selling (Aksin & Harker, 1999; Mundt et al., 2006; Güneş et al., 2010).

Business-to-business Upselling and Cross-Selling

Since our context is business-to-business markets, this section discusses several important studies on upselling and cross-selling (Table 9.2). We highlight five articles, and most studies focus on employee cross-selling performance (Zboja & Hartline, 2010; Schmitz, 2013; Schmitz et al., 2014; Johnson & Friend, 2015). We also detail a study highlighting the circumstances when cross-buying is not profitable (Shah et al., 2012).

Based on the extant body of knowledge, it is evident that the literature on business-to-business upselling and cross-selling is limited. Moreover, as suggested earlier, despite the significant benefits of upselling and cross-selling, there is a lack of success. Therefore, to better understand customer service's role in enhancing upselling and cross-selling, we develop a framework that incorporates collaboration, personnel characteristics, and customer characteristics, which we discuss in the next section.

Table 9.1 Studies on services, and upselling and cross-selling

Author(s) and study context	Key findings
Kamakura et al. (1991) Context: Financial services	The study examines how financial institutes can identify cross-selling prospects to better target the market based on financial expertise and resources.
Aksin and Harker (1999) Context: Financial services (Retail banking)	The study focuses on cross-selling through the customer service function. They find that cross-selling is expensive (training and support systems technology) and may lead to negative effects on customer service as a result of an additional burden on customer service personnel.
Verhoef et al. (2002) Context: Financial services (Insurance)	The study finds that relationship age moderates the relationship between satisfaction, commitment (affective and calculative), and services purchased (number). Age positively affects outcomes.
Kamakura et al. (2003) Context: Financial services (Bank)	The study develops a model to enhance cross-selling.
Ngobo (2004) Context: Financial services	The study finds that customer relationship has a weak relationship with cross-buying. However, the provider's ability to deliver high-quality services from different service activities drives customers' cross-buying intentions, as does the ease of working with an existing supplier.
Mundt et al. (2006) Context: Financial services (Insurance and Banking)	The study finds that cross-selling efforts by firms and CRM investments do not strongly impact customer loyalty.
Lemon and Wangenheim (2009) Context: Airline	The study tests a cross-buying model in loyalty programmes. It finds that core services' usage by the customer increases cross-buying, which further increases core services' future usage.
Günes et al. (2010) Context: Retail banking call centre	The study highlights the damaging impact of cross-selling.
Jeng (2011) Context: Shopping mall	The study finds that corporate reputation positively impacts cross-buying intentions by enhancing customers' expected new service quality and relationship perceptions (trust and affective commitment) and decreasing information costs.

Table 9.2 Studies on business-to-business upselling and cross-selling

Author(s) and study context	Key findings
Zboja and Hartline (2010) Context: Insurance Agents	The study finds that management-initiated activities (such as training and incentives) result in self-efficacy and motivation of the employees to cross-sell, which results in cross-selling performances.
Schmitz (2013) Context: Industrial glass product manufacturing	The study finds that salesperson and team-specific characteristics impact cross-selling performance. In addition, the impact of team cross-selling ability reinforces individual cross-selling behaviour.
Schmitz et al. (2014) Context: Insurance Agents	The study finds that product portfolio adaptation and leadership behaviour (transactional versus transformational) impact cross-selling performance. Furthermore, the study highlights that when monetary incentives are offered, transformational leadership's positive moderative effect weakens, whereas transactional leadership's negative moderative effect strengthens.
Johnson and Friend (2015) Context: B2B salespersons from different industries, such as services, manufacturing, and distribution.	Cross-selling and upselling lead to job satisfaction and sales performance. The study examines the role of moderators such as customer orientation, number of products/levels, and adaptive selling ability.
Ahmad et al. (2022) Context: B2B salesperson-sales manager dyads in pharmaceutical companies	The study finds that service-sales ambidexterity results in service innovation capability and service recovery performance.
Itani et al. (2022) Context: B2B salespersons from different industries, such as health care, financial services, hospitality, IT, and manufacturing	The study suggests that social media usage by salespersons leads to value co-creation, further increasing cross-selling and upselling.
Shah et al. (2012) Context: B2B (Financial services, IT firm) B2C (Retail bank, Catalog retailer, Fashion retailer)	The study finds that cross-buying may not be profitable under certain circumstances. It suggests that when customers persistently exhibit adverse behaviours, their cross-buying does not contribute to a profitable relationship and the relationship turns unprofitable.

Framework for Enhancing Upselling and Cross-Selling and the Customer Service Function

In this section, we conceptualise the framework and discuss three important cross/up-selling success factors: collaboration, personnel characteristics, and customer characteristics (Fig. 9.1).

Collaboration

Generally, business-to-business marketers have a serial process for serving customers. Salespeople sell the products and services, the fulfilment function (supply chain, engineers) delivers the products and services, and customer service provides follow-up and customer service. As stated earlier, the customer service function is increasingly responsible for upselling and cross-selling (Aksin & Harker, 1999). This is understandable as research

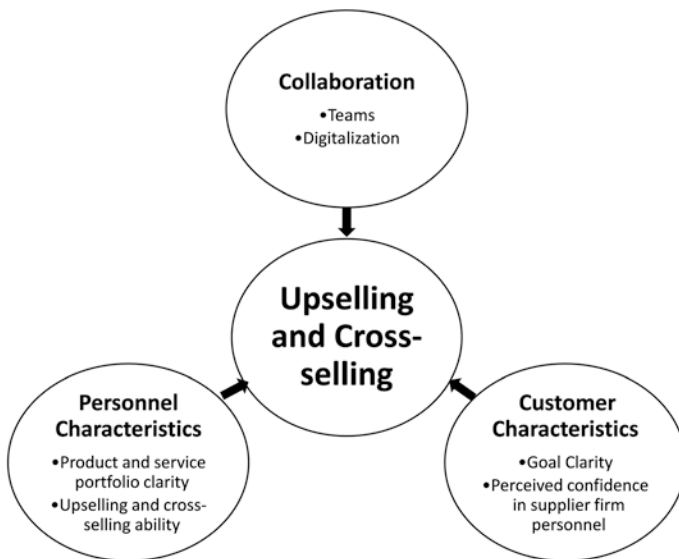


Fig. 9.1 Conceptual framework

has shown that customer service personnel are more accurate about customer evaluations than salespeople (Sharma & Lambert, 1994).

We suggest that one of the customer service function's issues with upselling and cross-selling is the boundary between functions leading to a lack of information. For example, as suggested by earlier studies, salespeople and customer service personnel rarely communicate on sales strategy and tactics. Therefore, customer service personnel are unaware of 'what was promised' and 'what was delivered'. Therefore, the customer service function is 'selling blind', and the success rates are low.

To increase upselling and cross-selling efficiency, we suggest a deeper integration of the sales and customer service function by developing teams. Therefore, rather than each function interacting with customers individually, the team interacts with the customer collectively. This is analogous to a key account or global account management team, with each member focused on the selling firm and customer success.

Recent literature emphasises integrating customer service personnel as an essential part of customer-focused teams to increase efficiency and offer enhanced customer services (Sheth et al., 2020; Sharma, 2020a). In addition, integration ensures the multi-dexterous functioning of the supplier firm (Ritter & Geersbro, 2018) and the functional adaptiveness of salespeople who will be deeply involved in the entire sales process, including working closely with service personnel (Sharma et al., 2020).

Sharma (2020b) suggests four issues have increased the boundaries between functions: non-usage of teams, deep functional specialisation, lack of strategic scaling of functions, and lack of technology adoption. Therefore, firms need to focus on four areas of change to reduce boundaries – developing teams, decreasing functional boundaries, increasing scales, and increasing the use of technology. Teams with end-to-end customer account control are typically small, multifunctional, autonomous, and self-managed groups. Rather than individual employees being responsible for a linear sub-process, the team works as a single unit responsible for servicing the customer. Sharma (2020b) suggests that teams consist of functional experts (e.g. customer service, finance, sales, marketing), with team members developing expertise in multiple areas as they work in teams. In addition, teams develop, capture, and disseminate

knowledge to team members. Finally, firms that are successful in teams focus on several customers from different industries.

Sharma (2020b) emphasises that the team focuses on ‘one team’, where all team members work to achieve goals (satisfy the customer’s needs). Sharma (2020b) also emphasises that high-performing teams have some common practices:

- Teams frequently meet to share customer information and assign tasks. For example, Sharma (2020b) suggests that teams meet in the morning for 15 minutes to plan the day and assign tasks. He also suggests a similar meeting at the end of the day to debrief team members, provide data on current customer issues, and plan for the next day.
- Members develop multifunctional knowledge to rapidly and accurately address customers’ queries and concerns.
- There is team-level monitoring of member behaviours to enhance customer outcomes.
- The teams develop formal or informal knowledge management systems that capture the team’s and individual members’ knowledge. Even when a member departs, the knowledge is retained.
- The evaluation of teams is based on team-level and personnel measures. Some team-level measures are outcome (e.g. sales, customer satisfaction), and some are process-based (e.g. quality, speed, innovativeness). Personnel measures include team evaluation of members and learning achieved.
- Members reskill continuously and enhance ‘learning oriented’.

Besides the human intelligence derived through the deep integration of service and sales teams, firms can also gather important information through advanced technologies. While salespersons have been using technology for quite some time for upselling and cross-selling (Sharma & Sheth, 2010), technology has advanced over the years and has helped improve the overall process. For instance, traditionally, CRM software has been widely used for various purposes, including upselling and cross-selling (Gummesson, 2004; Saini et al., 2010; Johnson & Friend, 2015). Syam and Sharma (2018) suggest that artificial intelligence and machine learning can analyse structured-unstructured customer data and customer

procurement history. Based on this information, artificial intelligence and machine-learning tools can find the pattern of procurement and may display salespersons' products/services. These suggested products/services may become a part of the upselling and cross-selling communications to existing customers (Paschen et al., 2020). Also, machine-learning tools may help segment customers based on shared attributes resulting in better customer segmentation and improved efficiency of salespersons to pitch appropriate products/services for cross/up-selling and accordingly engage in promotional activities (Chen et al., 2021). Artificial intelligence thus helps achieve business efficiencies (Grewal et al., 2021). To successfully implement hi-tech tools, firms must train their people for technology adaptiveness and yield benefits (Sharma et al., 2020).

A combination of technology-enabled and human intelligence derived from deep sales-service integration thus results in collective/collaborative intelligence about the customer. Collective intelligence is created using a collective knowledge system, which is a 'human-computer system in which machines enable the collection and harvesting of large amounts of human-generated knowledge while enabling emergent knowledge, i.e., computation and inference over the collected information, leading to answers, discoveries, or other results that are not found in the human contributions' (Kapetanios, 2008). Malone and Klein (2007) define collective intelligence as 'the synergistic and cumulative channelling of the vast human and technical resources now available over the internet—addresses systemic problems' (p. 15). Literature also suggests that collaborative intelligence is valuable for maximising value creation (Paschen et al., 2020). Thus, collective/collaborative intelligence developed through the technology-mediated system using the best human and technical information assists salespersons in upselling and cross-selling (Malone & Klein, 2007).

Personnel Characteristics

The team should ideally be the closest point of contact for customers on the relationship spectrum, highlighting the importance of team member characteristics. Various studies have highlighted important aspects of personnel characteristics such as cross-selling ability (Schmitz et al., 2014), cross-selling self-efficacy (Zboja & Hartline, 2010); adaptive selling

(Johnson & Friend, 2015); cross-selling incentive expectancy (Schmitz et al., 2014), cross-selling role clarity of salesperson (Zboja & Hartline, 2010); cross-selling motivation (Zboja & Hartline, 2010; Schmitz, 2013); customer orientation (Johnson & Friend, 2015); and adoption of company's product portfolio (Schmitz, 2013). In our context, we specifically suggest two crucial factors for upselling and cross-selling success – product and service portfolio clarity and upselling and cross-selling ability.

Product and Service Portfolio Clarity

Business-to-business offerings range from simple products/services to complex solutions, which are technically complex to sell and use (Swani et al., 2014). This requires deep product and service knowledge for effective selling and endearing customer confidence (Piercy et al., 1997). While more products and services are better for upselling and cross-selling (Johnson & Friend, 2015), it also requires knowledge of a greater number of offerings. Thus, clarity about their features, specifications, application, value proposition, and certification of various products and services will help upsell and cross-sell.

Upselling and Cross-Selling Ability

While salespeople are regarded as 'hunters', continued relationships to enhance upselling and cross-selling require 'farmers' (Sharma et al., 2020). Therefore, the customer team requires farmers who develop a relationship over time, focus on customer needs, and deliver products and services that enhance the value creation of the customer firms. Personnel's ability to patiently understand customer needs and provide win-win solutions will play a significant role in upselling and cross-selling (e.g. Schmitz et al., 2014). Therefore, the upselling and cross-selling ability is an important factor that will play an essential role in upselling and cross-selling. Firms will need to train their personnel and enhance their learning orientation (Sharma, 2020b).

Customer Characteristics

Various studies examine the role of customer-oriented factors in cross/up-selling. These factors include customer purchase history (Shah et al., 2012); customer satisfaction, switching costs, customer's perceived convenience, and customer image conflicts regarding the firm's services (Ngobo, 2004); expected service quality, information costs saved, trust, and affective commitment (Jeng, 2011). In business-to-business marketing, we specifically suggest two important customer characteristics for cross/up-selling success: goal clarity and perceived confidence in supplier firm personnel.

Goal Clarity

Goal clarity refers to the clarity of customers about the goals of the organisations they represent at the micro or macro level (c.f., Shoemaker, 1999). This factor is different from role clarity, which may involve understanding the role or job the customer has to perform (Dellande et al., 2004). When the buyer is cognizant of the organisation's goals, the buyer understands the role of the purchase in the firm's goals. Engaged buyers understand these goals and the organisation's vision (Sahoo & Sahu, 2009) and will have better goal clarity on the firm's direction. These customers can chart buying plans accordingly, and the clarity of the customer's goal will make the upselling focused on customer goals more effective. Thus, the customer's goal clarity is vital in effective upselling and cross-selling.

Perceived Confidence in Supplier Firm Personnel

As discussed earlier, business-to-business buying is a complex and lengthy process that requires decisions at multiple levels (Habibi et al., 2015). In these circumstances, the buyer must have confidence in the personnel they interact with. This requires the buyer to perceive the supplier's personnel to be credible. We build upon Liu and Leach (2001), who suggest that consultative selling, which is 'the process of professionally providing information for helping customers take intelligent actions to achieve their business objectives' (p. 147), plays a vital role in customer loyalty.

However, upselling and cross-selling would require more than consultative selling, driven by the buyer's confidence in the supplier's personnel. Thus, we suggest that the customer's confidence in the supplier's personnel drives upselling and cross-selling success.

The results suggest that firms must enhance their customer selection process to target the most appropriate customers for upselling and cross-selling.

Conclusion

Upselling and cross-selling benefit suppliers by engaging customers in purchases beyond the core or regular purchases. The objective of this study was to examine the success of upselling and cross-selling and the critical role that the customer service function plays in success. We suggest that three factors can enhance upselling and cross-selling success – collaboration, personnel characteristics, and customer characteristics. First, we propose that suppliers establish deeper integration between sales-service teams. Second, firms need to increase the capabilities of their personnel. Third, customer selection needs to focus on firms that can provide opportunities for upselling and cross-selling. The study adds to the body of knowledge through academic research on customer support services (Sheth et al., 2020; Sharma, 2020a, b). This article adds to the extant knowledge of achieving collaborative intelligence through the deep integration of sales and service functions and digitisation. This article advocates for multifunctional, autonomous, and small self-managed teams for cross-selling and upselling. Finally, we discuss two essential customer characteristics, including clarity that customers would have about their organisation's vision and customers' confidence in the supplier's personnel. This study helps practitioners by highlighting specific characteristics that suppliers should inculcate in their teams or use processes that will help cross-selling and upselling. The study also points out how suppliers should gauge their customers if their goal is cross-selling and upselling. We hope these managerial implications will help practitioners and provide an impetus for additional research in this area.

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Part IV

Theme 4: Enablers, Opportunities, and Challenges



10

The Changing Role of Frontline Employees in a Human-Robotic Workforce

Sven Tuzovic

Introduction

Frontline service employees are critical for an organisation's performance and success. Known as *boundary spanners*, they operate at the intersection (boundary) between customers and the organisation. Frontline employees represent the organisation and brand from a customer's point-of-view, develop customer relationships, conduct service delivery, and shape customers' overall service experience (Wirtz & Jerger, 2016). Prior literature has attributed different roles to service employees to understand and characteristics of interactions within service encounters. For example, Bowen (2016) distinguishes between differentiator, enabler, coordinator, and innovator roles. The research found that this multiplicity of roles can often lead to role conflicts and stress, negatively impacting service employees' performance and well-being (Bowen & Schneider, 1985).

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However, the role of service employees is changing. The development of intelligent technology, including artificial intelligence (AI), automation, and robotics, has redefined the nature of service encounters and the dyadic relationship between customers and frontline employees (e.g. Li et al., 2021; Robinson et al., 2020). On the one hand, providing a ‘human touch’ through empathy and people skills remain a competitive advantage for many service firms. For instance, research has emphasised the important role of empathy (e.g. Bove, 2019). On the other hand, AI-fuelled automation is decreasing the level of human-to-human contact, affecting the experiences and behaviours of both customers and employees.

One of the most revolutionary changes is the introduction of *humanoid service robots* (HSRs). While robots have been utilised for many years behind the scenes across assembly lines, warehouses, and order fulfilment centres, (Del Rey, 2019; Evans, 2021), they are increasingly deployed across various frontline service operations, including retail, hospitality, and health care, to name a few (see Mende et al., 2019). Table 10.1 illustrates some examples of service robots in frontline service encounters (Mende et al., 2019). According to industry estimates, the market for service robots is expected to grow in double digits, from USD 16.95 Billion in 2021 to more than USD 57 Billion by 2029 (Fortune Business Insights, 2022).

Table 10.1 Examples of services robots in frontline service encounters

Industry	Service Robot/Description
Restaurants/ Food Delivery	Robot waiters in restaurants, e.g. BellaBot (Pearce, 2022) Pepper, the robot by SoftBank, takes orders and engages in small talk with customers at a café in Tokyo (Horikoshi, 2019)
Hospitality/ Travel	Robot bartenders such as Rob on MSC Cruises (Jainchill, 2021) Robot receptionists in hotels (Trejos, 2016)
Healthcare	Robot receptionists in hospitals, e.g. Pepper in Belgium (Lewis, 2016) Companion robots in hospitals, such as Robin being tested in a paediatric clinic in Armenia (Kart, 2020)
Retail	LoweBot is an autonomous robot to guide customers through stores of the U.S. retailer Lowe (Taylor, 2016) Millie and Marty are grocery store robots that alert shoppers of potential hazards such as spills (Matthews, 2020)

Though the idea of collaborating with robots may seem distant, both professionals and scholars have begun to consider the effects of robotisation on the human workforce (e.g. Le et al., 2022; Lu et al., 2020; Paluch et al., 2022). Some researchers argue that hybrid human-robot teams and collaboration will be the future service model (Kunz et al., 2022). However, little is known about the requirements and impact of human employees co-working with service robots (De Keyser et al., 2019). In addition to emergent technologies, the traditional role of service employees has also been impacted by various other disruptive themes, including the digital economy and the COVID-19 pandemic. While technological innovations have led to a decrease in human contact (e.g. self-service kiosks, automation, online shopping), the pandemic has exposed how vulnerable frontline employees are, in particular, working in 'essential' services (e.g. supermarkets, health care). Employee safety and well-being have become key issues for employers since the start of COVID-19 (Tuzovic & Kabadayi, 2021).

This chapter addresses the convergence of a human and robot-based workforce and explores key factors that enable digital transformation. The focus is on the organisational frontline, which is 'the study of interactions and interfaces at the point of contact between an organisation and its customers that promotes, facilitates, or enables value creation and value exchange' (Singh et al., 2017, p. 4). The next section provides first an overview of key research streams on frontline employees, followed by a summary of the growing body of service robot literature within service encounter contexts, including a focus on human-robot collaboration. Next, a conceptual framework is presented for shaping the convergence of human and robot frontline assistants (FLAs). While service robots can be differentiated along various attributes (e.g. Wirtz et al., 2018), the focus in this chapter is on service robots with a physical representation (e.g. Pepper) compared to only virtual AI ones (e.g. Alexa voice assistant or text-based chatbots). The framework proposes that the successful integration of human/robot service delivery is influenced by employee and robot attributes and five key organisational factors. The chapter will conclude with a discussion of implications for academia, industry, and society.

Literature Review

The Current State of Frontline Service Employee Research

Over the last four decades, a vast body of research has examined the nature and characteristics of frontline employees and the antecedents and outcomes of their behaviours. Multiple research streams have emerged from various disciplines (i.e. management, marketing, services, applied psychology, and organisational frontline research), creating their conceptualisations and research agendas (Subramony et al., 2021). Table 10.2 provides an overview of five research clusters based on a recent bibliometric analysis by Subramony et al. (2021).

While this literature has developed independently with limited cross-disciplinary overlaps, they portray a complex and diverse picture of the role and nature of service staff in rapidly changing environments. From a services marketing perspective, guiding frameworks have been developed for successful human resource management (HRM) practices. Referred to as the ‘service talent cycle’ (Wirtz & Jerger, 2016; Wirtz & Lovelock, 2022), service organisations should focus on the careful recruitment, training, motivation, and retention of service employees. The underlying rationale is underpinned by a service philosophy known as the ‘service profit chain’ (Heskett et al., 1997), which links employee and customer satisfaction. In recent addition, there has been a growing trend to study how various disruptive themes – specifically the rise of emergent technologies (e.g. AI, automation, robotics) and the COVID-19 pandemic – are transforming human relations, interactions, and experiences in the service environment.

The Rise of (Humanoid) Service Robots

While robots have been widely used in manufacturing, they are now increasingly taking on the role of human-like interaction partners at the organisational frontline (Belanche et al., 2020a; Seifert et al., 2022). This chapter defines service robots as physically embodied AI machines

Table 10.2 Major research streams related to frontline service employees (FLSE)

Research stream	Summary
Drivers and effects of FLSE behaviour	Research stream focused on antecedents and outcomes of FLSE behaviours Topics: influence of work climate/culture, human resource management practices and systems (e.g. recruitment, training, compensation), team-related variables (e.g. team environment, group work, remote work), and collective attitudes (e.g. job satisfaction, organisational commitment)
Service encounter & FLSE-customer relationships	Research stream focused on interactions between FLSE and customers Topics: employee engagement and participation of customers, management of emotionally charged service encounters, the role of FLSE on service branding, FSE perceptions of physical and digital servicescape
Customer and service orientation	Research stream focused on how FLSEs meet customer needs Topics: customer-oriented traits, attitudes and commitment to service quality, customer-oriented service performance
Regulation and management of FLSE emotions	Research stream focused on FLSEs' emotional experiences Topics: affective states and traits of FLSEs (e.g. the influence of personality traits, self-control, extraversion), emotional labour strategies (e.g. deep acting versus surface acting), the impact of customer incivility on employee wellbeing
Occupational health	Research stream focused on occupational health of FLSEs Topics: physical and mental health issues (e.g. health complaints, absenteeism), drivers and outcomes of positive and negative employee wellbeing

capable of cognitive and social human behaviours, including autonomous learning, social interactions, problem-solving, and decision-making (Hoyer et al., 2020; Wirtz et al., 2018). Thus, the focus is on service robots with a physical presentation (e.g. Pepper) compared to virtual ones such as chatbots and voice assistants (e.g. Alexa). Service robots can be further categorised from humanoid (i.e. anthropomorph) with a human-like appearance to non-humanoid (e.g. Roomba cleaning robot). As technological developments advance, service robots increasingly combine assistive and socially interactive functions (Čaić et al., 2018).

Service robots are generally expected to be reliable concerning functional tasks. However, one of the key limitations is that service robots lack empathy and emotional communication capabilities (Davenport et al., 2020; Reis et al., 2020). Furthermore, some human-robot interactions require human intervention, for instance, in the case of service failures (Choi et al., 2021). Table 10.3 shows several criteria for comparing service robots to human employees.

The domain of service robotics has gained much momentum over the last few years. A recent literature review by Lu et al. (2020) demonstrates the wide variety of theoretical perspectives and frameworks. Existing studies often focus on industry contexts such as hospitality, tourism, retailing, or health care. Within those industries, the topics deal with robot characteristics, specifically, the influence of anthropomorphism and human-likeness (e.g., McLeay et al., 2021; Mende et al., 2019) or autonomy (Jörling et al., 2019) on HRI. Other scholars developed novel conceptualisations to understand better customer acceptance towards service robots, such as the service robot acceptance model (sRAM) (Wirtz

Table 10.3 Comparing human and robot frontline assistants

Criteria	Human Frontline Assistants	Robot Frontline Assistants
Customer interaction	Focus on emotions Act as an individual Deep-acting and surface-acting	Focus on technology Connected to a central network Only surface acting
Service delivery	High heterogeneity Creative problem-solving ability Empowerment	Homogenous service delivery Limited problem-solving skills Rule-bound limitations
Training and learning	Requires intensive training Limited memory	Machine learning Virtually endless memory
Service Strategy	Source of differentiation Focus on employee recruitment, training, motivation, retention	Source of cost efficiency Focus on service platform and network
Costs	High incremental costs Low economies of scale	Low incremental costs High economies of scale

Based on Kunz et al. (2022), Wirtz et al. (2018)

Table 10.4 Selected studies on human-robot interaction and acceptance of service robots

Study	Theoretical Underpinning	Method	Key Findings
Belanche et al. (2021)	Attribution Theory	Survey, n = 517	Attributions mediate the relationships between affinity towards the robot and customer behavioural intentions to use and recommend service robots.
Mende et al. (2019)	Uncanny Valley Theory	Seven experiments	HSRs elicit greater consumer discomfort, which in turn leads to the enhancement of compensatory consumption.
Shin & Jeong (2020)	TAM and Uncanny Valley Theory	Experiments, n = 618	Participants had relatively more unfavourable attitudes towards anthropomorphic robot concierges than caricatured ones, suggesting that the human likeness of a non-human feature might provoke discomfort.
Yoganathan et al. (2021)	NA	4 experiments	Anthropomorphising service robots positively affect expected service quality, first-visit intention, and willingness to pay.

et al., 2018). However, Lu et al. (2020) conclude that research remains fragmented, and empirical findings are contradictory in some cases. For example, the effects of anthropomorphism remain inconclusive (Odekerken-Schröder et al., 2022). Table 10.4 summarises some of the consumer-focused empirical studies.

Service Robots as Frontline Assistants and Co-workers

In the context of manufacturing and industrial settings, literature refers to robots more and more as co-workers, team members, and colleagues (e.g. Gombolay et al., 2015; Sauppé & Mutlu, 2015; You & Robert Jr., 2018). A recent Forbes article summarises a few use cases of human and

robot collaboration (Marr, 2022). However, the notion of human-robot work relationships has only recently gained traction in the services literature (e.g. Le et al., 2022; Lu et al., 2020; Paluch et al., 2022). In the following, *human-robot collaboration* (HRC) indicates interdependent interactions between human employees and service robots in a service environment (Tuzovic & Paluch, 2023). Collaboration within an organisation is crucial for the company's success and is, therefore, a main interest (Tjosvold & Tsao, 1989). Collaboration is 'socially contrived mechanisms for collective action, which are continually shaped and restructured by actions and symbolic interpretations of the parties involved (Ring & van de Ven, 1994, p. 96)'. The social viewpoint, which shapes individuals' cooperation with one another, is highlighted in this definition (Smith et al., 1995).

In the realm of HRC, robots are anticipated to team up with frontline workers to accomplish a shared objective (e.g. jointly produce service delivery to meet customer demands) through human-human and human-robot collaboration. But human workers encounter new social and psychological difficulties as they must rapidly adjust to human-robot work associations. A major concern is that the implementation may appear as an intrusion into the social sphere amongst human co-workers. Recent research shows that employees across various industries are concerned about job security, disempowerment (e.g. loss of autonomy and control), and depersonalisation (e.g. Bhargava et al., 2021). They further may demonstrate technophobia towards robotics (Lan et al., 2022; Sinha et al., 2020) and even tensions of active resistance (Paluch et al., 2022). However, research by Oracle and Future Workplace shows that a large number (65%) of employees were positive, enthusiastic, and appreciative about working with robots (Oracle, 2019). Table 10.5 provides an overview of recent empirical studies that study employees' appraisal and coping with robot technologies. It's clear that empirical research is still in its infancy, and there are numerous calls for extensive research on new forms of human-AI cooperation, particularly on employees' perceptions and behaviours towards AI, as well as psychological, emotional, and social dimensions (Coombs et al., 2020; Mirbabaie et al., 2022).

Table 10.5 Empirical research on the interplay between frontline employees and service robots

Study	Theoretical Underpinning	Method	Key Findings
Bhargava et al. (2021)	NA	Qualitative, 21 interviews	Employees must perceive the implementation of robotics, artificial intelligence, and automation (RAIA) as an opportunity, not a threat. As a result, employees may experience job satisfaction dilemmas.
Lan et al. (2022)	Intergroup threat theory	Mixed method, survey (n = 163), 18 interviews	Results show a positive quadratic growth curve regarding employee robot phobia over time. In addition, employees' perceived advantages of robots influence the growth curve compared to humans and perceived anthropomorphism.
Meyer et al. (2020)	Acceptance models	Qualitative, 24 interviews	The authors identify five higher-order categories of acceptance and resistance to service robots: loss of status, tension, required commitment, role incongruity, and advocacy.
Mirbabaie et al. (2022)	Literature review	Mixed method, survey (n = 303)	The results show three central predictors for AI identity threat in the workplace: changes to work, loss of status position, and AI identity predicting AI identity threat in the workplace.
Paluch et al. (2022)	Appraisal theory	Qualitative, 36 interviews	Employees' willingness to collaborate (WTC) is a multi-stage appraisal process influenced by technology, job, and human attributes. The authors identify four employee personas (supporter, embracer, resister and saboteur) demonstrating an individual's WTC with service robots.

Roadmap Towards an Integrated Human-Robot Frontline Workforce

Figure 10.1 presents a framework that builds on recent research of service encounter triads consisting of three actors (customer, frontline employees, and technology) (technology (see Larivière et al., 2017; Odekerken-Schröder et al., 2022; Robinson et al., 2020). The framework further integrates research on the roles of employees (Bowen, 2016) and AI-based technology (Li et al., 2021). Human and robot FLAs can inhibit several roles in a joined human-robot workforce. To plan for the redesign of roles and job tasks, human resource management has to evolve to *human-robot resource management* (HRRM), which facilitates the training and development of the human workforce and provides communication and support in terms of proactive fear management to alleviate perceived risks and anxieties. The framework will be discussed below in further detail.

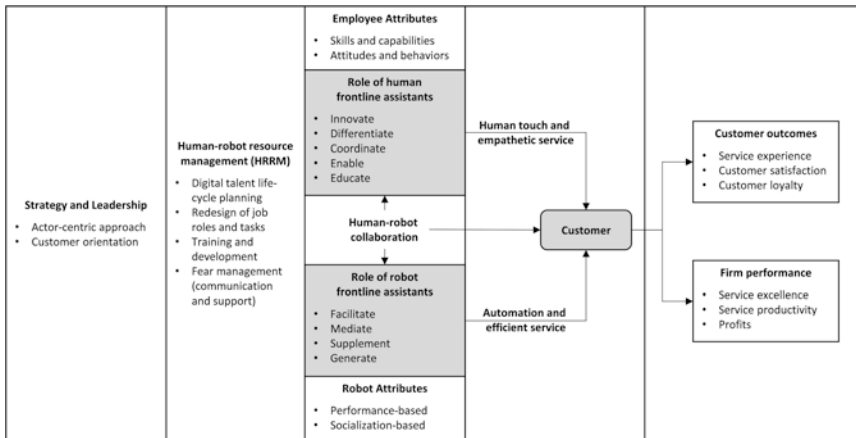


Fig. 10.1 Framework of an integrated human-robot frontline workforce

Digital Transformation Strategy and Leadership

Organisations should adopt two essential philosophies to facilitate digital workplace transformation: actor-centricity and customer orientation (Tuzovic & Paluch, 2023).

Actor centricity. The COVID-19 pandemic has been a catalyst for employees to rethink their values and the purpose of work (Gartner, 2022). According to a Gallup analysis, almost half of America's workforce actively searches for job opportunities, and businesses face many resignations (Gandhi & Robison, 2021). The report shows that disengagement is costly, leading to higher turnover rates. The pandemic has also accelerated existing trends of automation. Various industry experts suggest that the future of work requires a 'human-centric' (Gartner, 2022) or 'employee-centric' (Lee, 2022) approach that focuses on the employee experience. As AI and service robots become an integral part of the workforce, this chapter proposes that organisations should take a broader view and adopt an *actor-centric* 'people-first, technology second' approach that facilitates the transformation with an employee-centric mind-set to mitigate the potential risks of robot implementation. This requires that organisations communicate the purpose of deploying service robots in the frontline service environment and set clear goals to manage the potential disruption of emerging robot technologies at the organisational frontline. A lack of communication and transparency will cause apprehension amongst employees, which may result in increased role stress, burnout, or job dissatisfaction (Workplace Institute, 2018).

Customer orientation. Research has shown the important role of customer orientation on firm performance. In terms of digital transition, organisations need to keep the customer in mind. For example, Ivanov et al. (2017) argue that 'at the end of the day, it is the economic efficiency, the customer experience, the company's competitiveness and other factors that will determine whether to automate and robotise the service delivery process' (p. 1512). Yet, companies frequently focus solely on implementing information technologies while ignoring the impact on their stakeholders. For instance, according to a McKinsey report on AI automation, companies 'rushed to install bot armies', leading to large

investments that did not monetise in time (McKinsey, 2019, p. 44). Furthermore, a recent example in Japan illustrates that the transition to a fully automated workforce may be counterproductive. As per Reis et al. (2020), the Henn-na Hotel, also known as the ‘robot hotel’ in Japan, that was fully operated by robot staff without human contact, was forced to substitute some of the robotic force of the frontline services with human employees. This illustrates that even with all the advancements in AOI and robot technology, organisations need to recognise customer needs and potentially provide dual service provision (Belanche et al., 2020b; Huang & Rust, 2018).

The Role of Human-Robot Resource Management

Services literature highlights the importance of a “firm commitment to effective management of human resources, including recruitment, selection, training, motivation, and retention of employees” (Wirtz & Lovelock, 2022, p. 360) as a driver of service excellence and firm performance. Transitionings toward a human-robot workforce requires a broader view. On the one hand, human resource planning needs to emphasise digital workforce preparedness, which is increasingly a challenge for organisations. According to the World Economic Forum (2020), the ability of global companies to harness the growth potential of new technology adoption is hindered by a massive skills shortage. Amplified by the COVID-19 pandemic, the candidate pool has decreased, posing a challenge to hiring the right talent. As a key condition, organisations need to create a compelling value proposition – in addition to the existing company culture and working conditions – that will attract digital-savvy candidates who will understand the impact of digital transformation. On the other hand, human resource management needs to plan the roles and job tasks of both human and robot FLAs. Thus, AI implementation needs to be part of human resource planning. To combat future anxieties of depersonalisation, it is important to offer meaningful roles to human FLAs that service robots will not replace. Thus, in order to avoid conflicts between human and robot FLAs, human resource planning should carefully revise current role descriptions and role distributions. Several

scholars argue that the evolving role of human FLAs will increasingly focus on performing value-adding tasks (Bhargava et al., 2021; Wirtz et al., 2018). On the other hand, human resource planning needs to take into account the function of service robots. For example, Čaić et al. (2018) point out that the value-destroying roles of robots (e.g. intruder) should be balanced by highlighting the value-creating potential for other network actors during the implementation phase. Table 10.6 summarises the various roles that should be coordinated within HRRM (see Bowen, 2016; Tuomi et al., 2020).

Table 10.6 Comparison of roles of human and robot FLAs

Roles	Description
<i>Roles of Human FLAs</i>	
Enabler	Employees assist customers in using technology (e.g. check-in kiosks at the airport) or support them if they encounter problems.
Coordinator	Employees observe operations running as intended, e.g., monitoring service delivery via surveillance cameras.
Differentiator	Employees act as 'brand champions' and demonstrate passion and empathy during customer interactions.
Innovator	Employees are involved in the service innovation process, e.g. the flight crew at Singapore Airlines proposing new ideas for improving the in-flight customer experience.
Educator	Employees move beyond the actual service delivery to educating customers about value-adding services, e.g., restaurants offering cooking sessions with their chefs.
<i>Roles of Robot FLAs</i>	
Supplement	Robots provide services separately, directly, and independently from employees. For example, restaurant guests order a meal with a waiter or waitress while being served by a robot.
Generate	Robots serve customers independently in the absence of employees. In other words, human labour is being substituted with robot technologies. The Henn-Na Hotel in Japan, described earlier, is such an example.
Mediate	Robots play an intermediary role and extend employees' abilities in service encounters. For example, hotels use robots to deliver food and beverages to guestrooms.
Facilitate	Robots and employees work together as a team and jointly provide customer services. This involves higher levels of autonomy and intelligence.

Training and development. As organisations revise current job roles and tasks, the next requirement is to train and prepare frontline employees. According to a recent Forbes Insights study, data literacy has been identified as a significant gap, yet it is considered critical for implementing AI in organisations (Forbes Insights, 2019). Furthermore, news media highlight the importance of so-called *transferable skills*, including problem-solving, critical thinking, and decision-making (TNW, 2019). It is argued that those skills take advantage of more fundamental human qualities, which service robots cannot replicate. A key focus for organisations is thus to upskill and re-skill frontline employees (Bhargava et al., 2021; Lu et al., 2020). This will require significant investments. For instance, PwC initiated a campaign to educate its workforce of over 276,000 employees globally, which is projected to cost more than USD 3 billion (Fisher, 2019). In addition to being equipped with digital and transferable skills, services literature highlights the importance of *empowerment* (e.g. Wirtz & Jerger, 2016). According to Beane & Orlikowski (2015), organisations need to incentivise employees to work with robots. This includes opportunities to empower frontline employees (e.g. offering coaching roles).

Fear management. Previous research has found that it is not unusual for new technologies to cause consumer anxiety (Meuter et al., 2005). As mentioned above, several academic studies show that employees may perceive robot and AI technology as threatening and competitive. Organisations should thus explore the complexity of potential *robot-phobia*. Lan et al. (2022) argue that human employees categorise robots as an outgroup, which can lead to a robot bias. However, the authors demonstrate that the level of robot-phobia changes over time, i.e. while it rises at the beginning, it does decrease from a certain time point as familiarity increases. Thus, to manage potential resistance, managers should focus on reducing employees' uncertainty during the early stage of robot implementation. This includes the key question of 'how' service robots should be introduced, which may lead to role confusion amongst employees. Employees typically rely on scripts when interacting with an assistive robotic agent, similar to the mechanisms underlying human-to-human interactions (Stock et al., 2019). Yet, these scripts may not exist as employees lack human-robot interaction experience. To improve the acceptance of service robots as co-workers, organisations need to translate

technical aspects of robot integration into value for frontline employees (Čaić et al., 2018). Active communication and engagement of early adopters are essential. For example, some firms enlist early adopters to act as coaches. For example, PwC developed a so-called Digital Accelerator Program. Open to all employees, around 1800 individuals have enrolled in intensive training in machine learning and process automation to train their colleagues (Fisher, 2019).

Implications to Academia, Industry, and Society

AI and robots are omnipresent today and will drastically change the workplace for frontline service employees – there is no denial. Additionally, the potential impact will extend beyond basic customer service roles; it will also extend into professional services with complex, analytical, intuitive, and empathetic tasks (Huang & Rust, 2018). For instance, research by PwC found that 30% of jobs in finance and insurance in developed economies are at risk of automation by 2029 (Wright, 2019). In China, a local bank has opened the first human-free branch staffed only with robots (Roxburgh, 2018). And in hospitality, up to 82% of restaurant positions could be replaced with robots, from food preparation to serving patrons (Aaron Allen & Associates, 2020). Understandably, the growth of AI-fuelled automation and service robotics has caused massive concerns, even fear and anxiety, amongst employees that they will lose their job.

While industry reports on workplace automation may suggest a rather negative view and conclude an ‘apocalyptic stand-off’ between humans and robot workers, the reality of human-robot work relationships might be more harmonious (Gilchrist, 2019). While job roles and skillsets will change, industry experts and scholars argue that AI-enabled technologies will facilitate the productivity of employees (IFR, 2018; Kunz et al., 2022). However, empirical research in this domain is still scarce. As a result, some researchers have advocated for exploring and actively

establishing conditions for the coexistence of service robots and human employees (Huang & Rust, 2018).

In summary, integrating service robots in the workplace raises several questions, from technological and economic issues to psychological, philosophical/ethical, and legal perspectives (Decker et al., 2011). From a *technological* perspective, how will humanoid service robots differ from humans? Seifert et al. (2022) examine how autonomy, emotionality, and intelligence are employed differently in the context of humans and robots. The authors point out that mimicking human behaviour can have negative effects, such as losing trust in human decision making and creating new forms of manipulation. From a *psychological* view, how will human employees feel when service robots receive recognition? Consider the example of journalism where a robot writer named Satoshi Nakamoto writing about Bitcoin for TNW (The Next Web), a website on new technology, received the highest number of reads and was praised by the Editor-in-Chief amongst the entire (human) team (Maack, 2019). This leads to the challenge for organisations to develop different human measurements to evaluate performance.

Finally, the digital transformation to human-robot teams will have broader *ethical and legal* implications. Currently, the regulation of AI across the globe is diverse and still in its infancy. However, lawmakers in the EU, United States, and worldwide are preparing major new AI-related legislative proposals (Casovan & Shankar, 2020). Ethical issues include a wide variety of concerns, including privacy risks. For instance, employees feel that robots can be used for surveillance purposes ('I don't want a colleague who always makes a note when I go out for a smoke', Paluch et al., 2022). In addition, Lu et al. (2020) suggest that organisations address ethical concerns as part of their corporate social responsibility (CSR) strategy. All these open questions require the attention of researchers, industry, and society.

Conclusion

The traditional role of frontline employees is radically transforming due to various disruptive themes. Robot technologies combined with AI now substitute or augment human service staff, ultimately influencing consumers' service experience. Due to labour shortages and remote service delivery, the on-going COVID-19 crisis has further increased the pace for AI automation of frontline services (Sisson, 2022). The transition from a primarily human-operated to an increasingly AI/robot-operated workforce requires new ways of thinking. This chapter proposes an actor-centric 'people-first, technology second' approach to mitigate the potential risks of robot implementation (e.g. employee fears and biases). Organisations need strong leadership, employee willingness, and the ability to change (Kunz et al., 2022). This means that management has to communicate the digital transition's purpose and set clear goals to manage the potential disruption of emerging robot technologies at the organisational frontline. Companies should not try to force employees to collaborate with service robots. Furthermore, human resource management has to evolve to include multi-actors. Human resource planning has to prioritise (i) the recruiting of digital talent, (ii) investing in human digital competencies, and (iii) equipping frontline employees with adequate capabilities to collaborate with service robots. The new function of human-robot resource management will have to focus on integrating service robots, revising job descriptions for human employees, establishing job roles for robot FLAs, and proactively managing employees' fears and anxieties. Finally, companies should carefully monitor human-robot teams in multi-actor service encounters to evaluate outcome productivity, service quality, and employee well-being outcomes.

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11

Navigating Through the Digital Gates: Customer-Centric Services and Well-Being

Yusuf Hassan and Jayesh Pandey

Introduction

Companies must espouse a customer-centric approach to operate efficiently and gain a competitive advantage in a global business environment with digital disruptions. Firms must be forward-looking, flexible, and agile to incorporate customer-centric practices in their value chain management (Gupta & Ramachandran, 2021). Businesses are expected to speculate and comprehend the customers' real-time needs and put in the sweat to offer tailor-made services. These efforts are echoed in the form of higher financial performance, brand loyalty, and customer satisfaction. Therefore, developing a scholarly understanding of

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customer-centric approaches in business, especially when such avenues have not been investigated much, is both timely and relevant. Over time, scholars and practitioners have come to a consensus on the critical role of digital services in facilitating the adoption of customer-centric approaches (Ramanathan et al., 2017). It is believed that digital services such as online support facilities can significantly increase customers' self-efficacy, and in turn their psychological well-being (Zhang et al., 2022; Zheng et al., 2016).

The efforts to enhance customers' well-being begin with active brand engagement. These engagements take place through customer-centric services offered by the brands. An example of customer-centric service is the grievance redressal mechanism. An efficient grievance redressal mechanism would result in superior customer experiences. Other customer-centric services include increased accountability, lay involvement in decision-making, and long-term conditions (post-delivery services). In due course, these customer-centric strategies positively shape brands 'socio-economic dimension' (Wade, 2020). Here, the social dimension signifies a brand's value-based relationship with society. Similarly, the economic dimension highlights how corporate benefits are shared with the people. When firms try to strengthen their socio-economic ties with society, the latter reciprocates by actively engaging with the firms, resulting in higher customer satisfaction and overall well-being. Now, the bigger question is how worthy it is to further examine such behaviour of firms. And how likely technician technology play a role in shaping these corporate behaviours? Customer-centric strategies facilitate customer well-being and are an important enabler of competitive advantage for firms. When these strategies are complemented by technology, their implications turn multi-fold. As early as 1996, Domegan recognised technology as a new strategic weapon for business. He credited technology for ensuring a steady level of services and predicted technology's role in improving accuracy in customer-centric services (Domegan, 1996). Today, technology can significantly improve the process of collecting, storing, and analysing data needed to understand the customers, which can help develop more efficient tailor-made services for the end users.

However, could there be a dark side to using technology for active customer engagement? While brands are going the extra mile to engage

more and more with consumers, studies suggest that overabundance and overconsumption of digital communication can adversely impact consumer well-being (Gui et al., 2017). How individuals and groups communicate and interact with others on digital platforms has impacted community well-being (Atkinson et al., 2020). Constant connectivity via virtual tools, such as emails, and physical devices, such as smartphones, has been identified as a source of stress and negative affective consequences (Marsh et al., 2022). To get newer customers on their social media platforms, brands must assess if they negatively affect communities. Studies suggest that organisations must rethink their digital positioning and move from forcing overconsumption to promoting sustainable consumption and achieving customer empowerment (Balderjahn et al., 2020).

In this chapter, we have discussed the role of customer-centric digital services in improving customers' overall well-being. In doing so, we have also emphasised how these customer-centric digital services emerge as a critical source of competitive advantage. We have followed a case study approach in which we have taken examples from civil *aviation*, *manufacturing*, *finance & banking*, *food delivery* and *e-education* services. The five companies discussed in this chapter represent the bigger emerging economies that contribute over 59% of the global Gross Domestic Product (GDP) (Muller, 2018). Particularly, our discussion is focused on Indian businesses because India's technology-assisted product development and R&D market are expected to register a growth of US\$ 63 billion by 2025 from US\$ 19 billion in 2019 (NASSCOM, 2021). Moreover, IT spending in India reached US\$ 101.8 billion in 2022 (NASSCOM, 2021). Interestingly, how these growths have appeared in the form of customer-centric strategies and their implications on customers have remained unmapped.

Methodology

The objective of this chapter was to investigate and highlight the role of customer-centric digital services in the well-being of end users. We used a multiple-case study approach consistent with prior research on

digitalisation, well-being, and customer behaviour (Persson, 2013; Kompier et al., 2000). The study required an intimate understanding of digital services and their role in customers' well-being. Such understanding required investigating the various functions and operations within organising, charting events and analysing strategic decisions. The case study approach offered details of the process that leads to the results rather than focusing on them. The purposive sampling technique and the sample size (5) used for the study were consistent with prior research. The selection of firms was based on several inclusion and exclusion criteria that include accessibility, industry classification, region of operation, size of the firm, stages in the life cycle, and relevance for the research topic (Persson, 2013). Data was collected in three stages. In the first stage, we referred to the official website and reports of the shortlisted firm. In the second stage, we referred to blogs, news articles, industry reports, and other available data. This was followed by a final stage in which we approached employees and clients of the concerned firm for more information. For example, we interviewed two pilots and one air hostess (with over 3000 hours of flying experience with the company) from Indigo for their experience sharing a customer-centric approach. Similarly, we also conducted a short, interactive session with a group of five One97 Communications Limited employees. For Inventor, the founder cum CEO of the company agreed to interact with us over zoom, and the interview lasted for 75 minutes. On average, each interaction lasted for at least 30 minutes. The interviews helped us triangulate the findings drawn from secondary sources. In the subsequent section, we have introduced each company and their involvement in customer-centric digital services.

Inventrom Private Limited (Bolt)

Bolt IoT was founded in 2016 by a young and enthusiastic Pranav Pai Vernekar, who gave up his lucrative corporate job to start his business venture. Initially, Pranav and his team worked on the idea of industrial robots (Bolt, 2021). However, the technology transfer challenges resulted in the company's failure to develop a prototype for commercial sales. So,

the team started working on developing their IoT Platform-Bolt. Within a few months, the company received hundreds and thousands of orders with subscribers ranging from engineering students, industry leaders, healthcare entities, and government organisations. Today, the company is known for major products for commercial use, namely, (1) Bolt IoT and ML Platform, a fully integrated IoT platform for developers that helps them build IoT projects and products quickly and easily, (2) Blake, which is an enterprise temperature and humidity monitoring solution. The company also received initial funding of USD 0.25 million from investors. The subsequent subsections describe the company's effort to provide efficient digital services, especially during the Covid Pandemic (Bolt, 2021).

Bolt, Blake, and Health Care During the Covid pandemic in 2019–2020, India struggled with an acute demand for Covid testing kits. Even later, restricted flight travel and frequent Covid testing requirements were a major challenge, especially for a country with over 1.3 billion population. Pranav's Bolt was crucial in managing healthcare amenities during this time. Blake, the company's ready-to-install humidity and temperature-controlling device, was an essential requirement for Covid test manufacturing. The device is highly portable and easily installed (See Fig. 11.1). It records real-time temperature and humidity changes, and the data can be transferred to Bolt, the IoT platform, at every interval of <30 seconds. This frequency is way higher than the average frequency of data transfer offered by other brands in this segment. In addition, the company ensures high accuracy and reliability of the data by ensuring the highest calibration certification for its products.

Data collected by Blake is stored in the cloud for 1 year. It has in-built automated logging for audit. Blake installed a PPE kit and Covid test manufacturing units that could regularly feed the control room with accurate data on temperature and humidity. This is important because any change in the condition (temperature or humidity) inside the manufacturing premise beyond a threshold can result in defective Covid testing kits. Blake also has an alarm activated when there is a sudden rise or fall in temperature or humidity inside the laboratory. The client is alerted through an SMS, WhatsApp message, email, and, if required, a phone



Fig. 11.1 Blake: Temperature and humidity controlling device

call. The data collected by Blake is transferred to the Bolt cloud, which is then accessible to the client through a custom-made dashboard. As a result, Blake has significantly reduced the number of defective Covid testing kits that could otherwise affect the general public's well-being.

Bolt can be considered an apt example of how modern-age organisations should leverage their technological capabilities to enhance consumer well-being. Bolt's original target markets were academics and manufacturing only. However, Pranav and the team were able to pivot at the right time and change their orientation to healthcare services. Such reorientation of start-ups is enabled by technology and innovation (Kirtley & O'Mahony, 2020). With the help of R&D and quick decision-making, Bolt played an instrumental role in ensuring the community's well-being using their technological prowess. This is an important lesson for budding entrepreneurs and leaders.

Bolt and the Digital Community Though Bolt has been crucial in ensuring high precision in manufacturing healthcare products, Bolt has been even more critical in storing and analysing the data. But what was unique about Bolt goes beyond the discussion on temperature and humidity monitoring. The IoT platform has a subscription of over 60,000 active users. Surprisingly, nearly 95% of these users are engineering students and faculty members. Engineering students increasingly use it to complete their projects, and faculties have openly recommended the platform to the pupil. This was unexpected, especially because the product was never advertised or marketed to the students.

Tech-Enabled Value Co-creation A significant factor in Bolt's success is the facilitation of active consumer engagement. Recently, Bolt launched an online discussion forum that has become a highly interactive platform. The initial objective of this forum was to connect with the users of Bolt's IoT platform and develop a deeper understanding of their consumers. Little did the Bolt team know that this discussion forum became a hub for rich user exchanges regarding using Bolt's platform to solve modern-day problems. Such rich interactions on this virtual community forum helped Bolt to witness tech-enabled value co-creation (Breidbach & Maglio, 2016). Value co-creation occurs when brands facilitate active consumer participation in improving their offerings (Ramaswamy & Ozcan, 2018). Bolt has enabled users to create value by giving them autonomy and opportunity. Discussing the problems and identifying solutions has emerged as gamification for Bolt users and followers. Such gamification has been regarded as one of the successful ways of consumer engagement on digital platforms (Rasool et al., 2020). A lot of the discussions have helped Bolt to introduce improvements in their products and services. When we interviewed Pranav, he mentioned:

It's interesting to see students coming up with great ideas on our platform. Quite a few of these students help us work on improving the dashboard designs. I see how these forum members raise and then answer technical queries. This was totally unexpected, but we are happy with these developments.

The Bolt discussion forum has witnessed top business leaders discussing Blake and the IoT and suggesting changes/solutions helpful to the

users. Today, the Bolt platform can be customised per the users' needs and demands. Student users can subscribe to a limited storage version and connect the platform with any compatible device for data processing. The dashboard is equipped with the necessary tools to synthesise and illustrate even a very large set of data in simpler graphical representation. Furthermore, the bolt is promoting innovation and research amongst the academic fraternity. It is organising monthly online training sessions for the students, which are carried out by the older members of the discussion forum only. By doing so, the company aims to grow and generate a strong community feeling amongst its users.

So much so has been the popularity of Bolt & Blake that recently the company's monitoring device and IoT platform was brought into use to conserve historical monuments in Machu Picchu (Peru). The company is now planning further to increase its products' compatibility for emergency healthcare services. With a large community of users across the globe and newer avenues for product innovation, Bolt's future seems to be bright. Active user engagement coupled with autonomy has been the foundation of Bolt's success story.

InterGlobe Aviation Ltd (IndiGo Airlines)

When air travel has become somewhat common, Indigo maintains that flying is pretty special for customers. As of June 2022, Indigo stands the largest passenger airline in India, with a market share of 56.3% (DGCA, 2022). Indigo has catered to 300+ million customers with more than 1600 flights daily with more than 270 aircraft. Indigo attributes its success to three important pillars – economic pricing, punctuality, and smooth customer experience. Indigo flights have been specifically appreciated for their on-time performance (IIDE, 2021). It is the result of its commitment to these three principles of Indigo that they have one of the lowest complaint rates amongst domestic airlines (DGCA, 2022). How has Indigo been able to achieve this mark? The answer lies in their attention to detail in customer service and experience.

Booking Besides offering the lowest prices for domestic flights, Indigo has ensured that online booking is hassle-free and transparent. Multiple online and offline channels for booking flights make the experience easy and accessible. Customers can book their flights from Indigo's website, app, and third-party booking services. Post-Covid, Indigo has launched Flexi Plus, an option that allows customers to reschedule their journey along with other in-flight add-on benefits. With more than 90 domestic and international destinations, Indigo offers multiple booking options, such as family, luxury, holidays, pilgrimage, budget, and honeymoon bookings. Customers can also book on-ground support for elderly and specially abled passengers while booking their flights online. In addition, Indigo provides animated video tutorials that help customers with the booking process using easily understandable language for customers who are not comfortable with online booking. During online booking, Indigo also provides an option to book locally sourced and hygienic food and snacks. The digitisation of these services helps reduce the interaction time during the flight and allows the staff to cater for the customers' needs more efficiently. Digitalisation has helped reduce manufacturing costs in some industries through an efficient time-bound delivery mechanism (Shivajee et al., 2019). IndiGo case illustrates that the aviation industry has also benefited from digital services.

Information Indigo has identified the key to a happy customer: the seamless provision of information. An informed customer is likely to be a satisfied customer. Prior research on signalling theory has emphasised the role of a timely and adequate flow of the right information in shaping customers' perception towards a brand, product, or service. Information asymmetry creates suspicion and reduced commitment towards the organisation. Particularly in information sharing, when the company shares the details, the impact on the customer is more positive and meaningful (Gunarathne et al., 2018). Historical analysis research on the U.S. aviation industry suggests a significant positive relationship exists between information sharing, inventory management, and customer satisfaction (Baker, 2013). In the case of IndiGo, after booking the flight, the company frequently provides important information and detailed itineraries to the customers via email, SMS, social media, and WhatsApp.

The additional information includes potential tourist locations, flight connectivity and post-arrival services, and taxi porter services. Indigo is also one of the first domestic airlines to launch their AI-enabled chatbot that helps customers with tasks such as flight schedule, web check-in, downloading boarding passes, and similar commands. Due to these digital services, Indigo has achieved 81.5% of web check-ins (Indigo, 2021).

Customer Feedback Indigo takes customer feedback quite seriously. After the journey, Indigo collects customer feedback regarding their experience via email and SMS. This feedback, along with the NPS (Net Promoter Score), is then analysed daily, followed by a weekly review of the issues faced by the customers. This process helps the organisation in responding to the issues quickly and provide a satisfactory solution. Due to this systematic feedback analysis, Indigo has increased its overall NPS compared to pre-Covid levels.

Customer Engagement One of the most efficient digital ways to engage the customer is the presence on social media. Indigo has established a prominent presence on popular social media such as Facebook, Instagram, and Twitter. To target the masses, Indigo has utilised the YouTube platform quite effectively compared to its competitors. Indigo's communication team maintains an integrated approach to social media to connect with customers. Be it the information on Covid guidelines or a low-fare holiday package, the customers receive information from Indigo consistently. Such continuous communication via digital platforms helps modern organisations to provide a sense of autonomy to consumers, which translates to their well-being (Bordi et al., 2018). Indigo has also been active in engaging with diverse sets of consumers. They were the first airlines to launch information brochures in braille. Indigo has also been one of the first airlines to install self-service kiosks in most of the airports across India. Such digital interfaces help Indigo to engage with consumers in multiple ways that enhance their flying experience and well-being.

Happy Employees, Happier Customers The management at Indigo stresses the well-being of their employees since they are the primary play-

ers that create happy customer experiences. Within their employee feedback programme, 6E Speaks, instead of one annual survey, multiple surveys in a year are run to connect with the employees (Plus, 2020) closely. In addition, the employee Net Promoter Score (ENPS) is collected to gauge employee sentiment. Furthermore, Indigo provides multiple benefits with learning opportunities under the 'IndiGROW' program for the employees to grow and fulfil their career aspirations. During the troubled times of the pandemic, Indigo also launched a tech-enabled platform for employees to get emotional support and help one-on-one from professionals (Plus, 2020). In addition to emotional well-being, Indigo also organised online workout sessions for their employees to ensure the physical well-being of their employees during the lockdown (HRKatha, 2020).

Stress-Free Flight and Well-Being of Passengers The Covid-19 pandemic has caused huge turbulence for many industries. However, aviation has been most adversely affected (Vijay Poonoosamy, 2020). Indigo quickly evaluated the situation during the crisis and redirected its strategy towards digitising customer services and emergency healthcare initiatives. First, to inculcate trust in consumers, Indigo launched its 'Lean, Clean, Flying Machine' campaign, which conveyed Indigo's commitment to a safe flying experience. This campaign successfully attracted a significant response on social media. Indigo established and communicated strict measures regarding safety protocols during flying, which further built trust with the brand. When the physical call centres were not functional during the Covid crisis, Indigo leveraged simpler technologies such as WhatsApp and Facebook messenger to connect with consumers and keep them informed. Other digital initiatives, 'Plan B', for managing cancellations and rescheduling flights, have provided consumers with ease of handling emergencies. These digital initiatives and human-centric services have strengthened Indigo's capabilities to ensure passenger well-being.

Digitisation of services at every step to serve the best customer experience has proved to be one of the most successful strategies for Indigo. With continuous efforts to make customers happier, Indigo is set to continue leading Indian sky space.

One97 Communications Limited (Paytm)

On a busy street in Ahmedabad, India, a ‘chaiwala’, i.e., a tea-stall owner, gives a cup of tea to a customer. When asked about the payment, he said 10 Rs and showed a Paytm QR code. On the same street, another customer purchases a wedding outfit at a designer store for Rs 200,000 and scans the Paytm QR code to pay.

This is the real-life scenario successfully created by Paytm. Founded in 2010, Paytm has now become a common household name in India. According to the annual report of Paytm (2022), more than seven crore users access Paytm every month, with the value of the transactions being more than 2.6 lakh crore for the last quarter of FY2022. Almost every business outlet, regardless of the size and scale, now has a Paytm QR code at their billing desk. More than 29 lakh payment devices have been deployed in FY2022. In 2021, Paytm went public, offering the biggest IPO ever in the history of the Indian share market. These large numbers indicate that Paytm has contributed heavily to the revolution in the digital payments market in India. This success of Paytm can be attributed to the right decisions taken at the right time. With the help of technology, Paytm has made sure that customers, as well as business needs, are satisfied. How did Paytm do it?

Hassle-Free Payments It was difficult to win the trust of Indian customers when it came to digital payments (CNBC TV18, 2019). Many business pundits even went to the length of claiming that Indian people would never trust such a service. However, Paytm has been able to break this myth miraculously. This feat has been possible due to the ease of payment offered by Paytm, backed by technology. The process of sending and receiving payments has been designed to be simple and easy to implement. Paytm is available in more than 10 regional languages of India, making it accessible through linguistic barriers. People do not always want to carry cash, and they want to pay quickly – Paytm has become the go-to solution. Having a trustworthy payment gateway significantly impacts the customer experience. For small and medium-sized enterprises, payment methods may affect sales and revenue generation. Paytm

has created an image of a reliable payment method for both shops and customers. Hence, Paytm impacts retail users' well-being and enhances their commercial users' well-being.

Technology-Enabled Customer Centricity Paytm is not only customer-centric in its business activities, but they also help other businesses become customer-centric in their market. Paytm for the business acts as a one-stop solution for businesses to manage their requirements using an app on their smartphones. Through this platform, businesses can make and keep track of P2P, P2M, and B2B payments within seconds on their phone. In addition, small-scale businesses can manage their daily requirements, such as account keeping, invoice generation, and customer relationship management, via the Paytm app. Considering the increasingly popular usage of Paytm by small businesses, Paytm is planning to expand its ecosystem by launching a cloud-based store suite where small-scale businesses can manage their requirements completely on one platform (Indifi, 2020).

Technology-Driven Problem Solving The online payment industry is still in its early stages for an emerging country such as India. However, when it comes to identifying problems faced by customers and solving them immediately, Paytm has always been ahead of the race. From a QR code to a full-fledged Point-of-sales (POS) device, Paytm has continuously listened to customers' requirements and launched new products and services. The recently launched Soundbox device is an interesting example of simple yet effective utilisation of technology from Paytm. Many commercial customers expressed issues faced with waiting time in POS devices. Many shopkeepers also complained that they had been a victim of fraud where the QR code had been swapped. The shopkeeper often had to wait for a text message or scroll through multiple messages to confirm the receipt of the payment. Paytm launched Soundbox, which provided audio notifications on receiving specific payments. A simple usage of technology integration solved multiple problems for regular shopkeepers. This is a prime example of how technology-driven solutions can solve real-world problems faced by consumers and enhance their well-being. Yet again, Paytm has developed a bond of trust with its users.

Right Decision at the Right Time In November 2016, when the Government of India banned high currency notes, Paytm was the first fintech player who recognised the opportunity, which very few could foresee. Paytm started investing efforts within a few minutes of the demonetisation announcements to expand its user base and merchant partners (Singh et al., 2017). Within 1 week of demonetisation, Paytm recorded the highest number of 5 million daily transactions and 1000% growth in the balance in Paytm wallet (QRIUS, 2017). Not surprisingly, Payment doubled its user base from 140 million to 270 million in 1 year (Moneycontrol, 2017). Taking advantage of the demonetisation, Paytm channelised their sales workforce and successfully on-boarded millions of small and medium businesses to their platform. Paytm has rightfully enjoyed the benefits of this strategy as it has created a presence in every smartphone, billing counter, and mind-set of the common Indian consumer.

When it comes to digital payments, creating and developing trust with the users is the most crucial part (Najib & Fahma, 2020). Paytm has worked effortlessly to create an image of a trustworthy digital payment system through its technology and customer orientation. In this case, we identify trust as the most significant enabler of consumer well-being. The online payment space is most likely driven by trust and digital customer service. Paytm seems to have developed a strong hold on both of these areas. The effective and timely usage of technology and human capital by Paytm has landed them in a position where they lead the fintech sector on multiple fronts. Technology and customer centricity have played major roles in creating a strong brand.

Sorting Hat Technologies Pvt Ltd (Unacademy)

When the Covid-19 pandemic hit the world, it impacted all businesses under the sun. Education was one amongst the severely hit. With the restrictions, educational institutes could not continue teaching students as the world shifted to online platforms. This situation led to an unprecedented demand for digital education, which was immediately catered to

by tech-enabled education start-ups (Hazarika et al., 2022). Unacademy, although founded in 2015, became a leader in the EdTech sector due to the increased demand for online education. Starting as a YouTube-free channel, Unacademy now has a strong foundation of more than 91,000 educators training and mentoring students of India for more than 60 competitive examinations. Unacademy provides complete mentoring to students for getting into civil services, medicine, engineering, management, banking, and other public sectors. Unacademy has enrolled more than 92 million active users preparing for various exams (*The Economic Times*, 2022a). How did Unacademy become India's largest learning platform?

Technology at the Core A student living in Ranchi wants to prepare for GATE from a teacher from Bangalore. This is only possible with the student shifting to Bangalore. Unacademy, with its technology has been able to solve this issue by breaking geographical barriers. Creating a virtual classroom which connects the teacher with students from across the world, Unacademy has successfully created a virtual institution. Technology allows students to choose what they want to study and with whom they want to study. In addition, technology makes it possible for a student living in a remote area to attend a live class taken by their favourite teacher.

Student Well-Being Considering the disruptive impact of Covid-19 on the education sector worldwide, studies have highlighted the need to ensure student well-being (Bladek, 2021). Additionally, technology has been hailed as a necessary means to achieve student well-being (Johnson & Merrick, 2020). Bringing interactive classrooms to the smartphones of students in India was understood to be a mammoth task. However, Unacademy has brought about a revolutionary change in online education. Unacademy has successfully bridged the gap created by the pandemic between students and learning. Breaking geographical and linguistic barriers, Unacademy has provided affordable education to India's students, ensuring student well-being.

Empowering Educators The biggest strength of Unacademy's success has been the educators who provide top-notch mentoring to students on

the platform. These educators are highly trained and skilled in their areas. The academic model of Unacademy provides educators with the freedom to create their courses as per their plans and schedule. This flexibility converts to educator satisfaction and commitment to teaching students with the highest quality. The management also provides training, tech support, awards, and rewards to educators to develop further their academic potential (Unacademy Blog, 2020). Unacademy has been one of the first e-learning platforms to emphasise educator and student well-being. The educators of Unacademy are provided with flexibility in their teaching schedule. The teachers are provided with the freedom to design their courses and deliver them at their convenient schedule. Studies suggest that flexibility enhances the psychological empowerment of teachers and improves their effectiveness, ensuring their well-being (Malkoç & Kesen Mutlu, 2019).

Student-Centric Activities Unacademy understands that students need to be engaged in the times of virtual classrooms. Hence, they regularly organise digital events that capture the attention of students as well as benefit them in their preparation journey. Events such as guest lectures by successful personalities, mock examinations and daily quizzes, and leaderboards help educators to keep the students engaged and focused on their path.

The Student Connects When it comes to connecting with the students in the most engaging way, Unacademy has left the competition miles behind. Apart from usual social media marketing on platforms such as Facebook, Instagram, and Twitter, Unacademy has identified an unusual way to connect with its target market – through web series! India's young population consumes most of the information and data through videos (YouGov, 2022). Therefore, Unacademy, in collaboration with The Viral Fever, has produced two web series, i.e. *Kota Factory* and *Aspirants*, both of which have received huge appreciation and admiration from the youngsters of India (EastMojo, 2021). These marketing strategies have helped Unacademy develop a closer bond with its target market, i.e. students.

Unacademy, as a new-age EdTech organisation, has created a strong brand amongst students and teachers. The dual focus of keeping the students and educators happy and satisfied has given Unacademy an edge

over the competition. The seamless technology-enabled platform provided to students and teachers and its flexibility help Unacademy to be the preferred choice of users. Active engagement and autonomy have been foundations of Unacademy's strategy for achieving students' and teachers' well-being.

Bundl Technologies Limited (Swiggy)

Starting with only five delivery boys in 2014, Swiggy is now one of India's iconic food delivery start-ups. From serving only one order every 3 minutes to serving 2 million orders daily, Swiggy has come a long way (Business Today, 2021). Swiggy has also gained the title of the fastest-growing unicorn in India (Livemint, 2018). Swiggy provides food delivery service to more than 500 cities partnering with more than 185,000 restaurants across India (Mobile Marketing Reads, 2022). The success story of Swiggy is filled with ups and downs. At the same time, the one factor keeping Swiggy afloat is the unflinching determination to provide the best customer experience at any cost. So what all went into making Swiggy what they are today?

The Top Priority: Customer Experience Whether Swiggy has five delivery boys or a vast fleet of more than 2.5 lakh delivery professionals, the top priority has always been to serve the customer consistently in the fastest way possible. As Swiggy likes to put it, they offer 'lightning-fast delivery of the food ordered'. However, Swiggy does not eye for the fastest deliveries in normal conditions. Instead, Swiggy aims for the fastest delivery consistently. Whether there are heavy rains, traffic jams, or other troubling situations, Swiggy delivers the fastest (Livemint, 2018). When customers order food online, their most important expectation is quicker delivery. Swiggy has identified this hack, and they have achieved commendable consistency in this area.

Knowing Their Audience When it comes to what the audience would want, Swiggy has always shown its genius in its offering. The Swiggy app is designed to make it easy for customers to find what they want with

minimum hassle. Ordering food online must be a delightful experience, and Swiggy has made sure that customers get excited when they launch the Swiggy app on their phones. Swiggy was the first food delivery app to introduce no minimum order value (Financial Express, 2015). They can offer this feature as Swiggy has always owned its logistic supply chain. The delivery fleet has always been a part of Swiggy and not from any third-party service. This control over logistics backed by technology has given Swiggy an edge over the other players in the market. Having control over the network of delivery partners also provides Swiggy to update their customers about the live status of their orders. Exclusive partnership with premium and popular restaurants across cities allows Swiggy to cater to customer demands more efficiently (Livemint, 2018).

The Social Media Game Swiggy seems to have cracked the ‘Say a little but say it well’ game. From a theoretical lens, effective and crispy social media communication has positively impacted consumer well-being (Awan et al., 2022). Rich and targeted communication enables brands like Swiggy to achieve value co-creation, where active consumers play an integral role in new product and service offerings (McColl-Kennedy et al., 2017). Being in the space of food delivery, Swiggy needs to connect with the customers creatively and emotionally. Swiggy uses its social media and email marketing strategy to interact with its users with humour and popular trends (IIDE, 2019). The huge followership of Swiggy on social media, such as Facebook and Instagram, provides evidence of successful customer engagement. Emails from Swiggy tend to be quite eye-catching and humorous, invoking the foodie within the customer.

Employee Empowerment The employee empowerment initiatives taken at Swiggy make it a progressive workplace. Post-Covid, Swiggy has announced a permanent work-from-anywhere policy where the employees are provided maximum flexibility (*The Economic Times*, 2022c). In addition, being the industry first, Swiggy recently announced a quite surprising policy named the moonlighting policy. Under this policy, Swiggy employees are free to work on external projects that do not conflict with the interests of Swiggy (*The Economic Times*, 2022b). This external project must be subject to internal approval. Nonetheless, this

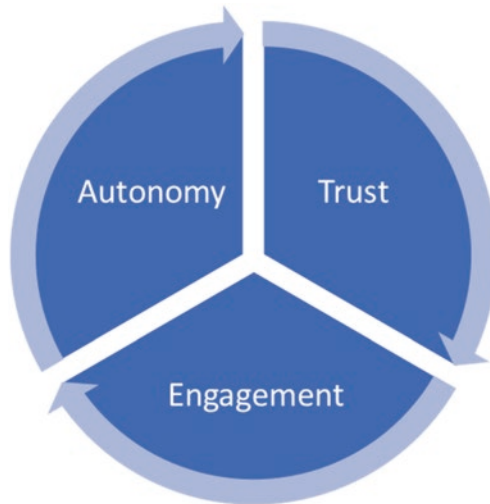
step is quite progressive and brave for a large organisation such as Swiggy. If successful, this policy may encourage more and more organisations to launch initiatives that provide more flexibility to employees.

With on-point digital marketing, seamless ordering experience, and tech-enabled logistics, Swiggy has become one of the most popular food delivery apps in the Indian market. With its customer-focused strategy, Swiggy has successfully developed trust with its users. Whether it is the variety of choices or the highest discounts, Swiggy usually is the first app hungry users opt for. In addition, the on-point social media communication strategy allows Swiggy to connect with its users more meaningfully. Trust and engagement are the pillars of Swiggy's successful delivery of consumer well-being and delicious food.

Conclusion

Consumer well-being has been receiving academic interest from behaviourists and economists for a long time (Suranyi-Unger, 1981). However, the concept of digital well-being is still quite novel for both researchers and practitioners. While the academicians further their attempt to unveil consumer well-being in the digital era, brands across the world are already on their way to exploring and achieving the same by employing different strategies. On the practical front, factors such as internet connectivity, smartphone penetration, social media marketing, and digital literacy come in handy for brands to create a connection with consumers. Nonetheless, brands must realise that constant connectivity does not ensure consumer well-being. Research suggests that well-being in the digital era is an individual experience based on a fine balance between being connected and disconnected (Vanden Abeele, 2021). The internet greatly impacts the population (Sirgy et al., 2006). However, due to excessive connectivity, 'social media detoxification' is becoming increasingly popular amongst young internet users (El-Khoury et al., 2021). Consumers wish to derive functional utility and pleasure from being connected. However, they also expect a minimum loss of control. New-age organisations need to incorporate these implications in their digital engagement policies.

The carefully designed digital strategy allows brands to contribute to individual well-being. Services backed by digital infrastructure at the local level help the brands to satisfy the consumers and improve their well-being and overall life satisfaction (Sirgy et al., 2008). From acquisition to disposal, locally available brands can enhance consumers' experience and help predict community-based consumer well-being (Sirgy & Lee, 2006). To ensure consumer well-being, brands must take care of three pillars: trust, engagement, and autonomy. First, consumers invest their time and resources significantly to interact with brands on digital platforms. Hence, brands need to develop trust with their audience, motivating them to connect with the communication. Effective engagement helps brands convert trust into meaningful and continuous interactions. The third pillar, autonomy, refers to the control exercised by the consumers to disconnect whenever convenient. These three pillars must be at the foundation of the digital strategy of new-age organisations.



The five-case discussed above illustrates how technology has transcended across different industries and how technology adoption by firms has facilitated their growth. Technology is an enabler of innovation. When technology is efficiently employed in customer-centric services, its

implication far exceeds the business and reaches out to the larger community in which it operates. Customer-centric digital services generate quicker and more impactful results. Therefore, businesses must carefully evaluate these services and incorporate timely changes to make them more suitable for customer needs. As wisely said, ‘the purpose of business should be to make life better for people’.

Implications for Practice

This chapter draws practitioners’ attention to the need to employ a balanced strategy to achieve customer satisfaction and well-being. By studying five organisations present in digital space from India, we present findings that could help leaders and organisations across the globe. We stress the importance of active customer engagement to maximise returns regarding loyalty and well-being. We find that blindly chasing customer engagement by hook or crook will ultimately lead the brands away from the customers. For example, when social media detoxification became a usual practice for many users worldwide, Instagram added features on their platform that helped them track their daily usage and encouraged them to take timely breaks. Brands in the digital space cannot afford to neglect this detoxification wave if they wish to continue enjoying their current market hold. Customer-centric steps will play a pivotal role in maintaining a healthy relationship with the digital community.

Implications for Future Research

We highlight a few areas in consumer well-being literature that are promising for future research. Our sample organisations are from different industries from India, i.e. one of the fastest-growing emerging economies. We encourage future research to study brands across different economies to evaluate their digital services and strategies for achieving consumer well-being. Future research may focus on digitally conscious brands that have taken sustainable measures to promote consumer

well-being. Customer-centric practices beyond social media communication also require researchers' attention. Similarly, we suggest future research to identify how customer-centric digital services may impact employee well-being.

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12

Customer Service Opportunities and Challenges in a Post-Pandemic World

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Introduction

Pandemics are epidemics that occur ‘over a very wide area, crossing international boundaries, and usually affecting a large number of people’ (Kelly, 2011, p. 540). The death and devastation they bring to the world vary in severity as they can lead to as many as 200 million deaths (Black Plague, 1347–1351) to fewer than 1000 deaths (SARS, 2002–2003).

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Pandemics have short-term effects, such as a decline in health, and long-term effects. For example, after the Black Plague people had access to more resources (Pappas, 2014), wars temporarily stopped, and wages increased due to labour shortage (The Editors of Encyclopaedia Britannica, n.d.). Some suggest that over time pandemics will increase due to globalisation, urbanisation, and international travel (Madhav et al., 2017), with devastating implications for the global population.

Consider the example of the most recent pandemic, the Covid-19 outbreak. Indeed, since March 2020, when the Covid-19 pandemic started, life, as we know it, has not been the same across countries worldwide. The impact of Covid-19 has been felt on individuals, their health, employment, income, and social lives. Thanks, in part, to new vaccines, medicines, and growing immunity, countries are now returning to a 'new normal' with recurring outbreaks of new infections. Still, the severity of the health threat appears to be diminished, with lower mortality rates than in 2020 and 2021. Moreover, people seem ready to return to old routines or begin newly modified ones. As a result of its many structural changes, we anticipate that the post-pandemic environment will offer many challenges and opportunities for service providers.

As might be expected, a pandemic such as Covid-19 has significantly impacted global health outcomes. The World Health Organisation estimates that almost 15 million people have died as of May 2022 (WHO, 2022), with over 1 million deaths in the United States alone. In addition, millions of people have been sick with the infection, and millions of others continue to suffer from debilitating long-term effects (Sheikh & Belluck, 2022).

As a result, the effects of pandemics on health and mortality remain salient for many people who reassessed their lifestyles, including employment, travel, and health care. According to a survey by Accenture (Curtis et al., n.d.), 50% of respondents say that the Covid-19 pandemic prompted them to reevaluate their priorities, motivating them to live according to the principle of YOLO (you only live once). Similarly, a survey by Forrester (Lai, 2021), reported that 75% of customers expect their behaviours to change in the long term due to Covid-19.

Pertinent to the marketing context, following a pandemic such as Covid-19, individuals develop new needs and values and expect the brands they support to reflect those values too. As a result, consumers are

now searching for new options in the market that may be a better fit. Consistent with this, findings from the survey published in Accenture's *Life reimagined* report (Curtis et al., n.d.) indicate that 72% of people who have reimagined their values expect the companies they do business with to understand and address how their values change during disruptive times.

Following these findings, in this chapter we develop a framework that identifies the impact of pandemics on the marketing environment forces and consumers. Then, we discuss how these environmental shifts affect customer service status, delivery, expectations, and interactions, creating new opportunities and challenges for practice and academic research.

Next, to provide a background for this chapter's focus on customer service opportunities and challenges in the post-pandemic world, we briefly discuss the emerging literature on the effect of the current COVID-19 pandemic on businesses, customers, and the community.

Research Background and Motivation

New research in marketing has identified the impact of pandemics on consumers and marketing practices by focusing on the recent Covid-19 pandemic. There are thought pieces (e.g., Sheth, 2020) and special issues dedicated to how Covid-19 has shaped consumer responses (Goldsmith & Lee, 2021). For instance, Kwon et al. (2022) examine how Covid-19 influences consumer responses to product offerings identified as being available 'near me' versus 'not near me'. In addition, Wilson et al. (2022) explore the interpersonal consequences of the Covid-19 pandemic's risk communication.

Furthermore, recent work by marketing scholars seeks to recognise important interconnections between marketing and public policy and for marketing scholarship to both acknowledge and respond to crises of the magnitude of pandemics such as Covid-19 (Scott et al., 2020). Stewart (2021) notes that although Covid-19 began as a health crisis, several marketing issues have emerged due to changes in consumer behaviour and supply (chain) disruptions. Berry and Stuart (2021) identify an opportunity for leaders to prepare an 'essential services' workforce with an organised command structure, technological support, and a constructive messaging capability to prepare more for the next health crisis. Das et al.

(2021) highlight pandemics' micro and macro impacts and identify specific impacts on the 7Ps of marketing. Particularly, they focus on service industries severely impacted by pandemics, including healthcare, education, retail, hospitality, tourism, and transportation. They propose several research questions that may be interesting and important in this context. Notably, an opportunity emerges to explore marketing and public policy implications, with a focus on the dynamics between lives and livelihoods.

Other research on the Covid-19 pandemic, as it relates to the marketing context, has examined the service sector. For instance, Verhoef et al. (2022) examine how the Covid-19 pandemic has impacted retailing. They identify a need for retailers to address shifts in consumer behaviour by addressing the prevention needs of consumers (for instance, by going touchless, introducing self-service and AI solutions, and a moving to hybrid and online forms of retailing), improving in-home consumption experiences, and by focusing on sustainability issues. In addition, Voorhees et al. (2020) examine the impact of the pandemic shock on front-line employees and identify key challenges related to employee morale and customer interactions. In Table 12.1, we summarise key insights from some of the marketing literature that focuses on the Covid-19 pandemic's impact on businesses, customers, and the community, which offers specific implications for customer service. The key emerging themes include bolstering safety in service interactions for customers and front-line employees, offering additional service delivery innovations, adopting new technologies, and the emergence of new retail forms.

In this chapter, we build on the dialogues emerging from extant literature and focus on the impact of pandemics, such as Covid-19, on customer service. This topic has yet to be addressed in extant research. Here, we integrate developments in prior research with business press articles and examples from practice to develop a conceptual framework that offers guidance for practice and research. Specifically, we answer the recent calls for research, such as those of Das et al. (2021) and study how firms in the service industry sector can incorporate new technologies and customers' new preferences to offer new value creation.

Table 12.1 Recent illustrative work in the marketing literature focused on Covid-19's impact on businesses, consumers, and the community

Paper	Key Insights	Implications for Customer Service
Berry and Stuart (2021)	Identifies service adaptations and transformations resulting from a greater need for separability in contacts.	Moving away from service inseparability Bolstering safety in service interactions Offering additional, innovative benefits in service delivery
Das et al. (2021)	A framework identifies a macro dimension consisting of four forces characterising pandemics (lives vs livelihoods, economic contraction, scarcity, and uncertainty), and a marketing dimension consisting of the 7 Ps of the marketing mix.	Innovations in technology-enabled service provisions such as robotic service providers instead of or in addition to human delivery A re-evaluation of fulfilment, delivery, and product return strategies may necessitate substantial changes to associated customer service Greater attention to customer-centricity in the provision of services Investment in forward-looking CRM practices
Shankar et al. (2021)	Examines how technology is changing retail and develops a classification of retail technologies	Adoption of smart distancing practices such as robot delivery, drive-through delivery Disintermediation of retailers and new retail forms (consequently, their impact on service)
Sheth (2020)	Summarises some immediate effects of Covid-19 on consumer behavior, including hoarding, improvisation, and embracing of digital technology	Innovation in service delivery, such as telehealth Companies must make their systems, processes, and infrastructure more resilient.

(continued)

Table 12.1 (continued)

Paper	Key Insights	Implications for Customer Service
Verhoef et al. (2022)	Examines how Covid-19 may affect retailing. Identifies shifts in consumer behaviour such as health prevention, a stronger focus on technology, in-home, local and sustainable	Increase in use of video conferencing and contactless payments Investments in self-service and AI solutions
Voorhees et al. (2020)	Identifies challenges related to employee morale in the presence of new rules and social dynamics and enduring negative, aggressive or abusive behaviour from consumers.	Identifying the role of frontline employees with technology infusion into the service Uncertainty in service bookings Attention to employee well-being

How Do Pandemics Impact the Marketing Environment?

Environmental forces shape consumer behaviour (Grewal & Levy, 2021). Disruptive events such as pandemics or wars lead to shifts in these environmental forces. Here, we examine how the Covid-19 pandemic reshaped three critical environmental shifts: the economic, policy/regulatory and technological forces inter-connected by concerns about health, safety, and threats from the contagious virus (Fig. 12.1). These forces further shape downstream consumer behaviour, as we describe below.

Economic Environment Pandemics, such as Covid-19, have significant multi-faceted effects on world economies. World Bank Group (2022) reports global project growth to slow down through 2023 due to new Covid-19 variants and a rise in inflation, debt, and income inequality. The crisis has also amplified several other inequalities. According to the World Bank Group report, income losses were larger amongst youth, women, the self-employed, and casual workers with lower levels of formal education. In addition, given the widespread and sudden shutdown of econo-

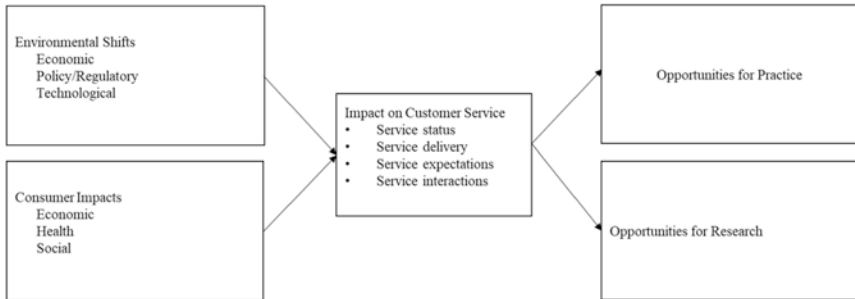


Fig. 12.1 Conceptual framework: customer service opportunities and challenges in the post-pandemic world

mies, individuals had to lower their spending habits due to furlough or the impossibility of leaving their homes.

Furthermore, various economic sectors, including critical healthcare services, had to be shut down for extended periods. As a result, governments across the world experienced a rapid decrease in tax revenues but a steep increase in funds needed not only for healthcare provision and vaccine development and distribution but also to provide economic help to individuals and businesses facing demand shocks. For example, the U.S. government offered restaurants relief funds up to \$10 million to keep their businesses open (Restaurant Revitalization Fund, [n.d.](#)) while sending three rounds of direct payments to consumers up to \$1200 per adult (Economic Impact Payments, [n.d.](#)). Similarly, the Italian government suspended tax payments and supported families with 'emergency income' (The measures introduced by the Italian government to support families, [2020](#)).

Government Policies/Regulations The large and widespread scope of the recent Covid-19 pandemic led to an unprecedented upsurge in government engagement and policy-making to halt the spread, aid health and economic recovery, and rebuild battered economies. Government policymaking and assistance during the Covid-19 pandemic took many different forms across countries. For instance, The Oxford Covid-19 Government Response Tracker (OxCGRT), which collected information

on policy measures of governments to tackle the Covid-19 pandemic from more than 180 countries, coded 23 indicators, including containment and closure policies, economic policies, health system policies, and vaccine policies (Covid-19 Government Response Tracker, 2020). In addition, due to increased demands on governments to expedite services and ensure easier access to people, government policies have also eased restrictions in certain areas. For instance, the United States temporarily relaxed privacy restrictions under the Health Insurance Portability and Accountability Act (HIPAA) to allow technology companies to facilitate virtual medical consultations through their existing chat and video apps. This development was reported by CBIInsights in 2021 (CB Insights, 2021). These governmental policies significantly impact consumers' income, health, and social welfare.

Technology Since the Covid-19 pandemic limited physical interactions with the outside world, the adoption of technological innovations and emergent technologies accelerated. Specifically, the pandemic boosted the use of virtual technologies across multiple domains, including education, health care, entertainment, and shopping. The introduction of remote work policies accelerated the adoption of teleconferencing tools like Zoom and Microsoft Teams and maintained or enhanced the productivity of individuals. Furthermore, technological advancements such as video conferencing have helped consumers maintain their social interactions during social distancing. The need for social distancing also increased telehealth adoption, with more doctors providing online consultations using video calls, with wearable medical devices emerging as crucial tools to blunt the spread of Covid-19 (Singer, 2020). As a result of these changes, big data and big data analytics have come significantly to the forefront (Marr, 2020). As businesses, especially retailers, moved online, cloud computing and having a good cloud infrastructure has become essential (Shankar et al., 2021). Robotics, drone deliveries, new technologies, and 5G technologies hold great promise (Shankar et al., 2021) for use within firms and in fostering connections between the latter and consumers.

How Has the Covid-19 Pandemic Impacted Consumers?

The Covid-19 pandemic and the resulting shifts in the macro environment have had significant economic, health, and social impacts on consumers, which we next discuss.

Economic Impact Numerous industries, including travel, retailing, leisure, hospitality, and elective health care, experienced significant demand contractions, leading to significant repercussions on employment and consumption. Furthermore, the pandemic placed tremendous stress on healthcare systems, including healthcare workers such as doctors, nurses, and support staff, with implications for individuals' health and well-being and, in turn, on their attitude towards consuming products. In April 2020, the employment-to-population ratio in the United States declined by more than 50%, with every state statistically affected, other than Wyoming (Udalova, 2021). In addition, real personal consumption expenditure fell in 2020, while savings increased as people curbed spending because of economic and health-related uncertainties (Barua, 2021).

Health Impact The pandemic and the resultant policy changes led to significant health effects for different populations in multiple waves, resulting in considerable negative health outcomes, including widespread fatalities and increased healthcare spending. In addition, concomitant with the pandemic, there have been significant economic disruptions worldwide, creating fear and anxiety about health and economic well-being. For example, over half of the respondents in a recent survey of more than 22,000 people in the United States reported symptoms linked to depression, with people between 18 and 24 reporting the most severe symptoms (Gordon, 2022).

Social Impact The social impact of the pandemic included social distancing from fear of contagion—this affected in-person interactions, which affected people's lifestyles, including consumption behaviours. Various health organisations, such as the Centers for Disease Control (CDC), issued social distancing guidelines to reduce the occurrence and transmis-

sion of Covid-19. In addition, there has been considerable confusion surrounding these guidelines, resulting in uncertainty amongst consumers. Should they wear a mask? Can they eat out? Should they meet friends? Specifically, pandemic restrictions, including masks, vaccinations, frequent testing, isolation, and quarantine which threatened people's freedoms, have resulted in disquiet amongst consumers, whether in favour of restrictions or not. Indeed, as evident in the business press, differential resistance to vaccinations and treatments have resulted in polarisation and social unrest around issues related to isolation, vaccination, and the right treatment for Covid-19.

Working from home, in response to stay-at-home orders to stop the spread of Covid-19, changed behaviours, including social lifestyles. Many companies and organisations moved their in-person working policy to a remote one. While on the surface, this may look like a small policy change; this has had wide repercussions across the economy. People must no longer commute, as they work from home, which has significant implications for their well-being and socialisation. In addition, schools and colleges have also experienced ongoing disruptions, which have upended people's lives, including learning outcomes, childcare, and children's health again. Furthermore, consumers have altered their shopping behaviour, shopping less in brick-and-mortar shops while increasing online shopping (Mason et al., 2020). It is important to note that while people were mandated to work from home and isolate themselves from others, after a few years, they were habituated to these new styles of working and living and resisted returning to their previous work and lifestyles.

How Did These Changes in the Macro-Environment and Consumers Affect Customer Service?

We identify four key areas where the Covid-19 pandemic, through its impact on the macro-economic environment and consumers, has resulted in a dramatic change in the domain of customer service: customer service status, delivery, expectations, and interactions.

Customer Service Status During the pandemic, there has been an increased recognition of how vital front-line employees are to the economy and how at-risk their health is while performing their critical roles. In critical areas, where in-person interactions had to continue to maintain education, health, and other essential services (e.g. retailing, airlines, primary and higher education), the status of service staff has been elevated. For example, healthcare employees obtained the status of essential workers. In addition, due to their high risk, essential workers were prioritised in many U.S. states and counties to receive early vaccine access.

Customer Service Delivery Given the severe impact of the Covid-19 pandemic on the health and well-being of individuals and the contagion associated with the pandemic, which prevented people from going to work, it is not surprising that there is a perception that overall customer service across all sectors has declined. For instance, in a recent survey conducted by NBC (Gaydos, 2020), 75% of respondents said that the pandemic had worsened customer service, and 78% of consumers reported the need to contact a company more than once to address a single concern. Customer service quality declined for many reasons, including poor health, social distancing, and working from home with remote opportunities of high-paying jobs jumping from 4% to 15% post-pandemic (Research: Remote Work Now Accounts for Nearly 15% of All High Paying Jobs, 2021). Many firms deployed a work-from-home policy or a limited in-person employment policy which reduced staffing in general, including customer service agents. In addition, supply chain disruptions caused by Covid-19 resulted in product and service shortages, decreasing the ability of firms to service their customers. So, overall, customer service staffing shortages, supply chain issues, and other challenges plagued customer service during the pandemic. This was, however, deemed acceptable by customers so long as the pandemic was in occurrence. Finally, supply chain disruptions decreased customer experience quality, while, at the same time, people were most likely aware of the constraints that firms were facing.

Customer Service Expectations According to a survey by Forrester (Murphy, 2021), 53% of support teams have seen an increase in support

queries since the start of the Covid-19 pandemic, with consumers having higher expectations than pre-pandemic (Hubspot, 2022). Given the rise in technology tools that can personalise customer service, consumers now expect big and small firms to improve their customer service. Furthermore, according to another recent survey (The customer experience (CX) revolution in retail – Infographics, 2022), almost 60% of consumers state that they have higher expectations than before the Covid-19 pandemic. Although customers were tolerant of companies during the initial phase of the Covid-19 pandemic, they now realise that we are living in a new normal and that companies, too, need to adapt to it.

Customer Service Interactions Following the Covid-19 pandemic, customer service interactions have increased complexity for various reasons. For one, the increase in complaints and the need for remote help means that customer service agents may see an increase in workload. For instance, service agents must manage almost eight daily calls (Daniels, 2022). Although this causes great stress in agents, it also shows the importance of call centres and how companies must ensure that their customer service agents are knowledgeable and have the right technological tools. Two, customers prefer to interact with firms using digital channels, and firms need to have multiple online, on-demand service options available apart from or in lieu of the traditional face-to-face service options. Three, consumers have started doing self-service—because of the increased use of technology, fears of infection from socialising during Covid-19 times, and lower service employee employment. Four, customers have changed due to the anxiety, anger, and/or uncertainty from the pandemic. Finally, frontline service employees (e.g. airlines, schools, restaurants, and hospitals) had to deal with enormous service challenges, including unruly customers. For instance, in 2021, there were 5779 reports of unruly passengers on planes, with 4156 incidents related to mask mandates, based on Federal Aviation Administration reports (Marcus, 2021).

Managerial Implications: Opportunities and Challenges for Customer Service

These new expectations followed by changing and innovative interactions between firms and consumers have simultaneously resulted in challenges and opportunities for customer service. We identify these two major opportunities for service providers.

Identifying New Sources of Customer Value In an era of increasing customer expectations of high service coupled with possible customer impatience and competitive pressures, companies need to think harder about providing innovative services that deliver better value to customers whose needs or expectations may have changed over the pandemic. For instance, not only did Mediacom Communications waive consumers' data overages for 6 months to give them time to adjust to their new usage levels, but it also signed a federal contract making it impossible to interrupt service for consumers unable to pay (Elliott, 2021).

There are several examples of companies that provide exemplary customer service for their customers, from pharmacists who deliver medicine to home-bound customers to customer service representatives establishing contacts with people craving social connections to retailers helping the elderly (Morgan, 2020). The question is how firms can create value in the post-pandemic or endemic world. Our review suggests that multiple options exist, from the delivery of new innovative services, new delivery forms, new communication modes, and the creation of better customer journeys and in-home customer experiences.

Making Effective Use of New Technologies Today, more consumers rely on online services. Thus, companies can offer flexibility in product delivery and additional services to personalise products and services (Diebner et al., 2021). Also, bots, and chats now make it faster for consumers to reach companies. Furthermore, industries such as health care, education, retailing, restaurants, etc., can experiment with new product and service delivery options such as telehealth, tele-education, automated and drone,

and video delivery (e.g. Zoom). In addition, technology allows firms to communicate with consumers in various ways, such as through live-streaming solutions and video conferencing. Indeed, consumers increasingly expect to communicate with firms through various channels. This investment and expectations create new opportunities for firms to reach and engage consumers.

Creating Better Connections with Employees and Customers Finally, companies can try to establish better employee and brand connections in an era of social distancing and reduced trust fostered by pandemics and resultant governmental policies. For example, San Antonio, Texas-based H-E-B, a large grocery store chain, increased the salary of its employees by \$2 an hour, extended its sick leave policy, added a coronavirus hotline for employees, and immediately limited purchases of specific products, such as toilet paper to allow everyone to buy what they needed (Solomon & Forbes, 2020). Likewise, brands can show they care through better policies, superior customer service, and new technologies. Yet, the pandemic also added some extra challenges for service firms, which may have to be addressed by the devotion of additional resources amid uncertainty.

They Were Addressing Sources of Customer Frustration Hoarding in the early stages of the pandemic (Sheth, 2020) and concomitant supply chain issues have resulted in stockout issues. Thus, retail firms found themselves with empty shelves and issues restocking (Solomon & Forbes, 2020). This led to firms being unable to meet pending sales orders (Bhandari et al., 2021). Moreover, many firms could only afford to keep some of their employees, leading to backups with customer service lines and call centres, and frustrated customers having to call or send emails between two and nine times (Parks, 2020).

Addressing Service Employee Burnout Front-line service-sector workers are particularly impacted by burnout due to a combination of odd and long work hours and a lack of regular time off. They are demoralised due to being understaffed and underpaid (Johanson, 2021). During Covid-19, these challenges have been accentuated. Voorhees et al. (2020) note significant challenges concerning employee morale, especially with

employees having to manage new social dynamics and enduring abusive behaviour from polarised, sick, and disgruntled customers. Faced with ‘the great resignation’ and ‘quiet quitting’ (Forbes, 2022), the key challenges that firms face include employee morale, employee acquisition and retention, and providing increased pay and better health services, all of which are directly related to the level of customer service they can provide.

Opportunities for Research

Identifying New Sources of Customer Value in Service Transactions Finally, our review points to a further need to understand new sources of customer value in service contexts in a post-pandemic world. These could take the form of adopting and using new digital technologies by firms and customers, adopting new delivery forms, or creation of omnichannel modes of distribution and communication. Furthermore, how do we create more inclusive service opportunities for disadvantaged or excluded consumers, given that the pandemic has exacerbated existing inequities?

Addressing Critical Challenges Faced by Front-Line Employees However, our review points to a need for research on critical issues front-line employees face. For example, how to ensure better customer interactions? How to maximise the safety and well-being of front-line employees in the context of the lives vs livelihood discussion? How effective are non-human representation (e.g. robots) and touchless interactions in service transactions and how does this affect customer and employee attitude and the company’s bottom line?

Identifying Cross-Country Variations in Impact on Service Although all countries faced severe humanitarian, economic, and political crises engendered by the pandemics, there have also been variations in responses and the intensity of consequences. There is a need for an examination of the cross-country and cross-cultural contexts. Although Nilashi et al. (2021) ran a study on the effects of customer satisfaction during Covid-19 in Malaysia, this study focused on hotels using text mining techniques. Thus,

future studies could focus on examining the differential impact of Covid-19 on service quality in various countries and subsequent recovery, as well as the adoption of new technologies in the service context.

Identifying Long-Term Impact on Service Much of the current research and thought pieces focus on short-term impacts on consumption and service. However, there is a need to quantify the long-term impact of Covid-19 on service firms, employees, and customers to inform and guide marketing practices in response to future crises.

Conclusion

In this chapter, we provide an overview of the effects of the pandemic on the macro-economic environment and the customers, how these shifts in the external environment have impacted customer service and identify challenges and opportunities for service providers. We hope this chapter helps sustain the dialogue for better marketing for a better world in the context of customer service following the Covid-19 pandemic.

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