CHAPTER 1

Convergence of Local Enterprises with Large Corporations: Bridging Industry 4.0 Functions on Broader Business Canvass

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Introduction

Local enterprises, along with large industries, play a significant role in social and economic development of the region by providing backward linkages. However, due to resource limitations and lack of adaptation to appropriate technology, they often contribute marginally to the growth of local developmental economics. Several studies have highlighted the effects of convergence of local companies with large companies within the industry, which serves as feeder source of industrial input to large business establishments. The network of local enterprises including start-up enterprises commonly serves as digital assistant to the large manufacturing and marketing companies striking a balance between socio-economic and business growth (Proikaki et al., 2018).

The emphasis on co-creation of innovation and managing innovation business projects in partnership with the local companies is gradually gen-

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erating technological breakthroughs, allowing emerging companies to reduce the time to bring innovative products and services to the market. The recent trend of carrying out innovation in the business-to-consumer and business-to-business segments by companies exhibits different ways of deploying price and volume advantages in global competition. Large companies practice outsourcing innovation, collaborating with start-up enterprises, investing in open innovation, and engaging in driving public-private partnerships. For example, large companies from emerging markets such as Lenovo Group Ltd. (China) and Godrej Consumer Products (India) and Internet players such as Tencent Inc. (China) are pioneering new ways of industrializing innovation. These companies are engaged in simultaneous engineering by leveraging quick launch, test, and improve (LTI) cycles combining vertical hierarchy for effective control of manufacturing systems with horizontal flexibility. These companies allow autonomy among the innovation teams to steer the new insights and experiments within peer groups (Rajagopal, 2016).

Penetration of multinational enterprises (MNEs) in local markets reduces the survival rate of local firms and drives the local companies to serve as ancillaries or merge with the multinational enterprises. However, this effect diminishes over time as the local firms receive political patronage to support their technology-led growth. Local firms are better able to confront the negative impact of MNEs' entry with a broader knowledge search over time (Wu, Lao, Wan, & Li, 2019). Most companies grow as learning organizations with openness to new ideas for driving differentiation in order to match innovation and market dynamics. Learning organizations accelerate continuous innovation across a wide range of industries reaching economies of scale at relatively low costs and acceptable quality to ensure value for money to the consumers. Innovative business projects catering to the emerging market demand and consumer needs are often risky and might not ensure breakthroughs in the market. However, successful implementation of innovative business projects has potential to powerfully disrupt the profit models of competitors and make space in the market for the innovation to grow over the period. Industry 4.0 revolution is enforced automation of operations and use of radical innovation to gain strategic competitive advantage. In this process, reducing transaction costs to facilitate innovation has appeared to be a major challenge. Hence, entrepreneurs and investors seek to develop alliance with larger business organizations to build a safer market and reduce their transaction cost. Distributed, decentralized, and diversified open innovation-based local

enterprises grow faster in a competitive marketplace (Dey, Gupta, & Singh, 2019).

Top quartile organizations are more mature in enterprise architecture (EA), while small and medium enterprises in emerging countries use more EA designs in IT investment decision-making within the niche markets. However, enterprise architecture adds value to emerging enterprises toward making investment decisions on adapting to new technologies (van den Berg, Slot, van Steenbergen, Faasse, & van Vliet, 2019). For managing innovative business projects efficiently, companies need to reengineer their internal innovation processes based on the principles of vertical and horizontal management approaches, by focusing on time-bound projects involving local partners or workforce (Williamson & Yin, 2014). Many structural and organizational features reduce perceived innovation barriers of firms in developing economies. Interactions between enterprise resources and decision-making among entrepreneurs in small emerging economies are generally characterized by financial and market limitations, weak institutional framework, and low innovation performance. Firms face more obstacles across all the different levels of innovation activity as the size of the company decreases. While considering small firms, relationship between size of the firm and engagement in innovation activities reveals continuous learning dynamics based on one's own innovation effort and experience, which contributes to overcoming difficulties in the long term (de-Oliveira & Rodil-Marzábal, 2019).

Continuous growth in innovation and technologies is the principal stimulant for companies to gain competitive differentiation and leadership in the global markets and gain high brand equity to drive consumers toward new buying preferences and explore new market segments. However, it is often hard for consumers to adopt innovations, gain confidence in deriving values appropriately, and derive competitive advantages from the innovative offerings over the existing and predetermined products and services. Companies growing in a competitive marketplace monitor both new and incremental innovations to explore their influence on firms' survival and growth. In addition, the market orientation, firm's size, its international dimension, and age of the business leader at entry are the control variables most influential on survival (Ortiz-Villajos & Sotoca, 2018).

Consumer perceptions on the innovative products and technologies are largely influenced by social and informal networks. Such interconnections among consumers and companies are so strong that a new product's adoption by one player often depends on its systematic adoption by other

players. Traditionally, companies launch innovative products by targeting unique customer segments or developing compelling value propositions. However, companies engaged in continuous innovations orchestrate a change of behavior among consumers across market segments in order to expand its market outreach. Companies engaged in innovation and competitive gains in the marketplace should explore new market segments, develop and implement strategies that maximize the chances of getting competitive advantage, complement power players, and position the innovation as an enhancement to products or services.

Small companies exploit user innovation for crowdsourcing-based marketing initiatives. The three key activities, by which companies facilitate the outcomes from the crowdsourcing initiative, include the development of opportunities for user innovation, the planning of user innovation activities, and the implementation and assessment of the outcomes. The importance of technical features that support innovation marketing enables socializing of innovation and derives support of active consumers. Such innovation marketing process not only attracts large industries toward innovations at niche level but also creates social consumption experience (Pacauskas, Rajala, Westerlund, & Mäntymäki, 2018). The innovation and technology companies tend to offer coordinated switching incentives to the players (social media, retailer, and salespeople) who add to the innovation's benefits the players that act as channels to ensure the value of the products and services (Chakravorti, 2004). The elements of business scenario in a destination market are intertwined around various macroeconomic factors comprising political, social, economic, technological, and legal factors besides the micro-economic factors within the company.

Developing Entrepreneurial Projects

Innovation is a continuous process, and it helps organizations grow. Growth is often measured in terms of business performance, turnover, and profit contributed by the products and services. Performance of innovative products is measured in reference to the generated competitive differentiation in marketplace, consumer experience, quality of products, and values and marketing efficiency. Innovation is the process of making changes to something established by introducing something new. Innovation can be radical or incremental that can be applied to products, processes, or services, and in any organization. Nurturing innovation projects is a complex process for the small, medium, and start-up organizations.

Most innovative projects suffer from internal and external financial constraints that affect the commercialization of innovations during the concept stage (García-Quevedo, Segarra-Blasco, & Teruel, 2018).

Innovation in small and micro enterprises is explored at all levels in the marketplace by generating consumer involvement in the projects of new product or services development. In view of the fast-growing market competition, more and more companies are recognizing innovation as the business opportunity is visualized in sustainability and environmental management sector. Such shift in thinking in many companies and industries, where learning-organization principles are being applied to create sustainable business models, has evidenced change in organizational culture and improvement in the core competencies (Rajagopal, 2016). Small firms differ in assessing the cost, benefit, and risk (CBR) effects during the manufacturing to marketing process as compared to large partnering firms engaged in innovation across destinations. However, strategic alliances between small and large companies toward innovation sharing, and coopetition in building marketing strategies can provide these firms an appropriate CBR measure. In this process, small and large firms evaluate benefits and risks associated in developing strategic alliances for acquisition and commercialization of innovations of small firms. It has been observed in previous research studies that small firms are less reluctant on alliance project than large firms, especially if the cooperation for managing competition (coopetition) allows them to reduce their costs and optimize long-term benefits. The innovation alliances between small and large companies help in developing design-to-market and time-to-market strategies (Chiambaretto, Bengtsson, Fernandez, & Näsholm, 2019).

Small innovation-led firms grow as learning organizations. They become inspirational, energetic places to work, where even relationships with customers and suppliers improve. However, a more integrated view will enable companies to innovate for long-term profitability and sustainability. There are three core competencies that learning organizations must master to profit from sustainability: encourage systemic thinking; convene strategic market players and customers toward changing conventional thinking; and take the lead in reshaping economic, political, and societal forces that baffle change (Senge & Carstedt, 2001).

Often companies select innovative business projects considering their potential for commercialization and gaining high market share in the competitive marketplace. A single company is seldom capable of generating successful diffusion for commercialization of an innovation. Success of innovative products and services often requires cooperation between market

players, organizations, and stakeholders in marketing through conventional and digital platforms. Thus, the networking aspect of commercialization is crucial for any innovation, especially in the mass and bottom-of-the-pyramid market segments. Broadly, customers and users, distributors, investors, associations, public organizations, and policy makers and regulators can support commercialization by facilitating innovation, adoption, and diffusion process within the existing market, or help in creating new markets (Aarikka-Stenroos, Sandberg, & Lehtimäki, 2014).

Such strategic thinking helps companies carry out innovations and business projects beyond commoditization, and fend off disruptive competitive threats to pave the path to enter new markets successfully. Innovative business projects lead to transformational growth by engaging with customers and market players. Companies develop innovation projects with unique concepts to attain higher profit, brand image, and customer value to customers. Companies can successfully explore innovative business projects in the following manner (Rajagopal, 2016):

- Identifying the right innovative growth opportunities that could serve the latent demand in the market (where consumers are in need of the product, but products are not available) by exploring a hidden or new customer need with a completely new business model that builds the competitive advantage.
- Co-creating innovation projects by engaging customers and designing new business models to achieve desired project outcome efficiently and profitably.
- Creating new systems to support innovative business projects and set new rules and metrics that enable companies to undertake innovations successfully.

Innovation auditing is a well-established practice used by managers to identify strengths and weaknesses in innovation and to explore new opportunities. Innovation audit in the companies needs to be conducted following the contemporary trends that exhibit market and consumer behaviors toward the innovative products and services. Innovations led by the trends tend to transform the market and consumers' landscape. These trends include shifts from closed to transparent and open models of innovation (openness), shifts from providing only physical products to industrial product-services combination (servitization), and moving from conventional manufacturing and marketing paradigms to industry 4.0 business

philosophy (automation). Innovation audit, thus, helps managers to identify strengths and weaknesses in innovation and guides them to develop an appropriate commercialization strategy (Frishammar, Richtnér, Brattström, Magnusson, & Björk, 2019).

Industry 4.0 is an evolution of a new industrial stage in which several emerging technologies converge to provide digital solutions. However, there is lack of understanding of how companies implement these technologies. Most companies depend on start-up enterprises to develop digital solutions in the areas of manufacturing and marketing. The micro-, small-, and medium-scale industries are thus growing as ancillary industries to large manufacturing and marketing companies in developing economies. The adoption patterns of Industry 4.0 technologies in manufacturing firms can be divided into front-end and base technologies. Front-end technologies have been spread across four dimensions, which include smart manufacturing, smart products, smart supply chain, and smart working. Base technologies consider the elements pertaining to Internet of things, cloud services, big data, and analytics. Conceptually, Industry 4.0 tends to function as a systemic adoption of the front-end technologies in which smart manufacturing plays a central role, while implementation of the base technologies like big data and analytics takes place at slow pace (Frank, Dalenogare, & Ayala, 2019).

Implementation of Industry 4.0 is required to develop future initiatives since traditional manufacturing business models do not fit in with the emerging technologies related to IT security, reliability, and stability needed for critical machine-to-machine communication. There is a need to maintain the integrity of production processes, enhance industrial knowhow, improve the managerial skills, and reduce the general reluctance of stakeholders toward mechanically controlled processes for improving market competitiveness. Transformation of conventional industrial systems to Industry 4.0 can be facilitated by refining and elaborating the strategies supported by the local governments to build economic and social systems. Such initiative flexibly responds to changes and involves participation of micro-, small-, and medium-scale industries in the process. However, local companies can serve as feeder agencies in establishing the digitized operational system to maximize the industry attractiveness. The transformational initiatives and policies in the industrial segments develop concrete and workable action plans toward economic and social systems that can accommodate innovative changes (Sung, 2018).

Innovative business projects are fundamentally an approach to reorient business around consumer needs by realigning corporate resources, processes, and profit formula with this new value proposition. Project management approaches for innovative products and services in small firms are evolving to be more flexible and adaptive to meet the challenges associated with an increasingly complex and dynamic environment (Nguyen, Killen, Kock, & Gemünden, 2018). Companies should not pick up innovative business projects emotionally and impulsively. They should be evaluated at the foreground in reference to management capabilities and their potential for commercialization. Innovation projects often fail as they have a kick-start with loosely, or sometimes ambiguously, defined objectives, and project managers realize in the mid-stream of project process that it is going astray.

Most start-up enterprises tend to define innovation projects as experimental and exploratory; they seldom follow loose linear guidelines and suffer serious setbacks over the project stages. As innovation projects generally need to be sold to project sponsors and funding committees, project teams should be more involved and responsible while carrying out the projects. Innovation business projects are largely laid on multi-task and multi-decision process that is susceptible to risks and uncertainties between the project stages, unless a well-developed set of criteria for the project has been developed in advance. Innovation projects should be time bound to reduce the risk of commercialization and adaptation among consumers. However, sometime they are dragged on and on with endless tweaks, and companies struggle to make adjustments to finish the project and launch the innovation in the market. Start-up and small firms either lean at the large firms for sponsoring their innovation projects and incubating them for commercialization or obtain long-term debt from private or government sources. Start-up firms with better performance prospects are more likely to use business debt or soft loans spread over a long time. Compared to all-equity firms, infant companies using debt in the initial years of operations make themselves significantly capable to survive and generate desired profit (Cole & Sokolyk, 2018).

Consumer involvement in innovative business projects helps in faster launch and adoption of innovations. Hence, the current trend of identifying innovation projects in the companies is largely driven by stimulating consumer involvement through various approaches of crowdsourcing. The objectives of crowdsourcing could be to generate brand awareness, demand validation, customer- or citizen-engagement, user-centered product devel-

opment, building an eco-system of innovators, and managing unsolved problems. LEGO has co-created several educational toys for children through crowdsourcing platforms. Through these platforms, users were able to submit ideas for new LEGO sets, vote, and provide feedback on those submitted by others. The fully functional LEGO sets with retractable wheel drive have been the outcome of crowdsourced ideas, which made the company competitive in the toys industry and the global marketplace. Unilever developed plan for "Sustainable Living Plan" in 2010, aimed at reducing the company's environmental impact and improving public health, well-being, and livelihoods of people around the world. The company had launched The Unilever Foundry, which allowed start-ups and innovators to respond to community concerns with low-cost technology such as developing a "connected ice cream cabinet" project. In this platform, the company aimed at exploring new start-up partners with new technologies or innovations that could bring the product portfolio of the company to life. This platform has driven high product awareness and tended to support conversion for either in-store solutions or unique experiences relating to the ice cream category. The crowdsourced solutions on this platform are screened for scalability in order to allow implementation of local innovation and ambidextrous marketing strategy and cater to both the urban and rural markets. Such experiment has evidenced that instead of relying solely on internal abilities, large companies need micro business alliances to get connected to a large community of engineers, start-ups, and other partners. This also helps them circumvent the restrictions of limited resources and knowledge; and thinking outside the box can help the innovative business projects perform successfully (Saldanha, Prado, Cohendet, & Pozzebon, 2014). The symbiotic relations of company and stakeholders in co-creating innovation are illustrated in Fig. 1.1.

Ideally, exploring innovative business projects is neither emotional nor a peer-review exercise for the companies. Most companies follow a predetermined path to explore the potential innovation to be carried out through standard project management process. In order to choose a product or services innovation, companies should analyze the macro- and micro-economic factors, market demand, and consumption patterns. After identifying the innovation to be carried out, companies need to identify their internal capabilities and competencies in managing innovation process, funding, and sponsorship, and develop statement of work and project charter. Figure 1.1 illustrates that collective creativity offers new consumer-centric ideas to companies and nurtures innovation on both small and

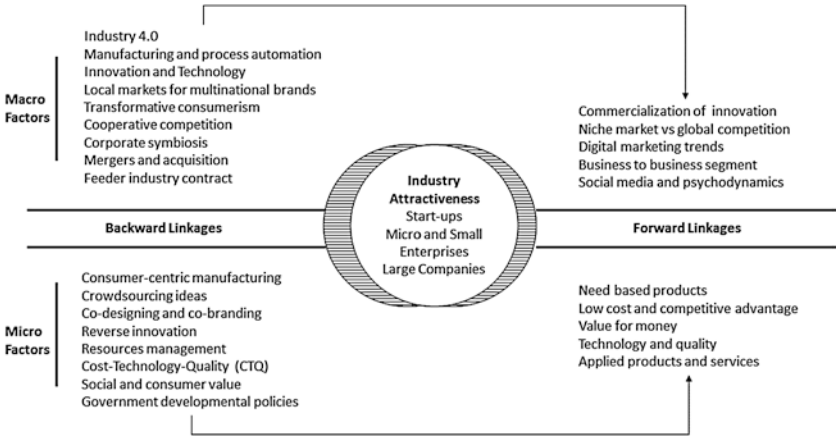

Fig. 1.1 Interdependence of firms on macro and micro attributes within industry (Source: Author)

large business companies symbiotically. Implementing ambidexterity in creativity methods increases the firm's propensity to innovate and to introduce a market novelty. However, the effect of ambidexterity on firm's turnover is not always clear. In addition, ambidexterity is more effective in large firms having high investment in research and development and operating in manufacturing sectors (Revilla & Rodríguez-Prado, 2018).

The backward linkages as exhibited in Fig. 1.1 explain that in the initial stage crowdsourcing of ideas, understanding customer needs and preferences, determining the importance of the innovation, and evaluating the expectation of consumers are reviewed by the companies to undertake innovative business projects. The estimated cost of the innovation, its market potential for commercialization, and search for the right sponsor to undertake the innovation project are the major forward linkages to initialize such projects. After seeking initial approval to the project by examining the various elements at the initiation stage, the innovative project enters into the real project management stage, which demands formation of project teams, training team members, developing project leadership, and analyzing challenges in the innovative business projects. These activities form the backward linkages. Setting the project mission, goal, objectives, and task management strategies constitute the forward linkages besides time and cost management and developing work breakdown structure.

Customer-centric companies develop innovation project designs that could generate high consumer use value, competitive differentiation, long and sustainable product life cycle, and charter of serviceability of innovative products, as discussed in Fig. 1.1. While exploring the innovations to create competitive differentiation, most companies face the challenge of diffusion of knowledge about the innovation and of inducing adaptability among consumers. It is necessary for the companies also to identify the scope of incremental innovation to carry out further improvements on the innovation, in order to develop consumer loyalty and augment market share and profit contribution of the innovation. Companies build market value through continuous innovation, which is derived by exploring new and incremental innovation business projects, connecting the links between many singular ideas and crowdsourced ideas into one big platform innovation, and fully scaling it to maximize potential benefits. Good innovative business projects should exhibit the potential to generate *me too* feeling upon its commercialization. Research proves that companies that successfully apply a structured process to innovation project management reduce risks in the business process and increase the results of innovation. The criteria associated with a strong innovation should be to develop influencing, ambitious, high-perceived use value, and adaptive innovations in the marketplace with unique adaptable propositions.

Organizational culture largely determines the ways of achieving outcomes of innovative business projects in reference to the local and global markets. Social interactions on innovation need to coordinate local innovation project teams, market players, and consumers to explore the marketability of the innovation products. In addition, possible market life cycle of innovative products needs to be determined so that the process of incremental innovation and prospects of next generation of innovation can be derived. The impact of innovation work must be redefined to include more than reporting on the data that demonstrates outcomes. Impact includes the entire process of innovating business project management and actions that leads innovation adaptation among consumers. Organizational learning, innovation, and commercialization are based on the cultural platforms of a company. Large companies with team culture and workplace autonomy have been successful in acquiring, managing, and marketing innovations by linking them to social or industrial needs. Culture types make differences in how organizations implement low-cost or reverse innovations acquired from small firms in the local markets. Large companies tend to explore compatibility of innovations on four types of organizational cul-

ture defined in the competing values framework spread across hierarchy, clan, market, and adhocracy culture. Besides, commercializing, managing radical, incremental, and component-architectural innovations is always an uphill task for companies as laying social or business justification for such innovations are difficult (Reyes-Santiago, Sánchez-Medina, & Díaz-Pichardo, 2017).

Skills, tools, metrics, processes, platforms, incentives, managerial roles, and values can help in attaining the innovation breakthroughs. Innovative business projects are taken up by the companies not only to achieve market leadership through competitive differentiation but also to overcome conventional business practices existing within the company for a long period. As markets tend to grow manifold and stay dynamic, managerial and operational models in any company lean to converge with the current practices over time. Innovation ideas emerge effectively within the company provided the managers stay attentive to the market development and shifts in consumer preferences. In their quest to overturn industry rules, they learn how to distinguish between the needed change in business practice of the company and conventional beliefs. Despite the public policies and entrepreneurial initiatives among the local enterprises, only a limited number of the SM and Industry 4.0 roadmaps, maturity models, frameworks, and readiness assessments available today reflect the specific requirements and challenges of micro, small and medium enterprises (MSME). Transition of these enterprises from the new base level, "level 0", to the current standard "level 1", requires significant effort including a mindset change. MSMEs need to develop their own unique smart manufacturing or Industry 4.0 vision and roadmap to connect with large industries and diffuse innovation to support digitization (Mittal, Khan, Romero, & Wuest, 2018).

A business project for carrying out an innovation could be successful provided the company is able to harness the latent demand among the target consumer segments and drive the innovation to meet the underappreciated trends. Innovators, start-up enterprises, and companies pay attention to the changing consumer preferences and consumption patterns. Understanding consumer behavior helps them to explore the right opportunity for developing a new innovative product following the standard project management process. To bring a successful innovation to the marketplace, companies need to take a long-term perspective than a myopic approach and develop appropriate business model for launching and managing the innovation in the competitive marketplace.

As competition in the global marketplace is increasing, more and more companies are recognizing that their experience about competitive products with consumers across geo-demographic segments are value additions, which help them develop new capabilities within an organization for carrying out innovations. However, managing global innovation project in the same conventional style of single-location projects would be a very difficult proposition for the companies in reference to size, resources, and contingencies. Single-location projects draw on a tacit knowledge and shared experience. Hence, the biggest management challenge is to replicate the positive developing "experience innovation" across geo-demographic segments while harnessing the opportunities of innovation dispersion.

The recent trend among large companies, to explore new innovation insights, is analyzing the innovation tactics and management practices with local enterprises in emerging markets. Digging deep into the enterprises at the bottom-of-the-pyramid, the multinationals are starting to catch on to the logic of reverse innovation, in which products are designed first for consumers in low-income geo-demographic segments, and then adapted into disruptive offerings for developed markets. However, only few companies have managed to do it successfully until recently. It has been observed in various studies that the main problem in carrying out the reverse innovation is the mindset of innovators and sponsoring companies. One of the major challenges in the reverse innovation is matching the segments to existing products, lowering the price, reducing the mismatch of technical requirements, convincing the stakeholders, and agreeing to develop low-cost innovation products for low-income markets (Winter & Govindarajan, 2015).

Technology-Marketing Grid

The company-consumer interlocking, through effecting diffusion strategies of innovative products, works efficiently through interpersonal communication on social networks and direct marketing approaches. Firms can use technology-led innovation to build relationships with co-creative business partners to explore new opportunities to unveil innovations among consumers. Firms face challenges in the new competitive environments to drive consistency in consumption of innovative products. However, companies need to identify the key barriers preventing innovation and present specific strategies that can stimulate the adaptation

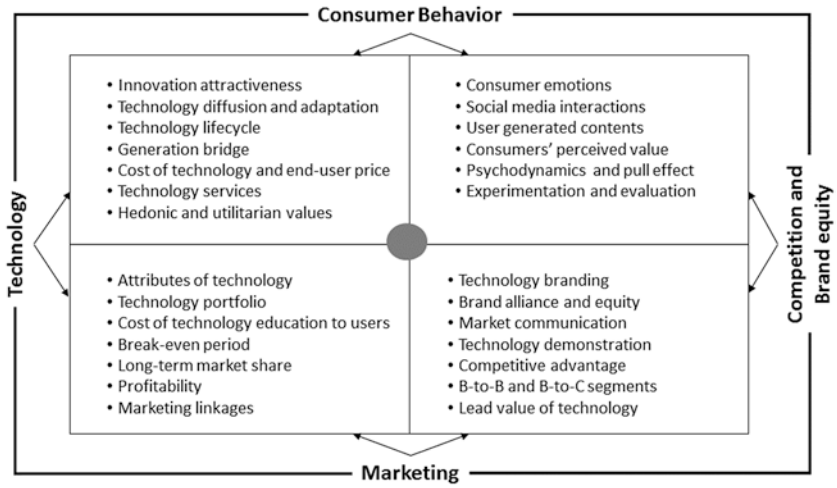

Fig. 1.2 Technology-marketing grid (Source: Author)

process for new products. Companies may face various challenges that include finding the right partners to engage with, forming relationships with consumers, building high-performing innovation dissemination networks to build synergy between the growth of innovation and technology approaches, and diffusion of innovation strategies (Birkinshaw, Bessant, & Delbridge, 2007).

Marketing of new technologies is complex. Consumers reserve their preferences to use technology-led products in view of the life cycle of the technology, utilitarian perspectives, and value for money. Various factors affect marketing of technology-led products as illustrated in Fig. 1.2, and often make it difficult for firms to manage them in the competitive marketplace.

Technology marketing has four distinctive facets comprising attributes of technology, marketing strategy variables, competition and brand equity, and consumer behavior as exhibited in Fig. 1.2. Before buying technology-led products and services, consumers evaluate the innovation attractiveness, the estimated technology life cycle, and the quality of diffusion of technology in the market, which prompts consumers to adapt to it. The product and services with prolonged and sustainability-linked technologies appeal to consumers faster than the conventionally embedded technologies. Consumers also look for secured utility bridge between the previous and new generations of technologies associated with the products. However, cost of technology, end-user price, technology services,

and hedonic or utilitarian values of technology-led products also affect the consumer behavior.

Successful marketing of technology-based products depends on the attributes of technology; cost of consumer education on the technology advances; breakeven period of marketing technology; the associated government, societal, and industrial marketing linkages; and specialty institutions like pharmaceutical research, social innovation research, and consumer technology research. Marketability of technology is also driven by anticipated market share of technology products in the long term, and their contribution to profit of marketing organizations. As the technology grows faster than its adaptability among consumers, there exists higher competition in the technology market. Therefore, branding of technology (like Intel-computer processors), and achieving brand equity, is a complex phenomenon. A strong alliance with the global brand could help the companies on marketability of emerging technology. Consumers demand clear market communication for technology products emphasizing the competitive advantage, and their effectiveness in business-to-business and business-to-consumers market segments. It is also important for marketers to know about the lead value of the technology against the competing technology brands.

Marketing of technologies to consumers is associated with the emotions and social consciousness, which are shared through the digital networks. People are increasingly purchasing tangible products like food, medicines and apparel, and technology-based virtual products like movies and video games online. Conventionally, the sensory interaction has mostly been limited to visual inputs, and less to auditory inputs. However, other sensory interfaces (e.g., including touch screens, together with a range of virtual, and augmented solutions) are increasingly being made available to people to interact online. This expansion will likely coincide with an increasing engagement with the consumer's more emotional senses like touch or haptics, and possibly even olfaction. Forward-thinking marketers and researchers will therefore need to appropriate the latest tools and technologies in order to deliver richer virtual experiences for the next-generation consumers (Petit, Velasco, & Spence, 2019). Social media interactions and user-generated contents influence consumer emotions for adapting to new technology-led products and create perceived use value. Positive emotions among consumers create pull effect and develop attitude toward experimentation and evaluation of new products.

Marketing of innovative products and technology solutions along with a bundle of services is a priority in today's increasingly competitive markets.

However, companies are not always structured and capable of making such integration in their products and services offerings in the market to gain competitive advantage. Thus, most companies prefer to engage in price competition rather than delivering customer value through integrated products and services. Customer-centric companies such as Cisco Systems have developed customer satisfaction matrix and laid policies that support incentives in rewarding customer-focused cooperation. Organizations, who want to deliver customer-focused solutions, require a mix of employees to be generalists instead of specialists. Teams offering customer-focused solutions require experience with more than one product or service, deep knowledge of customer needs, and the ability to traverse internal boundaries. By combining the above attributes, companies can create cost-effective, high-value solutions and stand out in a competitive market (Gulati, 2007; Rajagopal, 2016). Innovative products marketing is related not only to products, new product development, and technological development but also to marketing-mix strategies and decisions. Marketing innovation and technology-led products are very specific to the context and needs of the small and medium enterprises (O'Dwyer, Gilmore, & Carson, 2009).

Market orientation strategy and customer-centric marketing approaches together have significant impact on the performance of new products and technologies of the company. Managers should integrate the market orientation and customer services strategies to enhance the customer value. One of the many challenges to the dealer firms is to incorporate preferences of the customer into the overall performance and services in order to maximize the customer value. An augmented and sustainable customer value builds loyalty toward the product and the brand. Market orientation strategy for innovative and technology-led products needs to generate thorough awareness among the consumers about the utilitarian and hedonic aspects of products. Successful technology-marketing companies such as Apple, Samsung, and IBM adhere to the ACCA process of marketing (Rajagopal, 2019). ACCA paradigm encompasses four elements built around the communication strategy as explained:

- Sharing knowledge and experience to generate *awareness among consumers*
- Providing *comprehension* on products, services, societal value and lifestyle, and hedonic and utilitarian perspectives to consumers
- Developing *conviction* by stimulating purchase intention
- Driving *action* among consumers

Consumers search online for technology-led products, which have perceived risk of accuracy in information. Therefore, searching for innovative products and services online reveals functional and emotional risks that influence ongoing and pre-purchase search. The functional risk affects the existing preferences of consumers negatively, whereas emotional perspectives drive purchase intentions positively. The effect of functional risk on pre-purchase search is not significant, and the effect of emotional risk on pre-purchase search is positive (Zhang & Hou, 2017).

Traditional approaches to innovation strategy of both start-up enterprises and large companies assume that the world is relatively stable and predictable. But globalization, new technologies, and greater transparency have combined to overturn the business environment. Such shift in the business environment has generated more risk and vulnerability among companies in engaging with new innovative projects. Companies that thrive to follow the integrated innovation strategies, as discussed above, can alter the consumer behavior quickly and manage the market demand. Companies need to experiment rapidly and frequently with not only products and services but also business models, processes, and strategies to achieve a sustainable market for innovative product. It is also necessary for the innovation-driven companies to acquire the skills to manage complex multi-stakeholder systems in an increasingly interconnected world of consumers (Reeves & Deimler, 2011).

Innovation Management

Innovation entrepreneurship is a convergence of start-up enterprises and the sponsoring companies, which moves from the stage of initiation to systematic project management to commercialization, and finally developing sustainable innovation through incremental innovations. Companies need to invest substantial resources toward consumer education in order to create consumer demand. Besides, they also have to carry out product demonstrations such as "do-it-yourself" and adaptive customization by allowing consumers to use the new products for a reasonable period and perceive value for money associated with the products. However, the opportunities for open innovation, incremental innovation, and enhancement of the use value of innovative products over the stages of product life cycle finally take the innovation business projects to the initiation stage of the next-generation innovative products.

Companies must grow innovative new businesses to become competitive. Given the nature of their decision-making environment, entrepreneurs sometimes need to effectuate, be cognitively adaptable, and learn from failure. The effectuation process in enterprise development starts with what one has, who they are, what they know, and whom they know. Accordingly, enterprises select among possible outcomes emerging out of the effectuation process. The entrepreneurial behavior in general is responsive to subjective decisions under uncertainties. Most entrepreneurs think casually to start an enterprise with desired outcome and focus on the means to generate that outcome.

Most start-up enterprises in local markets are highly fragile due to risk, contingencies, cost, and time overrun in managing new product tasks. Entrepreneurs are not strong enough to face the loss and uncertainties in the innovation, as they are not often disciplined in managing the innovation projects. Although, some start-up enterprises, who are prepared to explore the potential opportunities and have the capacity to absorb the risk of failure, might foresee outsized rewards and manifold benefits of commercializing the innovation. The critical success factor in entrepreneurship is embedded in effectively managing the uncertainty while trying something new, independent of its eco-system. However, believing that every contingency can be anticipated and innovation can be managed without risk, might be a wrong concept held by the entrepreneurs. A disciplined approach of entrepreneurship requires constituting an innovation team; gathering awareness about the innovation; finding its eco-system; estimating cost, time, risk, and marketability of the new innovative product; and finally, exploring for a sponsor to work on an innovating business project. Accordingly, an entrepreneur formulates a working hypothesis about an opportunity, assembles the resources to test the hypothesis, and finally designs and runs real-world experiments. Depending on the experimentation results, entrepreneurs may revise the project and run other alternatives to harness the market potential of the new innovative product (Sull, 2004).

Entrepreneurs are largely driven by a vision to create value to customers and earn profit through their applied entrepreneurial skills and customer-centric marketing actions. Entrepreneurship and marketing theories share some commonality, as both disciplines focus on identifying opportunities and transforming resources into value-creation or co-creation for consumers (Sarasvathy, 2001). Entrepreneurs pursue continuous efforts to improve customer value with applied perspectives than the traditional market

theories. This attribute exhibits a better fit between external market conditions and the internal environment, in which the market decisions are made. Most enterprises adapt to modern market behavior by analyzing the cognitive dimensions of consumers.

Doing business for small enterprises is a process to strike a balance between marketing and manufacturing. In principal, innovation and marketing opportunities are identified through market-specific competition analyses. However, it is a complex task for enterprises to perform efficiently and streamline the value-creating process in business as well (Hills, Hansen, & Hultman, 2005). Entrepreneurial activities are an important part of today's business world, and this should be reflected in how we teach and research marketing. The interface between entrepreneurship and marketing creates prolific business developments for marketing such as opportunity recognition processes, decision-making and implementation, and strategic marketing (Hultman & Hills, 2011). Market entrepreneurship today has developed in regional markets because of the increasing global competition, and is aimed at introducing novelty, innovation, or improvement into the production and technology exchange processes within the industry. Thus, the governments of developing countries stimulate productive entrepreneurship and make enterprises practical and operational through various public policies.

Consumer Preferences

The technological changes are the main impetus behind new market opportunities. The strategic choices have wide-ranging ripple effects through the organization that determine the key success factors and growth performance. Some companies would be making right strategic choices by improving the implementation process of competitive advantages. These companies are guided by the shared strategic vision and are driven by the responsive attitude toward the market requirements. They emphasize the continuous strive to satisfy the customers. A strategic vision in managing markets may be understood as the guiding theme that explains the nature of business and the future projections thereof. These projections or business intentions depend on the collective analysis of the environment that determines the need for new developments or diversifications. The vision of managing new markets should be commissioned on a concrete understanding of the business and ability to manage market competition. The vision will motivate the organization for collaborative business planning and implementation. The

powerful visions are also the statements of intent that create an obsession with winning throughout the organization (Day, 1990).

Product strategies specify market needs that may be served by different product offerings. The product strategies of the company are duly related to market strategies that eventually come to dominate both the overall strategy and the spirit of the company. Product strategies deal with matters such as number and diversity of products, product innovations, product scope, and product design. In many companies, product strategy decisions are made by top management to achieve proper coordination among diverse business units. In some companies, the overall scope of product strategy is laid out at the corporate level, whereas actual design is left to business units. Such alternative is more desirable than other arrangements because it is difficult for top management to deal with the details of product strategy.

Each strategy is examined from the point of view of a business unit or profit center. The term positioning refers to placing a brand in that part of the market where it will receive a favorable reception compared to the competing products. The market is heterogeneous; hence one brand cannot make an impact on the entire market. As a matter of strategy, therefore, a product should be matched with the consumer segment of the market in which it is most likely to succeed. The product should be positioned so that it stands apart from competing brands. Positioning tells what the product stands for, what it is, and how customers should evaluate it. Positioning is achieved by using marketing-mix variables, especially design and communication. Although differentiation through positioning is more visible in consumer goods, it is equally true for industrial goods. With some products, positioning can be achieved on the basis of tangible differences (e.g., product features); with many others, intangibles are used to differentiate and position products.

Product choice among consumers is difficult when products have marginal differentiation in reference to attributes, price, and use value, as compared to competing products available in the market. Hence, many manufacturing and technology-marketing firms provide default options to consumers in order to make their buying process easy. Well-designed defaults benefit both company and consumer by simplifying buying decision process of consumers, enhancing level of satisfaction, reducing risk in purchases, and driving profitable purchases. On the contrary, misconceived options to choose products can leave money on the table, fuel consumer backlashes, put customers at risk, and trigger lawsuits, thus costing compa-

nies dearly (Goldstein, Cialdini, & Griskevicius, 2008). As the competition among companies manufacturing consumer goods and the number of routes to market are increasing, customers today are being forced with an overwhelming array of choices. Thus, companies should stop creating new brands and product extensions to alleviate customer frustration and consolidate product and service functions by following a four R approach comprising replace, repackage, reposition, and replenish. In the race of acquiring and retaining strategies tested by the companies, customers are rapidly becoming smarter than the companies that pretend to serve them (Locke, 2000).

Innovative and new products, when launched in the market, possess common life cycle comprising introduction, growth, maturity, and decline in the context of market behavior. However, the attributes of commercialization of the innovative products in different stages vary from the product or organization life cycles to some extent. The innovative products cannot be determined as consumer-driven in general, as they differ in reference to the types of innovation and their projected growth under varied market conditions and across geo-demographic segments. Drivers of commercialization for innovative products delivered by innovation projects at the start-up enterprises level, or at large commercial organizations, constitute the backward and forward linkages, unique propositions, innovation value, and high investment made to carry out product innovation during the introduction stage of the innovation life cycle. Companies, taking the challenge of commercializing innovative products, foster the strategies of 4 As: awareness, acceptance, availability, and affordability, to strengthen the product, to reduce the market risk, and to gain competitive advantage of the new product in the marketplace. As innovative products move to the growth stage, firms put more impetus on sales by refining the marketing-mix strategies in reference to the following elements consisting of 11 Ps (Rajagopal, 2012):

- Product (uniqueness and associated attributes that distinguish the product from the existing products in a given marketplace)
- Price (low-end or premium market pricing)
- Place (developing strategies on distribution management and routes to market in reference to make the product available at the convenience of consumers)
- Promotion (developing promotion packages, advertisement and communication strategies, and building product opinions among consumers and market players)

- Packaging
- Pace (competitive dynamics)
- People (front line employees of an organization engaged in selling product)
- Performance (product performance and consumer experience)
- Psychodynamics (consumers engaged in social media to share their experience on innovative product)
- Posture (corporate image)
- Proliferation (expansion into manufacturing and launching complimentary products to augment the use value of the innovation)

Innovation-led products turn sustainable as they gain desired market share and get positioned strategically in the market competition with long-term goals. Accordingly, both the consumer value and brand equity for the innovation-led products and services increase. However, as the technology grows and consumer preferences for the products change, the products turn obsolete over the period, their market share decreases, and the substitution risk increases, depending on the life cycle of the innovation. Hence, firms should be engaged in continuous improvement or innovation process to develop next-generation products at the edge of the mature stage and should avoid falling in to the decline stage. Products, which fall into the decline stage, are difficult to revive as the dynamic market forces weaken the product significance and turn them idle in the marketplace. Investing on the products trapped in the decline stage does not often yield expected returns and turns into sunk cost that cannot be recovered. However, firms often observe the threats of value disruption due to negative word-of-mouth and competitive tactics in the market against the product that increases the risk of substitution and consumer defection. Innovation-led products are also susceptible to imitations by infringement of intellectual property rights and disruptive technologies with the increase of market competition against the innovative product. Most firms invest in building product and brands to inculcate confidence among the consumers and augment their loyalty toward the product and company.

Product innovation and marketing cycle is also affected by innovation diffusion cycle spread across the same stages as of product innovation cycle. In the introduction cycle, often, the diffusion of information is low as firms do not put adequate resources in generating awareness on the innovation. Firms invite lead users in this stage to test the innovated product and influence early adopters on the usage of product. Lead users form a small group but act as powerful referral and brand carriers. Firms spend

adequate resources in the growth stage to diffuse product innovation attributes through direct communication on one-on-one basis to drive intensive effect on the innovation-led products among early adopters. Consumers in this group are strong followers of lead users and stand as effective opinion leaders to influence the early majority of consumers. Most companies deploy enormous resources in advertising, communication, and social media involvement during the late growth and maturity stage to drive customers who are less affluent, less educated, but ready to experiment the innovative products. The early majority consumer segment constitutes relatively larger segment than the previous consumer segments but is confined to niche. However, the following stage is of late majority, which is a very large segment and often represents about half of the total number of consumers in a given market area. This consumer segment exhibits high adaptability to the innovative products and derives satisfactory value for money that makes them frequent buyers. Consumers in this segment are price sensitive and pose the threat of defection when more attractive substitute products penetrate in the market. However, a small number of (about 20 percent) of consumers in each market segment are hard to drive for buying any innovative product as they are indecisive and difficult to convince. Such segment of consumers is found in all stages of growth of innovative products but is apparently huge in number during the decline stage of the product life cycle.

Consumer perceptions play a key role in the life cycle of a brand. The role varies according to the stage in the life cycle, market situation, and competitive scenario. A company should invest in appealing communication strategies for creating awareness and may need to influence the decision of consumers toward buying the brands they have not tested before. Systematically explored concepts in the field of customer value and market-driven approach toward new products are beneficial for a company to derive long-term profit optimization strategy over the period. On a tactical level, managers need to consider the optimum spread of customers on a matrix of product attractiveness and market coverage. Managing stakeholder value in a market-driven approach needs careful attention and application of managerial judgment and experience to measure the customer-value-driven performance. Marketing innovative products of micro, small, and medium enterprises through the retail stores needs to be considered by improving store layouts, product displays supported with comprehensive point-of-sales information, brand information, and other parameters affecting the loyalty of consumers.

Customer value in terms of satisfaction, use value, retailing practices, price, quality, and media appreciation, is one of the indicators for building brand value for non-conventional products and unfamiliar brands of a firm. Customer value concepts may be applied by firms to evaluate the product performance of an innovative product in the given market and determine the approach for gaining competitive advantage over the traditional products. In order to gain long-term returns on aggregate customer value, firms may need to methodically estimate the profitability associated thereof in terms of product attractiveness, volume of buying and market share while introducing the new products in a competitive market environment. The study proposes framework for future research in measuring the customer value in specific reference to the non-conventional products.

One of the challenges for the marketing manager of a firm is to incorporate the preferences of the customer into the design of new products and services in order to maximize the customer value. An augmented and sustainable customer value builds loyalty toward the product and the brand. Systematically explored concepts in the field of customer value and market-driven approach toward new products are beneficial for a company to derive long-term profit optimization strategy. Hence, a comprehensive framework for estimating both the value of a customer and profit optimization needs to be developed. On a tactical level, managers need to consider the optimum spread of customers on a matrix of product attractiveness and market coverage. This needs careful attention and application of managerial judgment and experience to measure the value-driven performance of the product of the firm. It is necessary for managers to understand that customer value is context dependent and there exists a whole value network, not just a value chain, to measure. Appropriate promotional strategies considering the economic and relational variables discussed in the study may be developed upon measuring the intensity of leisure shopping and the scope of expanding the tenure of leisure shopping in view of optimizing customer values and profit of the firm.

Summing-Up

Understanding market scenarios is a superior way of visualizing a business project in order to help managers see how the business environment offers better strategic choices in carrying out innovative projects. Illustrating the experiences of various multinational companies, this chapter maps scenario for exploring innovative business projects in business-to-consumers and business-to-business sectors and offers ways to define the need for innovative

differentiation. It is argued in the chapter that analyzing socio-political determinants and critically examining the micro- and macro-economic factors would help managers develop competitive business projects within the existing business environment in a given marketplace. Organizational learning among local-global companies enhances executive competencies, broadens project management perspectives, and helps everyone involved in the innovative business projects in planning and implementing projects in a complex and nonlinear business environment. The attributes of various decision drivers in reference to changing organizational cultures have also been discussed in this chapter.

For many companies, innovation is a sprawling collection of initiatives, energetic but uncoordinated, and managed with vacillating strategies. Hence, it is necessary for companies to set up innovative business projects infusing a systematic process. In order to capitalize on current and future market opportunities, global, regional, and local companies are investing substantial tine and resources in developing innovative business projects that could create sustainable competitive differentiation. The chapter discusses basic entrepreneurial attributes required to develop and implement innovative business projects and guides the process of managing resources and project cost rationally. It is a precondition for building and implementing innovative business projects to create a right and sustainable market to absorb the thrust of innovative products. This chapter discusses ways for market creation and developing leadership. The most challenging issues in developing non-conventional business projects include tangible and intangible organizational factors like market change management, improvement in the products and services, enhancing customer values, and building task reporting, monitoring, and evaluation approaches.

For most companies, developing project design for innovation in business is neither a science nor an art but a routine managerial task. Such generalized approach cannot fit into managing all types of business projects. Although most managers can sense when their project designs are not working well, few take meaningful action, partly because they lack a practical framework to guide them. This chapter discusses several ways to identify and define qualitative attributes of a good project and describes qualitative process to carry out the innovative business projects successfully to gain competitive advantage in the marketplace. As companies begin implementing business projects, operational process turns complex in case of new product development, information technology, and many other non-conventional products or services. Under such conditions companies tend to switch to lean management techniques to reduce costs and stay price competitive in the market.

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