Chapter 2
MSMEs-Innovation

Abstract The economic growth of Indian MSMEs is catalysing them into a growing power centre at both local and global market levels. This makes it imperative for them to adopt innovation at all levels. Innovation and entrepreneurship acts as a two sides of a same coin, but differs across the firms only in terms of its scope and magnitude. Today’s Indian MSMEs are facing several challenges both internally and externally as a result of dynamic changes happening across the country and also in the rest of the world. To get through such market upheavals, MSMEs need to adopt several strategic initiatives and innovation may be one among them. With the present scenario of liberalization, privatisation and globalisation, it calls for the Indian MSMEs to adopt the culture of innovation at all levels of its operation.

The key takeaways for the reader from this chapter are listed below:

- Innovation in MSMEs: Theory and Trends
- Need for innovation for Indian MSMEs
- India’s stand in Global Innovation Index
- Objectives of carrying out innovation by Indian MSMEs

Keywords Innovation · Henderson-Clark framework · Incremental innovation · Architectural innovation · Radical innovation · Global innovation index

2.1 Background

Expected profitable growth is not achieved by Indian MSMEs as a result of huge competition and other challenges and issues that they are facing. Based on the existing statistics and extensive studies done with reference to Indian firms, we could raise a question that “why some of the firms are able to achieve remarkable growth in spite of huge competitive environment”? The answer to this question is “innovation”, which we are trying to figure out that is going to make a difference between a low performing company and high performing company.
Actually low performers follow the conventional and good old methodologies to reach the goal. At the same time, high performers are adopting turnaround strategies to achieve the goal and take the benefit of competitive advantage. Low performers are able to gain the momentum of success over a long period of time and many times they may not be successful. High performers are successful and able to reap returns. Usually they will be finding a niche market and enhance their market horizon which is a dream come true for the low performers. Strategic moves adopted by the high performers is adopting the logic of innovation at all levels of its operation starting from identification of customers needs and realization of a product to catch the buzzword of success.

2.2 Imperatives for Innovations

As a result of liberalization, privatization and globalization, MSME sector to emerge as innovative needs to adopt six generic forces and they can act like a catalyst in its growth process. They are:

(1) Power of Customer
(2) Power of Information
(3) Power of Global investors
(4) Power of market place
(5) Power of simplicity
(6) Power of the organization.

Power of Customer—Today’s market is driven by customers. Customer needs to be treated like a king- it is not just satisfying his needs, rather delighting by meeting both his needs and wants. The very reason for this scenario is that the present day customers are aware of what they want. So Indian MSMEs should clearly understand the power of a customer and develop the products or offer services as and when needed. Effort should be to meet their intrinsic and extrinsic needs.

Power of Information—Twenty first century is the era of knowledge and information. Both have to be harnessed to get the required success. Out of these, information has got a big role in the success of any business. The success factor lies directly with the level of information gathered at all levels of its operation and used at the right time. Developing the required product at the time when it is actually needed depends on the information gathered from the market place. Indian MSMEs need to cater to all types of information available across the globe and take strategic decision/s to obtain competitive advantage.

Power of Global investors”—Small firms can not only cater to the local needs but also can be a significant player as a global partner with big firms. This is possible as a result of several innovative approaches they have adopted. If some big
multinational company is considering a small firm as a vendor, it is evident that small firms have a role to play in their success. So the power of global investor is very critical and needed for the overall growth of both.

**Power of the global marketplace**—Today’s world is shrinking day by day. As a result of this, it has really become a small village and all the firms are playing in the same market place. An MSME firm which was earlier catering only to the local needs is now entering into global platform and its market space has enormously grown to the global market place. Darwin’s theory of survival is very true with respect to these firms as well. If MSMEs of any country has to survive, they need to concentrate on entering into global market by offering innovative and quality products.

**Power of simplicity**—there is a saying “small is beautiful”, and we can similarly quote “simple is difficult”. It is very easy to develop a complicated system and at the same time, it is difficult to make things simpler. The real sense of simplicity is the level of efforts and methodical procedures or standards adopted to achieve the simplicity and also at the earliest to enter the market place. Indian MSMEs needs to adopt the same strategy to achieve both short range and long range goals. At the same time, customers also prefer to go with the simple products rather a complicated one.

**Power of organization**—Success does not come only due to an individual’s effort in an organization. It is due to the synergetic effort put forth by each and every individual of different departments across the firm. Any firm can achieve the success if all the people working in the organization believes in team work and its benefits. Indian MSMEs should also realize the strengths, weakness, opportunities and threats that they are going to have and face in order to gain the competitive advantage.

### 2.3 Innovation in MSMEs: Theory and Trends

Innovation is the most discussed topic in today’s competitive world. Researchers have demonstrated various determinants of innovation and the case studies done on innovative firm’s states that these firms are following specific variables of innovation and they are the real factors for its success (Fagerberg and Verspagen 2009; Gopalakrishnan and Damanpour 1994). Majority of the studies done on innovative firms predicts a linear model of innovation. As per this study, the originated research findings from the laboratories are transferred to the firms as commercial products/services and from there it reaches the customer the end user (Godin 2006).

Schumpeter (1934) says that innovation is happening as a result of combining several existing inputs and resulting in value addition. He calls this process as a creative destruction. Lall (1992) demonstrates that innovation is a result of adding values to the existing products or its improvement or may be a newer one to meet the customer needs and wants. OECD definition of innovation is characterized by
either a new product development or process and it is popularly termed as Technological Product and Process (TPP) innovation (OECD 1996).

According to Dosi (1988) “Innovation is a process of discovering things through several experiments or developing a product may be by just adopting something new through improving the organizational set-ups or its process”. Innovation should always result in tangible products/services (Amabile 1988) by making use of technology, marketing and other essentials of new product development. There is substantial evidence that small firms are adopting innovation to a large extent and are able to gain competitive advantage in the global market (Subrahmanya 2005; Edwards et al. 2005; Gopalakrishnan and Damanpour 1994).

MSMEs gain competitive advantage by adopting innovation, which is not a onetime affair rather a continuous process. (Bessant and Caffyn 1997). It is a true fact that any firm will be competitive, if it is innovative (Acs et al. 1994). Eisdorfer and Hsu (2011) say that any firm failing to adopt innovation is falling down the hill and it will be ruined like a bankruptcy. Innovation is an application part of invention and it actually needs the methods of diffusing the invention as a commercial product into the market (Dosi 1988). So any firm has to diffuse the innovation in the form of successful products. Available literature on firms adopting innovation says that, there exists various types of innovation such as product innovation (Ettlie and Bridges 1982), process innovation (Gallouj and Weinstein 1997), incremental innovation (Damanpour 1991), and radical innovation (Duchesneau et al. 1979). The firm adopting a definite type of innovation depends on the level of profit and returns it is expecting and also the firm needs to adopt a continuous innovation as a culture to sustain a steady growth (Škerlavaj et al. 2007). Performance of a firm is directly based on the level of adoption of innovation on a continuous basis (Gunday et al. 2011). The basic need of any firm to be innovative is to cater to the customer requirements and there by expand its market space. Today’s MSMEs are actually driven hard to develop large number of variants, since customer requirements are volatile in nature. This has prompted the MSMEs to innovate drastically or else they will be perished (Pirmoradi et al. 2014).

The term “innovation” has been used in three different contexts (Zaltman et al. 1973). First, the term is considered to be synonymous with invention. Second, the term may be synonymous with a new idea. Third, innovation can also be used to describe the process whereby new ideas are accepted, developed and implemented. The last definition recognizes that innovation is a multistage process that occurs over time.

A number of researchers define innovation as any idea, practice or object that the adopting individual or organization regards as new (Damanpour and Evan 1984; Damanpour 1991). Nohria and Gulati (1996) define innovation “very broadly to include any policy, structure, method or process, product or product opportunity that the manager of the innovating unit perceived to be new.” According to Van de Ven, “Few innovations make a revolutionary changes and obsolete all the existing technologies and methodologies to emerge an innovative product which is widely acceptable. The rest of the innovations are happening through small modifications as and when needed.” Regardless of the definition used to identify organizational
behaviours that constitute innovation, researchers in the area widely agree that innovation comes in many forms (Gopalakrishnan and Damanpour 1992; Utterback 1994). These include radical and incremental innovation, technological and administrative innovation, product innovation and process innovation (Utterback and Abernathy 1975). Micro and Macro levels of innovations are the two different levels which an organization can categorize (Damanpour 1991; Kanter 1988). Micro level innovations includes individuals characteristics such as creativity, problem solving and decision making activities, whereas Macro level of innovation include system characteristics such as firms capacity and capability to innovate. Further, new dimensions are being looked into by researchers like Richtner and Rognes (2008). Innovation may be understood as either an incremental improvement over the existing techniques/devices or a brand new idea, method, product or device.

Innovation should not remain only as a statement rather it should be a practice on a continuous basis so as to survive itself over a long period and at the same time retain its customer preferences. This happens as a result of interfacing of invention, innovation and diffusion (Dosi 1988). The need for large number of variants across the products/services is increasing over a period of time as a result of ever changing customer’s preferences (Pirmoradi et al. 2014) and as well as by the regulations of governments. This has made MSMEs to develop a series of products which caters to the large market space and develop a habit of introducing a family of products catering into several niche markets (Pirmoradi et al. 2014). Product modularity is one of the initiatives made by several innovative firms to meet the demand (Mikkola and Gassmann 2003). Customer demands can be met only through innovative approaches rather than the conventional one. MSMEs are adopting platform based products to cater to the ever increasing demands of the customer.

### 2.4 The Henderson-Clark Framework of Innovation for MSMEs

The Henderson-Clark (Henderson and Clark 1990) framework can be a framework which any MSME can adopt. On the basis of technological novelty and novelty of linkages that integrates several related components, innovation can be categorized as:

1. Incremental innovation—results in small changes in both form and function.
2. Modular innovation—remarkable changes in function due to rapid changes in technology and having small or no changes in the form.
3. Architectural innovation—drastic changes in form with little changes in function.
4. Radical Innovation—both form and function undergo surgery.
Modular and radical innovations require huge investments, since it concentrates on function rather than on form. As a result, R&D expenses will be significantly high to improve the functional aspects. The following table is the Henderson and Clark framework which indicates the different product market strategies adopted at different levels (Table 2.1).

### Table 2.1 Henderson and Clark framework for product market strategies

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<th>Product-market characteristics</th>
<th>Adopted strategies</th>
<th>Action framework</th>
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| **Existing product × existing market** | Market penetration | (i) Increased volume sales per existing users  
(ii) Advertisements, loyalty schemes, sales promotions, personal selling to existing customers  
(iii) Increase volume sales by acquiring new users  
(iv) Market consolidation, mergers and acquisitions  
(v) Competitive pricing, discounting |
| **New product × existing market** | Product development | (i) Enhanced R&D efforts and innovation  
(ii) Developing insights into customers’ needs  
(iii) First movers in a product category  
(iv) Increase the overall efficiency of the users |
| **Existing product × new market** | Market development | (i) Modify existing product to have new usage for new set of customers  
(ii) Highlighting new dimensions-packaging of products  
(iii) New geographical expansion—exports  
(iv) New distribution channel  
(v) Market segmentation—new pricing policies |
| **New product × new market** | Diversification | (i) New product in new markets  
(ii) New technology, new skills  
(iii) New merchandizing, new facilities  
(iv) New financial investments, new financing models  
(v) High risk-high rewards |

*Source* Henderson and Clark (1990)

2.5 **Need of Innovation for Indian MSMEs**

Indian MSMEs needs to grow beyond the country or continental needs. It should concentrate on entering into global market and thus give a tough competition to the big giants in the market. A recent study done by FICCI (Federation of Indian Chambers of Commerce and Industry) and Centre of Management studies of IIFT (Indian Institute of Foreign Trade) says that there is a high alarm for Indian MSMEs to gain the higher Global Innovation Index (GII) as compared with the countries like China, Singapore, Malaysia, Japan, South Korea etc., which already got higher Global Innovation Index.

In spite of high growth rate, Indian MSMEs are facing several challenges like lack of technology and funding support, huge competition, changes in policies etc.
To survive, MSMEs has to be innovative to go against the conventional wind and make its existence in the competitive world. Hence MSMEs needs to crunch the knowledge and information which is available in plenty and make use of the required item to develop an innovative product and sustain its growth over a long period. MSMEs have to improve its performance by making use of right set of knowledge and information and drive the economy. Innovation is an answer to drive this knowledge based economy and it can be leveraged to the maximum extent to gain the competitive advantage. Innovation should be used as a weapon by both developed and developing countries effectively to enhance their firm’s performance and make their firm competitive in the global market.

As a result of higher potential with respect to employment and growth, MSMEs is an answer next to large industries. Indian government has already taken several strategic steps to see that MSMEs are able achieve the targets by adopting these innovative initiatives. According to a National knowledge commission of India’s study, 17% of the MSMEs are in the pipeline of introducing new products into the market. The commission also say that the thrust area for enhancing the competitiveness is Technology, skill development and innovation. Innovation has been due importance since it is much of about execution and it’s all about the creative ideas incorporated to produce an economically viable products. Indian firms are now aiming to achieve the success through innovation or else they know that they will be perished by the competitors.

Indian MSMEs needs to adopt several of the new innovative thoughts and ideas so as to make a revolutionary change among the players across the globe. Such revolutionary change which was brought out by an Indian automobile giant Tata Motors and it’s none other than a NANO car. Indian MSMEs are now catering into several sectors such as manufacturing, IT services, medicine, health care, education, telecommunication and so on. But still Indian MSMEs are having high potential to enter into several niche markets and gain the competitive advantage.

2.6 India’s Stand in Global Innovation Index

Innovation is still a nightmare as far as Indian companies are concerned since most of them know less about the impact of innovative products/service that happen in the market. They are less aware of the level of innovation and the type of diffusion happening. Global Innovation Index (GII) is such an index which helps any country to benchmark their status as with respect to innovations are concerned.

The GII, therefore, aims at establishing the following key facets:

1. It instigates policy makers to highlight the importance of innovation or otherwise difficult to find its relevance.
2. It frames guidelines to revaluate the process of innovation.
3. It will be a measuring tool to evaluate the firms which are innovative at the national level.
The following are the status of India’s GII:

- India is ranked 62nd on the GII, 1st in its region, and 8th in its income group—after China, Moldova, Jordan, Thailand, Viet Nam, Ukraine, and Guyana.
- India is the second most densely populated country, with 1.2 billion inhabitants.
- It is eleventh in GDP, with US$1,310 billion.
- A lower-middle-income country, it comes second after Sri Lanka in GDP per capita in PPP dollars in the region.
- India comes in at 44th on the Output Sub-Index.
- Within the top 30 on labour productivity growth (21st with 4.5%) and computer and communications services exports (4th globally, with 70.0% of total commercial service exports).
- It also has positions within the top 40 on two knowledge diffusion indicators: high-tech exports.
- (32nd, at 6.34% of GDP) and FDI net out-flows (38th, at 1.08% of GDP).
- On pillar 6, Creative outputs, it ranks 39th on national feature films produced, 22nd on daily newspapers, 9th on creative goods exports, and 29th on creative services exports.
- India’s position, however, is dragged down by its poor performance on the Input side (ranked 87th): India is in the last quintile on sub-pillars business environment, elementary education, tertiary education, and knowledge workers.
- But the country has high marks—within the top 40—on R&D (35th); general infrastructure (11th).

2.7 Objectives of Carrying Out Innovation by Indian MSMEs

- To produce quality products.
- To upgrade the existing technology to the newer one.
- To optimize the manufacturing cost.
- To optimize investment on resources.
- To enhance product variants.
- To improve product life cycle time.
- To increase market space.
- To promote agility in manufacturing.
- To seek for niche markets.
- To follow domestic regulation
- To minimize the impact of industrialization on environment.
- To enhance the comfort level of employees by providing good infrastructural facilities.
2.8 Review Questions

1. Explain the need of innovations for Indian MSMEs.
2. Explain the Henderson-Clark framework of innovation for Indian MSMEs.
3. Explain India’s stand on global innovation index.
4. Elaborate on the objectives of carrying out innovation by Indian MSMEs.

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