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A MULTI-PERSPECTIVE VIEW OF THE CRUCIAL FACTORS CONTRIBUTING TO INNOVATION: A CASE OF PAKISTANI SMALL AND MEDIUM ENTERPRISES

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Abstract

In today's world globally social scientists, states, and entrepreneurs have shown great interest in SME development and recommended that innovation is one of the best sources to achieve a potential contribution of SMEs. A qualitative case study research is conducted to understand the distinct determinants leading SMEs towards innovation. Thirteen cases have been selected for an in-depth interview through convenient sampling. Data has been analyzed through Miles and Huberman techniques with the support of NVIVO-10. The findings highlight certain determinants that lead SMEs towards innovation like dominantly educated and experienced owners/ managers, financial resources availability, technology acquisition, R&D activities, and skilled employees. Surprisingly, the findings suggest that a close relationship with technology and material suppliers strongly impacts a firm's innovative performance. Overall, the findings suggest that innovation is possible in an unsupportive institutional environment if a firm can properly utilize its available resources and abilities.

Keywords: Determinants, SMEs, Innovation, Non-innovation, Differentiating.

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Introduction

SMEs are playing a key role in the development of the country's economy. Strong arguments are linking SMEs ' contribution towards economic growth and sustainability. In the economic growth of a country, the importance of Small and Medium Enterprises (SMEs) cannot be underestimated. The G-8 meeting highlighted the significant contribution of SMEs towards providing employment and dynamism in most of the industrialized world. In 2002, United Nations Industrial Development Organization (UNIDO) suggested that developing countries have to follow the SMEs experience of the developed nations to develop the economy. Furthermore, SMEs are engaged in a wide range of business operations, have received considerable attention for the acceleration of economic growth, and made a significant contribution towards productivity and expansion (Syed et al., 2012). Following the diversified nature of the business operations and flexibility, SMEs are considered a backbone for a country's economic development (Amini, 2004; Radam et al., 2008).

The developed and developing countries extensively recognized small and medium enterprises (Abdullah, 2000a). SMEs account for almost 95 to 99 percent of the business population worldwide and are actively involved in the economic development of the countries (OECD, 2005). In the UK, SMEs represent 99 percent of the whole business population, and less than 1 percent is considered large corporations, i.e., with over 250 employees (Rowe, 2008). In South Korea, the total share of SMEs in terms of employment is 70 percent (Lee, 2000). Malaysian SMEs account for about 48 percent of the manufacturing sector (Abdullah, 2000b). There are about 118,648 SMEs in Thailand, representing around 98 percent of the total firms in the manufacturing sector (Suthiphand and Natavit, 2000). The economy of China is becoming the largest and fastest economy globally, and SMEs represent 99 percent of the total number of firms and about 70 percent of overall employment (Tang et al., 2007). There is consistency in the figure, as in Pakistan, more than 97 percent of business entities are considered SMEs (SMEDA, 2007).

Innovation is globally recommended to be a useful source to increase a firm’s production, profitability, and reputation. Moreover, innovation plays the essence of small business development (Anaka et al., 2009). Some studies strongly emphasize that innovation is an effective solution for a firm to maintain its position (Baldassarri and Saavala, 2006), and focusing on innovation is the key policy (Kim and Maubourgne, 2005). Corporate governance mechanisms, Innovative strategy, and innovative activities improve a firm’s performance (Khan, Jabri, and Saif, 2021), and innovative firms are showing the high financial performance (Zahra *et al.,* 2000). Moreover, small firms can benefit more from innovative activities (Lee and Chen, 2009).

In Pakistan, currently, the innovation-related research on SMEs is limited and at its initial stage (Bashir *et al.*, 2010). SMEs need governing policies that have been ignored so far, and as a result, SMEs show poor innovative performance (Khan *et al.*, 2015). According to the Global Competitiveness Report 2015-2016, Pakistan is ranked as 119 out of 128 countries. The government plays a significant role in providing a supportive and innovative environment for the development of any sector. Currently, there is no comprehensive governmental policy regarding innovation to foster business activities in Pakistan (Sohail *et al.*, 2011), there are no proper innovative guidelines available for innovative firms, and "*The innovation agenda in Pakistan is confused*" (Speakman *et al.*, 2012). Besides, there are no clear guidelines available that differentiate innovative and non-innovative SMEs in Pakistan, and the current situation is far from the global trend, and SMEs are surviving on their efforts.

Therefore, a clear understanding is required to explore the determinants of innovative SMEs in Pakistan that will help devise strategies to support the innovative activities and increase their contribution to the economy. For this purpose, the study investigates comparatively developed and high-performing SMEs and provides a ground for developing SMEs performing poorly.

Literature Review

Innovation measurement and its computation across organizations are very difficult as innovation is complex and difficult to measure. The situation lacks common and trusted guidelines to judge innovation activities among SMEs. In this regard, Parker *et al. (2010) stated that there is no trusted and uniform set of measurements in small business research* to evaluate firm innovativeness. Furthermore, no uniform established rules and models differentiate innovative firms from non-innovative firms (Heimonen, 2013).

In this regard, OECD Oslo Manual (2005) explains innovative firms' fundamental characteristics, stating that an innovative company can implement technologically new or significantly improved products or processes or combinations of products and processes during the period under review. Olso Manual (2005) further explains that innovative firms are involved in R&D activities, adopting new marketing methods or organizational methods, acquiring external knowledge, investing in new knowledge, and taking scientific, technological, financial, and commercial steps. Most researchers and academicians are trying to explore and explain the increasing concentration on the factors that lead a firm towards innovation and higher performance, as Moreno and Casillas (2007) state that innovative SMEs are showing high performance due to their strong financial structure and availability of idle resources (Non-Financial Resources). Also, some studies show that firms looking for standard practices (such as benchmarking) and networks show higher innovative performance (Massa

and Testa, 2004). Concerning benchmarking, Massa and Testa (2004) further emphasize that benchmarking enables a firm to compare its practices and performances with standard practices and acquire external explicit and tacit knowledge, which leads to firm innovativeness and improvements. Conversely, Tidd et al. (2001) surveyed UK firms, and their findings suggested that different organizations enter into alliances and networks to reduce expenses and manage possible R&D risk, but they fail to obtain potential benefits.

The findings of Chandler et al. (2000) suggest that innovative firms are carefully analyzed their competitor, quick decision-making, and have a reward system for their committed employees. Similarly, Salavou et al. (2004) have found that firm strategic orientation and competitive structure positively affect firm innovative performance. They further elaborate that innovative SMEs are planning with a clear vision and risk-taking strategies. Thus, the risk-taking behavior of a firm leads towards firm innovative performance. According to the study of Blumentritt (2004) conducted on American SMEs, innovative firms are more risk-taking and quick decision-making.

Globally organizations are moving towards more sophistication and fulfillment of complex and regular demand of customers and markets, intending to satisfy their customers and increase their market share. In this regard, innovative and high-performing organizations are conducting different research activities and trying to adopt the unique skills and resources to compete and enter into the new market with something different. Thus, the focus of the organizations has been changed from sample research toward the more complex nature of activities, and the characteristics of innovative organizations are changing with the changing nature of organization activities. In this regard, Laforet and Tann (2006) find in their research that innovative SMEs are effectively using technology, focusing and investing in their employees, closely analyzing its competitor, promoting corporate culture, collaborating with different firms, and developing a cooperative environment.

More recently, Mahmud and Ahmed (2011) analyzed the Investment Climate Assessment Survey (ICAS) data from the World Bank in 2002-2007 in Pakistan. They use different characteristics as proxies to distinguish innovative firms from ordinary firms and categorize them in internal characteristics - trade status, size, quality of human capital, and external characteristics - the firms in clusters are found more innovative. However, background and in-depth understanding are necessary as Leseure (2000) observes that adopted practices in one organization do not possibly apply to another organization, and each firm has its priorities and unique managerial practices. The ground realities show that most respondent SMEs are not familiar with such surveys and are not the actual representation of SMEs.

In Pakistan, there are no declared criteria to distinguish innovative firms from ordinary ones. It is even more surprising that these controlling

organizations have no exact database of SMEs. The findings of Bashir *et al.* (2010) show no frame for innovative SMEs in Pakistan. Hence, studies on innovative SMEs are diverse. The literature lacks established criteria that can guide the classification of innovative and non-innovative SMEs**.** Therefore, the question arises that "what are the distinguishing characteristics of innovative SMEs in Pakistan?" The primary aim of the study is to explore the factors that led SMEs towards innovation.

Methodology

With this research, we would like to contribute to a theory regarding innovativeness to the existing body of knowledge. In this response, we further study the theoretical approaches discussed above regarding the relationship between innovation and firm development. The case-study research is considered suitable for the phenomenological approach. To understand subjectively with lived experiences, to identify the essence of human experience about a phenomenon being observed. It not only enables a situation to be explained and described but also allows a researcher to develop and test theory (Lee, 1999). In this respect, the authors think that depart from the traditional approaches and examine the innovation and SMEs from a new perspective. So a qualitative case study research inquiry was designed to explore the new phenomena in the context of SMEs in Pakistan. Besides, a multiple method strategy was adopted to enable the researchers to obtain in-depth information and reduce personal bias by not depending on only one method of approach.

The study participants were selected by involving the relevant controlling and organizational bodies as there were no declared criteria for the classification of innovative and non-innovative SMEs. The data has been collected through in-depth interviews and field observation from different sectors. A multi-sector strategy was also used for this research to study more than one sector or institution. In another way, the multi-sector approach closely examines identical units under research to investigate their variations in-depth. The interviews were audio-recorded with the permission of the respondents. The audio recordings were listened to and transcribed into text files. The transcripts were then reviewed by the respondent (member checking). Adopting this method of approach supports the authenticity of the study, as there would be no other way to reduce research biasness. Each interview has been analyzed separately (within the case) and combined the findings to draw a common conclusion (cross-case analysis).

Cases Selection Criteria

In the case of study research, case selection is a challenging task. Direct contact with the organization for the interviews is difficult in the study location as there are fewer research activities besides security situations.

There are no hard and fast rules for sample size in qualitative inquiry, and researchers determine sample size according to the nature of research. In this regard, Patton (1990) asserts that researchers look and consider the cases in a qualitative study according to their availability, easiness, data richness, and time. Also, in the case of study research, when the population is unknown, consultations with the authorities or help from community members are the sources of sample selection. Tongco (2007) asserted that it is recommended to consult with the community for sample selection. In this regard, Bah *et al.* (2006) select a sample with the help of a village head from "*potential traditional healers*" for detailed interviews. Therefore, in this study sample has been chosen by the bodies governing SMEs. The selection criteria were set for sample selection as below:

1. The respondent organization must be an SME as defined by SMEDA with employees from 10-99.
2. The respondent organization is required to be a commercial manufacturing SME involved in innovative activities.
3. Lastly, the willingness of the respondent to provide and share information according to the research objectives.

Thus, the collaborative organizations serve in the local market, with the same institutional setup and covering a wide range of sectors, such as food, steel, chemicals, papers, textile, carpet, furniture, plastic goods, and beverages.

Number of Cases in Case Study

The number of cases to be included in qualitative research is not fixed. Authors have a different point of view regarding several cases, e.g., Adler and Adler (1998) suggest for graduate-level studies a sample between 12 and 60. Miles and Huberman (1994) suggest that 12 cases are sufficient and emphasize that more than 15 cases make a study "unwieldy." Hedges (1985) states that qualitative research is time-consuming and costly. Therefore sample may not exceed 12 cases. Sandelowski (1995) states that sample sizes of 10 cases in the qualitative study are trustful and satisfactory. Therefore, to conclude briefly, the most widely accepted range is between 2 -15. In this study, the data has been collected from 13 different SMEs. However, this paper reports the finding of five cases only.

Data Collection Techniques

Data collection is an important part of any research, and the findings of a study depend on the accuracy and richness of data. The improper and incorrect collected data affect the results of the research. Consideration of various sources of data and information enhances the validity of a study (Khan et al., 2020). Therefore, great attention has been paid to collecting relevant data to address a research problem properly. In this research, data

has been gathered through in-depth interviews and field observation. Observations enabled the researcher to get such information that the respondent avoids sharing and confirming interview data. Also, an observations checklist has been developed to ensure that targeted information is not missed and establish consistency in data collection.

A basic information sheet was designed to collect general information on all the companies included in the sample. The consent form was developed to obtain the willingness of the participants before the final and detailed interview.

Data Analysis Procedure

The data for this study was collected from owners or managers of the manufacturing SMEs through in-depth interviews and observations. The most critical part of the research is the analysis and interpretation of data and the researcher's ability and level of analytical skills (Miles and Huberman, 1994; Yin, 1994). There are different approaches towards qualitative data analysis, like understanding the nature of data and analyzing in such a way to satisfy stakeholders. There are no commonly accepted rules and regulations to be followed and depend upon the researcher's vision and study objectives. In other words, there is low standardization of the analysis procedure in qualitative than quantitative research. Miles and Huberman (1994) stated that qualitative research has fewer agreed rules to follow and strengthen the findings. Therefore, in qualitative data analysis, certain processes are involved in reaching the desired conclusion and assigning meaning to data.

In this study, Miles and Huberman's (1994) analysis framework has been adapted. Their analysis framework consists of three steps. In the first step, the data has been reduced through documentation, coding, and memos. According to research objectives, all the interviews have been transcribed and coded simultaneously, recombined the matched codes, and developed a final set of codes. The author also writes down memos of the emerging ideas during the coding and data reduction phase. Secondly, the findings have been displayed within case and cross cases. Lastly, the findings from within the case have been recombined in the cross-case display, intending to draw a common conclusion. Hence, the data was reexamined, and the audio recording was listened to repeatedly to get the deepest understanding of the data and draw a meaningful conclusion (Bendassolli, 2013).

Backgrounds of the Cases

This paper presents the preliminary findings of five cases. The brief introduction and background of the cases are discussed in the following subsections.

Company A

The company was established in 1998 with only eight workers. After seven years of operation, the company's production has increased, and now the company has thirty employees, including technical, administrative, and general workers. The core business of the company is manufacturing steel products. The company operations are not limited to Pakistan and also export products to Afghanistan. The owner is a mechanical engineer, and the manager has a Master's degree in Commerce. The company focuses more on process innovation. The company adopted new technology as the researcher visited the production site and observed that the obsolete machinery was removed and placed at the corner. The company has an informal maintenance lab, and the research and development lab is under construction. The company has established a close relationship with customers, suppliers, and big businesses.

Company B

The company was established in 2002, with a small and modern production unit. The firm has 35 workers, and the owner and his son are managing the overall business activities. The owner is not highly qualified but has sound technical experience; however, the elder son has an MBA degree and has 14-years of experience in large companies. The core business of the company is the manufacturing of paper and paper products. In the beginning, the company only produced different packaging and plain papers for small businesses. However, the company analyzed the market trend and installed new machinery, and started quality production. The company has a technical workshop where the technical staff maintains and updates some parts of the machines. The company has a strong relationship with its customers, suppliers, and the large companies' technical staff. The company has sufficient financial resources.

Company C

The company was established in 1990, with a small shop and small printing machine in the local market. The core business of the company is the manufacturing of paper and paper products. The company has developed a relationship with the supplier. The supplier insisted on starting a small production unit in Peshawar. However, in the year 2000, the owner agreed and applied for the vacant plot of the industrial estate to install machinery. The supplier makes all the necessary arrangements, provides the latest machines, and even suggests the name for the company. The company's operations are not only limited to Pakistan but also to exporting its products to Afghanistan. The owner has good working experience in a large organization, worked abroad (UAE), and holds a technical diploma. The real brother of the owner is also highly educated, has an MBA degree, and has been active in the business since the inception of the company. The firm has skilled and educated owners.

48 employees are working in the company. The company was found involved in carrying out innovative activities and adopted technology to enhance product quality. However, insufficient attention has been paid to marketing and organizational innovation. The company has skilled, and committed employees and producing market-oriented products as the company recently introduced high lamination packaging.

Company D

The company was established in 1997. The company has been started with the latest available technology. The owner is a landlord and Engineer by profession. In 1991, the owner established a small production unit in his hometown. It was the owner's goodwill that in 4-5 years, the firm had established its good market share. The owner was motivated to enhance their production capacity. Therefore, in 1996 the owner decided to start a new production unit in the province's capital. In 1997, the owner applied for a plot in IE Hayat Abad Peshawar KPK Pakistan and established a production unit with the available advanced technology. 35 employees are working in the organization. Since inception, the owner has a technical background and actively involved in the business, and has gained good experience. The firm has a strong financial background, is equipped with skilled employees, and adopted new technology.

Company E

The company was established in 1992, with a small production unit. The company is a partnership of three friends. All three owners are engineers and have worked in different small and large organizations. The interviewee claimed that the company is the first ISO certified. The company has 60 workers, which consist of technical, administrative, and general workers. In 1996, the company had signed an agreement with the US Aid project and designed new water hand pumps. The organizational structure of the company is developed, and there is proper management building. The building consists of separate departments for sales and marketing, reception, accounts, and the chief executive office. The company's operation is not only limited to Pakistan but also exporting to Iran and Afghanistan. The interview data suggested that all four types of innovation have occurred in the company. They mainly focus on product quality enhancement, process development, marketing products in different areas and markets. However, comparatively organizational innovation is the least focused area.

Key Findings

The interviews data shows that there is no trend of inside R&D and new product development. Only the company “E” has limited but effective R&D Activities. However, informal and un-managed workshops were observed

that cater for process development machinery repairing. The respondent SMEs are continuously developing their processes intending to reduce per-unit cost, increase productivity and enhance the quality of products to satisfy the customer and compete in the market. These SMEs have modified their existing products, installed new machines, and enhanced company production. The interview data also suggested that these companies are trying to enter new markets as the owners/ managers themselves market their products. However, no evidence was found of advanced marketing approaches as they are still using traditional marketing techniques. The question arises: what characteristics differentiate these innovative SMEs from ordinary SMEs, and what are their primary abilities that are leading these SMEs towards innovation.

Different determinants and abilities enable leading respondent SMEs to pursue innovation and differentiate them from ordinary SMEs. One of the respondents emphasized the crucial role of internal process development during the interview and commented that

> *"Due to scarce resources and other problems, we do not have any formal R&D. However, we have an informal development process, and our technical staff is continuously improving different parts of the machinery and product designs. Moreover, sometimes our owner gives some suggestion to the technical staff for changes in various units". (Company, B)*

Furthermore, another respondent asserted that

> *"We have no formal R&D and have not allocated any specific fund for R&D. However. We have our technical workshop where we are repairing and updating some parts of our machines." (Company, C)*

It was also evident from the data that some SMEs are trying to establish R&D, as one of the companies has changed their process in-house through their technical staff. The company has organized research and development activities. In this regard, the manager stated,

> *"We have limited but effective research and development activities, and the owner and technical staffs are very competent. Furthermore, they are trying to make the production process more convenient and reduce consumption and wastage, to reduce per-unit cost and to increase our profit margin". (Company, E)*

The respondent SMEs are changing their processes internally through technical staff and owners. During the site visit, one of the managers shows the under-construction research lab where the technical supervisor explains,

> *"Shortly, the lab will operate as a full-fledged unit, and we hope that our technical staff will do research activities with the support of innovative technology." (Company, A)*

The author also observed the installation of new machines and worked in progress. These SMEs are continuously developing their production processes intending to enhance the quality of products. The question arises about the determinants that lead these companies to innovativeness, especially in the absence of proper R&D activities, outside collaboration, and official networks. The interviews data suggested some factors and approaches through which the respondent SMEs are enhancing their innovative activities that distinguish innovative firms from ordinary SMEs. These innovative SMEs have technically trained personnel and experienced owners/ managers. It is also concluded from interview data that process improvement and incremental product modification are taking place with the help and support of technical personnel. Interviews data suggests that all the five SMEs have technically trained staff and have sound technical knowledge. Furthermore, interview data and field observation also suggest that the technical employees of innovative SMEs are highly committed and crucial for implementing new ideas in the firm. As one of the respondent's quotes saying:

> *"In the beginning, the new equipment and machinery were not working smoothly because no one knew the proper handling of the machine. Therefore, employee commitment and devotion are needed to handle with care all the new equipment". (Company, C)*

The respondent explains that:

> *"Our employees and especially skilled employees are highly committed and motivated, and everyone in the firm is welcoming change and accepting it wisely. Also, my opinion is that the skilled workers are the most crucial capital required for the innovativeness of companies and their commitment".*

Another respondent quotes saying that:

> *"Our technical staff has personal links to developed firms, and they are contacted when guidance is needed. Our employees are taking an interest in the development of the company. As they are using their personnel sources and relations and trying to bring something new in the form of new equipment, improvement in products, etc.,". (Company, A)*

Therefore, employee commitment is one of the essential sources for the implementation of innovative ideas. Employees play two important roles, i.e., one. When a firm gets some inputs in the form of innovative ideas, the workers make the accurate implementation possible, and second: committed workers are not only taking an interest in firm new idea implementation but also sharing their knowledge and experiences to generate new ideas. Furthermore, these SMEs are equipped with the latest technology and have easy access to the available technology. It is important to note that most

SMEs have limited capacity, serve in the local market and adopt the locally available technology. As one of the owners stated:

> *"We get the plot, and we started the business with modern technology. We were lucky because there are many senior firms, but they are still using outdated machines. Due to a good relationship with large companies, we were able to start with the right direction, and now the company has an image in the area". (Company, C)*

The interview data and field observation show that the respondent SMEs have easy access to or have sufficient financial resources. Besides, technology acquisition and hiring of required technical staff require a strong financial position. The field observations suggested that the respondent SMEs are well managed and have good HR, financial and physical resources. Furthermore, these SMEs have established close relationships with large organizations. These large organizations help install new technology and keep firms updated with the current market trend. One of the respondents highlighted their relationship with the skilled and technical personnel of large organizations. The respondent asserted that:

> *"Although we have no collaboration and proper networks of external parties, I have personal contacts with some technical staff of the developed firms, and they are helping us in solving technical problems." (Company, C)*

Furthermore, the interview data suggests that suppliers play a crucial role in the firm innovativeness. Luckily, the author meets with some suppliers during field visits of the companies. It was observed in company "A" that the supplier briefed the owner regarding the new equipment and materials. It is also derived from the data that the SMEs under study fall under the process innovation category, and suppliers' close relationships are found most helpful in process innovation. One of the respondents asserted that:

> *"We have close links with technology suppliers, and most of the process development and changes are taking place through the supplier's suggestions and installation of modern technology. Also, the supplier suggestions are more helpful in process development". (Company, B)*

Another respondent stated that

> *"The owner is in close contact with the suppliers, and they keep us updated about new development in the form of new machines and other product material specification." (Company, C)*

One of the respondents put more emphasis on the role of suppliers and stated,

> *"We have a good relationship with technology suppliers, and mostly they are solving our different technical problems very easily at very low cost." (Company, D)*

Every change impacts firm routine activities, and if the organization's internal abilities are not developed that can positively respond to changes, then the investment is biased. The innovative and risk-taking behavior of the owner of a small firm is very crucial for firm innovativeness. The author visited different SMEs in this research, met with different owners/ managers and department heads, and found that competent and devoted owners backed the most successful SMEs. One of the interviewees explains the role of a successful owner that:

> *"There is risk associated with every new development. You will be either benefitted or otherwise, will make a loss, broadly speaking the owner needs two abilities, i.e., capital availability and risk-taking ability". (Company, C)*

Besides, another respondent further explains that:

> *"Sometimes when we find a skilled person we try to hire him not because of current need but for future development. In some cases, we do not get the desired results, but the owner insists on investing in HR and machines". (Company, A)*

The new idea development is a primary step towards innovation. In the case of SMEs and especially the respondent SMEs focus mostly on process innovation. The focus on innovation depends on the willingness of the owner/ manager to implement the improvements. The knowledge and experience of the owner and support of the firm, in terms of equipment and HR skills, are key factors to implement new improvements. Based on the interviews data and confirmation of some content through field observation, the educated, experienced, and risk-taking owners/ managers, availability of technical staff, access to and availability of technology and financial resources, and closed relationship with technology suppliers are significantly contributing and increasing firm innovativeness and performance. These factors differentiate innovative SMEs from ordinary SMEs in the case of firms in Pakistan.

Discussion

This paper presents the preliminary findings of five cases. It is derived from the interview data that several determinants are leading a firm to innovativeness. Financial resources, skilled employees, experience and innovative vision of the owner/ manager, and acquisition of new technology demonstrate a substantial contribution to firm innovativeness. Additionally, networks with customers, suppliers, large organizations, R&D activities,

market analysis, and flexible organizational structure positively impact firm innovativeness and play an important role in achieving measurable results in overall firm development.

Previous studies showed that finance is one of the fundamental determinants of firm innovativeness and development. In this regard, Oslo Manual (2005), Moreno and Casillas (2007), and Laforet and Tann (2006) find in their studies that finance is one of the essential determinants of firm innovativeness. The study's findings are consistent with the previous literature, as the data shows that all the five respondent SMEs have sufficient financial resources. The data also shows that the firms need extra finance for future development and new projects. Market orientation and external knowledge transformation were also important determinants and drivers towards firm innovation (Chandler *et al.,* 2000; Oslo Manual, 2005; Massa and Testa, 2004; Raymond and St-Pierre, 2004; Laforet and Tann, 2006; Charney and Libecap, 2000). The innovative SMEs carefully look at the market, analyze and then implement the available external information. The study's findings are consistent with the previous literature, as all the respondent SMEs are producing market-oriented products and seeking external knowledge for development.

The respondents SMEs have established close relationships with their customers, suppliers, and large organizations. The data suggests that most of the potential customers are wholesale dealers and these customers are the source of market information and updates. The suppliers provide new technology and material updates. However, informal relationships with the technical staff of large organizations provide technical support and help in technology maintenance. In the literature, such as Terziovski (2003) studied Australian-manufacturing SMEs and found that networking helped companies develop and develop their reputation. Besides, Yang Xu (2006) stated that alliances and networking are highly beneficial for innovative activities. Mazzarol (2004) also supports the study's findings as his study concludes that a relationship with a potential customer increases innovative company activities. Hansen and Birkinshaw (2007) stated that organization does not possess a good idea other than suppliers. However, the findings depart from the existing literature in the case of an informal relationship with the technical staff of large companies. The technical personnel provides unofficial and informal training to the employees and helps in technology maintenance. Besides, informal external collaboration with large and developed organizations contributes to the training of workers and innovative performance. Furthermore, there were no positive effects found among the new and old, firm size, and the number of employees. Nevertheless, the new and young SMEs with qualified and experienced owners/managers positively impact firm innovative performance.

There is the traditional approach towards marketing; however, it is evident from the data that the respondent SMEs analyze the market and

establish a good developmental environment. Also, this shows that the education of the owner/ manager, experience, and innovative vision is necessary for firm innovativeness. The interview data shows that all the five owners are highly qualified and experienced and positively impact the overall innovation and profitability performance of the firm. The findings are consistent with Romijin (2000) that owner/ manager education positively impacts firm development and technology acquisition. Furthermore, the findings are also consistent with Blumentritt (2004), Mambula and Sawyer (2004); Charney and Libecap (2000); and Barnett and Storey (2000). These studies show that educated and experienced owner/ manager positively impacts firm innovation and overall performance and is considered one of the key determinants of innovation. In process innovation and product quality enhancement, recent technology plays a vital role and is considered a primary determinant towards innovation. Oslo Manual (2005) and Laforet and Tann (2006) attribute adaptability of new technology as one of the characteristics of innovative SMEs. The findings of the study show that all five respondent SMEs are equipped with innovative technology. However, it is appropriate to note that the respondents SMEs are considered low technology firms and mostly acquire new technology through suppliers and partially develop through its technical and skilled employees.

Risk-taking behavior, research, development activities, and organization flexibility show positive performance towards firm innovation. These determinates have gotten less attention in the interview data. However, due to the strong support of previous studies, it is considered innovative determinants and differentiating factors. Earlier studies like Oslo Manual (2005), Salavou *et al.* (2004); Raymond and St-Pierre (2004); and Laforet and Tann (2006) consider R&D as one of the determinants of firm innovativeness. The impact of risk-taking behavior on firm innovative performance has long been discussed in previous studies such as Chandler *et al.* (2000), Blumentritt (2004), and Mambula and Sawyer (2004); however, less evidence has been found in the interviews data. The interview data also suggests that companies with shorter communication lines and fast-changing strategies are more innovative. Blumentritt (2004) studied American SMEs and found that innovative firms are more risk-taking with fast decision-making power.

Similarly, a flexible structure is a source of competitive advantage (Narayanan, 2001; Qian and Li, 2003). Some authors suggest that formalize SMEs are more efficient and innovative (Bessant and Tidd, 2007; Prakash and Gupta, 2008). It is to note that the respondents SMEs serve the local market and lack access to national markets. As a result, the flexible organization of the firms has positively influenced company innovativeness. Interviews data also suggests that the five respondent SMEs have hired skilled employees. The field observations and discussion with the technical personnel suggest that technical and skilled employees greatly affect firm innovative performance in the case of SMEs in Pakistan. The interview data

indicate that SMEs in Pakistan are involved in process innovation. In most cases, the process is improved through installing new technology and partially developed through its technical staff. This is consistent with the previous studies including Laforet and Tan (2006) concluding that innovative companies empower their employees compared to low innovative companies. Additionally, some studies showed that employees' technical knowledge and experience are crucial for innovation (Souitaris, 2002; Eisenhardt and Martin, 2000). Moreover, Xerri (2013) argued that innovation itself requires committed and devoted workers.

To conclude, all the above-discussed determinants have a positive impact on firm innovative performance. The determinants have been derived from interview data and are triangulated through actual field observation. Overall, the findings suggest that innovative activities are attributed to the specific abilities of the SMEs that differentiate them from ordinary SMEs. However, qualitative inquiry is the future vision of the author to generalize the findings with context to Pakistan.

Conclusion

The findings of the study are summarized below:

Table 1: Summary of the Key Findings

Respondent	**Key Determinants Leading SMEs towards Innovation**							
	Technology Adoption	Skilled Employees Commitment	Financial Resources	Networking with, Customer, Supplier, and Large Companies	Innovative Owner and Manager	Market Orientation	Research and Development Activities	Flexible Organization
Company A	√	√	√	√	√	√	√	√
Company B	√	√	√	√	√	√	√	√
Company C	√	√	√	√	√	√	--	--
Company D	√	√	√	√	√	√	--	√
Company E	√	√	√	√	√	--	√	√
Response Percentage	100%	100%	100%	100%	100%	80%	60%	80%

Source: Interviews Data

The findings suggest that new technology adoption, owner/ manager education and experience, and strong financial background significantly contribute to firm innovativeness. In addition, the owner/ manager's

innovative vision helps to provide a creative environment, establish a close relationship with customers, suppliers, large organizations. In addition, the educated owner/ manager transforms the external knowledge, arranges necessary funds, hires skilled technical staff, and develops a good market reputation. Furthermore, the owner/ manager explores new approaches to properly utilize the available resources to provide new opportunities, create a business environment, and generate new ideas.

The findings also suggest that SMEs in Pakistan mainly focus on process innovation rather than product innovation. However, the innovative SMEs in Pakistan enhance product qualities according to market requirements that contribute to incremental product innovation. The SMEs lack focus on marketing innovation and organizational innovation. One of the basic reasons observed during the interviews is that most SMEs serve the local market and use traditional approaches to market products. Furthermore, due to the lack of management professionals, no evidence was found regarding new organizational management techniques. However, the respondent SMEs are found well organized, which differentiates these from ordinary SMEs.

The study will have implications for the policymakers to help them develop an innovative environment by focusing on the specific factors leading SMEs to innovation. It will also help future researchers understand innovation from a different perspective in various industries and ownership. Lastly, the SMEs with specific innovative characteristics will get attention from the government to assist them in innovative activities and the development of the innovative environment.

References

Abdullah, M.A., & Bakar, M.I.H. (2000). Small and Medium Enterprises in Asian Pacific Countries: Roles and issues: Nova Science Publishers, INC.

Adler, P.A., & Adler, P. (1998). Peer Power: Preadolescent Culture and Identity: Rutgers University Press.

Amini, A. (2004). The distributional role of small business in development", International Journal of Social Economics. International Journal of Social Economics, 31(4), 370-383.

Anaka, M., Lynn, A., McGinn, P., & Lloyd, V. (2009). Genomic Imprinting in Drosophila has properties of both mammalian and insect imprinting. Development Genes and Evolution, 219(2), 59-66. DOI: 10.1007/s00427-008-0267-3.

Andersson, M & Loof, H. (2009). Key Characteristics of the Small Innovative Firm. The Royal Institute of Technology Centre of Excellence for Science and Innovation Studies (CESIS) http://www.cesis.se

Bah, S., Diallo, D., Dembélé, S., & Paulsen, B.S. (2006). Ethnopharmacological survey of plants used for the treatment of schistosomiasis in Niono District, Mali. Journal of Ethnopharmacology, 105(3), 387-399.

Baldassarri, & S. Saavala, T. (2006). Entrepreneurship-educating the next generation of Entrepreneurs. Enterprise Europe, 22 (5). 16-20.

Bashir, T., Khan, K., & Malik, K. (2010). The innovation landscape of Pakistan's North West Frontier Province. Science and Public Policy, 37(3), 181-191.

Barnett. E and Storey. J (2000). Managers' accounts of innovation process in small and medium-sized enterprises. Journal of Small Business and Enterprise Development, 7(4), 315-24.

Birkinshaw, J., Bouquet, C., Barsoux, J.-L., (2007). The 5 myths of innovation. MIT Sloan Management Review 52(1), 52-59

Blumentritt, T. (2004). Does small and mature have to mean dull? Defying the ho-hum at SMEs. Journal of Business Strategy, 25(1), 27-33.

Chandler. G.N., Keller. C and Lyon. D.W., (2000), "Unraveling the determinants and consequences of an innovation-supportive organizational culture", Entrepreneurship Theory and Practice, 25(1), 59-76.

Golafshani. N. (2003), Understanding Reliability and Validity in Qualitative Research. The Qualitative Report, 8(4), 597-607.

Hedges, A. (1985). "Group interviewing", in Walker, R. (Ed.), Applied Qualitative Research, Gower, Aldershot.

Heimonen, T. (2013). Characteristics of innovative, high growth and highly successful SMEs: Aalto University.

Khan, M.T., Al-Jabri, Q.M., & Saif, N. (2021). Dynamic relationship between corporate board structure and firm performance: Evidence from Malaysia. International Journal of Finance & Economics, 26(1), 644-661. https://doi.org/10.1002/ijfe.1808

Khan, M.T., Saif, N., Al-Jabri, Q.M., & Rahman, H.U. (2020). Impact of accrual reversals on corporate performance: evidence from emerging economy. International Journal of Managerial and Financial Accounting, 12(3-4), 328-341.

Khan, M.T., Rehman H., & Hashmi, A. (2020). Corporate Governance Practices and Its Effect on Corporate Financial Performance: A Pragmatic Evidence from Malaysia. Pakistan Journal of Humanities and Social Science Research, 3(1), 177-194.
http://journals.wumardan.edu.pk/issue_detail.php?issue_id=12&vol=03&journal_id=2#collapse14

Khan, A.S., Khan, M., Sharif, S. & Irfan, M. (2015). Open innovation in SME's of Southern Punjab Pakistan. Journal of Business and Management Research, 8 (2015) 229-237

Kim, W.C., & Maubourgne, R. (2005). Blue ocean strategy. Boston: Harvard Business School Press.

Laforet, S., & Tann, J. (2006). Innovative characteristics of small manufacturing firms. Journal of Small Business and Enterprise Development, 13(3), 363-380.

Lee, Y.J. (2000). Role and Experience of SMEs in South Korea Small and Medium Enterprises in Asian Pacific Countries. Nova Science Publisher INC.

Leseure, M.J. (2000). Manufacturing strategies in the hand tool industry. International Journal of Operations & Production Management, 20(12), 1475-1487.

Mambula, C.J. and Sawyer, F.E. (2004), "Acts of entrepreneurial creativity for business growth and survival in a constrained economy: case study of a small manufacturing firm (SMF)", International Journal of Social Economics, 31(1), 30-55.

Mahmud. M & Ahmed. H. (2011). What Determines Innovation in the Manufacturing Sector? Evidence from Pakistan. Centre for Research in Economics and Business, Lahore School of Economics.

Massa, S., & Testa, S. (2004). Innovation or imitation? Benchmarking: An International Journal, 11(6), 610-620.

Miles, M.B., & Huberman, A.M. (1994). Qualitative Data Analysis: Sage Publications.

Moreno, A.M., & Casillas, J.C. (2007). High-growth SMEs versus non-high-growth SMEs: a discriminant analysis. Entrepreneurship & Regional Development, 19(1), 69-88.

Nooteboom, B. (1994). Innovation and diffusion in small firms: Theory and evidence. Small Business Economics, 6(5), 327-347.

OECD. (2005). SME and Entrepreneurship Outlook retrieved on 27-06-2013 from http://www.camaras.org/publicado/europa/pdf/8505011E.pdf

OSLO Manual. (2005). The Measurement of Scientific and Technological Activities: Guidelines for Collecting and Interpreting Innovation Data: Oslo Manual, Third Edition", OECD, Paris.

Parker, S., Storey, D., & Witteloostuijn, A. (2010). What happens to gazelles? The importance of dynamic management strategy. Small Business Economics, 35(2), 203-226.

Patton, Q. (2002). Qualitative Evaluation and Research Methods.

Radam. A, Mimi. L.A, & Abdullah. A.M. (2008). Technical Efficiency of Small and Medium Enterprise in Malaysia: A Stochastic Frontier Production Model. Int. Journal of Economics and Management, 2(2), 395-408.

Raymond, L., & St-Pierre, J. (2004). Customer dependency in manufacturing SMEs: Implications for R&D and performance. Journal of Small Business and Enterprise Development, 11(1), 23-33.

Rowe, J. (2008). "SME Value and Contribution to UK Economy," www.buzzle.com/.../sme-value-and-contribution-to-the-uk-economy.html.

Salavou, H., Baltas, G. and Lioukas, S. (2004), "Organisational Innovation in SMEs: the importance of strategic orientation and competitive

structure", European Journal of Marketing, Vol. 38 No. 9, pp. 1091-112.
Sandelowski, M. (1995). Sample size in qualitative research. Research in Nursing & Health, 18(2), 179-183.
SMEDA. (2007). SME Policy Development. Retrieved on 27, May 2015 from http://www.ere-pak.com/userfiles/files/SME%20Policy, %202007.pdf
Sohail. A, Sabir. S.M and Zaheer. A, (2011). Link between product innovation and non-technological: organizational performance. Asian Journal of Business Management 3(4), 287-293
Speakman. J, Afzal. K, Yuge. Y and Hanna. J (2012). Toward an Innovation Policy for Pakistan World Bank Policy Paper Series in Pakistan. PK 06/12.
Storey, J., & Barnett, E. (2000). Knowledge management initiatives: learning from failure. Journal of Knowledge Management, 4(2), 145-156.
Syed. A.A.S.G, Ahmadani. M.M, Shaikh. N, & F.M, S. (2012). Impact Analysis of SMEs Sector in Economic Development of Pakistan: A Case of Sindh", Journal of Asian Business Strategy, 2(2), 44-53.
Suthiphand, C. & Nathavit C. (2000) "Experience of SMEs in the Financial Crisis in Thailand", Small and Medium Enterprises in Asian Pacific Countries". NY, Nova Science Publishers INC: P86.
Tang, Y., Paul W. and Yuli Z. (2007) "Marketing and Business Performance of Construction SMEs in China", Journal of Business & Industrial Marketing. 22(2), 118- 25.
Terziovski, M. (2003). The relationship between networking practices and business excellence: a study of small to medium enterprises (SMEs). Measuring Business Excellence, 7(2), 78-92.
Tongco. M.D.C, (2007), Purposive sampling as a tool for informant selection. Ethnobotany Research & Applications 5:147-158.
Tidd, J., Bessant, J and Pavitt, K. (2001). Managing Innovation: Integrating Technological, market & organizational change. John Wiley & Sons, Chichester.
UNIDO. (2002). Corporate Social Responsibility: Implication for Small and Medium Enterprises in developing countries. February 28, 2013.
Vossen, R.W. (1998). Relative Strengths and Weaknesses of Small Firms in Innovation. International Small Business Journal, 16(3), 88-94.
Xerri, M. (2013). 'Are committed employees more likely to exhibit innovative behavior: a social exchange perspective,' Ph.D. thesis, Southern Cross University, Lismore, NSW. http://epubs.scu.edu.au/theses/318/.
Yin, R.K. (1994). Case study research: design and methods: Sage Publications.
Zahra, S.A., Ireland, R.D., & Hitt, M.A. (2000). International Expansion by New Venture Firms: International Diversity, Mode of Market Entry, Technological Learning, and Performance. The Academy of Management Journal, 43(5), 925-950.