



## **Determinants of SMEs Performance in Pakistan: A Pilot Study**

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### **ABSTRACT**

This study's main objective is to investigate the face validity and reliability of the determinants of SMEs' performance in Pakistan. For this purpose, researchers adopted a simple random sampling approach to collect a small data sample from the Owners/managers of 41 individual manufacturing SMEs. The model suggested four factors (PDI, PCI, OLC, TO) as the determinants of SMEs performance. Therefore, the instruments' reliability and validity were keenly examined with experts from academia and industry. Moreover, collected data were processed and analysed by using SPSS. However, the results of the study established the face validity and reliability of the adapted instruments.

### **KEYWORDS**

SME Pakistan, Performance, Pilot test

## 1. INTRODUCTION

Researchers recognized the small and medium enterprises (SME) as the economic structure's backbone (Ahmad & Ahmad, 2018; Altinay et al., 2016; Hafeez, 2014; Tariq, Mad Lazim, & Iteng, 2019). They emphasized that the contribution of SMEs is critically essential for the development and growth of the economy. The gift of SMEs is well regarded in the mirror of the GDP of the countries (Akram, 2015). Such as the United Kingdom, China, South Korea and Taiwan. The SMEs sector's gifts for these economies are substantial as the UK SMEs sector took a share of 50% to GDP and provides 54% employment in the country (Bello Rogo *et al.*, 2018). Likewise, in China, South Korea and Taiwan, SMEs share is 59%, 55% and 55% to GDP and employs 80%, 70% and 70%, respectively (Group, 2013).

In Pakistan, SME's sector alone contributed 30% of GDP, 25% of the manufacturing exports (Khan & Khalique, 2014) and 78% of the industrial employment. Despite its importance and significant contributions to Pakistan's economy, the SMEs sector's performance is not up to their potential (Khawaja, 2006). Since the SMEs continue to face several challenges; such as deficiency of product innovation, absence of advanced technology, lack of management skills, lack of process innovation, poor infrastructure, lack of learning capabilities, and most importantly poor understanding towards intangible assets (Gulshan, 2016; Khalique et al., 2015; Shah, bin Othman, & bin Mansor, 2016). Moreover, several studies have explored the problems of inadequate product & process innovation, low learning capability, and outdated technologies investigating the corporate sector (Un, Cazorra, & Asakawa, 2010; Reichstein & Salter, 2006).

Many scholars argued that to achieve competitive advantage and sustainable performance, innovation plays a critical role. From the last few decades, academic scholars produce significant literature on the innovation techniques, and its considerable impact to enhance the firm's performance (Abouzeedan, 2011; Ahmed et al., 2012; Salman, Arshad, & Bakar, 2016).

Karabulut (2015), argued that product innovation (PDI) is one of the vital factors contributing to substantial success. Every firm has its specific innovation aims or approaches to words their goals (Cohen & Malerba, 2001). Rivas, Quyen, and Rivas (2017) argue that PDI is the best approach to boost market share and develop a competitive advantage.

Oslo Manual (2005) and Karabulut (2015) propose that process innovation (PCI) is a critical instrument to enhance firm performance. PCI encourages the firms to adopt new technologies,

reorganize their developments, and explore new business measures to adore sustainable profits evolution. Moreover, it should be better the support activity's efficiency (Wolniak, 2014).

According to Jerez-Gómez, Céspedes-Lorente, and Valle-Cabrera (2007), the learning capability (OLC) is a critical factor that helps to achieve firm's performance goals for innovation and growth of the firm. Moreover, researchers also argued that OLC would become one of the most projecting factors shortly, which generates competitive advantage for firms (Camps et al., 2016; Mallén et al., 2016). According to Alegre and Chiva (2013), OLC is those managerial and organizational features or factors of the firm, that enable learning or working as a catalyst in the learning process (Goh & Richards, 1997). The firms with a healthy technology orientation (TO) level are more likely to be R & D concerned and adopt sophisticated technology to develop a new product (Gatignon & Xuereb 1997).

Moreover, prior studies regarding PDI, PCI, OLC, TC and firm performance showed mixed results. Moreover, developing economies like Pakistan has a dynamic environment. So the researchers suggested doing a pilot test before empirical research. The pilot test gives a glimpse of ground conditions and gives researchers room to identify potential adjustments and problems before the actual examination.

## **2. LITERATURE REVIEW**

SMEs' performance is quite significant for every country's economic growth in general and developing countries in particular (Altinay et al., 2016). Dynamic SME's are providing a strong foundation for the sustainable development of the economy. Especially in developing countries where market conditions are more fragile than developed countries (Lin, 1998). Moreover, SMEs are generally known as lifelines and the symbol of sustainable growth for the economies (Sandvik & Sandvik, 2003).

SMEs' role in developed countries is crucial because they contribute to job growth, deliver new goods and services, and improve the economy's foreign trade. SMEs' success is an analytical area that has brought past researcher's tons of importance and recognition. SMEs' success will significantly impact individual entrepreneurs and the entire community (Cooper, 1993; Kirchoff & Phillips, 1988). Thus, the understanding and measurement of SMEs performance are vital importance issues (Chandler & Hanks, 1993).

Firm performance is a broad concept; however, performance is considered an aptitude of sustainable and growing SMEs for this study. The growth of financial and non-financial must be achieved through the optimal utilization of internal and external resources (Hafeez, Shariff,

& bin Mad Lazim, 2013; Penrose, 2009; Tseng & Lee, 2014). For this study, a comprehensive definition of SMEs is adopted from SMEDA. Therefore, any manufacturing business firm that employs less than 250 employees and its total annual sale does not exceed 250 million Pak rupees is called SME (SMEDA, 2017).

Foo and Friedman (1992) claimed that a firm's performance is measure through multiple dimensions like cost, quality, lead time, technology, flexibility, and dependability. Moreover, prior studies suggest that researchers also used some other measurements to access the performance within a particular time setting. For example; cost efficiency, product quality, return on assets, market share, profitability, market share, return on investment, development of R & D, customer satisfaction, employ change and sale growth (Aminu, Mahmood, & Muharram, 2015; Chennell et al., 2000; Gupta, 1987; Hafeez, Shariff, & bin Mad Lazim, 2012; Murphy & Callaway, 2004)

According to Antony and Bhattacharyya (2010) and Moullin (2007) in entrepreneurship, SMEs' performance can be evaluated as to how well the organization is managed, what type of quality services or products it provides the customer as well as returns to its owner. In Gomes and Yasin (2011) opinion, SMEs performance is how a firm used its resources efficiently to achieve its stakeholder's needs. However, SMEs' performance can be explained as the ability of firms survival, sustainable growth, and contribution to achieving economic goals like creating employment (Sandberg, 2003). Few studies have explored; that SMEs face problems of inadequate product & process innovation, inferior production methods, cheap level of product quality and use of outdated technologies with limited capital (Han, Kim, & Srivastava, 1998; Hanif & Manarvi, 2009; Polder et al., 2010; Shah et al., 2016).

PDI represented a product that is considered new or has a significant change in its nature and particular use. It also includes considerable customer satisfaction, technological advancement, component, material and other functional aspects (Gunday et al., 2011; Karabulut, 2015; Oslo, 2005).

Gunday et al. (2011) and Li and Atuahene-Gima (2001) claimed that PDI's role is critical in enhancing the firm's performance. To achieving firms' goals and growth in market share, PDI strategies influence positively. Moreover, in literature, researchers found that PDI positively influences the firm performance (Avermaete et al., 2004; Ettlíe & Reza, 1992; Gunday et al., 2011; Olson, Walker Jr, & Ruekert, 1995; Polder et al., 2010). In the existing literature, quite a few researchers have explored the association among PDI and firm performance (Dunk, 2011;

Eggert et al., 2011; Karabulut, 2015; Laitinen, Länsiluoto, & Salonen, 2016; Sandvik & Sandvik, 2003; Tajeddini, 2016; Visnjic, Wiengarten, & Neely, 2016).

Moreover, prior studies define process innovation as representing the firm-level execution of a new or expressively improved production or distribution technique. It also contains new management approaches and processes, new technology, new production methods and ability to recombine or reconfigure its resources (Gunday et al., 2011; Manual, 2005). According to Subhan, Mehmood, and Sattar (2013), it is common to observe that developing economies like Pakistan PCI are more relative and suitable for economic revival. This new approach can be significant to reduce the cost of the process, improvement in services, quality, and other business objectives (Weiss, 2003). It is defined as the industry's innovation process that it is "adoption of technologically new or significantly improved production methods" (OECD, 2005). These changes may consist of differences in equipment, change in the manufacture of an organization or the combination of changes resulting from new knowledge.

The firms are moving toward a knowledge-based economy in the modern period. Khalique, Isa, and Nassir Shaari (2011) observed that most developing countries are increasingly changing their economies from product-based to knowledge-based economies. Hafeez et al. (2013) concluded that the exploration and use of the existing information capital from within the organization as a business is necessary for the SMEs.

However, Pakistani SMEs are focused on getting good returns through production (Khalique, Isa, Shaari, et al., 2011). OLC can developed new markets by just adapting dynamic changes from external environment. For radical innovation learning is the key component for SME's to achieved success (Kofman & Senge, 1993; Senge, 1990). This finally permits firms to grap new markets and redefine the current ones' operating guidelines (Santos-Vijande, López-Sánchez, & Trespalacios, 2012). Learning, which includes changing customer demands or changes in competitors' business models, has rationalised information regarding modern developments in the market, is measured a core competency that can oblige as a base for competitive advantage (Sinkula, 1994).

However, the firms with a healthy technology orientation level are more likely to be R & D oriented and adopt sophisticated technology to develop a new product (Gatignon & Xuereb, 1997). According to Ibrahim, and Shariff (2016), market-orientated firms must focus more on their customers to fulfil their needs with a superior value compared to the competitor. Therefore, companies need to be careful towards their customers more than their competitors to adopt the market orientation approach.

This study's primary aim is to conduct a pilot test to investigate the face validity and reliability of the construct instruments. Moreover, the secondary objective of this study to forecast the real conditions of the impact valuation. Which permits the researcher to understand possible problems and adjust according to before the actual research. According to Sekaran and Bougie (2010), reliability is a tool to measure the instrument's degree of error, consistency, and stability among the scale's various items. Moreover, the instrument's face validity is the subjective assessment of relevance and the presentation of its items (Taherdoost, 2016). This study is presented the pilot test results about the determinants of SME's performance in Pakistan.

### **3. METHODOLOGY**

This pilot test study is conducted to remove any ambiguity regarding the instrument's validity and reliability. The results of this pilot study will improve the quality of imperial research conducted based on this study. Moreover, the final analysis also considers the suggestions and adjustment recommended by the pilot study. However, to perform this study survey research method was used to collect data through a questionnaire. The technique of closed-ended questionnaire was found more suitable to conduct this study. As Sekaran and Bougie (2016) argued, closed-ended questionnaires are the most efficient and reliable tool to collect data from the respondents. It reduces the ambiguity regarding the questions and gives the respondent the freedom to express his output more efficiently. Moreover, this technique helps the researchers to code the data for analysis easily.

This study's sample size is small; yet, 55 questionnaires were distributed among the SMEs using a simple random sampling technique. The questionnaires were distributed by paying personal visited to the SMEs. Moreover, self-interaction to the respondent helps the researcher understand his respondent and increases the response rate (Sekaran and Bougie 2016). Furthermore, a Likert scale of seven points was used for rating construct. Out of 60 questionnaires distributed, only 45 were returned, and 41 were usable for this study.

The study's response rate was 75%, which is evidence that the self-administrated questionnaire technique is quite efficient. However, the data of 45 questionnaires were utilized to analyze the instruments. The reliability and validity analysis were conducted and evidence that the instrument properly measured the concept (Hair, 2007; Sekaran and Bougie, 2016). For this study, face or content validity was conducted to certify the items of the intended construct. Moreover, a reliability test was conducted by using Cronbach's alpha coefficient. The

researchers commonly use this method to measure the construct's reliability (Sekaran & Bougie, 2010). This study used SPSS 23.0 for windows to test the reliability of the construct.

## 4. RESULT

### 4.1. Validity Test

For the validity test, a panel of the subject and industrial (respondents) expertise from SMEs sector of Punjab, Pakistan, was requested to give their kind feedback and input regarding the adopted items. Experts include subject specialist professors from the Islamia University Bahawalpur & Bahauddin Zakariya University, Punjab, Pakistan and some experts from SME's owners and managers; those have industrial experience for more than ten years. However, in the light of experts output and their kind recommendations, few items were reworded accordingly to measure the construct before the pilot study.

### 4.2. Reliability Test

The reliability test found that all the measure has a high-reliability value which is between 0.857 to 0.941. These results show that all constructs Cronbach's alpha coefficient was fall in the category of high reliability. The rule of thumb for the Cronbach's alpha is 0.6 consider as average, and the coefficient is 0.70 or higher, indicating that the instrument has high reliability (Hair, et al., 2010; Sekaran & Bougie, 2011). Table 4.1 represented the results of the reliability test. The reliability test results show that all the construct; those are investigative in this pilot study has Cronbach's alpha value more than 0.7. So, this study can be summarized that all the constructs of this study are reliable. Therefore, there was no need to eliminate any item from the instruments.

**Table 4.1:** *Reliability Test*

Construct	Items	Cronbach's Alpha
Product Innovation	07	0.885
Process Innovation	07	0.893
Organizational Learning Capability	16	0.857
Technology Orientation	11	0.929
Firm Performance	16	0.941

Moreover, Table 4.2 represents the demographic profile of the respondents. The respondent's particular demographic features, who took part in the survey include firm ownership status, the

designation of the responded, work experience, firms age, number of full-time employees and industry. As presented in table 3.2, 56% of the respondent firms were sole proprietors, 42% were firm partnerships, and only 2% were limited liability companies.

The representer who responded to our questionnaire on behalf of the firm were 54% owners/managers, 44% managing partners and 2% managing Directors. This is followed by work experience of the respondents, where the highest percentage (44%) recorded was those whose experience was between less than five years, followed by participants with experience between five to ten years (37%), and more than ten years (19%) in that order.

Further, the firm's age reveals that most of the firms (46%) are old more than five to ten years, followed by less than 05 years (37%) and more than ten years old are only 20% of the total respondents. Moreover, this study followed the SEMEDA definition of SMEs regarding firms' real numbers of employees. In that case, this study found that 27% of the total respondents have less than 50 workers, 42% of the firms have employees between 50 to 150 and 31% firms have employees more than 150 workers.

**Table 4.2:** *Summary of Respondents Demography*

<b>Demographic</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Firm's Ownership</b>		
Sole Proprietorship	23	56%
Partnership	17	42%
Limited Liability Company	01	02%
<b>Designation in Firm</b>		
Owner/Manager	22	54%
Managing Partner	18	44%
Managing Director	01	02%
Other	0	00%
<b>Experience on current job</b>		
Less than 05 Years	18	44%
Between 05 to 10 years	15	37%
More than 10 years	08	19%
<b>Firms age</b>		
Less than 05 years	15	37%
Between 05 to 10 years	19	46%



More than 10 years	07	17%
<b>Number of full-time employees</b>		
Less than 50 workers	11	27%
Between 50 to 150 workers	17	42%
More than 150 workers	13	31%

## 5. CONCLUSION

This pilot test study's main objective is to investigate the instrument's face validity and reliability. The results of this study prepare the ground for empirical research. However, this study's results depict that the instrument adapted to measure the construct is highly reliable. All the construct (PDI, PCI, OLC, TO and FP) Cronbach's alpha value is higher than 0.70. Therefore, this research concluded that there is no need to delete or rewrite any item.

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