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## ASSESSING INNOVATIVE ACTIVITY AND COMMERCIALIZATION IN SMES – A STUDY OF SMES IN PUNJAB

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### ABSTRACT

#### KEYWORDS

Pakistan; SMEs; pivotal;  
innovation;  
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enterprises  
strategies

Small and medium Enterprises are vital in the economy of any country. They generate employment, business besides supporting big industries. Improvement in the services and products of SMEs ensures their survival and transformation to the bigger institutions. In Pakistan Majority of enterprises are SMEs and are pivotal in strengthening the national economy. How they are improving their working at par with market needs is the subject touched upon very little in Pakistani environment. This study aims at mapping the innovation practices in the SMEs irrespective their sector in terms of commercialization so as to ascertain their strategies for better service and production delivery which is significant in their survival. For the purpose. 250 SMEs, selected through purposive random sampling with the help of SMEDA, Provincial Industries Departments, SECP and Lahore Chamber of Commerce and Industry, around the country were studied. Data was collected through an online questionnaire, based on the work Tim Mazzarol et al (2011), comprising 40 items. 12 respondents were interviewed through semi-structured interviews. This study is of articulation in nature and data was analyzed SPSS and Envivo. The results indicated the patterns and preferences of SMEs towards innovation and commercialization by giving a bleak picture in SMEs. The findings suggest massive change of policies in SMEs to make them real booster of economy.

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#### INTRODUCTION

Undoubtedly SMEs are considered as backbone of the economy as they play vital role to strengthen it. More organized the SME Sector is, higher will be the economic development indicators. SMEs, as viewed by Syed Manzur Quadar et al (2020) are helpful in alleviating unemployment as it requires small capital involving minimized investment risks and ensuring distribution of income and products equitably by use of local raw materials, thus strengthening local supply chain.

Acs and Audretsch (1990), Neck and Dockner (1987), Bhutta and Asad (2008) think that Small and Medium Enterprises (SMEs) are considered as the solution of economic problems, a way towards modernization and creation of employment & income generation and scientific growth in the most advanced economies as well as these lead towards industrialization in underdeveloping and developing economies. It is further maintained by Hamid and Abaidullah (2006) that “the participation of SME sector to the economy is significant and this is probably to be a main feature of SME sector around the world”.

#### Background of the Study

SMEs contribute a significant share in the economy of Pakistan. In other words it is the economy of SMEs. Despite such an importance, this sector is found to be neglected in almost every aspects – from empirical analysis of its role in the economy, to its struggle to survive, to introduce improvement in services and products etc. In this scenario, this paper specifically

addresses the innovation practices in SMEs of Pakistan, which is little studied so far, in terms of their commercialization and impact on their business.

### What are SMEs

It is hard to find a consensus definition of SMEs across the globe. It varies from country to country. Generally these are considered as enterprises employing less than 250 employees. In some countries, as observed by Kotelnikov (2007), it has been defined separately for services and manufacturing sectors. We find diversity in definition of SMEs. We see Fong (1971) defining the SME as a business not exceeding the hundred workers. Carson et al., 1995; Nooteboom, (1994) think that the SMEs Business generally turns around the proprietor. Verhees and Meulenberg (2004) are found to be in concensus with Carson et al Owner himself controls and manages the business in the small firm. Different organizations have defined SMEs in regional contexts, elaborated as under:

#### *SME Definitions in Asia Pacific Economic Cooperation*

In Asia Pacific Economic Cooperation (APEC) member countries the definitions of SMEs vary from country to country, given as under.

**Table 1. SME in Asia Pacific Economic Cooperation (APEC)**

Name of Country	Sector of Economy	Employment	Others
Australia	Manufacturing	Not more that 100 employees	
	Services	Not more than 20 employees	
Canada	Manufacturing	Not more than 500 employees	
	Services	Not more than 50 employees	
China	differ with Industry	generally, fewer than 100 employees	
Indonesia		Not more than 100 employees	
Japan	Manufacturing	Not more than 300 employees	¥100 million assets Wholesaling
	Services	Not more than 100 employees	¥30 million assets
	Retailing-Services	Not more than 50 employees	¥10 million assets
Korea	Manufacturing	Not more than 300 employees	
	Services	Not more than 20 employees	
Malaysia	Varies (for SMI)	Not more thans eventy five employees	Not more than RM 2.5 million
Philippines		Not more than 200 employees	P 40 million assets
Singapore	Manufacturing		Manufacturing les than US\$12 million fixed assets
	Services		Not more than 100 Employees
USA			Not more than 500 employees

Source: Hall (1995), Witton (1999) and Sevilla R.C. and Soonthornthada K. (2000).

Since this paper focuses SMEs of Punjab, Pakistan, therefore it is appropriate to understand SMEs in Pakistani context. There are different institutions dealing with or relating to SMEs. These include SME Bank, SMEDA, Federal Bureau of Statistics(FBS), Punjab Small Industries Corporation, Punjab Industries Department, Sindh Industries Department, State Bank of Pakistan, and SECP. Different definitions of SMEs have been given by them.

**Table 2. SMEs Definitions used by various institutions in Pakistan**

Institution	Small	Medium
SME Bank	Total Assets of Rs. 20	Total Assets of Rs.

Institution	Small	Medium
	million	100 million
Federal Bureau of Statistics	Less than 10 employees	N/A
Punjab Small Industries Corporation	Fixed investment up to Rs.20 million excluding land and building	N/A
Punjab Industries Department	Fixed assets with Rs. 10 million excluding cost of land	
Sindh Industries Department	Enterprise which is connected in handicrafts business or production of consumer or manufacturer goods having capital investment including land & building not more than Rs. 10million	
State Bank of Pakistan (SME Prudential Regulation)	An entity, ideally not being a public limited company, which does not employ more than 250 persons (manufacturing) and 50 persons (trade / services) and also performs one of the following criteria:- (i) A trade/services concern with total assets at cost excluding land and buildings up to Rs 50 million. (ii) A manufacturing concern with total assets at cost excluding land and building up to Rs 100 million. (iii) Any concern (trade, services or manufacturing) with net sales not exceeding Rs 300 million as per latest financial statements.	

Source: SMEDA, 2017

### SMEs Definition approved by SME policy 2007

There is no unanimous definition of SMEs in Pakistan. Government organizations like State Bank, Federal Bureau of Statistics and provincial regulatory bodies define SMEs in their own perspective. That is why SMEDA Policy 2007 rightly indicates that “Absence of a single SME definition makes it difficult to identify target firms, align development programs, collect data and monitor progress”. It further emphasizes that “Government of Pakistan may implement a single SME Definition that is accepted by all public and private agencies”. SMEDA Policy 2007 insists that “different organizations may be allowed a two-year time frame to harmonize their existing SME definition in line with the SME Definition proposed in this Policy”.

**Table 3. SME definitions recommended by SME Policy 2007**

Enterprise Category	Employment Size	Paid Up Capital	Annual Sales
Small & Medium Enterprise (SME)	Up to 250	Up to Rs. 25 Million	Up to Rs. 250 Million

Source: SMEDA (2007) “SME Led Economic Growth - Creating Jobs and Reducing Poverty”, SME Policy 2007, Ministry of Industries, Production & Special Initiatives, Government of Pakistan, Lahore, P-14

### Innovation

Before discussing innovation in SMEs in the country, it is required to define what innovation is and its measurement. Generally, Innovation refers to betterment / change in products and services as per customer / market requirement. In the words of Sullivan and Dooley (2009) “Innovation is the process of making changes, large and small, radical and incremental, to products, processes and services that results in the introduction of something new for the organization that adds value to customers and contributes to the knowledge store of the organization”.

In the context of SMEs, the above definition of innovation appears to be comprehensive

as it is covering main aspects of the product and process of innovation, indicating the different dimensions of innovation like radical innovation, incremental innovation, product innovation and process innovation.

Bacon and Butler (1998) think that there are some other perspectives which define the innovation as an invention that has not been exploited. They further elaborate that “a firm produces unique product or service, which has never been launched in the market and can be exploited with the creative abilities of the firm. Based on these views, it might be inferred that innovation is a combination of invention and exploitation. More simply, in dynamic firms, the exploration and exploitation of the product and services move hand in hand. Generally, invention can be interchanged with the creative abilities of the firm that is more applicable to the organizations. In a nutshell, innovation is the summation of creative abilities of the firm and its exploitation which may make value addition in the lives of consumers.”

### **Objective of Innovation**

Salvatore (2009) finds that basic objective behind promoting any type of innovation is to make value addition to the customers and make contribution to the knowledge expansion of the organization to develop those methods which may be helpful in achieving the economic objectives of the organization like profit maximization, production maximization and cost minimization, specifically in the context of SME.

### **Types of Innovation**

It has been argued by Sullivan and Dooley (2009) that there are six types of innovation; product innovation, process innovation, services innovation, disruptive innovation, radical innovation and incremental innovation.

### **Commercialization**

No innovation is an innovation unless it is commercialized. In the words of

Mazzarol et al (2011) Commercialization is the exploitation of innovation so as to bring return of the investment made on that innovation

### **Research Objectives**

The study in hand is being conducted with the following objectives.

- 1) To rank the innovative priorities of SMEs
- 2) To map the key innovations/ innovative strategies of SMEs

## **METHOD RESEARCH**

Triangulation was carried out in the present study. The present study was conducted on a sample of 250 firms meeting the parameters of SME in Pakistani context. Data was collected through a google form and was sent to 250 SMEs, selected from the database of SMEDA, Provincial Industries Departments, SECP and Chamber of Commerce Lahore. 230 SMEs responded followed by in-depth interview of CEOs / Owners of 12 of them.

### **Sampling Structure and Data Collection**

The sampling was purposive and each firm was directly approached. The data collection process involved use of a survey methodology as devised by Yin and Heald (1975). As already stated, a google form-based questionnaire was sent to all respondents. The responses were validated through in-depth interviews of the selected respondents.

## **RESULT AND DISCUSSION**

### **An Overview of SME Sector of Pakistan**

The study revealed SME Sector as spine of Pakistan's economy. SMEDA Report 2018 and economic survey of Pakistan 2017-18 provide an estimation that number of business projects or business concerns come to the tune of 3.5 millions approximately in Pakistan. Both

the data sources further elaborate that more than 93% of the 3.5 million business concerns comes under the category of SME. Undoubtedly these are great source of reducing unemployment and poverty in the economy. In Pakistan the manufacturing is the largest sector of the economy and has 18.4% contribution to the GDP (Pakistan Economic Survey, 2017-18). Our investigation transpired that despite the importance of SMEs in Pakistani business environment, they badly lack research activity within them. Whereas Elahi et al (2010) observed that a technical improvement in majority of the developed countries is carried out with the development of their small and medium enterprises, revenue generation and their capability to create job opportunities. And SME Sector here is also doing the same thing but without any innovation or modernization.

### **The Importance of SMEs in Economic Growth of Pakistan**

SMEs are significant, being the enjoying the lion's share in national economy, for the economy of Pakistan. This sector enspirits the entrepreneurship as well as give a forward move to the economy. Besides that SMEs act as nursery for our export sub-sectors like cotton weaving and surgical instruments. Candidly speaking, these are instrumental in poverty mitigation activities through creation of process of job opportunities. Taking the social viewpoint, we find SMEs more capable in resource allocation as compared to that of large scale industry. Fida (2008) thinks SMEs as offering and facilitating greater number of people as compared to that of large scale industry.

### **Challenges of SMEs in Pakistan**

Research work on the SME sector of Pakistan is at the initial level. It is argued by Fida (2008) that there lie some concealed and obvious hindrances in the way of expansion of small and medium enterprises in Pakistan. Political instability, law and order situation, financial constraints, energy crisis, taxation problems, labor issues, lack of coordination and regular information exchange mechanism among institutions, etc. are the most prominent examples.

Lack of interest in R&D, as observed by Akhtar et al. (2016) appears to be hitting the sector significantly. It is seen by Akhtar et al (2016) that SMEs failed to adopt human resources policy in employment procedure, generally pursue traditional methods for selection. They further maintained that "SME sector of Pakistan is facing big challenges such as complications and fear of entrance in the global markets".

Due to lack of capabilities, SMEs are not able to participate competitively in the national as well as international level. Ullah et al. (2011) argued that the lack of required entrepreneurial ability, education and characteristics are the big challenges for the success of enterprises. Moreover, they further argued that the lack of proper training, better education is the major causes of the failure of SMEs in Pakistan. Huang and Wu (2010) are of the view that the world is going to be moved from a production-based economy to a knowledge-based economy. For any organization in a knowledge-based economy intellectual capital is performing a fundamental role for the success and growth of the organizations. Drucker (1999) highlighted that in the 21 century; the knowledge and employee's production will be the major administrative challenges for the organizations to accomplish the competitive advantages. Knowledge output is mostly related on the capability of an organization.

### **Role of Institutions in SME Development**

Following institutions have played a very significant role for the development of SME sector of Pakistan:

#### ***The SME Bank***

Establishment of SME Bank can rightly be considered as the most significant step by the Government for exclusively catering the SMEs so as to ensure prompt financial credit support



for them. It was setup, as Naseem (2002) Reports, under Companies Ordinance 1984 in Jan 2002 with a paid-up capital of Rs. 01 Billion. Its predecessor institutions i.e Small Business Finance Corporation (SBFC) and Regional Development Finance Corporation (RDFC) were amalgamated into SME Bank.

### ***The Small and Medium Enterprises Development Authority (SMEDA)***

Small and Medium Enterprises Development Authority (SMEDA), an autonomous body under Government of Pakistan, established in 1998, encourages and facilitates development and growth of SMEs in Pakistan. It is not only a policy-advisory body for the government but also facilitates the sector so as the problems of the sector may properly be addressed besides promoting agenda for development of SMEs (SMEDA Report 2017-18)

### **Data Analysis**

Analysis of data was carried out both qualitatively and quantitatively and led to confirm our propositions. 83% of the respondents (191 SMEs) were found with little focus on R&D. When there is no or very little R&D, a firm cannot be innovative. It was observed with great concern that none of organizations under study ever got any patent registered during last 03 years. And this very fact is sufficient to count on the state of innovation practices in the SMEs in the country. Analysis of data, followed by indepth semi-structured interviews of the selected SMEs made us deduce that SMEs are in dire desire to be innovative but lack of proper knowledge, uncertain business environment and unstable market are the main hurdle in the way. Almost all SMEs lack in market research capability with particular regard to predict market trends. 184 Firms (80% of the sample) indicated that their sustainability is linked with adoption of innovative strategies besides linking themselves with large scale firms. Worst of all, none of the firms under study ever got any patent registered during last three years and this is leading us to deduce that SMEs direly in need of R&D to become innovative.

The key findings of this study are that in modern economy, innovation plays a significant role in achieving the economic growth in the country. In this regard, role of universities is inevitable in creating innovative tools, used to enhance the performance of SMEs sector. Simultaneously, the promotion of SME sector amplifies the economic activities and economic growth of the country. As concluded by Clifton et al (2010), the innovative firms appear to be more productive than those which are non-innovative. Clifton et al (2010) see this result true not only for UK but finds it generalized for Ireland and Germany also by explaining that there are positive linkages between innovation and economic growth of the country.

The current study further reveals that SMEs perform much better if processes are innovative, as is found by Martineza et al (2010), and in our case, it is deduced on the basis of data analysis that our SMEs are little prone to improvement in any aspect of innovation. Even there is no formal R&D department in SMEs. Most of SMEs are working on day-to-day basis. They lack the concept of market research, consumer feedback. They consider that innovation means to change the design or shape of their product. This results in placing a question mark on the sustainability of their business. The situation is so alarming in terms of level of seriousness of SMEs towards innovation that they filled the questionnaire of present study in random manner that is why we had to go for in depth semi-structured interviews of selected SMEs to surface the true picture of innovative practices in them.

Policy plays a vital directional role in any sector of economy. This is the significance of proper policy that Paskaleva and Shapira (2006) while sharing their experiences of Korea, Taiwan and Japan about, have analyzed importance of innovation policy in enhancing the performance of SME Sector with regard to “operative, individual and firm levels and its effects on economic growth”. In case of SMEs in the country a very disappointing picture is observed

with particular focus of SMEs. Although industrialization was started in late 50s of the past century, but SME sector (the backbone or nursery for the industrialization) remained neglected and we see introduction of first proper SME policy in 2007. The findings of Paskaleva and Shapira (2006) further indicate increased & concentrated focus of above-mentioned countries on SME Sector and this resulted in improved economic growth in the world, marking S.Korea and Japan as highly ranked by UNDP human development indices whereas Taiwan stands ranked 3rd in the World Economic Forum's country technology index. This happened only because of their focused policies contributed significantly in performance of their SME Sector.

The study of Paskaleva and Shapira (2006) regarding the economies of above these three countries (South Korea, Taiwan and Japan) presents a good lesson for Pakistan SME Sector. We see that the three countries "have transformed their large-scale mass-production manufacturing sectors to flexible, knowledge based, entrepreneurial, creative, networked and customized form of manufacturing besides creating industrial entrepreneurship which became a concrete foundation for post-war economic development of Japan." They further deduce that the above determinants transformed the economies of South Korea, Japan and Taiwan.

Considering the state of SMEs in our country, especially in the province under study, the study of Paskaleva and Shapira (2006) has a lot of learning aspects for us. It can fully be implemented here as almost all SMEs are under dire need of immediate restructuring. Analysis of data and onground visual observations indicate that linkage between SMEs and large-scale industries is extinct and this causes a gap of innovative production techniques, knowledge-based and creative form of manufacturing. Innovation will become formalized if the said gap is filled by developing a linkage between the two. The productivity of SMEs will be amplified, besides being beneficial for individuals as well as manufacturers and even for the country, if both SMEs and LSIs coordinate with each other. This will happen because of the harmonization between the firms, output level which will eventually amplify, directly casting an improvement in employment, sales, export of the goods and profitability of the organization. It will not be out of place to mention that our enterprises must seek guideline from the international best practices, especially from our neighbourhood, so as to enrich their productivity and profitability.

## CONCLUSION

As the study in hand reveals a dismal picture of innovative practices in our SMEs, we find that; (1) innovation is considered to be least important by SME entrepreneurs, (2) there is no proper R & D sections/department in most of SMEs and they are just doing day-to-day business, (3) sustainability is a big issue in SMEs. Average SME life span is around 1-5 years. This is only because they do not focus in scientific and strategic manner towards improvement of their systems, (4) capacity Building is attended at little level. It is considered as wastage of time and resources, (5) SME entrepreneurs require a comprehensive shift in their thinking in order to have innovative savvy, and (6) SMEs lack proper business environment. Most of SMEs are unaware of the relationship between innovation and commercialization.

The situation will be on improvement way by a strategic change in our mindset towards innovation in SMEs. Starting from pro-business environment, it is a fact that a conducive business environment is highly required for growth and strengthening of our SME Sector which is the backbone of our economy. It is plausible that Government of Pakistan has at least started to focus on SMEs and has established bodies for them. Introduction of viable SME policy, issuance of annual reports on SME Sector, and provision of capacity building opportunities to SMEs are remarkable steps and are definitely leading to fill gaps in productivity of this sector. However the potential of the SME sector requires more to do. The experience of S.Korea,

Taiwan and Japan showed that economy can boost through SMEs because the large organizations always require support from SMEs to achieve their business targets, as it has been observed by Shaikh and Syed, (2011) that the development and prosperity, which starts from the lower level, can be beneficial for all the groups of the people.

The dilapidated situation of SME Sector can be tackled through structural changes in SME sector, similar to the achievements in East Asian economies (like Malaysia and Singapore) which transformed their SMEs into knowledge-based innovative systems through structural changes, as exhibited by Monroe (2006), and through introduction of National Innovation Systems. Monroe further observes that both Malaysia and Singapore achieved tremendous growth in SME sectors due to their national innovation systems. The national innovation system means transforming the existing manufacturing units into innovative and creative enterprises. He further explains that technical development is one of the significant constituents of economic development of Singapore and Malaysia. Both countries have taken the initiative of innovative transformation. These transformations have stimulated economic growth and knowledge-based SMEs sector. In Malaysia and Singapore, the public policy has concentrated on developing the infrastructure and human capital, which was essential to prop up domestic innovative competence. So in order to make our SME Sector innovative, we have to replicate the same.

The experience of Malaysia and Singapore, keeping in view the study of Monroe (2006), can be replicated here in Pakistan through public private partnership initiative with the aim to develop innovative and creative SMEs by mobilizing domestic resources, which will give immediate boost to this sector. SME Sector can be collaborated with the Multinational Companies working in Pakistan for technology transfer to local firms, developing a plan for innovation program and capacity building of manpower.

Although SME sector, as seen by Shaikh and Syed (2011), has never been given prime focus in past by the authorities, yet it has contributed significantly to national economy. In order to enhance productivity of this sector so as the economy may meet sufficiency targets, strengthening of SME Sector must be given top priority. We therefore suggest that there must be comprehensive policy for SMEs which must be revisited at appropriate intervals and the concern. Besides that, universities, being the centers for knowledge creation may be asked to contribute through R&D activity with prime focus on SMEs as well as through entrepreneurial capacity building.

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