



Analysis of Economic and Technological Strategic Factors Affecting the Performance of Small and Medium Enterprises of Apparel Sector in Pakistan

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ABSTRACT

Purpose: The objective of the study is to explore and examine the economic and technological environmental factors affecting the performance of apparel SMEs in Pakistan..

Methodology/Sampling: This study contains a qualitative as well quantitative analysis. Primary data was collected through a questionnaire and structured interviews of the representatives of the apparel sector associations. Those apparel firms were selected that qualified as apparel SMEs as per definition of SME policy (SME Policy 2007, 2007).

Findings: Study concludes that interest rates, devaluation and inflation significantly affect the performance and demand dynamics, regional economic cooperation and the only technological factor spending in information technology, do not significantly affect the performance of apparel SMEs in Pakistan.

Practical Implications: This study will help managers to take preemptive measures to minimize effect of economic & technological factors affecting performance of SMEs.

Keywords: Foreign direct investment; economic growth, Pakistan.

JEL Classification: D040, D220

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1. INTRODUCTION

Considering the importance of SMEs, the Government of Pakistan is playing very prominent role (SME Policy 2007, 2007) like for example it established SME Bank (Limited, SME Bank, 2002) and established Small and Medium Enterprise Development Authority (SMEDA, 2012). (Economic Survey of Pakistan, 2010-11). There are more than 3.2 million SMEs in Pakistan (Pakistan, Government Of, 2005-06). Because of its larger quantity, this sector has a potential to contribute in economic growth quite extraordinarily. Pakistan can mobilize those SMEs whose inputs are produced with in the country. For production in apparel sector, Pakistan must capitalize on its raw cotton production to produce more in apparel sector SMEs. Because Pakistan is world's fourth largest producer of raw cotton (Staff Report, 2012) and it would be easiest way to improve the production in apparel sector ultimately improve the economic indicators of the country.

The objective of the study is to explore and examine the economic and technological environmental factors affecting the performance of apparel SMEs in Pakistan. This study covered four cities of Pakistan. The cities include Lahore, Faisalabad, Sialkot and Karachi as almost 95% of the apparel firms are from these cities of Pakistan (SMEDA, 2012). The data was collected from the firms registered in the associations namely Pakistan Hosiery Manufacturing Association (PHMA), Pakistan Readymade Garments Manufactures and Exporters Association (PRGEA) and Pakistan Cotton Fashion Apparel Manufacture Exporters Association (PCFA).

This study tested two hypotheses first, H_0 : Economic strategic factors significantly affect the performance of apparel SMEs in Pakistan against the alternative, H_A : Economic strategic factors do not significantly affect the performance of apparel SMEs in Pakistan. Second, H_0 : Technological strategic factors significantly affect the performance of apparel SMEs in Pakistan, against the alternative H_A : economic strategic factors do not significantly affect the performance of apparel SMEs in Pakistan.

2. LITERATURE REVIEW

The literature review is divided into two parts; in the first part, literature related to dependent variable is reviewed and in second part, the strategic economic and technological variables that affect the performance of firms in general have been explored.

The performance includes profitability performance, sales performance and growth performance (Okpara & Kumbiadi, 2008). It sometimes is considered as one unit (Temtime & Pansiri, 2004). Some studies take financial performance as dependent variable, showing change in current year performance as compared to previous year performance (Bart, Bontis, & Tagger, 2001) and empirical research has also been conducted (Hansen & Wernerfelt, 1989).

Some of the important economic and technological environmental strategic factors have been reviewed for the purpose of this study. These factors show the impact of on the performance of the firm. Economic factors are those factors that regulate the exchange of materials, money, energy, and information (Wheelen, Hunger, & Rangrajan, 2006). The study conducted by the Hansen and Wernerfelt concludes that economic factors have been identified as important determinant of performance (Hansen & Wernerfelt, 1989).

Increase in borrowing costs lead to decline in the profits of the firm therefore the interest rate change does have impact on the profitability of the business. This is the generally understood. This statement is verified by the Temtime and Pansiri where they stated that economic factors

like changes in the interest rate do have significant impact on the performance of the firm (Temtime & Pansiri, 2004).

It is found in literature that the inflation has negative impact on performance of firm (Temtime & Pansiri, 2004). Inflation affects the levels of investments in a country. Pakistan's economy is facing inflation problem where according to the inflation monitor of State Bank of Pakistan. Inflation computed on the basis of Consumer Price Index (CPI) has been hovering around 10.8 percent during Jul-Apr 2011-12 (Pakistan, State Bank of, 2012).

There is an impact of devaluation on the performance of firm. Different researchers worked on the devaluations where the impact of major devaluation on the firm performance was studied (Forbes K. , 2002). This study was conducted on eleven hundred firms producing ten different commodities. There is a relationship between devaluation and cost of capital. Devaluation affects relative cost of capital and labor therefore it ultimately has impact on the production of firm i.e. growth of the firm and profitability. The result was contradictory in another study where it was found that the profits of the firms increase by 15% to 20% after devaluation. For the firms that are involved in exporting goods or services, their sales significantly increase after devaluation (Forbes K. J., 2002). The devolution of the currency is not always bad as it increases the exports of the country but on the other hand the depreciation of the rupee causes those firms to increase their cost of productions whose dependence is on the imports (IMF for more rupee devaluation, 2012).

The regional economic cooperation like Central Asian Regional Economic Cooperation (CAREC) helps the regional developments. These cooperation are made to enhance the cooperation in the priority areas set. For example: one of the objectives of the CAREC was to have the regional cooperation in trade policy and for that purpose, the firms would benefit if the country has such memberships. CAREC comprised of 10 countries and 6 intuitions. The ten countries along with their date of joining the cooperation included in the bracket Afghanistan, Azerbaijan, People's Republic of China, Kazakhstan, Kyrgyz Republic (1997), Mongolia (2002), Pakistan (2010), Tajikistan (1998), Turkmenistan (2010), Uzbekistan (1997). The six institutions included were Asian Development Bank (ADB), European Bank for Reconstruction and Development (EBRD), International Monetary Fund (IMF), Islamic Development Bank (IsDB), United Nations Development Programme (UNDP) and World Bank (Asian Development Bank, 2011).

External environment factors do have significant impact on the performance of firm. If the external factors work negatively then SMEs are not able to compete worldwide resulting in the poor demand for their products (Kimura, 2003). If these factors are working positively than surely these factors, have the positive impact on the demand for their products. The changes in the international demand does have an impact on the performance of the firm.

IBISWorld is considered one of the prominent researchers in the world business. Nikoleta Panteva one of the analysts of the apparel sector writes, *“As the global recession hit, demand for high-priced apparel weakened in markets such as Europe, the United States and Japan. While demand for apparel in some emerging markets, such as China, continued to grow over this period, it did little to buffer the industry from the effects of the global recession”* So the international demand for apparel sector in 2009 declined. And she further writes *“As a result, revenue dropped 13.8% in 2009 and has declined at an annualized rate of 0.2% over the five-year period to 2013”* (ISIBWorld, 2013).

Technological factors generate the problem solving inventions (Wheelen, Hunger, & Rangrajan, 2006). In early studies, technological factors have been identified as important determinant of performance (Hansen & Wernerfelt, 1989). The poor technology has been the main cause of decline in the performance of SMEs. Due to the poor technology, SMEs are not able to compete worldwide resulting in the poor demand for their products (Kimura, 2003).

3. DATA AND METHODOLOGY

This research was exploratory as well as descriptive research (Wheelen, Hunger, & Rangrajan, 2006). Factors specific to apparel firms in Pakistan were explored through previous literature available at national and international level. This study contains a qualitative as well quantitative analysis. Primary data was collected through a questionnaire and structured interviews of the representatives of the apparel sector associations.

Total population of the apparel firms were 1698 and responses from 146 apparel SMEs were included for the purpose of this study using stratified random sampling procedure. Large firms as well as small and medium enterprises were initially included in the total population. Those apparel firms were selected that qualified as apparel SMEs as per definition of SME policy (SME Policy 2007, 2007). Researcher gave a fair representation to every SME in the country. Further Google doc, MS Excel were used as tools of research and the instrument comprised of the questions that contained all four types of data scales i.e. nominal, ordinal, interval and ratio scales.

4. DATA ANALYSIS AND DISCUSSION

4.1 Interest Rates

The effect of interest rate on the performance of the firm is verified (Little, Masumdar, & Page Jr, 1987) (Temtime & Pansiri, 2004). It was found that effect might not be evident for small businesses. However, it might be much evident for medium enterprises. Medium enterprises get the loans quickly due to availability of the collateral. Out of total, 97% of apparel SMEs reported that interest rate 'almost always' affects the performance of apparel SMEs and 3% of the apparel SMEs reported that interest rate 'usually' affects the performance of apparel SMEs in Pakistan. No response was recorded in rest of the three columns on the Likert scale.

4.2 Inflation

Inflation affects the firm's performance (Temtime & Pansiri, 2004) (Pakistan, State Bank of, 2012). Effect of inflation on the performance of apparel SMEs were inquired. Out of total, 95% of the apparel SMEs representatives think that this strategic factor has significant impact on the performance of apparel SMEs in Pakistan. In addition, rest of the 5% of the firm responded positively as well but with lesser severity and responded in the column of 'usually'. Since this inflation can be the cause of increase in input cost which include direct and indirect labor cost, factory overhead costs etc. Therefore, profitability, production and sales revenue may decline because of relatively perfect market conditions.

4.3 Devaluation

Devaluation affects the firm in both ways positively and negatively (Forbes K. J., 2002) (IMF for more rupee devaluation, 2012). The apparel SMEs are of two types. First, apparel SMEs, which are manufacturers but not exporters and second, apparel SMEs, which are manufacturers as well as exporters. First type of the firms would not benefit from the devaluation and second type of the firms would benefit from the devaluation. Out of total apparel SMEs, 93% of the

apparel SMEs are of the view that the devaluation ‘almost always’ affects the performance of the firm. Only 7% of the apparel SMEs have reported that their performance is ‘usually’ affected if Pakistani rupee is devaluated. The results are similar to the studies done previously. The effect is reported by almost all apparel SMEs due to fact that data selected is comprised of associations of apparel SMEs which are the associations of the manufacturers as well as exporters.

4.4 Memberships in Regional Economic Cooperation

Regional economic co-operations are formed to benefit the economies of the regional countries (Asian Development Bank, 2011). The literature reported a significant effect of the memberships in regional economic co-operations on the performance of firms (Hansen & Wernerfelt, 1989). In order to know whether such regional economic co-operations have any impact on the performance of apparel SMEs in Pakistan? The answers of the apparel SMEs representatives were recorded. The results show that apparel SMEs representatives are of the view that membership in the regional economic cooperation does not affect the performance of apparel SMEs. The results obtained through this thesis are in contradiction to the available literature. The similar question was asked from the representatives during the interviews for exploring reasons for such feedback. In apparel sector regional countries like India, China and Bangladesh are in fact our competitors therefore the regional cooperation may not be evident. Actual market is Europe and America therefore these regional agreement might not have significant effect. The results show that 88% of the representatives of apparel SMEs are of the view that regional economic cooperations ‘almost never’ affect the performance of firm. Rest 12% of the apparel SMEs representatives are of the view that regional economic cooperation ‘does not usually’ affect the performance of apparel SMEs. No response was recorded in rest of three options.

4.5 Demand Dynamics

International demand dynamics are important to understand as for as apparel SMEs are concerned. International financial crisis had also hit the international demand of the product in Europe and America (Kimura, 2003) (ISIBWorld, 2013). However, it has not affected the demand in China, India, Pakistan and Bangladesh. Since the Pakistan exports to Middle Europe and America therefore the financial crisis might have hit the demand for apparels. Although the demand for the apparels may vary in future if such incidents occur. In order to know whether or not there is any effect of the demand dynamics on the performance of the apparel SMEs in Pakistan. The contradictory results were noticed in comparison to apparel SMEs. Out of total 93% of apparel SMEs are of the view that the demand dynamics does not have any effect on the performance of the apparel SMEs in Pakistan, up to level of ‘almost never’. Moreover, remaining 7% of apparel SMEs representatives say that it ‘does not usually’ have any effect on the performance of apparel SMEs in Pakistan. The results are in contradiction to the literature reviewed because of the fact that most of the apparel SMEs deal with intermediary who contacts with them directly. Intermediary pays the apparel SMEs whenever it receives the orders. The SMEs do receive the orders continuously despite of any change in international demand. However, if there is huge change in demand then it might affect their performance. The research shows that recent financial crisis of 2007 had no effect on the organizations in working in Pakistan.

4.6 Government Spending on Information Technology

The technology does have the effect on the performance of apparel SMEs (Hansen & Wernerfelt, 1989) in general. Technology is the determinant of supply and ultimately this would have effect on the performance of the firm (Kimura, 2003). The provision of internet



and other facilities of information technology is the prime responsibility of the government which in turn create a competition among these firms and makes sure the availability of the product at lower price.

In order to know the role of government in the information technology (IT) the apparel SMEs representatives were asked to rank the effect of the Government spending in IT facilities on the performance of apparel SMEs in Pakistan. The contribution of the IT in the apparel sector SMEs is significant. Interesting aspect of this question was that 5% of the apparel SMEs reported that they ‘almost never’ see the effect of spending in IT on their business performance and 16% of apparel responded as ‘usually not’. The reason for such reply was that they have the specific customers who place order for them through telephones and they only fulfill their orders and in this way there is no effect on their businesses. However, the justification of the use of IT can be made as the respondents have replied through emails. It means they have been using IT for this purpose. However, 62% replied ‘occasionally’, 14% replied ‘usually’ and only 4% replied ‘almost always’.

4.7 Strategic Factors and Performance

The benchmark set for the each social and political environment strategic factor affecting the performance of apparel SMEs in Pakistan was ‘4’ on the Likert scale of 1 to 5. Null hypothesis was greater than or equal to the benchmark tested against the alternative of less than four in each case; the test was one tail test.

Economic strategic factors were also hypothesized. In case of interest rates, devaluation and inflation we were unable to reject null hypothesis that interest rates, devaluation and inflation are the important strategic economic factors affecting the performance of apparel SMEs in Pakistan. However, in case of demand dynamics and regional economic cooperation we reject the H_0 and accept the alternative and hence conclude that these two strategic factors do not significantly affect the performance of apparel SMEs in Pakistan.

Table 1 : Status of Economic and Technological Environmental Strategic Factors and their ρ -values Ranked from 1—Least Important to 5—Most Important

Economic and Technological Environmental Strategic Factors	x	σ	μ	Hypothesis	z	ρ - value (z<1)
Interest rates	5	0.2	4	$H_0 : \mu \geq 4$ $H_1 : \mu < 4$	71.75	1
Inflation	5	0.2	4	$H_0 : \mu \geq 4$ $H_1 : \mu < 4$	53.66	1
Devaluation	4.9	0.3	4	$H_0 : \mu \geq 4$ $H_1 : \mu < 4$	44.41	1
Demand Dynamics	1.1	0.3	4	$H_0 : \mu \geq 4$ $H_1 : \mu < 4$	-139.75	0
Membership in Regional Economic Cooperation	1.1	0.3	4	$H_0 : \mu \geq 4$ $H_1 : \mu < 4$	-111.42	0
Government Spending on Information Technology	3	0.8	4	$H_0 : \mu \geq 4$ $H_1 : \mu < 4$	-15.45	0

The only technological factor considered for the purpose of this study was the spending by the Government of Pakistan in IT. This strategic factor achieved the average performance of three

that was significantly below the benchmark performance. Statically speaking, we reject null hypothesis, accept alternative, and hence conclude that the spending in IT does not significantly affect the performance of apparel SMEs in Pakistan. Practically speaking, the evidence of investments in IT are available. For example, internet has been made available to every corner of the country however, on the other hand small apparel businesses were found to be not benefiting from such facilities. Therefore, these firms reported the effect of spending in IT on the performance apparel SMEs as below benchmark. There is a severe need to create awareness.

5. CONCLUSION AND RECOMMENDATIONS

In case of interest rates, devaluation and inflation we were unable to reject null hypothesis that interest rates, devaluation and inflation are the important strategic economic factors affecting the performance of apparel SMEs in Pakistan. However, in case of demand dynamics and regional economic cooperation we reject the H_0 and accept the alternative and hence conclude that these two strategic factors do not significantly affect the performance of apparel SMEs in Pakistan. For spending in IT we reject null hypothesis, accept alternative, and hence conclude that the spending in IT does not significantly affect the performance of apparel SMEs in Pakistan. Economic strategic factors like interest rates, devaluation should be properly carefully monitored by the economic experts to develop appropriate policies. Further, the memberships in economic regional cooperations which is our weakness must be improved. It is not significantly playing its role towards the performance of apparel SMEs. It is important that apparel SMEs should be provided awareness regarding this important economic strategic factor. Government of Pakistan is already spending in IT but its impact on the performance of apparel SMEs is not quite evident. It is not because of the fact that Government of Pakistan is not spending in IT rather the apparel SMEs are not able to get benefits by the spending in IT. Such training and development are quite important.

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