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STATEMENT OF THE PROBLEM

HYPOTHESES

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A STUDY ON THE BARRIERS AFFECTING THE GROWTH OF SMALL AND MEDIUM ENTERPRISES IN INDIA

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ABSTRACT

Small businesses are considered as a means for accelerating the economic growth of the Indian economy. The contribution of Small and Medium Enterprises (SMEs) towards the nation's economic progress is generally acknowledged but these firms face several barriers which affect their growth. In this present study an attempt has been made to reveal the barriers affecting the growth of small and medium enterprises involved in the manufacture of Servo stabilizers. A structural equation model was developed using Partial Least Square technique, to estimate the influence of barriers on the growth of firms. A sample comprising of 150 SMEs manufacturing Servo stabilizers in 12 states/union territories of India was taken for the study. The impediments caused by the external forces of the business are taken as the barriers affecting the growth of firms. The results indicate that there is a significant influence of the insufficient structural support and planning, credit constraints and competitiveness constraints on the growth of firms. The findings of the study provide necessary suggestions for SMEs to respond quickly to identify and effectively tackle their issues in order to achieve desired growth, profitability and longevity. Further the study pinpoints the required support from government, banks and policy-makers.

KEYWORDS

Barriers, Growth of firms, Partial least squares, Servo stabilizers, Small and Medium enterprises (SMEs).

INTRODUCTION

mall and medium enterprises are a dynamic sector and it occupies a prominent place in the Indian economy due to its significant contribution in terms of output, exports and employment. According to the 'Annual Report of Micro, Small and Medium Enterprises' (2009-10), it is estimated that in terms of value, the sector accounts for about 45 per cent of the manufacturing output and 40 per cent of the total exports of the country. The sector is estimated to employ about 59 million persons in over 26 million units throughout the country. Further, this sector has consistently registered a higher growth rate than the rest of the industrial sector. There are over 6000 products ranging from traditional to high-tech items, which are being manufactured by the Micro, Small and Medium Enterprises (MSMEs) in India. It is well known that the MSME sector provides the maximum opportunities for both self-employment and jobs after agriculture sector. Hence the survival and growth of SME firms is very essential for the Indian economy. In this perspective, there is a need for research on the barriers that affect the growth of SME firms.

The survey conducted by International Finance Corporation in 80 countries covering more than 10000 firms, uncovers major obstacles for business development for small, medium and large enterprises which include issues like financing, infrastructure, stability in policies, taxes and regulation. These firms face more or less common type of barriers across the world and there are reasons to believe that the firm size is inversely related to the severity of obstacles they face. In terms of ranking, one-third of the firms indicated that financing appears to be the top problem. This figure was slightly lower for large firms. After financing were the issues like inflation, policy instability and taxes and regulations. Ranking obstacles by worldwide, notably taxes and regulations emerged as the number one problem in place of financing. In financing area, the study reveals that the bias against small firms was quite pronounced as a number of large units in Latin American countries including Argentina, Brazil, Columbia reported significantly less barriers with financing than medium and small firms. The same pattern emerged in South Africa and Thailand. This also was the case in many countries, particularly in transition economies. In sum the major findings of the study indicate that small firms report more barriers than medium size firms, which in turn face more obstacles than large firms. Assuming that such a bias in the size of distribution of firms is indeed not in favor of economic development and poverty alleviation, these findings call for process of support for small and medium size enterprises by policy makers (Schiffer and Weder, 2001).

There is no universal definition of small and medium enterprises. Each country follows certain standards like number of employees or annual turnover to classify a unit as micro, small or medium enterprise; in some countries a combination of both is followed. According to the Micro, Small and Medium Enterprises Development (MSMED) Act of India 2006, a small scale enterprise is defined in terms of investment in plant & machinery up to ₹50 million and a medium scale enterprise to have investment in the range of ₹50 million to ₹100 million. Thus SMEs would cover all enterprises having investment in plant & machinery up to ₹100 million (Report of MSME, 2007).

LITERATURE REVIEW ON BARRIERS HINDERING THE GROWTH OF FIRMS

There are factors that generally facilitate firm growth but there are also factors which hinder potential growth. Such factors are titled as growth barriers. The growth barriers for small businesses are classified as institutional barriers and financial barriers. Institutional barriers are mainly discussed with the focus on firms' interaction with government, including legalization, taxation, and government support amongst others. Financial barriers represent lack of financial resources (Davidsson, 1989). Furthermore; SMEs could also face external barriers, internal organizational barriers and social barriers which cover aspects of market position of a firm, access to qualified human capital, and access to network (Bartlett & Bukvic, 2001). However, growth can happen only if there are no barriers. The barriers taken for the study are the impediments caused mainly by the external forces of the business. The growth barriers collected through review of literature shows that, they broadly fall into categories of insufficient structural support and planning, credit constraint and competitiveness constraints are presented hereunder.

CREDIT CONSTRAINT

Firms depend on a variety of sources of financing, both internal and external. In the case of SMEs, bank loans and trade credit are the main two alternative sources of external funding. Bank lending may be the cheapest source of external funding (Petersen and Rajan 1994). It has been argued that credit constraints, lack of external debt, and equity capital are the main obstacles to the growth of SMEs (Becchetti and Trovato, 2002; Pissarides, 1998; Riding and Haines, 1998). Banks show their reluctance to extend credit to small enterprises because of the high administrative costs of small-scale lending; asymmetric information; high risk perception and lack of collateral (Ghatak, 2009). Evidence suggests that banks are more conservative when they provide loans to SMEs. Due to the information asymmetries, SMEs are more likely to be charged relatively high interest rates and asked for high collateral and loan guarantees (Stiglitz and Weiss,

1981). In addition to sourcing the finance, the cumbersome procedure for registering and commencing business are key issues often cited. According to Doing Business Report (2006) indicated that India is ranked 133 out of 183 economies in the ease of doing business and it requires 13 procedures, takes 30 days, and costs 66.06 % GNI per capita to start business and India is ranked 30 overall for getting credit out of 183 economies. Firms in developing countries suffered from frequent changes in rules and regulations, laws, administrative procedures and the resulting in uncertainty and raised the information and compliance costs for businesses. SMEs in particular were disproportionately affected by these changes as the compliance cost bears more heavily on smaller firms (Hoshi, et al., 2003; Storey, 1994).

COMPETITIVENESS CONSTRAINTS

Barriers and challenges facing SMEs are many and varied. Due to their size, individual SMEs are constrained from achieving economies of scale in the purchase of inputs such as equipment, raw materials, finance, and consulting services; are often unable to identify potential markets; and unable to take advantage of market opportunities that require large volumes, homogenous standards, and regular supply. Improvements in product, process, technology, and organizational functions such as design, logistics, and marketing have become the critical success factors in firm competitiveness in a globalizing economy. Firms compete more and more not only on the basis of prices, but on the basis of their abilities to innovate, or upgrade. SMEs are thus under pressure to innovate and to upgrade their operations in order to participate in international markets. Small size is also a constraint on accessing such functions as training, market intelligence, logistics and technology. These constraints make it difficult for SMEs to access global markets; and also limit their performance in increasingly open, competitive domestic markets (Abonyi, 2003). The constraints of SMEs to be export competitive include product reservations, regulatory hassles in the entry and exit stages, insufficient finance at affordable prices, inflexible labor markets and infrastructure related barriers like power tariff and insufficient export infrastructure (Das et.al. 2007).

Previously insulated from international competition, many SMEs are now faced with greater external competition and the need to expand market share. However, their limited international marketing experience, poor quality control and product standardization, and little access to international partners, continue to impede SMEs' expansion into international markets (Aryeetey et al., 1994). SMEs need to understand the realities. Competition has been heightened and there is consistent and continuous need to become efficient, quality focused and innovative. Further, law or policy of a State can help or protect only up to a limit and beyond that SMEs have to navigate themselves. SMEs should not to forget that they have distinct advantage over large firms in terms of flexibility, cost effectiveness and replicable approach by locally available resources (Bhatia, 2008). Asian Development Bank (2001) reports, SMEs often operate under difficult circumstances and feel the brunt of weak infrastructure. Faced with erratic power supply they are less likely to be able to purchase their own generators.

INSUFFICIENT STRUCTURAL SUPPORT AND PLANNING

The government policy towards SMEs may either encourage or discourage further expansion. India offers attractive incentives to small enterprises, but by some accounts, these measures backfire because growth beyond a specified level entails losing valued benefits (Little et.al, 1987; Mitra and Pingali, 1999). The manufacture of certain products in India is reserved for small firms, which reduces incentives for firm expansion (World Bank, 2005). Some owners even split up their business into several enterprises, in an effort to make them look smaller (Kashyap, 1988). Similarly, a recent study in Brazil showed that the "Simples" program, which offers tax benefits only up to a certain size of firm, induces formalization but causes firms to shrink (De Paula and Scheinkman, 2007). Micro and small firms in developing countries generally do not correspond to the most efficient scale of production, yet they allow people to be independent and make a living (Little et.al, 1987). Firms that enter small often remain small, because they face formidable barriers to growth. It has even been suggested that it is more common to find the entry of large firms than smaller firms growing large (Van Biesebroeck, 2005). Several authors have commented on the "missing middle" in the firm size distribution that arises when large firms grow larger but small firms rarely grow themselves into the next size category (Tybout, 2000; Sleuwaegen and Goedhuys, 2002). These enterprises remain small for a whole host of reasons such as continuing financial constraints, transport costs, limited infrastructure, lack of suitable management resources, and also the desire to stay small and informal so as to avoid taxes. An econometric analysis of firm-level data in 54 countries suggests that financial, legal and corruption challenges disproportionately constrain the growth of smaller firms (Beck et.al, 2005). For instance, strict regulations and high taxes may keep firms small and informal (De Soto, 1989). Regulatory and institutional challenges may deter

Based on the literature review, the barriers faced by the firms are classified into three categories or constructs namely, 1) Insufficient structural support and planning 2) Credit constraints and 3) Competitiveness constraint.

The first construct 'Insufficient structural support and planning constraints' includes four indicators namely i) Government must provide adequate support to SME firms ii) Manufacturers must build abilities to develop new technology in order to reduce the production cost iii) Establishment of appropriate regulatory competitive policy is necessary and iv) Future plans for expansion of the firm is necessary.

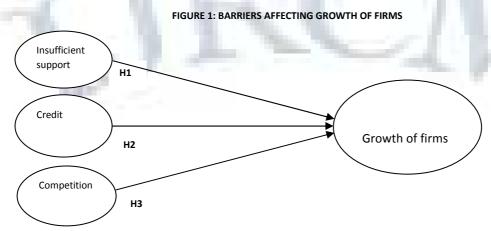
The second construct 'Credit constraint' has four indicators namely, i) Money and time needed for business registration and government procedures ii) Insufficient capital iii) Difficulty in generating external finance and iv) Too many formalities restricts, getting bank loans

The last construct 'Competitiveness constraint' has three indicators namely, i) There is a need for skilled workforce ii) Assistance needed to compete in the world market iii) Shortage of power restricts the production efficiencies.

OBJECTIVES OF THE STUDY

The objective of the present study is to assess the relationship of 'Insufficient structural support and planning', 'credit constraint' and 'competitiveness constraints' on the business growth of SMEs in India. The study is based on servo stabilizer manufacturing sector which has a predominance of SME units.

CONCEPTUAL MODEL AND RESEARCH HYPOTHESES



(Insufficient support denotes – Insufficient structural support and planning, Credit denotes – Credit constraint, Competition denotes – Competitiveness constraint)

The structural model has three constructs and three hypotheses have been generated from the relations of these three constructs (H1, H2 and H3). The hypotheses, for the barriers affecting the growth of firms is stated as follows:

Hypothesis 1: The Insufficient structural support and planning has an influence on the growth of firms.

Hypothesis 2: The credit constraint has an influence on the growth of firms.

Hypothesis 3: The competitiveness constraint has an influence on the growth of firms.

METHODOLOGY

The firms manufacturing servo stabilizers were identified through various sources like District Industrial Centre, Raw material suppliers, telephone and online directories. Literature review and the feed back from the panel of experts provided inputs for the development of the research questions. The pilot study further refined the questionnaire before finalizing it. The variables under barriers were measured using four point Likert-type scale ranging from 1- "strongly disagree" to 4-"strongly agree". Subjective measures were used for the dependent variable "growth" ranging from 1- "least important" to 4 - "most important". The growth of sales for the past five years has been taken to measure the business growth of firms. For data collection, personal interviews and postal questionnaires were considered as an appropriate methodological option. The data were obtained from owners/managers of the respondent firms. The sample consisted of 150 manufacturing firms in India. The primary data collected from the firms were analyzed using the Visual Partial Least Square software.

RESEARCH MODEL

In order to study the barriers affecting the growth of manufacturing firms, a structural equation modeling technique was applied to examine the model and hypotheses. The software used to apply Partial Least Squares (PLS) to the model was Visual PLS. PLS is well suited to explaining complex relationships, such as causal-predictive analysis in situations of low theoretical information (Fornell & Bookstein, 1982; Fornell, Lorange, & Roos, 1990; Joreskog & Wold, 1982). PLS can be used for, theory confirmation and developing propositions for further testing (Chin & Newsted, 1999). A two-step approach will be used to interpret the PLS model, first the construct validity and reliability of the multi-item variables will be assessed in PLS prior to estimating the final PLS structural model, and secondly the refined structural model will be assessed. These two steps are used to ensure that reliable and valid measures of constructs are used before drawing any conclusions about the nature of the relationships (Hulland, 1999) PLS was chosen as the most appropriate statistical technique for this study for two reasons. The first of these reasons is due to the sample size. PLS is particularly well suited to small sample sizes. The second reason is that PLS can be used where the data is multivariate non-normal. The first step of the PLS measurement model involves examining the construct reliability and validity of the multi-item variables.

RESULTS AND DISCUSSIONS

Reliability of the individual items can be determined by examining the composite reliability statistics for each of the variables. Composite reliability (also termed convergent validity) is important when multiple measures are used for an individual construct. Cronbach's alpha is also often used to measure reliability. For each of these, the closer the statistic is to one the better, and a modest threshold is 0.70. The composite reliability statistics generated in PLS were all greater than the threshold of 0.70, indicating satisfactory composite reliability for each of the constructs.

TABLE 1: CONVERGENT VALIDITY

Construct	Cronbach's Alpha	Composite reliability	Average Variance Extracted
Structural support and planning	0.800240	0.847191	0.583906
Credit	0.702913	0.820989	0.535124
Competitiveness	0.752523	0.855546	0.663934
Business Growth	0.000000	1.000000	1.000000

The individual reliability of each item is given by loadings or correlation between the item and the construct. The convergent validity represents the common variance between the indicators and their construct is measured by Average Variance Extracted (AVE) and the acceptable threshold should be superior to 50% (Fornell and Larker, 1981). Two tests were conducted to examine convergent validity. First the item reliability by factor loading on the construct was taken. All items had a loading above the suggested 0.55 (Falk and Miller, 1992). Only the items complying with the prerequisite have been incorporated. Second the construct's AVE was examined, the AVE values for all constructs were above the limit of 0.50. In summary, convergent validity was supported.

DISCRIMINANT VALIDITY

The next table shows correlations between constructs and in diagonal are the square roots of the AVE.

TABLE 2: DISCRIMINANT VALIDITY

Construct	Plan	Credit	Competition	Growth
Structural support and planning	0.583			
Credit	0.249	0.731		
Competitiveness	0.176	-0.327	0.814	
Business Growth	0.246	-0.060	0.417	1.000

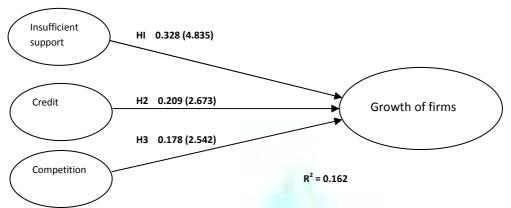
Discriminant validity indicates the extent to which a given construct is different from other constructs. Discriminant validity is assessed both at the item level and at the construct level. With respect to item, an inspection of indicator cross-loadings reveals that all indicators are loading at their highest with their respective construct and that no indicator loads higher on other constructs than on its intended construct. Therefore it is safe to assume item discriminant validity. At the construct level, to evaluate any presence of discriminant validity among constructs, it is necessary that the AVE square root be superior to the correlation between constructs (Fornell and Larker 1981). Overall, the evaluation of the reflective measurement models reveals that all constructs are of satisfactory reliability and validity for the purposes of this analysis.

TABLE 3: ASSESSMENT OF THE STRUCTURAL MODEL

Hypothesis	Path		Path	t values	Supporting Hypothesis
	From	То	co-efficient		Yes/No
H1	Structural support and planning	Business Growth	0.328	4.835	Yes
H2	Credit	Business Growth	0.209	2.673	Yes
Н3	Competitiveness	Business Growth	0.178	2.542	Yes

A standard bootstrapping procedure (Yung and Bentler 1996) with 500 re-samples consisting of the same number of cases as in the original sample (that is, 150) was applied in order to determine the significance of each estimated path. To be significant the 't' value should be greater than 1.96 or smaller to -1.96 or probability (1-alpha) or = 0.05.

FIGURE 2: PLS MODEL ON GROWTH BARRIERS



(Insufficient support denotes – Insufficient structural support and planning, Credit denotes – Credit constraint, Competition denotes – Competitiveness constraint)

From the Figure 2, the hypothesis with the t value, path co-efficient (values in the parentheses) and R² illustrates the structural model estimation. The model portrays the impact of barrier's variables (insufficient structural support and planning, credit constraint and competitiveness constraint) on the growth of firms.

DISCUSSION ON HYPOTHESES ACCEPTANCE

't' value has been calculated after conducting a boot strap, in order to validate all the model items, all the referred items are significant at 0.05 level. The summary is given below:

- 't' value for the path 'insufficient structural support and planning' is 4.8348 implying that, there is a significant influence of insufficient structural support and planning on the growth of firms. Hence Hypothesis 1 is supported. This finding concur with those in the previous studies of Glas et al. (2000) found that the most important barriers faced by new entrepreneurs in Slovenia and Croatia is the lack of entrepreneurial spirit, unsupportive government regulations, weak financial support and an increasing gray economy.
- 't' value for the path 'credit constraint' is 2.6732 implying that, there is a significant influence of credit constraint on the growth of firms. Hence Hypothesis 2 is supported. Small businesses are under-capitalized and tend to depend upon their own or family savings and access to capital remains a challenge. Most of them cannot meet the requirements for commercial loans, and those who do find such loans expensive (Gray, Cooley, and Lutabingwa, 1997; Trulsson, 1997; Van Dijk, 1995).
- Y' value for the path 'competitiveness constraint' is 2.5422 implying that, there is a significant impact of competitiveness constraint on the growth of firms. Hence Hypothesis 3 is supported. Hoshi, et al. (2003) states that growth barriers were caused by restrictions determined by authorities, barriers in obtaining a skilled workforce, and the small number or lack of potential cooperation partners in the area.

SUGGESTIONS

The results of the study suggest the following:

INSUFFICIENT STRUCTURAL SUPPORT AND PLANNING

- The SME supporting institutions can extend their assistance to Servo Stabilizer manufacturing firms without much cumbersome procedures.
- A training programme for the entrepreneurs will enhance the manufacturers to be aware of the technology, new methods of business transaction and available support given to SMEs.
- A regulatory pricing policy will control the reduction of prices among competing firms. These will eventually help every single manufacturer involved in the
 manufacturing Servo Stabilizers.
- Through proper networking the firms can improve their businesses drastically. Each manufacturer will have knowledge of the current market demand, customer requirements, pricing policy and problems faced by firms.

CREDIT CONSTRAINT

- Firms not interested in doing this business in the long run have not registered their firms. Hence firms need to know the advantages of registering their firms to avail facilities like, external credit, government orders and other services offered by the SME supporting institutions.
- Firms can change their legal form to partnership or private limited companies; this will generate more funds and more hands to work.
- Initially the funds can be generated through relatives and friends, as the business improves they can easily avail bank loans.
- By improving the sales activities, efficiently limiting the credit period and utilizing the production capacity to the maximum level, the financial position will improve substantially.

COMPETITIVENESS CONSTRAINTS

- The government must come forward to encourage the SMEs to export their products, by way of standardizing the product and helping them to fulfill the procedures for international business for a reasonable fee.
- Though the power shortage restricts the production activities, on the contrary the power shortage brings more new orders and service contracts for Servo stabilizer manufacturing firms.

TO SUM UP

Growth barriers occur beyond the control of the firms. In this study also, there exist many barriers limiting the growth of firms but not in an alarming rate. Hence the firms are required to act quickly to respond to the business changes. The Government of India must provide adequate support to SME firms by establishing appropriate regulatory competitive policy, adequate power and other infrastructure facilities to increase their competitiveness. The banks should provide the needed access to finance and also revamp their formalities and procedures for credit. The SMEs are the strategic thrusts for the future and hence nurturing them is vital for economic growth of India.

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