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Empirical Study of Employment Growth Rate in Small and Medium Enterprises

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Abstract-The focus of study is on the employment growth in relation to number of previous start-ups, entrepreneur's environmental scanning, age of entrepreneur, education, experience, and business life. The research takes into account 131 Small and Medium-size Enterprises (SMEs) from Islamabad and Rawalpindi, in order to analyze the correlation of employment growth. The SMEs were visited randomly to get the quantitative data from the entrepreneurs. The paper applies statistical tools on the information received and analyzes the results owing to the employment growth. The results of the study suggest that entrepreneurs total year of experience, entrepreneur's environmental scanning and age of entrepreneur has significantly strong relationship with employment growth.

I. Introduction

The small and medium industries have played very important role in the economy of Pakistan. The government has declared this sector as one of the four major drivers of growth. There has been consensus among the economists and policy makers that the foundations of industrialization can not be made and established without the efficient network of small and medium enterprises (SMEs). It fosters entrepreneurial culture and provides resilience in the economy against global economic fluctuations. Small and medium businesses and industry have several contributions to make: labor intensive and mostly self proprietary, relatively better levels of efficiency and better income distributions, has a strong socio-economic imperative for the country and disseminates widely the benefits of economic growth, has much stronger domestic linkages and is particularly useful in the diversification of the industrial structure. (Nishar 2000 and Hasan 2002)

The small and medium industries have a critical role in the economy of Pakistan. The government has declared this sector as one of the four major drivers of growth. Government has taken few good steps to solve the problems of small and medium sector in order to expand this sector. The health of the economy of any country particularly of Pakistan requires the birth of SMEs in substantial numbers and growth of some to a position where they are able to challenge the existing leaders of industry. This seed bed function appears to be a vital contribution of SMEs to the long run health of economy. They serve as a productive outlet for enterprising and support independent individuals for self employment, are the most efficient form of business organizations in some industries or markets where the optimum size of the productive unit or sales outlet is small, serve as specialist supplier or sub contractors to large companies, act as competitors to the monopolistic tendencies of large companies, are the innovators of new products, services and the processes, are the breeding ground for the new industries and the seed bed from which the tomorrow's large companies will grow, providing entry points for the entrepreneurial talent who will become the industrial captain of the future and provide an excellent opportunity for employment and especially for self employment.

Government has taken few good steps to solve the problems of small and medium sector in order to expand this sector. To develop the SMEs in Pakistan, small and medium enterprises development authority (SMEDA) was created in October 1998 as an autonomous corporate body at the federal level with the Prime Minister as its head. The terms of reference of SMEDA are that it will be the apex policy making body for SMEs provide and facilitate services generating massive employment opportunities and drive industrial growth and kick start the economy through aggressive launch of SMEs supporting program.

A small firm has certain characteristics, which distinguishes it from a big business. Whilst this is undoubtedly true, it is hard to define characteristics in practice, and even harder to draw a precise line between small and medium and large businesses. The cause of the problem is clear: Small firms are very diverse group of business units. However, the small firms have essential characteristics. There are: Its own owner(s) manages a small firm in a personalized way. It has a relatively small share of the market in economic terms. It is independent in the sense that it does not form part of a large enterprise and its ownership is relatively free from outside the control in its principal decisions. According to State Bank of Pakistan (SME Prudential Regulations) an entity , ideally not being a public limited company, which does not employee more than 250 persons (manufacturing) and 50 persons

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(trade/services) and also fulfills 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.

II. Literature Review

In a free economy the importance of small business as a major job supplier, innovator and source of growth is widely recognized (Lussier and Pfeifer 2001). The national environment for entrepreneurship in Pakistan, like many other countries, is shaped by large number of actors and institutions, including central government ministries, regional and local administrations, and financial institutions. (Organization for Economic Cooperation and Development, 1999). Small and entrepreneurial firms have been a focal point for both policy making and research during the 1990s. The attention to governance and boards in small firms is also receiving considerable and growing attention in research and practice (Gabrielsson and Huse 2002).

Small and medium enterprises (SMEs) play a key role in generating employment, promoting innovation, generating competition and creating economic wealth (Sengenberger, Loveman and Priore 1990). Small firms have contributed disproportionately to economic growth but have received scant research attention. These firms have historically evidenced greater employment growth than their large, established counterparts (Birch 1987). Empirical evidence has shown that only a small proportion of businesses has the potential for significant wealth creation and job generation (Storey et al. 1987; Reynolds 1987; Storey and Johnson 1987b). On the other hand a study of labor turnover (usually high) in small firms reported that only 14% of the sample firms were free of this malady (Rao 1993). Whereas small and medium-sized enterprises play a key role in generating employment, promoting innovation, engendering competition and creating economic wealth (Sengenberger, Loveman, and Priore (1990).

Business survival has been found to be associated with the main industrial activity of a business, business age and the location of a business (Storey, 1994). An extensive body of academic literature is concerned with factors influencing the performance of small firms. Gibbs and Davies (1990) suggested that majority of this research can be classified under four major headings; (i) Entrepreneurial personality (ii) Organizational development (iii) Functional management skills and (iv) Sectoral Economics. Penrose (1959) recognized that the absence of given resources could limit the growth of that firm while the presence of given resources could promote growth in such firms. Small firm growth has also been described as a staged process by some researchers (Gartner 1985; Reynolds and Miller 1988; Reynolds, storey, and Westhead 1994). Kazanjian (1988) suggest that the firm growth occurs in stages at the level of the firm. Kazanjian identifies the following generic sequence: (i) Conception and development during which resources are acquired and technology developed. (ii) Commercialization which involves production related to start-up. (iii) Growth , during which sales and market share are developed ,which influences organizational arrangements; and (iv) Stability which is characterized by profitability, internal control and establishment of a base for future growth.

Growth is nearly universal goal of firms (Dalton and Kesner 1985). Consequently, it has received widespread attention by researchers (Weinzimmer, Nystrom and Freeman 1998). Although as many as one-half of the owners of new firms seeks growth (Blatt 1993). The smallest of firms lack both the efficiencies and economics of scale of larger SMEs and big business (Bates 1989; Cromie 1990). In an investigation into the reasons why some SMEs grow and others don't, Hay concludes that "over the long term it is internal rather than external barriers to growth that exert the decisive influence upon SMEs rate of growth. The key internal growth constraint is managerial capacity and the unwillingness on the part of owner-managers to incur the risks associated with growth (1994. P228)." Literature in industrial economics typically views owner-managed firms as being equally if not more likely to pursue growth oriented policies than management controlled companies."(Hay and Morris 1991). Some other researchers have also worked on determining observable differences in the company size, performance, and the owner-managers' expressed desire for growth (Birley & Westhead). In the analysis of the growth of business firm, the most important part is played by the assumption that there exists certain "cost of growth" which prevents firms moving instantaneously to any desired size (Williamson 1966). Hymer and Pashigan (1962) find that growth rate and size of firm are not related. Summary of their results includes; (i) In larger number of industries size distribution of firm is J-shaped i.e., few large and several very small firms. (ii) Probability of firms growing at an x% rate is independent of the size i.e., the probability for the growth is same for large and small firms. Wijewardena and Cooray (1995) revealed that relatively bigger firms in a small-scale sector achieved better performance and growth. Almus and Nerlinger (1999) used multiple regressions to examine high- technology firms in Germany and found that older firms have lesser growth rates. Wijewardena and Tibbits (1999) used data from Australia in a multivariate analysis and found that older firms grow

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less rapidly than younger firms. Phillips and Kirchhoff (1989) reported descriptive statistics that show survival rates of newly formed firms vary by industrial sector.

The study conducted by Orser, Hogarth-Scott and Riding (2000) to expand Penroses's (1957) concepts of managerial capacity and links it to the firm growth. They investigated about the problems that are confronted by owners and managers at different stages in business development. It was found that the severity of managerial problems varies by firm attributes, including size and lack of financial expertise were particular problems for smaller (micro) operations. Storey (1994) studied that local environmental characteristics were assumed to affect the growth of a firm. The decision to start a firm is a decision to invest in the firm's local environment and the features of the action, environment conditions and the firm's strategies. The results showed that firm's location affects its survival, but not its growth rate (Almus and Nerlinge 1999).

As compared to larger businesses smaller businesses possess shallow management, often with low experience and training ; they are usually undiversified , one product firm; they are sometimes new businesses with little track record , and poor financial recording they may have a new unproven product. There is evidence, that limited managerial time and resources constrain firm's growth or its capacity to respond proactively to environmental changes (Gibb and Scott 1985). Steiner and Solem (1988) found that managerial experience and prior experience in a similar or the same type of business were strongly related to success.

Storey (1994) provides an overview of the many factors considered by researchers prior to 1994 and concludes that empirical research shows that age is inversely related to growth, that is older firms grow more slowly than younger firms. The effect of firm's location on growth rate and survival was also observed by Storey (1994). Demographic variables (such as age, gender or location) according to the literature could be assumed to influence entry into entrepreneurship (Brockhaus et al, 1982; Cooper and Gascon, 1992). Age and education have been positively related to firm performance (Birley and Norburn 1987). In addition to industry experience; it has been shown that total years of entrepreneurial experience and number of previous start-ups contribute to future success as an entrepreneur (Lamont 1972; Ronstadt 1988).

On the basis of literature review the following hypothesis are developed. The first five hypotheses (Hl through H5) deal with the entrepreneur's background. Hypothesis 6 deals with the entrepreneur's environmental scanning practices.

Hl: The entrepreneur's number of previous start-ups is positively correlated with firm
Performance

H2: The entrepreneur's number of years as an entrepreneur (or member of the management team of an entrepreneurial firm) is positively correlated with firm performance.

H3: The entrepreneur's years of formal education are positively correlated with firm
Performance

H4: The entrepreneur's age at founding is inversely correlated with firm performance.

H5: The entrepreneur's years of industry experience prior to founding is positively correlated with firm performance.

H6: The comprehensiveness of the entrepreneur's environmental scanning is positivelycorrelated with firm performance

This study measures the relationship between entrepreneurial performance (proxy as growth in number of employees which is an indication as expansion in business over the years) and different factors related to entrepreneurial business that is age of entrepreneurial at time of start up of business, years of formal education, years of industry experience, years of entrepreneurial experience and number of previous start-ups, environmental scanning behavior. On the basis of these variables we tested the above-mentioned hypothesis. The first five hypotheses (Hl through H5) deal with the entrepreneur's background. Hypothesis 6 deals with the entrepreneur's environmental scanning practices.

III. Data Collection and Research Methodology

Sample consisted of 250 organization and only 131 organizations responded fromSMEs in Rawalpindi and Islamabad. Overall response rate was app 53%. Non-probability convenience sampling technique was adopted. The SMEs were visited randomly by the researchers and got the questionnaire filled by the entrepreneurs. The questions were carefully worded to avoid misinterpretation. Technical terms were also explained in simple language. This study is inspired from the work done by Thomas M. Box, Larry R. Watts and Robert D. Hisrich in manufacturing industry in America. Pearson correlation was applied and results were analyzed in a very logical form in order to avoid any ambiguity. Correlations among different variables as age of entrepreneur, years of formal educations, years of industry experience, years of entrepreneurial experience, number of previous start ups and entrepreneur's environmental scanning is calculated with that of entrepreneurial performance (proxy as growth in number of employees which is an indication as expansion in business over the years). All the data was typed into software package SPSS.

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The following table shows the variables and their expected relationship with entrepreneurial performance along with justifications developed on the basis of literature review (insert Table 1):

IV. Results and Discussion

This empirical study showed that organization performance did not correlate with industrial experience, education of the entrepreneur and number of previous start-ups. It had very weak association with entrepreneur's years of experience, weak association with entrepreneur's environmental scanning and had a strong positive association with age of entrepreneur. Education of entrepreneur had no association with any of the other entrepreneurial factors. Similarly entrepreneur's number of previous start-ups had weak negative association with entrepreneur's industrial experience. Entrepreneur's total years of experience had strong positive association with his industrial experience and environmental scanning. Finally age of the entrepreneur had weak positive association with industrial experience and strong positive correlation with environmental scanning. (insert Table 2)

The result showed that organization performance had very weak association with entrepreneur's years of experience and weak association with entrepreneur's environmental scanning. The reason may be that number of employees and their growth may not or slightly depend on entrepreneur's total experiences. On the other hand increase in the number of employees is one indicator of firm's performance. Better environmental scanning can also results in decrease in the number of employees but increase in financial assets, overall profitability or better startups.

Organization performance has a strong positive association with age of entrepreneur. The reasons may be that at early ages, entrepreneurs may have comparatively more industry and overall experience, may have tasted the exposure of different start ups and have more environmental scanning. And consequently these all things may lead to overall organizational performance. Thus one can say that in Pakistan, age of the entrepreneur can have strong positive association with the employment growth rate of the organization. Another interesting result is that education and number of startups has no association with other entrepreneurial factors that are part of the research except correlation of number of previous start ups and industrial experience that is weak negative. In other words, results show that education and number of previous start ups may or may not matter to have impact on environmental scanning, experience and employment growth rate. To put into a nutshell better environmental scanning and old age of the entrepreneurs can result in better organizational performance when measures in terms of employment growth rate. Last but not least one can say that although the coefficients of correlations are weak but the directions may help the policy makers to plan for and to promote SMEs in Pakistan.

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Factors	Expected Relationship	Explanation
AGE (Age of entrepreneur)	Strong Positive	Maturity of mind plays an important role in taking business decisions. A mature person take rational decisions which lead toward business success
EDUC (Years of formal education)	Strong positive	Educated person can better perceive and relate the things with reference to the context while taking business decisions Hence there is better chance towards success of business.
INDEXP (Years of industry experience)	Strong Positive	Knowledge of Industry norms and practice are blessing. Through this knowledge an entrepreneur can better attract the clients hence grow the business
ENTP_YRS (Years of entrepreneurial experience)	Positive	The higher the number of entrepreneurial Previous experiences the sound base he would have. Hence there is better chance towards success of business.
STARTS (Number of previous start-ups)	Negative	This factor shows the entrepreneur opens up new branches of business to be run independently instead of expanding the existing ones
SCAN (Entrepreneur's environmental scanning)	Positive	If an entrepreneur comprehensively scan the environment the chance of growth of business increases

Table 1: Hypothetical Factors that correlates Firm Performance (Employment Growth Rate)

	Growth	*SCAN*	*INDEXP*	*AGE*	*EDUC*	*ENTP_YRS*	*STARTS*
Growth	1						
SCAN	0.44934	1					
INDEXP	0.02453	0.23042	1				
AGE	0.62683	0.72084	0.336511	1			
EDUC	-0.06445	-0.02078	-0.00056	-0.13051	1		
ENTP_YRS	0.23415	0.624294	0.654358	0.138739	-0.0099	1	
STARTS	-0.08765	0.074581	-0.35165	-0.0142	-0.0237	-0.0988	1

Table 2: Correlation Matrix of Employment Growth Rate and Hypothetical Entrepreneurial Factors

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