Are Small and Medium Enterprises (SMES) in Lahore Failing at the Rate Suggested in Prior Studies? An Analysis of the Degree of Financial Stress on Small and Medium Enterprises and its Impact on their Life Expectancy

Mir Salim Ullah, Nasir Bin Naimi and Rosylin Binti Md Yusoff
Islamic Business School, OYA Graduate School of Business,
Universiti Utara Malaysia, 06010 Sintok, Kedah, Malaysia

Abstract: Globally, Small and Medium Enterprises (SMEs) are considered to be financially stressed. According to SME Development Authority (SMEDA) financial stress causes 80-90% of Pakistani startups to fail within 4 years. This study examines the under-investigated area of SMEs' failure rate triggered by financial stress. It is based on primary data obtained from responses of 433 SMEs randomly selected from market committees' lists. The study found that ninety per cent of the surveyed entrepreneurs obtain finances from up to four Rotating Savings and Credit Associations (ROSCAs) each. Respondents consider issues like defaulted customers, competition and electricity to be more impacting than lack of access to finance. High failure rate is not detectable in any age group. Islamic and commercial banks can consider these findings and develop innovative instruments that emulate ROSCA financing. This will help increase their share in this market.

Key words: SMEs, banks, ROSCAs, entrepreneur, finance failure

INTRODUCTION

The economic backbone of Pakistan are its 3.2 million SMEs (Aysan *et al.*, 2016; Ghosh and Srinivasan, 2014). Globally, banks prefer to finance larger account holders. SMEs that have been unable to accumulate internal reserves (retained earnings) and do not have access to external financing are financially stressed. Their vulnerability to financial crises is high. This is reflected in a reduction in their life expectancy. Even in developed economies 80-90% start-ups are reported to fail within the first 2 years (Ahmad *et al.*, 2010; Zimmerer and Scarborough, 2008). Other researchers also maintain that financial stress leads to a large number of failures among start-up SMEs that are 5 years or younger (Reynolds and Lancaster, 2006; Berger and Udell, 2002). Banks hesitate to finance enterprises of uncertain future.

SMEDA asserts that 80% of Pakistani SMEs fail within the first 4 years and that only one in 20 is in existence after 25 years. This failure rate is unsustainable. Pakistani banks use these findings as guidelines for their financing policies. Consequently while the share of small and medium account holders in the country's deposit base has risen from 59.9% in 2007 to 65% in 2011, their share in the country's total loan portfolio has reduced from 32.3-22.1 %. It reduced even further from 11.8% in 2011-6.26% in 2014.

Contradictions can be noticed. On the one hand the SMEs' share of the total loan portfolio is reducing and is presently only 6.26%. On the other hand their share in the aggregate deposit base is increasing. The sector's disposable (deposit-able) income is growing in spite of a reduction in their share of the (formal) credit base. The increase in their share of the country's deposit base indicates the SMEs are not financially stressed. It also indicates the SMEs are probably not failing at the rates indicated in SMEDA's report.

A number of factors impede SMEs' access to formal finance. These include their inability to arrange adequate Collateral and their informal manner of maintaining accounts (Ahmed *et al.*, 2015). SMEs that maintain their accounts informally tend to fare poorly in statement-based scoring when the enterprise applies for formal financing. Pakistani banks tend to maintain an arm's length relationship with SMEs. An outcome of this is a progressive reduction in the volume of formal finances received by the SMEs over the years.

This low rate of sharing in the credit base and the suggested rate of failure portray a situation that is catastrophic for the economy and is untenable. It solicits verification. Despite its importance the sector has not attracted scholarly attention in Pakistan. The major objective behind conducting this study is to ascertain whether SMEs actually fail at the rate determined by prior

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research. The study will also determine the SMEs' own assessment of ranking of lack of access to formal finance as a problem as compared to other impediments to business.

The following research objective was defined with a view to resolving this issue. To assess whether (start-up) SMEs' failure rate is consistent with that reported by prior studies.

Literature review: In order to formulate policies that help promote the SME sector it is essential our understanding of the extent and causes of failure be enhanced. Investigation into the causes of failure are made difficult by the fact that while owners-managers of functioning SMEs can be interviewed those of failed enterprises tend to relocate after the episode of failure. Tracing and identifying ex-owners/managers who failed in their business is resource consuming (Liao, 2004; Bruno *et al.*, 1987). Homogenous samples are hard to find. Business failure is associated with social stigma in Pakistan. It is difficult to obtain factual feedback from entrepreneurs who have experienced business failure. Consequently relatively fewer primary data based studies expound upon the causes and mechanism of enterprise failure especially in Pakistan.

SMEs are commercial enterprises and need resources for gestation, running and for growth. These include time, finance and human resources (Jun and Cai, 2003). Lack of access to any of these resources can cause the enterprise to be stressed. If it is intense enough, the stress can lead to demise of the enterprise. Although the failure of a single SME has serious social and financial consequences for the stakeholders, the event is not considered significant enough to attract scholarly attention. On the other hand, en-masse failure of SMEs is a predictor of impending crisis and merits serious investigation.

Classification of failure: Viewed from a broader perspective, several factors can impact the performance of an SME. Some of these are dependent on the nature of the enterprise itself and are classed as internal. External factors are those that are linked to the business environment. Access to finance can be classified among both domains. Being dependent on the enterprise' ability to organize collateral and the size of its retained earnings, it is an internal factor. Since, it also depends on banks' policy of financing SMEs, it is external.

Access to finance, financial stress: Studies show that access to finance is an important factor that significantly impacts SMEs' performance. Lack of access to finance ranks high among impediments to SMEs in a number of studies (Cassar, 2004).

Finance can be obtained from "internal" resources such as the entrepreneur's own savings, relatives etc. They can also be obtained from "external" sources such as banks, ROSCAs etc. Bank finances may be unavailable to SMEs for a number of reasons (Bartlett and Bukvic, 2001).

Bankers perceive a higher level of risk when processing requests for financing from SMEs. Consequently they adopt the "arms-length" approach when processing applications for finance from SMEs as compared to "relationship" lending with larger firms (Pretorius and Shaw, 2004). Greater collateral is demanded from SMEs to offset information symmetry. SMEs that are unable to muster adequate collateral are handicapped. Evidence from Bulgaria indicates that the collateral requirements for borrowers ranges from 125-300% of the credit extended. Even then the loans are short-term and extend from 1-2 years only (Morris *et al.*, 2001). These terms and conditions indicate that banks do not invest in the long-term future of SMEs (Bartlett and Bukvic, 2001).

Additionally, the cost to banks for processing SME loans is proportionately higher than it is for larger loans to large enterprises. This raises the cost of financing for SMEs. Entrepreneurs in Slovenia consider the high cost of finance to be the most challenging impediment to formal financing (Bartlett and Bukvic, 2001).

Lack of access to finance is a major impediment for the South African entrepreneur. It is the most significant contributor to failure, after training and education. FinMark Trust finds that only 2% of new SMEs in South Africa are able to access bank loans. Foxcroft find that 75% of applications for bank credit by new SMEs in South Africa are rejected. This suggests that new SMEs lack financial support and may expect imminent failure.

A large body of literature suggests that even in developed economies money markets are restrictive for SMEs (Bridge and ONeill, 2012; Beaver, 2002; Chilosi, 2001).

Some external factors also have attracted scholarly attention. There is a large body of literature that subscribes to the opinion that excessive regulation as well as heavy taxation lead to increased incidences of business failure. It is similarly found that a decrease in money supply and reduction of bank financing lead to an increase in failures (Burns, 2010; Oparanma *et al.*, 2010; Liao *et al.*, 2008; Gaskill *et al.*, 1993).

Table 1: Deposits and loans, all banks, according to class of depositors on 31 December 2007

| | | | Loans | |
| | | | -- | |
Class of depositor (Rs.)	Deposits made by class (Rs. millions)	Loans (Rs. millions)	As % of deposits	As % of total loans
Up to 100,000	634,965.8	163,231.8	25.70	6.25
100,000-1,000,000	920,466.2	334,358.6	36.30	12.80
1,000,000-10,000,000	560,175.8	347,167.4	61.97	13.30
Total small medium	2,115,607.8	844,757.8	39.90	32.30
Over 10,000,000	1,418,897.0	1,768,446.9	124.60	67.70
Grand total	3,534,504.8	2,613,204.7	73.90	100.00

State Bank of Pakistan (SBP), Table 3. Advances by class of depositor as on 31 December 2007; State Bank of Pakistan, statistical tables

Table 2: Deposits and loans, all banks, according to class of depositors on 30 June 2011

| | | | Loans | |
| | | | -- | |
Class of depositor (Rs.)	Deposits made by class (Rs. millions)	Loans (Rs. millions)	As % of deposits	As % of total loans
Up to 100,000.	791,683.9	83,006.7	10.48	2.5
100,000 - 1,000,000	1,806,440.0	303,557.6	16.8	9.2
1,000,000 - 10,000,000	967,460.5	344,491.3	35.6	10.4
Total small and medium accounts	3,565,584.4	731,055.6	20.5	22.1
Over 10,000,000	1,923,730.6	2,579,766.5	134.1	77.9
Grand Total	5,489,315.0	3,310,822.1	60.3	100

State Bank of Pakistan (SBP), Table 2. Advances by class of depositor as on 30 June 2011 and SBP (2010); SMEs 11.8; SBP, 2010

Beck *et al.* (2011) carried out a monumental study of the state of financing of SMEs in 48 countries. They conclude that SMEs with restricted financial reserves and operating in countries with under-developed legal and financial systems tended to rely more on informal sources of finance than they did on banks. Internationally, nascent SMEs whose seed finances are obtained as loans from friends and relatives or from formal sources consider the difficulty of access to finance as the most significant constraint to their growth (Skinner, 2005; Rogerson, 2001, 2008).

It is not only uncontrollable financial stress, excessive regulation, heavy taxation or decreased money supply that can cause demise of a firm. Bankruptcy of upstream or downstream partners can also adversely affect a financially secure enterprise (Wu, 2010).

Situation of SME financing in Pakistan and trend: As on 31 December 2007, the small and medium account holders had contributed 60 per cent of the deposits in the scheduled banks. Only 32.3% of the total loan portfolio was extended to this class of accounts holders. Also, only 39.9% of their total deposits had been returned to them as loans. On the other hand, the share of the large account holders in the total deposit base was only 40%. Yet, this class obtained 67.7% of the total loan portfolio. Additionally, the loans this class obtained were 124.6% of their deposits (Table 1).

At the end of 2008, the total outstanding credit in favor of SMEs Rs.383 billion. Nearly 70.9% of this had been taken for short-term (up to one year) loans. The share of medium-term loans (up to 3 years) was 10.1%.

At the close of Financial Year 2011-2012, the total SME exposure had reduced to Rs.247.9 Billion. The loans were for short term only and indicate increasing wariness by banks to participate in the long-term investment with SMEs.

The situation shown above represents a growing trend among commercial banks to adopt relationship lending with larger account holders. It can be confirmed by comparison with the state of financing at the end of financial year 2011 (Table 2). The share of small and medium account holders in the total loan portfolio has reduced from 32.3% in 2007-22.1% in 2011.

On 30 June 2011 the share of small and medium account holders in the total bank deposits had risen to 66%. Despite this, a reduction occurred in their share of the loan portfolio from 32.3% in 2007-22.1% on 30 June 2011 (SMEs' share amounted to 11.8% of the total.) The larger account holders obtained nearly 78% of the loans while they contributed only 33% of the total deposits.

The share of SMEs in the loan portfolio reduced to 6.52% by 31 December 2013 and to 6.26% by 31 December 2014. The current situation of SME financing is dismal Table 3. SMEs in more mature economies also suffer from a trend of reducing shares in the countries' loan portfolios (Table 4).

The State Bank of Pakistan took cognizance of the vital role SMEs played in the economy and employment generation. Targets for macro-economic growth and employment that were to be achieved by 2012 were set. The target for formal SME financing was set to Rs.1000 billion by 2012. It has not been reached. The State of SME financing for the period ending December 2014 can be seen from Table 5. It can be seen that the share of SME financing as a percentage of the total loan portfolio of the country has reduced to 6.26%.

Table 3: Trends in formal financing of SMEs in Pakistan, share of SME financing in total loan portfolio

	Period			
Total amount	2007	2011	2013	2014
Small and medium account holders' share in total deposits	59.8	64.9		
Loans as percentage of class deposits	39.9	20.5		
Loans as percentage of total loans	32.3	22.1	6.52	6.26

SMEs 11.8; SBP 2010

Table 4: Share of SME loans as percentage of total business loans

Country	2007	2011
Hungary	62.4	54.4
Korea	86.8	77.7
Switzerland	81.4	79.0
United States	30.1	26.5
Pakistan	32.3	22.1 (11.8)

Recent trends in SME and entrepreneurship finance; OECD extract (2013)

Table 5: SME financing profile of banks, (2013, 2014)

Category	Period ending	
(Amount in billion Rs.)	Dec. 2013	Dec. 2014
Outstanding SME financing	272.53	287.88
Total financing	4181.94	4599.46
SME financing as of total financing (%)	6.52	6.26

Table 1; State Bank of Pakistan, quarterly SME finance review as of December, 2014

SME failure rate: Many researchers maintain the opinion that a high percentage of start-up SMEs fail within their first five years, often as a result of financial stress (Berger and Udell, 2002; Reynolds and Lancaster, 2006).

South Africa has a failure rate of 80% of enterprises in the SME sector (Smit and Watkins, 2012). Nearly 60% of start-up SMEs in Zimbabwe exit within their first year while 25% do not survive beyond their first 3 years. Only 15% are expected to survive their 4 years or beyond. This means that the mortality rate in the SME sector of Zimbabwe is 85% within the first 3 years (Mudavanhu, 2011).

Global entrepreneurship monitor annual report shows significant differences in rates of failures of SMEs between countries. Factor-driven economies indicate a higher rate than innovation-driven economies. This is explained by the ease of accessing finance in the latter. Uganda reported failure rate as high as 24% of all start-ups and Angola functions at a rate of 23%. Additionally, efficiency-driven economies tend to have higher failure rates than innovation-driven economies. This is the result of businesses there operating at narrower profit margins and depending on economies of scale for turning a profit. Innovation-driven economies experience the lowest failure rates. The average global rate is 4.9%. Denmark and Italy, both innovation-driven have rates of 1.1%.

Sme failure rate in Pakistan: In Pakistan the institution of micro-finance is available for providing monetary support to destitute families for poverty alleviation. It has attracted considerable scholarly attention in Pakistan as it has done across the world. Formal financial assistance to SMEs has not been addressed and it has not attracted significant attention of researchers.

SME Development Authority (SMEDA) of Pakistan has researched the question of SMEs' financing and their life expectancy. SMEDA maintains that, as a sector, SMEs are struggling to survive. Sixteen out of every twenty start-ups (80%), exit within the first four years. Only one out of the twenty survives for 25 or more years. This opinion of SMEDA has been incorporated in to their financing policy by scheduled commercial banks. The consequences are reflected in the disproportionately small share of SMEs in the country's formal loan portfolio.

Life expectancy of Pakistani SMEs was examined by Ullah. They report that 90-95% of SMEs in Pakistan fail due to financial distress during the first two years of operation. According to these researchers, Pakistani SMEs are undergoing a financial crisis. It is one of the aims of this research to verify how closely these opinions reflect the situation on the ground.

MATERIALS AND METHODS

The study was carried out in the industrial city of Lahore. This city contributes almost 14% to Pakistan's economy. The target population consisted of cloth wholesalers at Azam Cloth Market, machinery wholesalers at Bull Road, electronic, general merchants and others across Lahore, electrical and computer markets at Hall Road, Shah Alam and Hafeez Center markets. The gold market at Liberty Market was also surveyed.

A questionnaire bearing 119 questions was administered to the respondents. It had been modified after a pilot survey and interviews of a small number of respondents. Initially, 67 copies were distributed to some respondents and they were asked to fill their responses themselves. The completed responses were found to be unsuitable for inclusion in the dataset. The remaining respondents were administered the questionnaire by this researcher and completed on the spot. The dataset is based on the responses of 433 respondents.

The data was processed using Microsoft Excel. It was later imported in to IBM SPSS 21 and ANOVA for further processing. The value addition using SPSS and ANOVA was found to be insignificant. Excel-processed data is considered useful enough for this article.

The study explores the sources of finance that the SMEs access to provide for their seeding, maintenance and growth needs. The relative share of each of these sources is examined. The relationships between the SMEs and these sources of finance are also considered. The study ascertains the opinions of the entrepreneurs about the sources of finance they would prefer to access in future. It explores the extent of financial stress on the SMEs by observing their ability to withdraw funds from their working capital in order to invest in ROSCAs. Lastly, the study attempts to identify the existence of indications of failure or exit among SMEs of different age groups. These questions are addressed quantitatively.

SMEs form the sampling units. While they form the units of analyses in most cases, they are sometimes aggregated together according to their years in business. For example, SMEs that are 4 years or younger are grouped together while those with 5-10 years in business are grouped separately and so on. This methodology is adopted to test the assertion of SMEDA that 80% of start-up SMEs fail within the first 4 years. This same aggregation is continued when exploring the degree of financial stress experienced by start-ups as compared to those of other age groups.

RESULTS AND DISCUSSION

Demographics: A total of 39 business sectors are included in the survey (Table 6). General merchants provide only 2.54% of the responses while entrepreneurs operating in the electrical sector provide 19.17%. They are followed by entrepreneurs of the textile and garments sector at 15% and textile wholesalers at 14%. These three sectors together generate almost 48.5% of the survey dataset.

Distribution of respondents' ages: Entrepreneurs who are 30 years old or younger operate 91 SMEs (21% of the sampled population). The highest frequency is of respondents of ages ranging 31-40 years (115 SMEs, 26.6 % of the total). Seventy nine SMEs are managed by entrepreneurs in the age group 41-50 (18.2 % of total). Total 38 of the SMEs are owned by entrepreneurs in the age group 51-60 (8.8% of the total). There are only 12 entrepreneurs (2.8% of the total) older than 60 (Table 7). Years in business Table 8 tabulates the SMEs' years in business. The enterprises are organized according to the period they have operated for. This is done to assist verification to the stance maintained by earlier researchers that a high percentage of start-ups fail within the first 5 years. This grouping also assists in detecting whether or not the SMEs tend to fail after operating for a certain number of years. The groups are <5 years, 5-10, 11-15, 16-20 and >20 years.

Table 6: Number of Samples collected business sector wise

Respondents' categories	(N = 433) Frequencies	Percentage
Electrical	83	19.17
Textile retail, garments	65	15.01
Textile wholesale	62	14.32
Car dealers	39	9.01
Construction	21	4.85
Machinery	18	4.16
Food	16	3.70
Crockery	13	3.00
Jewelers	13	3.00
Paper	12	2.77
General merchants	11	2.54
Remaining 27 categories	80	18.47
Total	433	100.00

Table 7: Respondents' ages

Respondents' categories (years)	(N = 433) Frequencies	Percentage
Up to 30	91	21.00
31-40	115	26.60
41-50	79	18.20
51-60	38	8.80
Greater than 60	12	2.80
Not responded	98	22.60
Minimum age	19	
Maximum age	75	
Average age	38.8	

Table 8: Enterprises' years in business

Years in business	(N = 433) Frequencies	Percentage
<5	81	18.7
5-10	98	22.6
11-15	94	21.7
16-20	127	29.4
> 20	33	7.6

Table 9: Education levels of respondents

Education levels	(N = 433) Frequencies	Percentage
Intermediate	143	33.00
Graduate	113	26.10
High school	90	20.79
Middle school or less	66	15.24
No response (primary school)	11	2.54
Masters	10	2.31

The lowest frequency is that of SMEs that have operating life that exceeded 20 years. These are 33 in number or 7.6% of the total. The next less frequent group are start-ups who have been in business for <5 years. These are 81 (18.7% of the total). The remaining three age groups are almost equally divided.

Respondents' educational levels: The highest frequency is 2 years of college education (143, 33% of the total). The next most frequently encountered level (113, 26.1% of the total) is entrepreneurs who have achieved graduation. Some entrepreneurs are found to have Master's degree. Only 11 respondents are found to have received only 4 years of primary education. As a class, the SME owners of Lahore are noticeably better educated than Pakistan's average citizen (Table 9).

Table 10: Bank loans, applied and obtained, based on SME age (%age of group)

SME age	(N = 433) Frequency	Number of SMEs applied within last 12 months (% of group)		Obtained loan within last 5 years and percentage of applicants	
		Yes	No	Obtained	Percentage
<5	81	9 (11)	72	7	7÷9 = 78
5-10	98	12 (12)	86	11	92
11-15	96	8 (8)	88	11	100
16-19	125	9 (7.2)	116	9	100
20 or more	33	1 (3)	32	2	100
Total	433	39 (9)	394 (91)	40	

Access to formal finance Table 10 tabulates the numbers of SMEs that had applied for and received bank financing, arranged according to their years in business. A number of trends may be observed from the table. Only 78% of start-up enterprise' loan applications were accepted as compared to 92% of those of the next higher-age group and 100% of the remaining three (and older) groups. These finding support to an extent those of earlier studies that banks are wary of investing in start-ups and the latter are more financially stressed. Table 10 also indicates that banks accept 100% of the applications for financing by older SMEs. This high rate of accepting SMEs' loan applications is inconsistent with findings of earlier studies. Earlier studies have found that SMEs' access to formal finance is limited and they have a short life expectancy.

During the last 5 years only 40 out of the 433 surveyed SMEs have obtained bank financing. This indicates that banks have penetrated into an insignificant 9.2% of the SME finance market.

A question arises at this stage. If banks in Lahore sanction up to 100% of the loan applications why do only 9.2% of the SMEs obtain bank financing. There appear to be two explanations for this behavior. Firstly, bank loans may have characteristics that render them undesirable to SME owners. Secondly, some alternate source of financing, one that is more acceptable to SME owners, may be easily available. These explanations are examined next.

Table 11 shows the frequency distribution of the reasons why the entrepreneurs avoid obtaining bank loans. The reason cited by an overwhelming majority of the entrepreneurs (314, 79.9% of 433) is the inclusion of Interest in the loan covenant.

ROSCA financing: Table 12 hints at another reason why SME owners prefer not to access banks for financing. A majority (386 or 89.1% of 433) of the SMEs retain membership in ROSCAs. While 234 (60%) participated in one ROSCA only, 40 % participate in up to 4. These 386 ROSCAs have 628 memberships in ROSCAs indicating an average membership of 1.6 ROSCAs per SME. This indicates the greater acceptance of ROSCAs as a source of finance as compared to banks.

Table 11: Reasons for not applying for a bank loan within the past 5 years
Why did you not apply for a bank loan?

Feared rejection	Have sufficient retained reserves	Involvement of interest	Complicated documentation	No. of SMEs that did not apply for bank loan
17	49	314	13	393

Table 12: Participation in single and in multiple ROSCAs

	Member of (how many) ROSCAs							
	1	2	3	4	5	6	Total	Nil
Respondents who are	234	94	33	20	3	2	386	47
Total ROSCAs they are member of	234	188	99	80	15	12	628	

Grand total: 628 (max possible no. of ROSCAs); ÷20, members per ROSCA; 32 (min possible no. of ROSCAs); ROSCAs per respondent = 628÷386≈1.6

Table 13: If you need external financing to realize your growth ambitions, state the type of financing would you prefer most

Internal	Bank	Friends	Money-lender	ROSCA
Percent of 433				
36	20.00	49.00	1.00	327.00
8.31	4.62	11.32	0.23	75.52

ROSCAs have penetrated in to 90% of the SME finance market and have nearly completely replaced commercial banking sector for this purpose. It may be said that a majority of SMEs do not obtain bank financing, not because banks reject their applications but because the SMEs prefer not to deal with banks.

Preferred source of finance: The respondents were queried about their preference for a source if need arose for external financing. Their responses are given in Table 13. An overwhelming majority say they would prefer ROSCAs as a source of external finance. Only 20 say they would approach a bank. It is pointed out that 40 respondents have experience of obtaining bank loans.

Financial stress Table 14 shows the investments made in ROSCAs by SMEs of different age groups. It also suggests the volume of finance that ROSCAs can afford to withdraw from their working capital for investment in ROSCAs.

Even start-up SMEs retain the resources and the inclination to acquire membership in up to four

Table 14: Contribution to ROSCAs, based on age groups, (rupees in millions)

SME age (years)	SMEs No.	ROSCA Yes?	Pot sizes for ROSCAs No.				Total pot	Average, Pot Clm 8÷3
			1	2	3	4		
<5	81	75	42.376	16.410	4.720	3.120	66.626	0.888
5-10	98	90	44.180	12.800	5.360	0.300	62.616	0.696
11-15	94	83	63.660	28.176	26.89	1.550	120.276	1.450
16-20	127	102	102.930	41.975	11.31	8.300	164.515	1.613
>20	33	31	28.890	18.450	6.200	0.950	54.490	1.758
	433	381	283.036	119.811	57.08	18.22	468.123	1.228

Ages refer to enterprise' years in business

Table 15: Relative frequency of most pressing problems, expressed as percentages of total of age group

SME age (years)	Total no. of SMEs	Most pressing problem reported (% of row total)				
		Customers	Competition	Access to Finance	Tax dept.	Load shedding
<5	81	17.3	32.1	22.2	5.0	23.5
5-10	98	26.5	33.7	17.3	1.0	21.4
11-15	96	25.5	36.0	14.9	5.3	20.2
16-20	125	25.2	30.7	14.5	4.7	22.8
>20	33	33.3	12.1	18.2	1.2	24.2
	433	25.0	31.4	17.1	4.6	22.2

Ages represent enterprise's years in business; customers referred to defaulting customers

ROSCAs. This suggests that SMEs view ROSCAs as being far more useful than banks. It also suggests that start-ups do not suffer any unusual financial stress. As a group, SMEs younger than five years are able to invest more in ROSCAs (Rs. 66.226 million) than do SMEs of the next higher age group (Rs. 62.616 million). Had banks been the only source of financing available to SMEs and had banks been dis-inclined to finance start-ups, the latter would display symptoms of financial stress. They would have not been able to afford to extract such a large sum from their working capital or to participate in multiple ROSCAs. The average investment of start-ups is Rs. 888000 per month. This compares favorably with the average SME sector investment of Rs. 1228000 per month. This figure assumes 381 SMEs sharing the Rs.468 million. If the five SMEs that are not included are factored in the average reduces to Rs. 1212000. These are the three SMEs that subscribe to five ROSCAs each and the two that subscribe to six ROSCAs each.

In general, SMEs' investment in ROSCAs increases with their years in business. On a per-capita basis the average investment made by the youngest group is Rs. 888,000. Except for a slight reduction in the average value for the next higher age group, the group average increases with their years in business. The average investment made by enterprises older than 20 years is nearly three times as large as that made by those in 5-10 years group. This indicates that enterprises' reliance on ROSCAs and their retained reserves increase with their years in business.

Every month, ROSCAs operated by the 386 enterprises inject Rs. 468 million in to the market. This equates to an investment of Rs. 1212000 per SME per month. Commercial banks generally do not extend so much credit to so many SMEs without Collateral.

Ranking of lack of access to formal finance as a problem: Table 15 shows the enterprises own classification of severity of the problems they encounter. Among the enterprises younger than 5 years, 32.1% report competition as the most serious problem. This is followed by interruptions in supply of Electrical power (23.5%). Lack of access to finance is reported as the most severe problem by only 22.2% of the group. For the start-ups, lack of access to finance ranks as only the third most injurious impediment after competition and interruptions to electrical power supply.

For the next older group of SMEs, those having 5-10 years in business, the ranking of access to finance as a problem is even lower. Only 17.3% of the entrepreneurs regard it as the most severe problem. Competition (33%) (defaulted) customers (26%) followed by interruptions to electrical power supply, are viewed to be more pressing.

This relative ranking of factors that are viewed as injurious to the enterprises is retained for all other age groups as well.

Rate of failure: Population levels of different age groups of the entrepreneurs and SMEs are tabulated in Table 7 and 8. The number of entrepreneurs populating the age group 31-40 years old is more than those in the adjacent younger group (30 years old or younger). This indicates that the once youngest age group (30 years or less) has moved in to the next older age group (31-40 years old) without suffering the massive attrition suggested by Khawaja and SMEDA (2006). If the youngest age group had suffered such massive failures, the size of the next higher group (31-40 years) would have been correspondingly smaller than it actually is. Attrition in any age group would ordinarily have expressed itself, in due course as a corresponding depletion in the ranks of the next higher age group.

This conclusion can be challenged. There is a possibility that failure of SMEs at the rates stated by Khawaja and SMEDA had in fact occurred among the ranks of the youngest entrepreneurs. There is a possibility that the number of entrepreneurs in the next higher age group may possibly have been restored by lateral entry of new-comers in this age group. Whether or not this is a tenable objection can be tested by examining the question from the perspective of ages of the enterprises themselves.

Investigation of age-wise distribution of the enterprises leads to the same conclusions as arrived at earlier. The number of sampled enterprises younger than five years in business is smaller than those aged between 5-10 years. This shows that the youngest SMEs successfully survive their critical five years and become part of the next higher (5-10) age group without experiencing reduction in their ranks. A noticeable reduction in the size of an age group as compared to the immediately preceding one would imply the effect of depletion in the earlier group.

The differences between populations of adjacent groups lies in the range of 5-7% points. This can be ascribed to sampling error. Only the attrition in the age group 20 years or more is noticeable. It may be explained by the aging owners disposing off their business to others. It is possible their children prefer to pursue other means of livelihood.

CONCLUSION

Bank financing The study reveals that, during the past five years, banks have penetrated only 9.2% of the surveyed SME population. As the sampled SMEs' years in business increase, their reliance on bank loans reduces. Almost 84% of the respondents allude to the inclusion of interest as the reason they avoid bank loans. Most respondents clarify that it is the mere presence of interest that deters them and not its rate. Prior studies opine that SMEs are denied bank loans. This study shows SMEs do not ask for bank loans. This is so because SMEs have another and more suitable option available. This option is ROSCAs.

ROSCA financing: Almost 91% of the enterprises obtain their external finance from ROSCAs. The average ROSCA membership rate is 1.6 ROSCAs per enterprise. Even the start-ups participate in up to four ROSCAs. This reflects positively on the popularity of ROSCAs. The average ROSCA investment made by start-ups is Rs. 888000. It rises with increasing age of the enterprises and is Rs. 1758000 for enterprises older than 20 years. The absolute

smallest ROSCA was found to be Rs. 20000 and the largest was Rs. 30 million. The average value for the sector is Rs. 1212000. Rs. 500000 is the most frequently encountered Pot size. Every month the sampled SME market alone receives Rs. 468 million.

Financial stress: Start-ups possess the resources and the motivation to participate in multiple ROSCA. This would be impossible if they are financially stressed and are exiting at the rate stated by prior studies.

Ranking of problems: Entrepreneurs consider lack of access to finance as being less of a problem than competition (defaulted) customers and supply of electrical power.

Rate of failure: Attrition in any age-group of entrepreneurs will be reflected in a corresponding reduction in the size of the next higher group, in due course. The numbers of entrepreneurs is approximately the same in all age groups. This indicates the absence of attrition at the rates suggested in prior studies. Examination of enterprises arranged according to their years in business produces identical results. There is no noticeable reduction in the population levels of the different groups. Evidence acquired from primary data is not consistent with the assertion by SMEDA that SMEs, especially the start-ups are exiting at a catastrophic rate.

Banks have been side-lined as a source of finance and are operating on the periphery. It also indicates the potential of growth possible if banks can effectively penetrate this market.

Contribution to literature and policy: Literature investigating association between Pakistani SMEs, their mode of financing and whether they are flourishing or failing is rare. This study has made a number of quantitative contributions to literature. Firstly, the extent to which banks have penetrated the SME finance market has been quantified. Secondly, it exposes the extent and depth of penetration as well as the rate of contribution that is made by ROSCAs to the SME economy. Thirdly, the study estimates the degree of financial stress on the enterprises. This is achieved by assessing the quantum of reserves which the enterprises can conveniently extract from their working capital for investment in ROSCAs. Fourthly, the study ranks impediments to business according to the experience of the stakeholders. Lastly, the study proceeds to examine the population densities of SMEs in different age groups and estimates the failure rates.

The banking sector is a central component of Pakistan's monetary system. Banks' penetration in to and their share of SME finance market must be increased if the health of Pakistan's economy is to be improved. Banks need to become aware of the characteristics of this market as well as those of their competition, the ROSCAs. Scholarly studies on these subjects are rare. This study makes a contribution to policy formation and to literature by exploring these aspects. The findings can be used by banks to adopt measures that can increase banking sector profitability by enhancing its share of the SME finance market.

Banks can penetrate a large untapped market if they can develop an instrument for financing SMEs that does not include Interest. The banks that can achieve this earliest will have positioned itself advantageously. The "black" or undocumented economy is suspected to be comparable in size to the documented economy. It has been estimated using elements such as electrical power consumption. The volume of finances processed by ROSCAs is a substantial component of the black economy and has not so far been studied. This study has attempted to answer that question. It is hoped this study will provide a firm basis for useful research.

RECOMMENDATIONS

This study was carried out in the city of Lahore. Thirty nine different business sectors were included in the study. It is recommended that future studies be carried out in the city of Faisal Abad and concentrate on the textile manufacturing sector. It is also recommended that other studies be carried out in the much larger city of Karachi. These should focus on separate business sectors.

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