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CRITICAL ANALYSIS AND MODELLING OF SMALL BUSINESS PERFORMANCE (CASE STUDY: SYRIA)

Dr. Rami Alasadi, PhD, MBA*

Dr. Ahmed Abdelrahim, PhD, MBA, MSWE

* Director of BscBA
Abu Dhabi University

INTRODUCTION

The health of small business sector is very important for the overall economic growth potential and future strength of an economy. There has been more written about small business growth in recent years than any other aspect of management. One of the main reasons is the contribution of expanding enterprises to economic development and unemployment reduction, which, generally, has attracted the attention of researchers and policy makers in many countries (Bernice and Meredith,1997).

The existence of a strong small business sector is necessary for the boosting the economy. However, the transition of this sector to medium and large business sectors is as crucial to preserve the flow of new small businesses into the economy. In addition, such transition or growth will further reduce the unemployment rate and increase the number of products or services offered to the society. Hence, growth is considered to be synonymous with success.

While a considerable amount is known about the factors that affect the success of small and medium-sized businesses, this knowledge continues to be imperfect and a large number of questions remain unanswered regarding the small business sector in developing countries (Cook, 2001). Since developing countries are expected to adopt different economic policies and they are occupying different phases of economic development, factors that determine the success of small businesses would vary accordingly. In this study, the attempt is made to investigate factors that might contribute to the success of small businesses in Syria. Additionally, the effort is made in the study to develop success predictive models using several performance measures.

The remainder of the paper is organised as follows. The following section provides a summary of the status of the small business sector in Syria. Related literature will be reviewed in section three. Data collection and models development are described in section four. While the findings are discussed in section five, the conclusion is offered in the final section.

INVESTIGATION OF SMALL BUSINESS IN SYRIA

The nature of the centralized Syrian economy has been a major obstacle to the growth of the private sector, hindering the expansion of the small business environment in Syria. The Syrian authorities have come to realize the importance of decentralizing the economy towards a real market economy by putting effort into encouraging and supporting entrepreneurship among the small business investors. According to Piasecki (1995), private sector development in a centralized economy is extremely critical and vital for a smooth transition to a market economy. However, the development of the private sector could be in different shapes depending on the nature of investment in the Syrian economy. In other words, developing the private sector in any economy could result from either attracting foreign private investment or fostering the development of the small business sector. In spite of the attempts made by the Syrian government to boost the economy, the general political and economic conditions are still volatile. As such, encouraging local investments in the small business sector seems to be a more effective and efficient mean towards the development of the private sector. This strategy has been supported in previous studies as such noted by Yuzbasioglu (1997) who indicated that small businesses have become important elements in policies designed to promote economic regeneration, employment, and growth in many developing economies.

The Syrian economy in particular has witnessed such noticeable contribution of the SME sector in reducing the unemployment rate (Alasadi, 2003). For instance, the Syrian government has to provide almost 200,000 jobs every year, 90,000 of which are secured in the public sector. The private sector provides almost 30,000 jobs mainly in small and medium enterprises in addition to those jobs created as a result of the application of the Investment Promotion Laws (Hamza, 2000). According to the International Labor Organization, both public and private SMEs employ 88 % of the labor-force in Syria. However, private SMEs employ a significantly bigger portion when compared to the public SMEs. Given those political and economical conditions, the private sector in Syria has proved successful, and part of its success comes from the historically strong merchant class in Syria that has survived even harder times (Schemm, 1999).

LITERATURE REVIEW

The fundamental contribution of the small business sector to the overall performance of the economy is indeed a crucial motive for researchers to investigate and examine the key success factors behind this sector. Small businesses face many challenges that hinder their growth or even further cause a permanent shutdown. However, few small businesses are able to overcome those challenges and achieve some rate of growth. The rate of such growth is considerably variable and the key factors behind it require a great deal of investigation. Therefore, it is critical and extremely important to identify and examine these factors that lead small businesses to survive and succeed. A tremendous challenge in studying those success factors is their inconsistent and variable nature and the absence of a well defined standard set of factors across the globe. In other words, these factors could significantly vary form nation to nation and from one business environment to the other due to economical, geographical, and cultural disparities and variations.

As such, the empirical investigation of those factors leading to the success and failure of the small business economy in different nations is a mandatory requisite for a better healthier economic development. The findings of such research are helpful and useful to individual entrepreneurs as well as to economic development planners (Wijewardena & Tibbits, 1999). With the presupposition that there tend to be common underlying factors that are associated with success (Hills and Narayana 1990), many small business studies have been undertaken to identify these success factors in different countries. However, Luk (1996) stated that most of these previous studies were based on the experience of small firms operating either in North America or in European countries. There has been a considerable number of studies ranging from single case studies to comprehensive surveys that explicitly investigated the factors of success of small businesses (see, for example, Bird 1989; Brockhaus and Horwitz 1982; Brockhaus and Horwitz 1986; Gartner 1989; Sandberg 1986; and Vesper 1990). Most of these studies concluded that business success is the result of a web of interacting factors. However, the application and effectiveness of these factors in different countries is still open to investigation.

In this section, the authors intend to review some of the most important studies that investigated small business success and contributed to a large extent to the literature of the small business economy. One such study by Bird's (1989) concluded that small firms with successful performance were characterized by innovation and risk-taking behavior and that small businesses started by a team of partners who had advance training were more likely to achieve successful performance. Duchesneau and Gartner

likelihood of small business success: entrepreneurial characteristics, start-up behavior, and the firm's overall strategy. According to their findings, factors that contributed heavily to successful performance were: prior related experience, an effort to reduce business risk, long working hours, good and clear communication, superior customer service, proper planning, and a flexible, participative, and adaptive organizational culture.

Storey (1994) agreed with Duchesneau and Gartner (1990) that the following three categories of factors primarily have the greatest influence on the growth of small business: (1) The characteristics of the entrepreneur(s)/owner-manager(s), (2) The characteristics of the small firm. (3) The range of business development strategies. These three categories of factors require a homogenous well planned integration to achieve adequate growth. Another important finding of Storey's study stated that there was little evidence to the direct influence of the entrepreneurs' background on the growth of the small business. However, the background of the entrepreneurs had a distinctive valid influence on their perception of the importance of managerial training programs. Storey also found out that the factors associated with growth in the entrepreneur/resources category were motivation, education, partnership, and young to middle age managers.

Barkham, Gudgin, Hart and Hanvey (1996) adopted the methodological framework introduced by Storey (1994) in their study which investigated the success factors behind small business success in the UK between 1986 and 1990. They found that it was the characteristics of the entrepreneur and the business strategies adopted that mainly determined the growth of small firms. Their study concluded that the firms with higher growth rates were those managed by relatively young entrepreneurs who had other business interests, market focus, profit oriented, and were members of professional organizations.

Another important study on small business success in Turkey was introduced by Ahmet (1995) where he measured business performance in terms of size (i.e. number of employees) and sales growth. He categorized success factors to internal and external factors to the small business environment. However, the focus of his study was on the internal factors only, categorizing them into five categories: owner/manager experience, age of firm, production competencies, marketing competencies, management competencies, and business strategy. When size of firm was used as a performance measure, accounting, technology, and purchasing were proved significant influential factors. However, product diversification and financial management appeared as significant factors influencing sales growth as another performance measure to business success. The experience of the owner and the age of the company were not significant factors to explain neither the size of the firm nor sales growth as performance measures.

An empirical study by Lussier (1995) investigated the predictability of small business success. Lussier developed a non-financial model that included 15 factors as independent variables tested for their significance using logistic regression. These factors were: planning, professional advisors, managers' education, staffing, family business ownership, capital, financial control, industry experience, management experience, product/service timing, age of owner, economic timing, partnership business, minority ownership, and marketing skills. Analysis of the results suggested that only the first four factors were significant predictors of success.

Wijewardena and Tibbits (1999) examined a set of firm and industry related factors that affect the growth of small businesses in Australia. The study concluded that older

(2000), in his study on the determinants of small business growth in different phases of the business cycle, agreed with Wijewardena and Tibbits (1999) that younger firms tended to have higher growth rates than older ones. In addition, Kangasharju pointed out that higher education and advanced training of small business owners/managers increased the likelihood of achieving business growth.

Blackwood and Mowl (2000) carried out a study in Spain with the primary objective of identifying and describing patterns of success and failure among small businesses. They concluded that business success or failure is dependent not only on the behavior of business owners/managers, but also on the economical and social behaviors of environment in which these businesses operate. Statistical analysis of the data collected in their study suggested that successful businesses were likely to be managed by owners who had initially considered several alternative ventures, purchased the business as a going concern, prepared a financial plan, regularly maintained financial records, used financial targets to assess business performance, and have had previous experience managing private business. Along the same line, Andreas, Michael and Sabine (2000) conducted a study on the predictability small business success with primary emphasis on planning as a significant determinant to small business success. The investigated sample was for small businesses operating in Ireland and Germany. In Germany, planning had a positive influence on small business success, while it was negative in Ireland. Accordingly, they concluded that the cultural context and the surrounding environment in which small business firms operate, determine the key factors of small business success.

Grounded theory approach to investigate success in small service sector organisations was used in a study conducted by (Simpson,Tuck, and Bellamy, 2004).The impact of education, training, development, prior knowledge and experience on the success of these businesses was investigated. Four substantive categories were developed, but only one category showed clear evidence that education and training had a positive effect on the success of the business. Most businesses relied heavily on prior knowledge and experience.

In their recent study, Wiklund and Shepherd (2005) investigated the Entrepreneurial Orientation of small businesses and found that a main-effects-only analysis provided an incomplete picture of performance. Access to capital and the dynamism of the environment were important to small businesses, and they found that when combined with the Entrepreneurial Orientation a three-way interaction model) the configurational approach explains variance in performance over and above a contingency model (two-way interactions) and a main-effects-only model.

Independent Variables Justifications

Previous studies investigating factors behind small business success have all lead to the valid assumption that there is a common set of underlying success factors, whose effect tend to vary depending on the cultural context in which small businesses operate. Accordingly several studies in this regard were conducted in different countries all over the world, very few of which were conducted in developing countries. Hence, the essence of this study is to contribute the literature of small business success by identifying the key success factors and their effectiveness on small business success performance for those operating in Damascus, Syria, which relies heavily on small private business for its economic development. In this study, the authors have chosen five key success factors to investigate. These are: Training, Planning, Size, Owners/Managers' Age, and Funding. The purpose of this section is

to justify why these factors in particular were chosen to assess small business performance.

One of the most significant reasons behind the failure of SMEs is their inadequate use of essential business and management practices (Monk, 2000). Therefore, training for small business owners/managers as well as their subordinates allow them acquire the necessary skills to ensure the survival and success of their business. Several authors argued that human resource management (HRM) is a key factor in small business survival. Therefore, organisations need well trained managers and employees for their business to successfully and effectively compete in the marketplace. The empirical evidence showing the positive influence of various HRM activities and business performance has been reported in several studies such as Marlow and Patton (1993), Holt (1993), and Becker and Gerhart (1996). Training has been considered in many studies as a key success factor for small businesses such as Duchesneau and Gartner (1990), Storey (1994), Kent (1994), Gatewood *et al* (1995), Brown and Huang (1999), and Blackwood and Mowl (2000).

Planning was also recognised by several studies as a key factor to small business success such as Storey (1994), Duchesneau and Gartner (1990), Huck and McEwen (1991), Lussier (1995), Lussier and Pfeifer (2001), Andreas *et al* (2000), Schwenk and Shrader, (1993), and Jones (1982). Another factor featured in the literature that distinguishes a small business from a large one is size. Some authors argue that larger firms in small-scale business grow faster than smaller ones due to their ability to employ skilful managers and workers and to acquire more efficient technology and facilities (Wijewardena and Cooray, 1995; and Riding, Scott and Orser, 2000). Larger firms have more resources that could be used to conduct market research, acquire information more effectively, and get consultancy form professional advisors. Accordingly, size of the firm has been included in most of the previous studies on small business success as a key factor (Barkham *et al*, 1996; Evans, 1987; Storey, 1994; Wijewardena and Cooray 1995; Wijewardena and Tibbits, 1999).

Several studies have further focused on the entrepreneurial characteristics of the owners/managers of small businesses as key factors to small business success. Age of the owners/managers was one of the most important characteristic that was repeatedly used to predict small business performance (Storey, 1994; Duchesneau and Gartner, 1990; Lussier, 1995; Lussier and Pfeifer, 2001; Barkham et al, 1996; Kangasharju, 2000; and Carter and Jones, 2000).Last but not least, funding identified as the access and the source of finance, was frequently examined in the literature as a critical issue for small business (Coleman, 2000; Storey, 1994; Barkham et al, 1996; Lussier, 1995; Lussier and Pfeifer, 2001; and Yusuf, 1995).

In summary, the obvious justification for using such factors is that they have been repeatedly used in previous studies evaluating and modelling the small business performance. Another important justification is based on the fact that some of these factors can be used as a proxy for a number of other key factors that affect small business performance such as planning and owners/managers' age. Planning is a proxy for a number of organizational activities and characteristics (Shrader, Mulford, and Blackburn 1989) while owners/managers' age is a proxy for the following four factors: skill, experience, flexibility, and motivation (Barkham *et al* 1996).

Performance Measurement

The selection of performance measures that reflect the true situation of small businesses with some degree of certainty and reliability is indeed a crucial process

performance measures left the door open to business organizations to decide and choose its own performance measure that might not truly reflect its performance. Such performance measures include but not limited to: market share, sales volume, company reputation, return-on-investment (ROI), profitability, and established corporate identity. While some might argue that most of these performance measures are appropriate for large corporations, they are not always perfectly applicable to small businesses. In all cases, regardless of what measure should be used, the literature has strongly endorsed using multiple performance indicators (Corchran and Wood, 1984; Hall, 1982; and Ibrahim and Rue, 1998).

One performance measure that is widely used among small businesses, as a subjective indicator of the overall business performance is the degree of owner/manager satisfaction with the business performance. Few researchers have consulted owner/managers about their views on success of their small business ventures (Simpson,Tuck, and Bellamy, 2004). Luk (1996) identified the success of small businesses as actual performance equal to or exceeding the business owner/manager's expectations. The diverse range of measures that can be adopted to define success can lead to a false judgment on the actual performance. For example, a small business with declining profits or market share could be seen as failing when in fact its owners/managers are satisfied with the overall business performance. Adequate income, job satisfaction, a happy workforce, and a sTable market position are all factors that lead to small business owners'/managers' satisfaction.

Another valid performance measure is turnover. Turnover growth is an objective measure that is relatively easy to get due to data availability and common use and is also a good indicator of firm size and a proxy for overall business growth. In this respect, Barkham (1996) concluded that an analysis of a company's growth should, at least in part, be based on changes in turnover. In all cases, regardless of what measure should be used, the literature has strongly endorsed using multiple performance indicators (Corchran and Wood, 1984; Hall, 1982; and Ibrahim and Rue, 1998).

Small business success can be defined in many different ways. A study by Beaver and Jenning (1995) stated that the most commonly adopted definition of success is financial growth with adequate profits. The study concluded that being able to define success, whether generally or specifically, is not the same as explaining success. Other definitions of success are equally applicable. For example, some entrepreneurs regard success as the job satisfaction they derive from achieving desired goals. However, financial growth due to increasing profits has been widely adopted by most researchers and practitioners in business performance models.

METHODOLGY

The main purpose of this study is to explore the effectiveness of several influential factors in a model-ready format for better performance assessment of the small business sector in a developing economy, in particular, the Syrian economy. The study focused on the SMEs in the private service sector located in the Syrian capital, Damascus. The argument behind choosing the private sector, in particular, stems from the following observations:

- The Syrian government is expanding the private service sector and encouraging local investment. Accordingly, this sector is experiencing noticeable growth (Country Commercial Guide: Syria, 1998). As noted by the Labour Force survey published in 1995, there is a noticeable growth in the private service sector in the overall world economy that accounts for a considerable share of the world economy (35.5%) in terms of employment (Labour Force Survey, 1995 cited in

- The majority of the SMEs are in the private service sector. This is due to the nature of SMEs which require modest initial capital requirements and the main resource is the human element.
- Inline with the majority of researchers in this particular field, the authors believe that studying the private service sector in particular is crucial for a better understanding of the performance of small businesses (Curran and Blackburn 1990).

The body of knowledge essential to conduct this study required initiating direct contacts with small businesses. The sample studied was drawn from a population of all registered small businesses in the private service sector located in Damascus, spanning various trade sectors such as: Car Rental, Travel and Tourism, Hotels, Real Estate, Advertising, Restaurant, Coffee Shops, and Financial and Engineering Offices. The population size was 3152 businesses of which 345 were selected for participation in this study representing the sample size at 5% confidence level. The sample firms were selected based on the following criteria:

1. Firms employing not more than 25 full-time employees. This criterion was inline with that adopted by Al-Ashi (1990) who carried out a research on small businesses performance in Jordan.
2. Firms located in Damascus. Damascus is the capital and is considered the primary business area in Syria. In addition, access to the business profiles of these firms (name, address, ownership details, tourism, trade sectors, employment data and date of formation) was readily available. These profiles would facilitate the process of identifying and selecting the appropriate sample firms.
3. Firms were privately owned by their management who had all decision making rights.
4. Firms have been in business for a minimum of 5 years.

Once the appropriate sample firms have been identified, their management was approached to participate in this study. The authors adopted both quantitative and subjective methods in their analysis and model development. A comprehensive questionnaire, exploring all areas related to small business environment, was developed for collecting the knowledge and data required for this study.

Questionnaire

The primary intention was to self-administer the developed questionnaire to increase the validity and reliability of the data collected. However, due to time constraints and firms' owners/managers preferences, delivery and collection of the questionnaires was the only other alternative. For a sample size of 345, 28 (9%) were self-administered questionnaires and 197 (91%) were of type delivery and collection. The overall response rate was 57% with 148 questionnaires not returned.

The questionnaire was designed as to encompass six sections: Owner/Manager background, Company background, Management practices and development activities, Business environment, Business information, and Manager's training. The questionnaire used different types of question structures such as: open, category, and scale question types. Before developing the final questionnaire, a pilot test was conducted, and feedback was collected that helped and improved the design and content of the questionnaire. For instance, there were concerns, from the firms selected for the pilot test, about the length of the questionnaire suggesting a shorter version to increase the response rate. The authors acted on this issue by changing the structure of some the open questions into category questions which are less time

Models Development

In order to study the impact of various factors affecting the small business performance, three predictive models were developed. These models incorporated the same set of factors (independent variables) using logistic regression analysis to predict small business performance from three different angles (dependent variables): profit, turnover, owner/manager satisfaction. The following six independent variables were included in the three models: Business size, Owner/manager's age, Owner/manager's training, Employee's training, Planning, and Sources of fund. Logistic Regression was used to develop the predictive models for the three different performance measures. This technique was frequently used in previous studies such as Cooper et al., (1990); Cooper, Gasocon, and Woo, (1991); Reynolds, (1987); Reynolds and Miller, (1989); Lussier, (1995); Lussier and Pfeifer, (2000, 2001); and Yuzbasioglu, (1997).

In the questionnaire the dependent and independent variables were measured in different scales but subsequently adjusted to make them fit to the requirements of the logistic regression due to the dichotomous nature of the original dependent variable "*Owner/Manager's satisfaction with the general performance*" which had only two values either improving or declining. The other two variables (*Sales and Profit*) were re-coded and included in the analysis as new dependent variables. They were initially measured on a five-point Likert scale ranging from greatly decreased to greatly increased. Those who indicated that their business performance increased or greatly increased in sales or profits were considered as improving, others who indicated otherwise were considered as declining. Subsequently, all dependent variables included in the analysis were dichotomous having only two values (declining or improving).

With regards to the independent variables, Owner/manager's training and Employee's training were already dichotomous. The remaining independent variables "Business size; Owner/manager's age; Planning; and Source of fund" were transformed from being categorical and nominal to dichotomous.

For more details, take in Table I

Table I Types of Old and New Variables for Logistic Analysis

Variable	Old Variable Type	New Variable Type
General Performance	Dichotomous	Dichotomous
Performance in Sales	Categorical	Dichotomous
Performance in Profit	Categorical	Dichotomous
Age	Categorical	Dichotomous
Size	Categorical	Dichotomous
Manager's Training	Dichotomous	Dichotomous
Employee's Training	Dichotomous	Dichotomous
Planning	Categorical	Dichotomous
Source of Fund	Nominal	Dichotomous

RESULTS AND DISCUSSION

Prior to running the regression analysis to model the impact of the independent variables over each of the performance dependent measures, both a descriptive and

performed. Table I shows the count and percentage of the responding firms in regard to each of the independent variables used in the study. In addition, the count and percentage of the non-responding firms is also shown. The adjusted percentage recalculates the percentage of responding firms not accounting for the non-responding firms.

Table II Count and Percentage of firms responding to each of the independent variables

Independent Variables	Count	Percentage (%)	Adjusted Percentage (%)
Owner/manager's (O/M) Training			
YES	140	71.1	83.3
NO	28	14.2	16.7
Sub-Total	168	85.3	100
Missing	29	14.7	
Total	197	100	
Employees Training			
YES	28	14.2	17.4
NO	133	67.5	82.6
Sub-Total	161	81.7	100
Missing	36	18.3	
Total	197	100	
O/M Age			
Less than 41	126	64	66.7
41 or more	63	32	33.3
Sub-Total	189	96	100
Missing	8	4	
Total	197	100	
Size			
Less than 15	154	78.2	81.5
15-25	35	17.8	18.5
Sub-Total	189	95.9	100
Missing	8	4.1	
Total	197	100	
Source of Finance			
Loans	21	10.7	11.5
Self-finance	161	81.7	88.5
Total	182	92.4	100
Missing	15	7.6	
Total	197	100	
Planning			
Minor	91	46.2	54.2
Major	77	39.1	45.8
Total	168	85.3	100
Missing	29	14.7	
Total	197	100	

Analysis of the data shown in Table II reveals the following observations:

- Managerial training was a dominant factor among the majority of the sample firms as 83.3% of the responding firms have considered managerial training. On the other hand, only 16.7% of there responding firm considered training their employees. This illustrates that managerial training was considered significant and indirectly as a replacement for employees training.

- The majority of the firms (81.5%) were small in size with 15 or less employees while the rest of the sample (18.5%) were labeled as medium- sized businesses employing more than 15 to a maximum of 25 employees.
- A considerable portion of the sample responding firms (66.7%) were managed and/or owned by individuals less than 41 years in age.
- A significant portion of the responding firms (88.5%) relied on self-financing rather than debt in funding their business.
- More than half of the responding firms (54.2%) did not considered planning as a major strength. This observation was a result of the lack of market and economical information required for adequate planning.

A similar descriptive analysis was also conducted for the performance measures used in the study.

Table III **Count and Percentage of firms responding to each of the dependent variables**

Dependent Variables	Count	Percentage (%)	Adjusted Percentage (%)
Owner/Manager Satisfaction			
Declining	35	17.8	20
Improving	140	71.1	80
Sub-Total	175	88.8	100
Missing	22	11.2	
Total	197	100	
Profitability			
Declining	56	28.4	34.8
Improving	105	53.3	65.2
Sub-Total	161	81.7	100
Missing	36	18.3	
Total	197	100	
Turnover			
Declining	42	21.3	24
Improving	133	67.5	76
Sub-Total	175	88.8	100
Missing	22	11.2	
Total	197	100	

Analysis of the data shown in Table 2 reveals that the majority of responding firms were considered improving from the general perspective of their owners/managers. This observation was consistent when performance was determined based on profitability and turnover. However, the percentage of responding firms considered improving was relatively less.

Correlation Analysis

Regression modeling requires an investigation of the correlation among the independent variables as well as the dependent variables. Significant correlation between one independent variable and another, results in using such independent variable as a proxy to the other variable. Also, significant correlation among the dependent variables could eliminate the need for one or more of the dependent variables.

The results of the bivariate correlation analysis among the dependent variables, measured by the Pearson coefficient, were significant between the O/M Satisfaction

relationship was not strong enough. However, the relationship was significant and relatively strong between Turnover and Profitability.

Table IV Intercorrelation matrix of dependent variables

		Turnover	Profitability	O/M Satisfaction
Turnover	Pearson Correlation	1	.722**	.407**
	Sig. (2-tailed)	.	.000	.000
Profitability	Pearson Correlation	.722**	1	.492**
	Sig. (2-tailed)	.000	.	.000
O/M Satisfaction	Pearson Correlation	.407**	.492**	1
	Sig. (2-tailed)	.000	.000	.

** Correlation is significant at the 0.01 level (2-tailed)

This was not a surprise, since the sample firms relied in their source of funding on their personal savings and not on borrowing, hence expenses are relatively low and sales turnover and profitability would exhibit such positive strong correlation. In order to generalize and not be specific to the Syrian economy where borrowing for funding is unlikely, turnover and profitability could exhibit a non-significant correlation if borrowing as a source a funding is considered an important factor in small business development in other economies. Additionally, the logistic regression analysis yielded different results for Turnover and Profitability in terms of the significance level of some independent variables. In particular, planning was highly significant in Profitability relative to Turnover while funding was non-significant in Turnover but highly significant in Profitability. Accordingly, both Turnover and Profitability in addition to O/M Satisfaction have been used as dependent variables in the logistic regression models developed in this research. The use of multiple performance measures has been strongly endorsed by prior literature.

As for the independent variables, the Pearson coefficients were found too low to be significant to conclude that all of the independent variables selected should be used in the models developed and none of them can be used as a proxy for the other.

Table V Intercorrelation matrix of independent variables

		O/M Training	Employees Training	Age	Size	Source Of Fund	Planning
O/M Training	Pearson Correlation	1	-.081	.027	.124	-.175*	-.136
	Sig. (2-tailed)	.	.345	.738	.117	.027	.103
Employees Training	Pearson Correlation	-.081	1	-.069	-.211**	-.163**	-.381**
	Sig. (2-tailed)	.345	.	.395	.007	.039	.000
Age	Pearson Correlation	.027	-.069	1	.260**	.277*	.124
	Sig. (2-tailed)	.738	.395	.	.000	.000	.117
Size	Pearson Correlation	.124	-.211**	.260**	1	.176*	.146
	Sig. (2-tailed)	.117	.007	.000	.	.017	.059
Source of Fund	Pearson Correlation	-.175*	-.163*	.277**	.176**	1	.095
	Sig. (2-tailed)	.027	.039	.000	.017	.	.221
Planning	Pearson Correlation	-.136	-.381**	.124	.146	.095	1
	Sig. (2-tailed)	.103	.000	.117	.059	.221	.

** Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed)

Logistic regression analysis

It is worth mentioning that the reason behind choosing logistic regression instead of other regression techniques such as linear regression is the dichotomous nature of the data collected for the dependent variables. For instance, profitability, turnover, and O/M satisfaction have all been defined as dichotomous as either improving or declining. Hence, logistic regression was the technique of choice for the analysis required for this study. Logistic regression analysis was run for the six independent variables and each of the three dependent variables.

Table VI **Logistic Regression Test Results**

Models parameters estimates	Model 1 O/M Satisfaction		Model 2 Turnover		Model 3 Profitability	
	Beta	**Probability**	**Beta**	**Probability**	**Beta**	**Probability**
Independent Variables						
Planning	1.672	0.102	1.587	0.085	3.017	0.002
Age	-5.000	0.000	-4.979	0.001	-5.620	0.002
Size	2.006	0.077	3.145	0.022	3.897	0.02
Fund	-8.147	0.921	-8.429	0.867	2.603	0.010
Trained manager	6.956	0.000	5.003	0.000	5.827	0.000
Training for employees	19.271	0.760	17.567	0.650	19.54	0.612
Constant	3.956	0.9629	4.943	0.922	-7.430	0.000
Model Test Results						
Goodness of fit (-2 Log Likelihood)	36.486		46.617		56.124	
Model Chi-square [df]	84.358 [6]		83.755 [6]		83.755 [6]	
Sig	.00		.00		.00	
Classification Results						
Correctly classified cases (Percent)	95.3		96.4		96	
Adjusted R-square (Percent)	80.2		75.1		74	

Results reveal that the test for "goodness of fit" of the models, and the statistics for the three models are significant. This implies that the models have empirical validity and predict the success or otherwise of a business at 99 per cent of random guessing. –2 log likelihood (LL) compares the model to a *perfect* model in which all cases would be correctly classified. The larger the –2LL the better, indicating that the model does not differ significantly from the *Perfect* model. The results show that *profit* model is closer to the perfect model than *turnover* model and *general performance* model in terms of –2 LL as the scores are 56.124, 46.617 and 36.486 respectively.

The second way of testing the models in order to know how well they perform is to examine how they classify the observed data. Table VI demonstrated that 95.3 per cent of the improving firms were correctly predicted by the first model (Original model), 96.4 per cent by the second model (Turnover model) and 96 per cent by the third model (Profit model). In order to know how much the independent variables included in the model account for the variation in the dependent variable Adjusted R-square was calculated. The results reported in Table VI show that explanatory independent variables used in the models predict 80.2 per cent of the variation in the dependent variable in the first model, 75.1 per cent in the *Turnover* model and 74 per cent in the *Profit* model.

Parameter Estimates and Significant Variables

Out of the six variables in this multivariate test for the first model, age and manager's training were significant at the .05 level. This indicates that these two variables are good predictors of the dependent variable and there is only a 5 per cent probability that the relationship between the independent variables and dependent variable has arisen by chance.

However, size and planning were added to the list when 10 per cent level of significance was used which means that the probability of this relationship being arisen by chance is 10 per cent. With regard to the Turnover model, of the six independent variables age, size, and manager's training were significant at 5 per cent level and planning was significant at 10 per cent level. More statistically significant independent variables appeared in the *Profit* model compared with the other two models. Age, size, fund, planning, and manager's training were highly significant.

Direction of the Relationship among Variables

The statistical results presented in Table VI show that the age of the owner/manager as an independent variable is highly significant. The negative direction of the coefficient indicates that successful firms are more likely to be run by younger owner/managers. This is in line with Kangasharju (2000). However, this explanation is not sufficient to show the role of age in the success of the business. The way the age of the owner/manager proxy for some factors, as mentioned earlier, which affect small firm success may give better understanding of the importance of this variable.

The first factor, flexibility, is negatively related to age. The older the owner/manager, the more the ability and willingness to make a fundamental strategic change of direction for the business diminishes. It was found from the Bivariate analysis that younger owner/managers were more likely to expand and grow their market share, as an organisational objective, than older ones. Measured on a five point likert scale, younger managers scored high (3.8) compared to older managers (2.7).

The second factor, motivation to work hard, is also negatively related to age. As the owner/manager accumulates wealth, this wealth provides an income and this reduces the need for income generated from work. The older the owner/manager the greater the incentive to live off earlier investment rather than invest additional time and resource in the hope of a future pay-off.

The third factor is physical energy, which generally reduces with age. This means that young and middle aged owner/managers are more likely to make changes in business and bring new ideas to improve the way the business is conducted. Many authors indicate that the key to survival, growth, and profitability is the continuous development of new products and processes (Chaganti and Chaganti, 1983; Nonaka and Yamanouchi, 1989; Oster, 1990; and Varadarajan, 1986). Bivariate analysis shows that 61 per cent of managers who always make operational changes were young, compared to 39 per cent who were older.

Finally, it may be argued that increased age brings with it a sufficient level of accumulated knowledge or experience of a certain trade to try going into self-employment alone, but a potential drawback is that older people may be more set in their ways. This has been described by Evans (2000) as a major barrier in a dynamic and rapidly changing environment. Older owner/managers who may have had

no advantages in taking any risk and making strategic changes in the business in an uncertain business environment, which is one of the economic characteristics in Damascus. Older owner/manager, therefore, would rather maintain a small number of customers and generate an accepTable level of turnover that satisfy their basic motives and cover their living expenses. Bivariate analysis also shows that of those older owner/managers who do make some operational changes, tend to base their change on a single measure as opposed to the younger managers who use several measures to ensure that the operational changes were appropriate and not only a reaction to the changes in the market. This again is attributed to the flexibility and energy that is related to young aged owner/managers. Unlike older owner/managers who mainly base their operational changes on their experience, younger owner/managers seemed to base their changes on more than just experience such as asking customers for their opinions, discussion with experts, discussion with partners or observing competitors. Younger owner/managers, therefore, seem to be proactive rather than reactive. Younger managers were keener on conducting market research, as a marketing technique, which contributed to the business success by improving turnover through finding out what customers needed and subsequently satisfied those needs.

The results of logistic regression analysis presented in Table 4 illustrate that bigger firms in the small-scale sector were more successful than smaller firms. This is in line with Evans (1987); Wijewardena and Cooray, (1995); Wijewardena & Tibbits (1999); and Riding Scott and Orser, (2000).

Firms may perform well without any increase in the number of employees. Although the majority of firms in the sample did not consider the increase in employment size as an indicator of business success, a highly significant and positive association was found between the firms that have shown an increase in the employment size over the last three years and performance. The Bivariate results illustrate that all the declining firms did not show any growth in the employment level as they either remained the same or cut down on the number of employees. Bigger enterprises may have more resources which in turn help the firms to seek out more opportunities and enable them to absorb any unexpected changes in the market. Owner/managers should not perceive size as a barrier to business performance because it will be seen later that bigger businesses perform better than their small counterparts for whatever business performance criterion is used. Bigger firms may have the ability to make better use of resources enabling them to adopt the latest technological developments. The results of Bivariate analysis show that 80 per cent of firms within the *15-25* category were technologically advanced, while only 33 percent of firms within the *Less than 15* category were technologically advanced.

The argument made by Barkham et al. (1996) that small enterprises achieve higher growth than big enterprises because they may be more flexible can still hold true in this study, as even the big businesses in the sample were considered small (25 employees). It is easy for firms with 25 employees and one chief decision-maker to manage effectively the business internally and react to changes in the market and exploit new opportunities.

The increasing size of the firm up to certain limit may have given the growing firms the chance to incorporate the advantage of being small in terms of flexibility. This may be impeded by the competing interests of workers, managers and shareholders in large businesses. They can also benefit from getting bigger in terms of access to capital and information that are crucial for small firms. The importance of increasing

difference between small and bigger firms in terms of conducting market research. Being small enables the small firm owner/manager to know automatically some facts about the customer's need by asking them directly. But this is not enough to gather all information required. Being large and expanding within the small-scale sector can give the owner/managers the ability to acquire more resources. As a consequence they can probe the market and reduce their business ignorance of the market situation through conducting market research which may not be available for the very small firms. Although the analysis shows that the majority of big and small firms conducted market research, the percentage of bigger firms was higher than the one for smaller firms.

With regard to planning, it was also expected to have a positive sign indicating that successful firms were stronger in planning than less successful firms. This is in line with Lussier (1995). The results also showed that several factors contributed indirectly to the success of the firm by their direct association with planning and when they were included in the equations they ceased to be significant. Accounting with all its activities in addition to conducting market research were more likely to be the characteristics of successful firms that feed the planning process with timely and accurate information.

The nature of small businesses and the motives of owner/managers for establishing the current business assume that owner/managers should carry out most of the managerial activities. For this to be achieved effectively and for turnover to be improved, these practices and activities carried out by owner/managers need to be closely planned, monitored and controlled to ensure that they are generating additional profiTable turnover and not just additional turnover. Planning is often assumed to be a sophisticated affair suiTable only for large businesses. This is not the case. Every entrepreneur needs to make plans and size is no excuse for not planning unless the right information is not available to the very small businesses. The managers of successful businesses seemed to have developed an effective planning strategy which helped in obtaining a balance between the required level of profit and the need for growth in turnover. This seems to be supported and accompanied by a good accounting system, which was proved to be related to planning (positive and highly significant). The main element of good planning is the availability of accurate information, which comes from two main sources (internal and external). The accounting system seemed to play an important role in equipping those successful firms with internal information that improves the planning process. In addition, significant differences were found between the successful and unsuccessful firms in respect of accounting. However, the results of Bivariate analysis illustrated that there were no significant differences between improving and declining firms in respect of their abilities to collect external information for planning.

The Bivariate analysis proved that accounting and planning were related. The positive and the highly significant relationship indicate that firms with strong accounting system were better in planning process. Setting up a good accounting system to provide useful information is not an easy task but it seems to be one of the main factors that affect the planning process in the firm. This was explained by Dodge and Robbins (1992) since they stated that once the firm starts to expand or grow, setting up accounting records, recording information and cash flow become major problems. Although these activities become more important as turnover increase, they may become management problems if not controlled and planned properly, in the way that they supply information to feed the planning process. These in turn affect the control

of the business and finding sources of capital for meeting daily monetary obligations of the firm.

Accounting as an independent variable was included in the model to examine its direct influence on small business performance. The results revealed that accounting was not statistically significant and did not make any changes in the model. Although this variable was related to planning the relationship was not strong enough to conclude that they were collinear.

The fourth common significant independent variable between the models is manager's training which had a positive sign. This means that successful firms tend to be managed by trained owner/managers indicating that managerial training plays an important role in increasing the chance of success in small business sector. This is in line with Cannon (1997) and Cosh et al (1998). It was expected that training in marketing in particular would have a direct impact on the performance of the firm in turnover. The following results were found with regard to this variable:

- there were significant differences between the declining and improving firms with regard to training in marketing,
- training in marketing and the strength of the business in marketing skills were positively related, and
- marketing and turnover growth were also related and this relationship was positive and highly significant.

Training, therefore, in a particular field of business may improve the skills of the owner/managers in that area and subsequently it may have a positive impact on the performance of the firm. However, similar results were not achieved with training in accounting. Bivariate analyis shows that the owner/managers who had received training in marketing were performing better than other firms in terms of turnover. Although 63% of successful owner/managers did not receive any training in marketing as opposed to 37% who did, all owner/managers who did not have training in marketing were unsuccessful.

Training in marketing seems to play an important role in the success of the business. Although the statistical analysis readily allowed establishing relationship between training and the dependent variables relying on the data collected. However, the data were not sufficient to reach a definitive conclusion and to explore the reasons for this relationship. Therefore, open-ended questions facilitated the interpretation of the relationship found between the two variables. The general comments of participants indicated that training was used as a means to translate the skills and knowledge they had already into better performance. The absence of training does not necessarily lead to failure, but the presence of training will increase the chance of success. Additionally, training can only be effective when it is combined with other factors such as education. This was also proved in the analysis where trained owner/managers were more educated than untrained ones and therefore, education may have indirect influence on performance through its direct association with training. It is worth mentioning that education was not significant when included in the model.

The source of funds was only found to be significant when profit was used as a business performance measure. This is in line with Yusuf (1995) and Coleman (2000). The high number of improving firms may be attributed to the fact that the majority of small business owners had some financial freedom due to their reliance on self-finance as a main source of money (88.5% of owners). Subsequently, this may have given them the ability to retain control of the company. In addition, the fact that the self financed firms were not in debt to external lenders, means that no pay back

may explain the positive and the highly significant relationship between the profitability and the reliance on self-finance as the main source of funds. However, the heavy reliance on personal savings may reflect the difficulties in having access to loans in Syria due to the lack of private commercial banks compared to neighbouring countries.

CONCLUSION

Based on the investigation of the factors that affect small business performance, this paper has provided some insights into how some factors interact and affect the performance of the business. Additionally, the paper showed that the significance of some independent variables varies depending on the criterion used to measure the dependent variable. The overall conclusion of the paper is that in the general performance model, only two independent variables were statistically significant indicating that successful firms were those whose owner/managers were young and had previous training.

With regard to the sales model, it was found that successful firms were those with more than 14 employees, tended to be run by young owner/managers who had previous training and strong planning practices. Training in general was proved to be statistically significant in the current model but training in marketing and new venture preparation particularly had a positive impact on business performance when sales was used as a business performance measure.

In respect of the profit model, it was found that successful firms were those that employed more than 14 employees, which tended to be managed by young owner/managers with strong planning practices, who were self-finance, and had previous training mainly in new venture preparation.

In conclusion, the paper suggests that small business success is affected by a web of factors. These factors are interrelated and to understand their influence on small business performance, it is necessary to understand the way they interact and affect the business performance directly and indirectly.

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