# The Impact of Demographic Factors on Accessing Finance in Libya's SMEs

Tarek Zarook[1], Mohammad Mafizur Rahman[1] & Rasheda Khanam[1]

[1] School of Accounting, Economics and Finance, Faculty of Business and Law, University of Southern Queensland, Australia

Correspondence: Tarek Zarook, School of Accounting, Economics and Finance, Faculty of Business and Law, University of Southern Queensland, Australia. Tel: 61-7-468-2636. E-mail: Tarek.Zarook@usq.edu.au or zarroug70@yahoo.com

## Abstract

The aim of this study is to investigate the impact of the demographic factors on accessing finance of Libya's SMEs. The results reported here are based on 557 survey questionnaires about the SMEs in different sectors in Libya. Our results confirm that demographic factors consisted of age, size, and sector have positive and significant impact on the accessing finance of Libya's SMEs.

**Keywords:** demographic factors, small and medium-size enterprises, access to finance

## 1. Introduction

Small and medium enterprises (SMEs) are considered the actual growth engine in the economy of many countries. SMEs play a significant role in driving up the key macroeconomic indicators. The definition of SMEs varies in different countries, and even in various institutions within the same state. They can be categorized according to a number of different criteria: for instance, number of employees, the invested capital, and volume of sales. In the Libyan context, the SMEs are about 46% of the overall number in the North Western of Libya, and about 36% in the North Eastern of the country. The private sector owns approximately 80% of SMEs, while a small corporate owns only 16% and 3% of SMEs are owned by families (Schiffer et al. 2001). A retail restaurant that comprises of Food and Beverages sector is ranked the first in the number of employees and firms, while metals and heavy metals segment is the second. Others include textiles and clothing, wood and paper, furniture, and ceramics and bricks. It is also evident that some industries have higher expansion opportunities than others. This is because of their link with bigger industries.

Libya's SMEs in general suffer from some problems which hinder this sector to flourish. Among these problems, easy access to finance is the main one. There are many factors such as social, economic, demographic and political-for the low access to finance .This study will examine the effect of demographic factors on accessing to finance in Libya's SMEs.

Several studies (Beck 2007; Fatoki et al. 2010; Pandula 2011b) show that a firm's demographic factors, in particular its size, ownership type, age and sector influence the access to finance. These studies demonstrate that small firms have more credit constraints than large firms (Beck 2007; Fatoki et al. 2010; Pandula 2011b). This is attributed to the fact that small firms are often owned and operated by private individuals who have no legal obligation to report financial performance or to regularly audit their financial accounts. Another reason is that small firms have fewer assets to provide as collateral. Third, smaller firms are associated with high failure rates compared to large firms. These three factors increase moral hazard, as well as anticipated risk associated with lending (Pandula 2011b). With regard to age of firm, studies show that older firms have easier access to financing than new firms. According to Pandula (2011b), being in business for a longer period of time implies that the firm has established some track record or reputation and is competitive on average. Such firms also have lower informational blackout and any information required by financial institutions is readily available. Conversely, new firms may not have accumulated adequate assets and may not meet the collateral requirements of financers. This makes it difficult for them to access loans.

Pandula (2011b) also explains that the industry sector of the firm affects its access to financing. According to this

author, lending banks tend to favour those industry sectors that are showing growth. Sectors that require more capital and hence more credit to invest in machinery, raw materials, equipment or buildings face proportionately greater restrictions. Service sectors also find it hard to access credit as they have less collateral to offer since the main input usually is human rather than physical capital. Depending on the region, the sector is a key determinant of access to financing for SMEs (Pandula 2011b).

This study is structured as follows. Section 2 provides literature review. Section 3 explains conceptual model and developsof hypothesis. Section 4 discusses the research methodology and data.Section 5 provides details of data analysis and discussion of results, andthe final section concludes the paper.

## 2. Literature Review

### 2.1 Characteristics for SMEs

The characteristics of SMEs are significant factors that are all too often neglected in research.By exploring SME characteristics using a firm-level survey of SMEs in transition, and in developing and developed economies, Abor and Quartey (2010) noted that SMEs face growth obstacles in numerous functional areas. These areas include financing, unfavourable tax regimes, exchange rate management, anti-competitive business practices and corruption (Honjo et al. 2006).

2.1.1 Age of SMEs

Researchers suggest that country characteristics continue to explain the emergence and growth of SMEs worldwide. A study conducted in Malaysia by Rosli (2011) found that governmentbusiness coordination is important for the development of a plausible and stable SME sector. He further established that socio-ethnic features could explain the differential ages and performance of SMEs in various regions (Carpenter et al. 2002). In a similar but separate study Yamawaki (2002) reported that the presence of leading firms, a pooled market and applicability of research technologies explain the emergence of SME clusters in Japan. This research reveals that the age of SMEs in countries with old economies have exhibited the existence of relatively old SMEs compared to SMEs in countries with relatively new economies that have begun to emerge (Kyereboah-Coleman et al. 2008). Significantly, the existence of a stable business sector correlates with the prevailing nature of the economy (Yamawaki 2002). Therefore, a strong economy has the tendency to stimulate the emergence and maintenance of a formidable set of SMEs. Following this research premise, SMEs arguably cannot exist in a vacuum created by a lack of sustainable economic features to support their expansion (Yasuda 2005).

Although fast-growing economies may have a strong sense of SME growth, extensive literature suggests that large economies do not imply the existence of old SME sectors (Eshima 2003). Therefore, although developed countries have a history of yielding strong and large SMEs, surveys into the existence of these SMEs indicate that SMEs in less developed countries have been hampered by unfavourable economic and socio-ethnic factors (Harada et al. 2003). Studies by most researchers suggest that most SMEs in developing countries emerged long before some of the leading SMEs in industrialised nations. However, the rate of economic growth of these countries has continued to favour growth of their SMEs. Importantly, the establishment and entry of a firm in a business sector depends heavily on the prevailing policy regulations that support the existence of an open market economy. This means that the emergence and spread of small firms in countries that have lagged behind in respect of pro-SME policy regulations are characteristics of having relatively new SMEs. This phenomenon is explained by the recent economic reforms that have been necessitated by the on-going challenges of the global financial crisis and the awakening call of the role played by SMEs in promoting the growth of an economy. Although industrialisation is arguably heavily responsible for the emergence and growth of SMEs, factors other than industrialisation may account for this trend. In addition, firm size does not mean that it is old but, rather, might be viewed as a necessary but not sufficient factor of growth (Becchetti et al. 2002).

In explaining the age of firms around the world, various researchers have established that although some small firms in developing countries are small relative to those in developed countries, this difference is not solely explainable by their date of establishment (Audretsch et al. 2002). Various measures have been used to estimate the age of SMEs across different states, including being reliant on period and spread of industrialisation of developed countries. On the other hand, studies have tied the age of some SMEs with the rise of civilisation characterised by certain less-developed countries in the world (Heshmati 2001). Therefore, no one has agreed on a measure to explain the difference in the age of SMEs between developed and less developed countries.

2.1.2 Size of SMEs

According to Mcmahon (2001), a firm's size is significant for the performance of its business. Also, the large SMEs were found to have better success in business and wider access to finance. The study conducted by

Burkart et al. (2004) pointed out that the sizes of SMEs have an important impact on their debt ratios and SMEs with diverse origins can get a greater proportion of the funding. Most of SME sector in Libya has suffered some obstacles and difficulties related to the start-up and growth stages of business because these firms face barriers resulting in a shortage of funding.Moreover, SMEs size is viewed to depend on numerous factors existing in the economy. Significant evidence indicates that the level of growth of SMEs remains significantly correlated with the extent to which the economy develops. Davidsson et al(2002) examined the Australian, U.S., Scottish and German economies and explained that location, size, legal form, age and industry all affect SME growth. The study focused on SMEs' manufacturing ability and the impact of industrial sector differences on other demographic factors. The study's findings indicate that start-up size, ownership form, legal form, age and industrial sector are the factors that contribute to SME growth. Such growth varies, although age, size, type of industrial sector and ownership independence are the main growth factors in every industry.

Ayyagari, Beck and Demirguc-Kunt (2007) investigated the relationship between the comparative size of the SME sector and the business setting in almost 67 countries; and the contribution of the SME sector to employment and gross domestic product (GDP). The results of this study indicate that planners who favour the SME sector need to be more determined incultivating a competitivebusiness environment. The results also indicate that understanding the dynamics prevalent in the SME sector is a complex undertaking and that continuous study is required to measure the interaction across countries between success factors and the SME business environment. Macan Bhaird and Lucey (2010) examined determinants of the capital structure of Irish SMEs with a sample including 299 SMEs through a survey questionnaire and interviews with owners and managers. The finding showed that size, level of activity and those provisions of collateral are very significant in the capital structure of different Irish SMEs. Park, et al. (2010) highlighted the role of size of SMEs and industrial networking in determining SME growth. An analysis of many Korean SMEs in different sectors between 1994 and 2003 confirmed that size has an important negative impact on SMEs. The results also indicated that subcontracting had no positive effect on SME growth. The most important change to SME size was when the principal SME owner reduced his/her stake in the firm, suggesting that owners of SMEs aim for portfolio diversification. The results showed that the ratio of debt increased; however, primary sources of debt such as loans from industrial banks increased by the same percentage and, thus, were equally significant (Ebiringa 2011). Another study by Beck, et al. (2005) suggested that the size and growth of the business sector is a function of national endowments, national policies, technologies and institutional frameworks. A similar study conducted by Yamawaki (2002) established the significant role played by national policies in shaping the nature and extent to which SMEs grow. Beck, et al. (2005) established that small businesses face significant hindrances in terms of legal, financial and policy frameworks and regulations. In their study, Beck, et al. (2005) demonstrated the positive relationship between institutional framework obstacles, financials, corruption obstacles and firm size. Although these factors are evidently responsible for the slow growth of firms and, hence, size of SMEs, no tangible evidence has been found to represent this result in developed and less developed countries (Thach et al. 2011).

2.1.3 Sectors of SMEs

SMEsbelong to various sectors such as manufacturing, retailing, wholesale, construction, mining/quarrying, motor trade, miscellaneous services and road transport. These industries vary considerably in the degree to which their performance is determined. In some industries, products and services are relatively simple and managers and entrepreneurs leverage external sources such as specialised technology suppliers, consultants and employees. This enables small and medium-size enterprises to acquire knowledge about their business operations.The role of the SME sector in driving a country's economy cannot be understated. A study concluded by Beck, et al. (2005) found that the role of political and institutional support greatly determines the form of SMEs and the sector in terms of its role in shaping the national economy. Note that the role played by the SME sector has had a significant impact on the general growth of a country's GDP and per capita income. Cross-country studies on the growth of the SME sector indicate a strong positive relationship between GDP and the development of the SME sector (Le Nguyen et al. 2011). Although evidence abounds on the correlation between SME activities and GDP per capita, no concrete data exist to support the conclusion that SMEs exert a causal influence on the growth of GDP per capita.

Additional reforms, supported by reforms that encourage growth of the business factor, result in greater development of the SME sector (Barth et al. 2011). The framework of policies in most developing countries shows slow growth toward an open market scenario that provides synergies to the SME sector. Therefore, the slow pace of policy formulation and development in business regulations continues to inhibit significant growth of the SME sector in less developed nations around the world (Beck, T. et al. 2005). The ability of a country to

offer significant policy ramifications capable of driving the economy harbours within itself the innate capacity to fast track the development of infrastructures that promote a sustainable SME sector. Consistent with industrial organisational theories, Beck, et al. (2005) found that although fast-growing economies tend to exhibit large SMEs, a cross analysis of SMEs across countries does not paint the image that SMEs have a far-reaching impact on the poor. While numerous researchers contend that the SME sector supports job creation in their respective countries, a cross-country survey of SMEs, in particular firm-level evidence, does not offer support that SMEsespecially in developing countriesare efficient job creators in a market-led economy (Hoxha et al. 2010).Fast-growing economies or already existing strong economies are characteristics of large and sustainable SME sectors (Serrasqueiro et al. 2008). In the last 10–20 years, theoretical and empirical research findings have concluded that the limited capacity of SMEs to gain access to information and requisite knowledge about foreign and international markets largely contributed to their low level of exports and poor performance (Abor et al. 2010).Because of these limiting factors, Belso-Martinez (2006) noted that SME clusters and industrial groupings have become increasingly focused on the best organisational models to fuel the growth engines of SMEs to compete nationally and internationally. In a study completed by Mesquita and Lazzarini (2010), clustering was found to be the most applicable model to propel the growth of SMEs in most industrialised nations. The common belief is that clustering among SMEs in developed states assists in eliminating international constraints faced by SMEs and that the reputation of clusters has an indirect benefit on internationalisation through their influence on other established clusters (Anastasov 2010). For example, Mesquita and Lazzarini (2010) supported the latter by suggesting that firms that establish formidable and sustainable relationships through strategic partnerships perform better than firms that do not. Studies document the limited coordination among SMEs in developing countries compared with small firms in developed economies (Anastasov 2010). Therefore, the ability of small firms to generate relationship-based performance explains the significant differences in the size and growth of firms between first-class and low-level economies that characterise less developed countries. Studies demonstrated that in the least developed economies, SMEs contribute less toward the creation of employment and generation of GDP compared with the informal sector (Cunningham 2011). This statistical evidence implies that developing countries have a duty to formulate policies aimed at reforming the market economies that harmonise the participation of informal and informal sectors to provide a firm foundation on which the poor can engage in high value added business activities (Kiss et al. 2011). Moreover, eliminating the constraining factors for entry of informal enterprises into the formal SME sector can bring about economic gains.

Although research indicates that small firms in developing counties have registered enormous improvements in embracing technological advancements and capital acquisition enabled by policy reforms, most small firms are reported to be lagging behind in terms of gaining strategically from these requisite factors (Smallbone et al. 1998). This means that although SME sectors have, in general, assisted in changing the economic trends across countries, less progress has been achieved by economies in transition (Xheneti et al. 2008). The constrained financial access attributable to extended risk perception by most financial institutions has rendered most SME sectors in less developed economies less productive in terms of promoting employment and fostering an entrepreneurial culture. However, note that universally cross-country assessments of SME sectors remain the basic drivers of economic growth as demonstrated by the increased contribution toward job creation and improved GDP per capita that have resulted in general progress (Nguyen et al. 2009).

## 3. The Conceptual Model and Hypothesis (H)

Existing evidence reveals demographic characteristics of SMEs such as age, size, and sector. Fafchamps (1997) notes that it is easier for larger firms to obtain credit and financing than smaller ones.A study conducted by Fafchamps et al. (1994) on the use of credit by firms as a source of enterprise financing reveals that its use increases with the size of the firm. According to Beck (2007), smaller firms also find it more difficult to access financing than older firms because of weaknesses in the financial systems of many countries, particularly developing nations. A study conducted by Pandula (2011a) explains that the restrictions on credit are greater for smaller firms. According to the same author, older firms with well-established track records, legal identities, and well-developed accounting systems can easily obtain loans from financial institutions. With regard to the SME sector, Pandula (2011a) explains that lending banks and institutions favour some industry sectors that show growth potential and will more easily lend money to firms in these sectors. In this study, the conceptual models outlining the presence of a financial gap are still a concern and an obstacle faced by Libyan SMEs. This means SMEs need access to finance to fill this financial gap. Therefore, this study tests the relationship between demographic factors and access to finance for SMEs based on three variables. The present study also measures and quantifies access by Libya's SMEs to financing and the obstacles they face in this regard. Size, age, and sector were used to measure demographics factors and their effect on access to financing.Therefore, based on the

conceptual model and previous literature described above; a hypothesis is developed as follows.
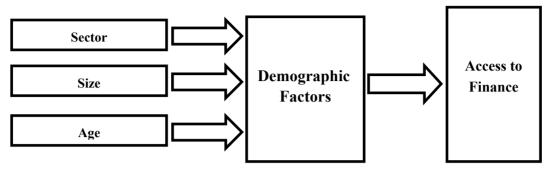


Figure 1. Conceptual model

H: There is a positive relationship between SMEs' demographic factors and access to financing.

The following model has been utilised to test the validity of this hypothesis:

$$ATF= \ \alpha+\beta_1 AGE+\beta_2 SIZE+\beta_3 SEC+\varepsilon \tag{1}$$

Where AGE= Age, SIZE = Size, SEC= Sector, and ATF = Access to finance

AGE, SIZE, SEC was used to measure demographics (DE) and their effect on ATF.

## 4. Research Methodology

### 4.1 Description of Variables

4.1.1 Age of SMEs

The age of a SME in Libya can be described as the period in which the SME has been in existence and operational. This period can affect the SME's access to finance in the sense that SMEs that have been in existence for a short period of time may find it difficult to access finance because they have not been tried and tested compared to their counterparts who have been in existence for longer (Beck, Thorsten et al. 2005) . The age of SMEs is measured by the number of years between the time the SME was established and the time it seeks finance, which in others words can be termed as the number of years between the time they were established and the current date.

4.1.2 Size of SMEs

SME size is *a* very important demographic factor and the size of SMEs differs from country to country. There is no clear definition for size of SMEs in Libya. Therefore, Libyan Ministry of Economy and Trade classified that firms with 10-49 employees/workers are small size; and those with 50-200 employees/workers are medium size.

4.1.3 Sector of SMEs

The sector in which the SME operates is commonly described on the basis of the products generated by such SMEs; and SMEs that are involved in a similar line of production or service offering are said to be in the same sector. Therefore, the sector of SMEs means all small and medium projects which belong to different investment activities. The Libyan Ministry of Economy and Trade has classified these sectors into two categories, namely service sector andmanufacturing sector. The service sector represents services and training, health services, education and training, tourism project, supermarkets and shops, communication services, restaurants, advertising and media, car services, hotels, pathology and pharmaceutical and other projects. SMEs in the manufacturing sector includeagricultural products, cement industry, clothing industry, food industry, furniture industry, electronic industries, electricity industries, engineering industries, industry of  mining and metals, plastic industries, paint industry, pharmaceutical industries, light industry design and other projects. The sector in which a SME operates in Libya can be measured by scrutinizing the type of products or services that the SME offers(Beck *et al.* 2006).

### 4.2 Data

The study was conducted by utilising a quantitative research method because this kind of research enables the researcher to state the research problem using set terms in a manner that is very specific. This approach also enables the researcher to specify the independent and dependent variables more clearly. Research philosophy

refs to a belief regarding the way data about this financial issue is being investigated, collected, analysed and applied inunderstanding and resolving the issue of interest.For this study, 60 questionnaires were initially distributedfor a pilot study.Ten were written in the Arabic language and distributed to Libyan Arabic PhD students at the University of Southern Queensland. Some of those surveyed had some experience with SMEs. Ten of the questionnaires were written in English and distributed to PhD candidates in the Faculty of the Business and Law at the University of Southern Queensland. The final 40 questionnaires were written in English and distributed to owners and managers of SMEs in various sectors in Toowoomba City.The surveys were distributed in person to the respondents. Fifty-four questionnaires were returned. The researcher revised all questions and made some modifications to develop the final questionnaire.In this study, the Libya Ministry of Economy and Trade classified the SMEs' total population as 180,000. The random samples were selected and arranged so that each population unit had an equal and independent chance of being chosen and involved in the sample. Moreover, the sample containsLibyan SMEs in different sectors, for example, the manufacturing sector and the service sector.Therefore, the SMEs were chosen based on the number of their workers: 10–49 is small and 50–200 is medium. The sample size consists of 600 SMEs, which Perry (1995) confirmed is the optimal size for quantitative research. In this study, data was collected from the questionnaire distributed to the owners/managers of SMEs in different sectors in Libya. A total of 600 questionnaires were distributed to SMEs in different sectors in Libya and a total of 557 questionnaires were returned from various regions in Libya. The questionnaires were distributed and collected through the postal service and personal visits to industrial cities in Libya such as Tripoli, Benghazi, Zawya, Zwara, Koms, Sabha and Misurata.

## 5. Data Analysis and Discussion

### 5.1 Reliability Evaluation of Demographic Factors of SMEs

Table 1 shows the result of Cronbach's alpha examining the reliability of demographic factors for SMEs. This result indicates all of these items have item correlations between variables. Reliability result of Cronbach's alpha for age and size of SMEs at 0.9 are interpreted as excellent. The result of Cronbach's alpha for sectors of SMEs at 0.8 is interpreted as good. This means all items are valid for the study and analysis.

Table 1. The validity results of each item of the questionnaire

| Number of item | Item-total correlation | Cronbach's Alpha (If an item deleted) |
|---|---|---|
| Age | 0.714 | 0.9212 |
| Size | 0.725 | 0.9134 |
| Sectors | 0.685 | 0.8161 |

### 5.2 The Demographic Factor and Access to Finance by SMEs

5.2.1 Descriptive Statistics of Demographic Factor and Access to Finance

Table 2 presents the descriptive statistics for the demographic factors and access to finance. It is clear that age of SMEs (independent) has the highest mean among thedemographic variables with a mean (maximum) of 3.4452 (5.00).

Table 2. Descriptive statistics of demographic factor and access to finance

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| ATF | 557 | 15.00 | 38.75 | 28.2724 | 4.23616 |
| AGE | 557 | 1.00 | 5.00 | 3.4452 | .96669 |
| SIZE | 557 | 1.00 | 5.00 | 3.4237 | .88960 |
| SECTOR | 557 | 1.00 | 4.00 | 2.9318 | 1.05036 |
| Valid N | 557 | | | | |

In contrast, the lowest value of the mean of demographic factors of SMEs is *SECTOR* with a mean (Maximum) of 2.9318 (4.00). Table 2 also shows the highest standard deviation is related to SECTOR with a value of

(1.05036). In addition, Table 2 shows the same minimum of demographic factors of (AGE, SIZE, and SECTOR).

5.2.2 Correlation Coefficients of the Demographic Factors and Access to Finance

The correlation coefficients shown in Table 3 demonstrate how the independent (demographic factors) variables are correlated with the dependent variable (access to finance) in SMEs. According to the Table3, access to finance has significant and positive correlation with most demographic factors (AGE, SIZE, and SECTOR) of SMEs. Moreover, ATF has a higher positive correlation with AGE, SIZE, and SECTOR.

Table 3. Correlation statistics of demographic factor and access to finance

|  |  | ATF | AGE | SIZE | SECTORE |
|---|---|---|---|---|---|
| ATF | Pearson Correlation | 1 |  |  |  |
|  | Sig. (2-tailed) |  |  |  |  |
|  | N | 557 |  |  |  |
| AGE | Pearson Correlation | 0.258** | 1 |  |  |
|  | Sig. (2-tailed) | 0 |  |  |  |
|  | N | 557 | 557 |  |  |
| SIZE | Pearson Correlation | 0.268** | 0.759** | 1 |  |
|  | Sig. (2-tailed) | 0 | 0 |  |  |
|  | N | 557 | 557 | 557 |  |
| SECTOR | Pearson Correlation | 0.237** | 0.090* | 0.106* | 1 |
|  | Sig. (2-tailed) | 0 | 0.033 | 0.012 |  |
|  | N | 557 | 557 | 557 | 557 |

*, ** denote significant at 1% and 5% level, respectively

The size of SMEs has a significant and positive correlation with ATF, AGE and SECTORE with values (0. 268 < 0.01, 0. 759 < 0.01 and 0.106 < 0.05) respectively. In a similar vein, the SECTOR of demographic factor has significant and positive correlation with ATF, AGE, and SIZE with value (0.237 < 0.01, 0. 090 < 0.05 and 0.106 < 0.05) respectively. Generally, a positive and significant coefficient means that changes in the demographic factor (AGE, SIZE, and SECTOR) of SMEs tend to positively affect access to finance. This means that as anydemographic factor (AGE, SIZE, and SECTOR) increases by one unit, the corresponding ATF increases by the value of correlation units.

5.2.3 Discussion of Results

This study has used ANOVA to clarify the relationship between an independent variable (demographic factor) and a dependent variable (access to financing, ATF) .The results are noted below.

Table 4. ANOVA analysis of the equation (1) related to hypothesis

| | *ANOVA* | | | *a* | | | | |
|---|---|---|---|---|---|---|---|---|
| Model | Sum of Squares | df | Mean Square | F | $R^2$ | Adjust $R^2$ | Durbin-W | Sig |
| Regression | 1220.58 | 3 | 406.861 | 25.693 | 0.472 | 0.451 | 1.701 | 0.000b |
| Residual | 8756.885 | 553 | 15.835 | | | | | |
| Total | 9977.469 | 556 | | | | | | |

a. Dependent Variable: Access to finance (ATF)

b. Predictors: (Constant), SECTOR, AGE, SIZE

Theanalysis in table 4 shows that both $R^2$ Square and Adjusted R Square of the model are, to some extent, acceptable. Moreover, the result in this table means that the demographic factorshave positive and significant effect on the ATF. That is, our hypothesis is supported.

Table 5. Coefficients of equation (1) related to hypothesis

| Coefficients | | | | | |
|---|---|---|---|---|---|
| | Unstandardized Coefficients | | Standardized Coefficients | | |
| Model | B | Std. Error | Beta | t | Sig |
| Constant | 21.45 | 0.8 | | 26.818 | 0.000 |
| Age | 0.540 | 0.268 | 0.123 | 2.014 | 0.044 |
| Size | 0.724 | 0.292 | 0.125 | 2.482 | 0.013 |
| Sector | 0.847 | 0.162 | 0.21 | 5.24 | 0.000 |

a. Dependent Variable: ATF

As can be seen from Table 5, the findings explain that the independent variables (demographic factors) have a strong relationship with the dependent variable (access to financing ATF). All demographic variables have positive and significant effects on dependent variable.P-value is statistically significant estimated at 0.01 and 0.05.The variable with the most effect is sector, with a value of (0.847, P value < 0.01). This means that as the sector variable increases by one percent, the access to financing will increase 0.847 percent, keeping other variables constant. Moreover, Age and Size of SMEs also have a positive effect on ATF with values 0.540, P value < 0.05 and 0.724, P value > 0.01, respectively. This indicates that as the Age and Size increase by 1%, the ATF also increases by 0.540 and 0.724, respectively.In general, the positive relationship between demographic factors and access to finance supports the hypothesis of this study.This positive significant coefficient of age variableimplies that the greater the company's age, the higher the possibility of access of finance. Therefore, the older firms have more opportunity to gain access to finance than younger firms in Libya. The reason behind this finding is that older firms have more experience and a better possibility to produce new goods than younger firms. Furthermore, another reason that supports this argument is that banks in Libya are more comfortable in dealing with older firms due to their well-known history. The positive significant coefficient of size variable indicates that large firms have better opportunities to gain access to finance than small and medium firms among the SMEs. Large firms have a better ability to manage and are efficient in their production because they have high rates of qualified workers/employees who assist their firms in improving productivity and profitability. Sectorsare also, a factor affecting access to finance. This implies that as the sector variable increases access to financing will increase.The greater the diversity of sectors creates a greater need to obtain bank financing. The greater growth of the industrial sector, the manufacturing sector and the services sector has boosted the economy's recovery and solved the problem of unemployment.

## 6. Conclusion

The SMEs' sector has the prospect of becoming the engine of growthfor the overall private sector in Libya. This has been clearly demonstrated by government interventions towards SMEs' development in a number of ways. The sector has also proven to be significantly essential for the economic growth of the country. This study has attempted to examine the effects of demographic factors of SMEs on access to finance in Libya. This study has contributed to identifying the demographic characteristics of small and medium enterprises, which have a positive impact on access to finance. The results of this study demonstrate that there is significant relationship and interdependence between demographic factors (size, age, sectors) of SMEs and access to finance Libya. All identified demographic factors positively and significantly affect access to finance (ATF).

The Libyan financial institutions, especially the banks, should support the expansion of the Libyan SMEs sector. In addition, the Libyan government should support the SMEs in the service sector and the manufacturing sector and provide all the credit facilities granted by banks and other financial institutions. The Libyan government through the Libyan central bank should either create planning and strategies to stimulate specialised banks such as agriculture banks and saving investment real estate banks, bank of trade and development and commercial banks to increase the rate of borrowing in the SMEs sector. The Libyan government should reduce the rates of interest, avoid complicated banking procedures and reduce the value of the collateral pledged to repay the loan.

The SMEs sector can serve Libya's economic demands if all of these considerations are handled by the government. Although the government has shown some commitment in taking corrective measures for ensuring the effective accessibility of SMEs to various financial sources, a lot more measures are still needed. The Libyan government should ensure that there are few or no obstacles that hinder the access to finance for expansion in this sector.

**References**

Abor, J., & Quartey, P. (2010). Issues in SME development in Ghana and South Africa. *International Research Journal of finance and Economics*. Retrieved from http://eurojournals.com/finance.htm

Anastasov, Y. (2010). Determinants of small and medium sized fast growing enterprises in central and eastern Europe: a panel data analysis. *Financial Theory and Practice, 34*(3), 269-95.

Audretsch, D. B., & Elston, J. A. (2002). Does firm size matter? Evidence on the impact of liquidity constraints on firm investment behavior in Germany. *International Journal of Industrial Organization, 20*(1), 1-17. http://dx.doi.org/10.1016/S0167-7187(00)00072-2

Ayyagari, M., Beck, T., & Demirguc-Kunt, A. (2007). Small and medium enterprises across the globe. *Small Business Economics, 29*(4), 415-34. http://dx.doi.org/10.1007/s11187-006-9002-5

Barth, J. R., Lin, D., & Yost, K. (2011). Small and Medium Enterprise Financing in Transition Economies. *Atlantic Economic Journal*, 1-20. http://dx.doi.org/10.1007/s11293-010-9260-0

Becchetti, L., & Trovato, G. (2002). The determinants of growth for small and medium sized firms. The role of the availability of external finance. *Small Business Economics, 19*(4), 291-306. http://dx.doi.org/10.1023/A:1019678429111

Beck, T. (2007). Financing constraints of SMEs in developing countries: evidence, determinants and solutions. *J. Int. Money Fin, 31*(2), 401-41.

Beck, T., & Demirguc-Kunt, A. (2006). Small and medium-size enterprises: Access to finance as a growth constraint. *Journal of Banking & Finance, 30*(11), 2931-43. http://dx.doi.org/10.1016/j.jbankfin.2006.05.009

Beck, T., Demirguc-Kunt, A., & Levine, R. (2005). SMEs, growth, and poverty: cross-country evidence. *Journal of Economic Growth, 10*(3), 199-229. http://dx.doi.org/10.1007/s10887-005-3533-5

Beck, T., Demirgüç-Kunt, A., & Maksimovic, V. (2005). Financial and legal constraints to growth: does firm size matter? *The Journal of Finance, 60*(1), 137-77. http://dx.doi.org/10.1016/j.jbankfin.2006.05.009

Belso-Martinez, J. A. (2006). Do industrial districts influence export performance and export intensity? Evidence for Spanish SMEs' internationalization process. *European Planning Studies, 14*(6), 791-810. http://dx.doi.org/ 10.1080=09654310500496115

Burkart, M., & Ellingsen, T. (2004). In-kind finance: A theory of trade credit. *American Economic Review*, 569-90. http://dx.doi.org/10.1257/0002828041464579

Carpenter, R. E., & Petersen, B. C. (2002). Is the growth of small firms constrained by internal finance? *Review of Economics and Statistics, 84*(2), 298-309. http://dx.doi.org/10.1162/003465302317411541

Cunningham, L. X. (2011). SMEs as motor of growth: A review of China's SMEs development in thirty years (1978–2008). *Human Systems Management, 30*(1), 39-54. http://dx.doi.org/ 10.3233/HSM-2011-0736

Davidsson, P., Kirchhoff, B., Hatemi–J, A., & Gustavsson, H. (2002). Empirical analysis of business growth factors using Swedish data. *Journal of Small Business Management, 40*(4), 332-49. http://dx.doi.org/10.1111/1540-627X.00061

Ebiringa, O. T. (2011). Syenthesis of Literature on Small & Medium Entreprise (SME) Start-Up Financing. *Int. J. Eco. Res., 2*, 85-95.

Eshima, Y. (2003). Impact of public policy on innovative SMEs in Japan. *Journal of Small Business Management, 41*(1), 85-93. http://dx.doi.org/10.1111/1540-627X.00068

Fafchamps, M. (1997). Trade credit in Zimbabwean manufacturing. *World Development, 25*(5), 795-815. http://dx.doi.org/10.1016/S0305-750X(96)00134-9

Fafchamps, M., Biggs, T., Conning, J., & Srivastava, P. (1994). *Enterprise finance in Kenya*. World Bank.

Fatoki, O., & Odeyemi, A. (2010). The determinants of access to trade credit by new SMEs in South Africa. *Afr.*

*J. Bus. Manage, 4*(13), 2763-70.

Harada, N., & Honjo, Y. (2003). Does the Creative Business Promotion Law Enhance SMEs' Capital Investments? Evidence from a Panel Dataset of Unlisted SMEs in Japan. *Japan Center for Economic Research Discussion Paper*, no. 88.

Heshmati, A. (2001). On the growth of micro and small firms: evidence from Sweden. *Small Business Economics, 17*(3), 213-28. http://dx.doi.org/10.1023/A:1011886128912

Honjo, Y., & Harada, N. (2006). SME Policy, financial structure and firm growth: evidence from Japan. *Small Business Economics, 27*(4), 289-300. http://dx.doi.org/10.1007/s11187-005-6703-0

Hoxha, D., & Capelleras, J. L. (2010). Fast-growing firms in a transitional and extreme environment: are they different? *Journal of Small Business and Enterprise Development, 17*(3), 350-70. http://dx.doi.org/10.1108/14626001011068671

Kiss, A. N., Danis, W. M., & Cavusgil, S. T. (2011). International entrepreneurship research in emerging economies: A critical review and research agenda. *Journal of Business Venturing.* http://dx.doi.org/10.1016/j.jbusvent.2011.09.004

Kyereboah-Coleman, A., & Amidu, M. (2008). The Link Between Small Business Governance and Performance: The Case of the Ghanaian SME Sector. *Journal of African Business, 9*(1), 121-43. http://dx.doi.org/10.1080/15228910802052880

Le Nguyen, H., & Kock, S. (2011). Managing SMEs' survival from financial crisis in a transition economy: A Chaos Theory approach. *Journal of General Management, 37*(1), 31.

Mac An Bhaird, C., & Lucey, B. (2010). Determinants of capital structure in Irish SMEs. *Small Business Economics, 35*(3), 357-75. http://dx.doi.org/10.1007/s11187-008-9162-6

Mcmahon, R. G. (2001). Growth and performance of manufacturing SMEs: The influence of financial management characteristics. *International Small Business Journal, 19*(3), 10-28. http://dx.doi.org/10.1177/0266242601193001

Mesquita, L. F., & Lazzarini, S. G. (2010). Horizontal and vertical relationships in developing economies: Implications for SMEs' access to global markets. *New Frontiers in Entrepreneurship*, 31-66. http://dx.doi.org/10.5465/AMJ.2008.31767280

Nguyen, T. H., Alam, Q., Prajogo, D., & Majumdar, N. A. (2009). Public Policy For The Development Of Private Sector And Smes In A Socialist Market Economy. *Journal of Academic Research in Economics, 1*(1), 79-92.

Pandula, G. (2011a). An Empirical Investigation of Small and Medium Enterprises' Access to Bank Finance: The Case of an Emerging Economy. Proceedings of *ASBBS Annual Conference, 18*(1), 18.

Pandula, G. (2011b). An empirical investugtion of small and medium enterprises Access to finance: The case of an emerging economy. Proceedings of *the ASBBS Annual Conference* (pp. 255-73), Las Vegas. Retrieved from http://asbbs.org/files/2011/ASBBS2011v1/PDF/P/PandulaG.pdf

Park, Y., Shin, J., & Kim, T. (2010). Firm size, age, industrial networking, and growth: a case of the Korean manufacturing industry. *Small Business Economics, 35*(2), 153-68. http://dx.doi.org/10.1007/s11187-009-9177-7

Perry, C. (1995). *A structured approach to presenting PhD theses: Notes for candidates and their supervisors*. ANZ Doctoral Consortium.

Rosli, M. M. (2011). Determinants of small and medium enterprises performance in the Malaysian auto-parts industry. *African Journal of Business Management, 5*(20), 8235-41. http://dx.doi.org/10.5897/AJBM11.889

Schiffer, M., & Weder, B. (2001). *Firm size and the business environment: Worldwide survey results* (Vol. 43). World Bank Publications. http://dx.doi.org/10.1596/0-8213-5003-X

Serrasqueiro, Z. S., & Maçãs Nunes, P. (2008). Performance and size: empirical evidence from Portuguese SMEs. *Small Business Economics, 31*(2), 195-217. http://dx.doi.org/10.1007/s11187-007-9092-8

Smallbone, D., Piasecki, B., Venesaar, U., Todorov, K., & Labrianidis, L. (1998). Internationalisation and SME development in transition economies: an international comparison. *Journal of Small Business and Enterprise Development, 5*(4), 363-75. http://dx.doi.org/10.1108/eum0000000006800

Thach, S. V., Lafuente Gonzalez, E. M., Fan, C., & Garcia, A. R. (2011). SME's and the Problems of

Development: An Innovative Costa Rican Approach. *Journal of Marketing Development and Competitiveness, 5*(2), 59-69.

Xheneti, M., & Smallbone, D. (2008). The role of public policy in entrepreneurship development in post-socialist countries: a comparison of Albania and Estonia. *EBS Review, 1*(24), 24-37.

Yamawaki, H. (2002). The evolution and structure of industrial clusters in Japan. *Small Business Economics, 18*(1), 121-40. http://dx.doi.org/10.1023/A:1015134028335

Yasuda, T. (2005). Firm growth, size, age and behavior in Japanese manufacturing. *Small Business Economics, 24*(1), 1-15. http://dx.doi.org/10.1007/s11187-005-7568-y

**Copyrights**