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An Examination of the Saudi Arabian *Kafalah*Loan Guarantee Program ForSmall and Medium-Sized Enterprises

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Abstract

Purpose – This paper examines the Saudi Arabian government's bank loan guarantee program (*Kafalah*), established to encourage lending to small and medium-sized enterprises (SMEs). It identifies the business which characteristics that predict bank loan success, particularly under the *Kafalah* program. That is, the study focuses on the identification of the SME characteristics that influence their success in securing debt-funding in KSA, and how well those characteristics can predict whether or not an SME successfully secures debt-funding through the KP programme

Design/methodology/approach – The study adopts a survey design and utilizes primary data obtained through the administration of questionnaires. Initially, the research questions were addressed through a survey of SMEs geographically dispersed throughout the KSA. The questionnaire was then personally distributed to 500 SMEs and the final sample of data collection consists of material from 247 SMEs across all prime Saudi Arabian industries of construction, manufacturing, social services, retail, travel and tourism and other sectors. In particular, the Kafalahprogramme was assessed in relation to its objectives for start-up businesses, the SME service sectors; and whether the demand for collateral from SMEs by banks has reduced. The analysis was done using both descriptive and inferential statistics. Specifically, in order to answer the research questions, regression analysis and binary logistic models were conducted, and *Chi-square* tests and *Fisher's exact* tests were the most significant statistics, while the *Cramer's V* and Phi were the most common strength tests used in the study.

Findings – Overall, the study found that the SME's age, size, sector, collateral, production of sophisticated financial information and the use of external expertise all have a significant relationship with securing debt funding for business expansion, after the SME start-up stage of financing.

Those SME firms that successfully secured Kafalah bank lending are mainly based in the manufacturing and construction sectors and are not evident in the services and tourism sectors.

The SME characteristics that predict Kafalah bank loan success are size, collateral, growth prospects, production of sophisticated financial information and external expertise. Additionally, this study finds that the impact on collateral offered by SMEs to banks under the KafalahProgramme is mixed, with reduced personal account guarantees required and contrary to expectations, more tangible (fixed) assets (more pledged assets and property) required. This latter result conflicts with the aims of the KafalahProgramme, given that the SMEs without these tangible assets appear not to have equal success securing the bank loans for further expansion and growth.

Research limitations/implications – The limitations of this study include the use of categorical data only as the source data for the quantitative research study. The use of this kind of data was informed by the pilot study conducted which revealed that respondents in KSA were culturally reluctant to reveal precise financial information but were more likely to complete categorical questions. Therefore, the quantitative study relied on categorical data obtained through questionnaires. This however does not undermine the purpose or the findings of this study.

Practical implications – The KafalahProgramme as applied by the banking intermediaries, concentrated on sectors with existing tangible collateral, in opposition to the programme's aims of supporting the entire SME sector through reduced collateral requirements

Originality/value – The study makes several important contributions to understanding the SME sector in KSA, in particular, which Saudi SMEs businesses are likely to attract debt funding and how successful the Kafalah bank loan guarantee was in the SME sector. It highlights in particular, the weaknesses of the Kafalah debt programme in sectors where reduced collateral (lack of tangible assets) is a feature of the SMEs (services and tourism).

Keywords: SME sector, SME bank debt, loan collateral, Kafalah Program, Emerging Market.

JEL Code: G21, G28, G32, G38, L26

Introduction

Small and medium-sized enterprises (SMEs) have been subject to increasing worldwide attention due to their significant Gross Domestic Product (GDP) contribution (Dalitso and Peter 2000; Aremu and Adeyemi 2011). In the Kingdom of Saudi Arabia (KSA), SMEs contribute 20 per cent to GDP, however, the government aims to increase this contribution to 70 per cent. SMEs are seen to be potentially economically pivotal as that sector could alleviate the Saudi government's dependence on oil revenue in the future (Porter 2008; Sivakumar and Sarkar 2012). Indeed, while the economic and social importance of SMEs inspires great interest in both policy-makers and researchers worldwide, the SMEs' difficulties securing finance are also well-documented and persistent (Berger and Udell 2006; Beck, Demirgüc-Kunt, and Maksimovic 2008). This lack of finance is a fundamental obstacle to the growth of SMEs in developing countries (Wang, 2016). According to the Financial Access and Stability Review of the World Bank (2011), the total unmet demand for loans by SMEs in emerging markets ranged from US\$ 2.1 trillion to US\$ 2.5 trillion. Furthermore, in 2010 the proportion of loans from commercial banks to SMEs in the Gulf Cooperation Council (GCC) states did not exceed 2 per cent, while in KSA this did not exceed 1.5 per cent (Rocha et al. 2011; Rahatullah Khan 2013). This large credit gap represents both a challenge and an opportunity for SMEs, banks and governments, as inadequate access to bank loans for SMEs could result in the shortening of the commercial lives of these businesses in emerging markets.

In relation to KSA, Sivakumar and Sarkar (2012) conclude that SMEs face difficulties securing bank loans due to their limited or patchy financial track record, the basis of bank lending decisions. Zamberi (2012) who also studied the challenges facing SMEs operators in KSA, acknowledged raising finance and a lack of credit options, as key barriers to development. A later study by Waked (2016) on Saudi SMEs, found that these barriers to bank finance were persistent and included high collateral requirements, high-interest rates, long time-lags before receiving (insufficient) finance, and rather challenging loan criteria and application conditions.

The KSA government, having recognized these problems, introduced an SME loan guarantee program called the *Kafalah*Program in 2006, as part of the KSA's Vision for 2030 (Government of Saudi Arabia 2016).

The Ministry of Finance in collaboration with Saudi Banks established this government-sponsored bank loan guarantee program (KP), to guarantee up to 80 per cent of the total amount of debt borrowed by SMEs (SIDF Report 2016). Comparable programs are in operation in other GCC states, including Kuwait, Bahrain, and Qatar (Steffen 2017; European Commission 2017). The key objectives of KP were to encourage Saudi banks to lend to the SME sector, to reduce the need for SME collateral, to minimise default risks, and in particular to assist start-up businesses, services firms and SMEs with a limited financial track record (Altokhais 2016; Jafori and Al Mamun 2017). Under KP, the Saudi government pledged to repay any defaulted SMEs' loans to Saudi banks (Waked, 2016) reducing reduce adverse selection for banks when making SME lending decisions and KP is accessible by both Islamic and conventional banks in KSA.

However, an analysis of government reports on the program by Hassan (2018) shows that the KP did not generate the expected flow of credit into Saudi SMEs. From 2006 to 2016, under KPa total of 18,289 guarantees were issued to 8,933 SMEs with a value of SR 8,925 million, as against the total approved financing of SR 17,929 million (less than 50 per cent). Hassan concluded that this outcome was in part due to weak credit demand from SMEs, in addition to uneven investment opportunities and the implementation of more rigorous prudential rules. This analysis suffers from a lack of data independence and premature conclusions about the state of SME credit demands. Thus, a comprehensive independent study of the proficiency or otherwise of KP from the perspective of the SME sector is called for and worthwhile and a better understanding of Saudi SMEs that secure bank funding under KP is warranted.

Therefore, this paper aims to empirically examine the efficacy of the KP using SME data independently gathered to determine whether the KP has met its stated objectives, in particular about the reduced need for collateral. Firstly, we examine the KSA SME sector interactions with the banking sector from the perspective of their business characteristics, as established in the literature. Our premise is that the features of an SME can influence its ability to secure debt funding, given that financial institutions who offer funding evaluate these factors when determining loan applications. This analysis will provide a base level of understanding in the KSA context. Secondly, we examine a group of SMEs that have secured bank loans under the KP, and we test whether there are differences in firm characteristics between SMEs under KP, and SMEs that did not secure KP funding in KSA. In particular, we ask whether the KP reduces the need for collateral requested by banks when lending to KSA SMEs.

Theoretical background and research proposition

In order to examine the role of the KP in bank lending to SMEs, a theoretical approach to understanding the capital structure of SMEs in KSA is required. The theoretical principles underlying the capital structure, including static trade-off choice (Myers and Majluf, 1984) or pecking order framework (Myers 1984) for large firms, are also applicable to SMEs (Cassar and Holmes, 2003; Mac an Bhaird and Lucey, 2010). Capital structure theory implicitly assumes that the choice between debt and equity depends upon a firm's business characteristics (Westhead, Cowling, and Howorth 2001; Zoppa and McMahon 2002; Cassar and Holmes 2003) and explicitly in emerging markets (Dong and Men 2014; Wang 2016). According to Cassar and Holmes (2003), who investigate the determinants of capital structure for small and medium-sized enterprises, by employing firm characteristics in a large Australian nationwide panel survey, find support for the static trade-off and pecking order arguments in explaining the capital mix of firms. Concerning agency theory, Dong and Men (2014) using the World Bank Enterprise Survey, investigate how SME firm characteristics affect financing in emerging markets. Their findings in part, indicate that the asymmetric information problem is a key factor causing difficulties in obtaining external financing. Therefore, capital structure theories including static trade-off theory, pecking order theory, agency and information asymmetry theory can be captured through the business characteristics of SMEs.

These theories have been quite helpful in understanding the financing institutions that provide funds to SMEs, and more particularly, in potentially explaining finance accessibility through the Kafalah program in KSA. However, a criticism here is that often an oversimplified principle can result in some misleading conclusions (Burger and Udell 2006). Therefore, this paper will explicitly examine the SMEs' business characteristics as they relate to their capital structure, to better understand the lending decisions made by the KSA banking sector.

Studies on SME age and access to finance have equally produced mixed results, especially in relation to developed countries. JS Ramalho and da Silva (2009), Esperanca et al. (2003), Abdulsaleh and Worthington (2013) and Hall, Hutchinson, and Michaelas (2000) have all reported a negative relationship between a firm's age and access to finance. On the other hand, Abor and Biekpe (2009), Beck, Demirgüc-Kunt, and Maksimovic (2008), Huang and Song (2006), and Maurizio et al. (2009) have reported a positive association between a firm's age and access to both short-term and long-term debt. Contrary to these two opposing views, both Romano, Tanewski, and Smyrnios(2001) and Klapper, Sarria-Allende, and Zaidi (2006) could not find any significant association between total leverage and a firm's age.

There is a strong tendency for younger firms without a track record of high performance to have enough of an appreciable credit history to attract external finance; as such, such firms may be constrained to the use of external finance. On the other hand, older firms with well-established credit histories and credit worthiness will find it easy to obtain credit facilities from external finance providers (Kamweru 2011). Klapper, Laeven, and Rajan (2006) and Fama and French (2002) confirmed that firms in existence for less than five years (younger firms) are less likely to obtain debt financing from lenders. Then, newly established firms face challenges based on information asymmetry which leads to higher costs in accessing external financing from financial institutions. This has been addressed through the KP scheme which supports all SMEs and in particular, start-up businesses. Accordingly, the following null hypotheses are proposed:

H1: There is no association between firm age and debt financing for SMEs in KSA.

H2: There is no difference in firm age between SMEs that obtained funding from the KP, and SMEs that did not secure KP funding in KSA.

The size of the SME can be captured by the asset base and/or the number of employees, in SME firms. Abor and Biekpe (2009) opine that small firms with limited resources and greater opaqueness in their operation are likely to experience difficulty in accessing finance, compared to larger SMEs that have greater access to resources and collateral. Cassar and Holmes (2003), Nagano (2003), and Motwani et al. (2006) have also argued that there is a positive relationship between firm size and its access to finance. They both submitted that the size of the firm is very much linked with the financial ability of the firm, which arguably boosts a bank's confidence that a firm can repay its debt obligations. Large firms tend to be highly diversified in their operations, with greater numbers of employees, which influences their stability and thus enhances their ability to access external finance (Honhyan 2009). This suggests therefore that diversification and size of the firm have a direct influence on debt financing.

While several studies on SMEs show that the size of the firm determines its ability to obtain funds (Abor and Biekpe 2005; Coleman and Cohn 2000), the direction of this association remains inconclusive. While several studies affirmed a positive relationship between size and access to finance (Hartley 2004; Kohlbacher 2006), many other studies have indicated that a negative relationship exists (Smallbone and Rogut 2001; Stake 2000), while other studies could not find any association between the two (Al-Kharusi 2003; Antoniou, Guney, and Paudyal 2008). Arising from this premise, the following null hypotheses are proposed:

H3: There is no association between firm size and debt financing for SMEs in KSA.

H4: There is no difference in firm size between SMEs that obtained funding from the KP, and SMEs that did not secure KP funding in KSA.

Barbosa and Moraes (2004) have observed that there is a relationship between industry classification and financial leverage, based on the assumptions made by banks regarding industry trends. Abor and Biekpe (2007) and Riportella and Martínez (2003) have found that SMEs in the agricultural sector exhibit the highest capital structure and asset structure or collateral value, while the wholesale and retail trade industry has the lowest debt ratio and asset structure. Thus, it is clear that the sector influences the potential for SMEs to secure external finance.

In a contrarian study, Jordan, Lowe, and Taylor (1998) found that industry characteristics are less significant than firm financial and strategy variables. Thus, they may seem to be less important for debt providers, as they specifically consider the firm's unique position.

This result is supported by Hall, Hutchinson, and Michaelas (2000), who find that industry has an indirect influence on the firm's capital structure, as financial providers focus on subsets of assets, such as fixed assets in the lending process (Berger and Udell 2006; Booth et al. 2001; Joeveer 2005).

To the extent that there are unobservable factors that are correlated within an industry, it is also arguable that industry-fixed effects could be significant (Cole, 2008). In the same vein, Mac an Bhaird and Lucey (2010) opine that the business sector to which a firm belongs has no relation to its financial structure and accessibility of finance. Given the foregoing discussion, there appears to be no consensus about the specific contribution of a business sector on the financial structure of a firm. Thus, the following null hypotheses are proposed:

H5: There is no association between firm sector and debt financing for SMEs in KSA.

H6: There is no difference in firm sector between SMEs with funding from the KP and SMEs that did not secure KP funding in KSA.

Next, we discuss growth as a firm characteristic that influences capital structures. High-growth firms might have more options for future investment than low-growth firms. For growing firms, internal funds may be insufficient to finance their investment opportunities, hence making them more likely to seek external funds (Carpenter and Petersen, 2002; Beck et al. 2006; Abor and Biekpe 2009). The growth prospect, therefore, has the tendency to influence the capital structure and financing capability of firms. Financing choices and opportunities can be influenced by earning profiles and the growth potentiality of the firm (Cassar 2004; Chakraborty 2010). Firms with relatively high growth tend to seek extended financing, which in turn, leads to firms with relatively higher growth attaining more potential leverage. Faulkender and Petersen (2005) showed that a firm's actual capital structure does not depend solely on the determinants of its preferred leverage, as many SMEs prefer to grow through the organic means of using their equity reserves, or by freeing the cash flow generated by the business. Beck et al. (2006) have found that financing obstacles reported by small enterprises are caused by slow business growth, which further constrains them from developing to their optimal size. Since growth is the primary goal of all business ventures, no firm can grow its business operations without ensuring profitability (Albasri et al. 2016).

Firms using external financing sources are better able to grow, thus only using internal financing can be considered a major growth restraint (Carpenter and Petersen 2002; Bany-Ariffin, Mat Nor, and McGowan Jr. 2010). Honjo and Harada (2006) further infer that internal finance has a positive impact on growth as well. Furthermore, SMEs are constrained in raising external financing once they are already highly leveraged. Accordingly, the null following hypotheses are proposed:

H7: There is no association between firm growth prospects and debt financing for SMEs in KSA.

H8: There is no difference in firm growth prospects between SMEs that obtained funding from the KP, and SMEs that did not secure KP funding in KSA.

The strength of borrowers' financial statements is valuable to order to support their debt application (Berger and Udell 2006). Financial institutions generally evaluate the firm's business information as the measure of a firm's current and future performance (Magembe, Sethibe, and Kitindi 2007). Therefore, sophisticated financial information (SFI) supports the loan application process and facilitates SMEs in terms of accessing finance from banks (Bruns and Fletcher 2008). Firms with SFI are likely to secure external funding because of the input of external expertise, such as the work of accountants and auditors, which produces sound and reliable financial information (Allee and Yohn 2009; Newman, Schwarz, and Borgia 2014; Ayed and Zouari 2014). Audited financial statements are critically supportive for small SMEs rather than for large firms. Even though they are legally exempt from this obligation, it demonstrates their reliable financial position. SMEs therefore, often present their SFI, and more specifically cash-flow projections, as proof of their ability to generate funds and repay the debt. This enhances the SME relationship with banks, as banks engaging with SMEs often deepen the relations with their clients (De la Torre, Pería, and Schmukler, 2010). Accordingly, the following null hypotheses are proposed:

H9: There is no association between firm SFI and debt financing for SMEs in KSA.

H10: There is no difference in SFI between SMEs that obtained funding from the KP, and SMEs that did not secure KP funding in KSA.

Accounting firms prepare financial statements in accordance with the local generally accepted accounting principles (GAAP) and international standards (Berger and Udell 2006; Balsmeier and Vanhaverbeke 2018). Thus, firms which receive the support of external expertise are likely to secure external funding because of the proficiencies and input that external professionals provided by accountants and legal consultants (Allee and Yohn 2009; Han, Fraser, and Storey 2009). Dorasamyet al. (2010) suggest that accounting services and functions play an intrinsic role in providing SMEs with better management control and assistance in decision-making. As such, the external expertise, mainly of qualified accountants, covers a considerable remit and it is evident that external professional expertise may be a crucial determinant of SMEs' debt financing, where value is added at all stages of SME loan applications. Accordingly, the following null hypotheses are:

H11: There is no association between external expertise and debt financing for SMEs in KSA.

H12: There is no difference in external expertise between SMEs that obtained funding from the KP, and SMEs that did not secure KP funding in KSA.

Finally, to compensate for missing information on the creditworthiness of SMEs, banks ask for collateral to guarantee credit and thereby reduce their exposure to default. Bougheas, Mizen, and Yalcin(2006) document that collateral is a significant factor for SMEs to access debt finance. Waked (2016) revealed that the value of collateral and the availability of internal finance were key factors in determining SMEs' accessibility to bank loans. The study equally provided strong empirical evidence and support for a positive association between a firm's repayment capacity and financial credibility and accessibility to bank loans.

Collateral lessens the riskiness of a loan by giving the financial institution a claim on a tangible asset without diminishing its claim on the outstanding debt. Thus, collateral can solve problems derived from asymmetries in the valuation of projects, uncertainty about the quality of projects and the riskiness of borrowers; in addition to problems related to the cost of monitoring or supervising borrowers' behaviour. Barbosa and Moraes (2004) argue that SMEs owners/entrepreneurs that invest heavily in tangible assets tend to have higher financial leverage since they can borrow at lower interest rates if their debt is secured with such assets.

The use of collateral may eliminate rationing and deliver the optimal levels of both lending and investment to firms (Coco 2000). Collateral, therefore, solves the information asymmetry problems in the evaluation of an investment project, and there is a positive relationship between bank financing and asset structure. This in turn reconciles with the matching of long-term debt against fixed assets that may be advanced as collateral (Cassar 2004). Collateral is an essential method for SMEs to achieve growth by accessing the required external funding from financial providers (Bougheas, Mizen, and Yalcin2006). Hence, financial institutions use assets pledged as collateral to assess SMEs' repayment prospects (Berger and Udell 2006). This also reduces adverse selection that arises from asymmetric information. Conversely, a lack of collateralised assets can restrict SMEs in relation to accessing finances (Mac an Bhaird and Lucey 2010). Based on the above premise, the following null hypotheses are proposed:

H13: There is no association between collateral and debt financing for SMEs in KSA.

H14: There is no difference in firm collateral between SMEs that obtained funding from the KP, and SMEs that did not secure KP funding in KSA.

Methodology

The authors formally liaised with the Saudi Chamber of Commerce and the Ministry of Trade to locate SMEs for this study. An alternative source for contacting SMEs employed was the circuit of networking conferences regularly held in KSA for business owners or owner-managers to share information and potential opportunities. The definition of an SME used is by the European definition on 1/1/2005, which states that an SME is a business that employs fewer than 250 employees, among other measures of size (European Commission 2017). Consequently, a database was developed to approximate the SME population base in KSA, across all regions.

Within each region, SMEs were randomly selected for participation in the study. Thus, all SMEs had the same probability of being selected whether rural or urban-based. The questionnaire was then personally distributed to 500 SMEs from diverse geographical areas selected from our database.

The timeframe for the personal distribution and collection of data was 130 days (in 2016) and the final sample of data collected consists of material from 247 SMEs across all prime KSA industries of construction, manufacturing, social services, retail, and travel and tourism and other sectors.

The response rate was 49.4 per cent (n=247) out of the 500 questionnaires distributed and various measures were taken to ensure that the attrition rate was reduced. This response rate is reasonable given former research rates of 10 per cent (Curran and Blackburn, 2001). The key variables for this analysis drawn from the questionnaire are contained in Table 1 below:

Table 1: Variable Explanations

Variables	Explanations
DEBT	A dependent dummy variable that identifies if the SME borrowed to grow the business (not start-up
	capital) as equal to 1 otherwise 0. Dependent variable Y ₁
KP	A dependent dummy variable that identifies if the SME borrowed under the Kafalahprogramme as
	equal to 1 otherwise 0. Dependent variable Y ₂
AGE	Anindependent dummy variable for business age that identifies if the SME is under or over 10 years
	old as equal to 1 otherwise 0
SIZE	An independent dummy for business size that identifies if the SME has under or over 50 employees as
	equal to 1 otherwise 0.
TANG	An independent dummy for tangibility of assets that identifies if the SME with tangible assets in the
	construction and manufacturing sectors as equal to 1 and intangible assets in the services and tourism
	sectors as equal to 0.
GROW	An independent dummy for growth prospects that identifies if the SME expects future growth of
	profits to be more than 5% as equal to 1, otherwise 0
SFI	An independent dummy for sophisticated financial information that identifies if the SME has
~~	generated financial a statements with a Business Plan as equal to 1, otherwise 0.
COLL	An independent dummy for collateral that identifies if the SME has pledged assets and property for a
	loan as equal to 1, otherwise 0.
EXT	An independent dummy for external expertisethat identifies if the SME has employed external
	financial advisor to support their loan application and generation of financial information as equal to 1,
	otherwise 0.

Cronbach's alpha test was conducted to ensure the reliability of the data collected and the result of the internal reliability test conducted was 0.877. This demonstrates a high level of internal reliability, given that there is a threshold level of 0.7 to achieve optimal information according to the literature. Five items relating to satisfaction with the KP were treated as one coherent scale, thereby ensuring that the items measured the same construct.

Debt financing at the expansionary stage and debt that is covered by the guarantee of KP are the two dependent variables in this paper. The main independent controlling variables for this study are age, size and tangibility, proxied by sector. This approach follows Storey (1994), Mat Nawi (2015), Wang (2016) and Albaz (2017), who indicated that SMEs' business characteristics (such as age, size, and sector) are major variables in debt financing. The age of the firms is measured by the number of years that the firms have been operating (Romano, Tanewski, and Smyrnios2001). However, in this study, a decade was used to measure the age of the firms. Size is measured by the number of employees (Motwani et al. 2006) as the European Commission's (2017) definition is based on the number of employees in the firm. The sector is measured by asset tangibility (Berger and Udell 2006), and growth prospect is measured by future growth indicators (Albazr 2017). Sophisticated financial information is measured by the quality of the financial statements (Allee and Yohn 2009). The external expertise variable captures the input of accountants and other professionals' into the financial information generation process (Allee and Yohn 2009). Collateral variables are measured by pledged assets, property and personal accounts (Beck et al. 2006; Mac an Bhaird and Lucey 2010).

The outcome of the initial data analysis concerned examining the characteristics of the firm and its financing. It also provided a general idea of the difficulties accessing finance with relation to a firm's characteristics. SMEs that secured access to debt through the KP were also identified in the study sample. Debt financing was divided into the three categories of *start-up debt* and *expanded debt*, and both *start-up* and *expanded debt*, as shown in Appendix 1. The majority of SMEs in the sample sought debt-funding for business expansion.

Based on this preliminary analysis, the first dependent variable used in the regression analysis is debtfunding for business expansion (Y₁ = *expanded finance*) explained using the seven independent variables. Both dependent and the independent variables are categorical variables, therefore *binary logistics regression* is used as per previous research (Pallant 2010). The model formulated to test the dependent variable Y₁ is as the follows: $Y_1 = \beta_0 + \beta_1 AGE + \beta_2 SIZE + \beta_3 TANG + \beta_4 GROW + \beta_5 COLL + \beta_6 SFI + \beta_7 EXT + error Note: variables are$ explained in Table 1.

The second stage of this study was to test the difference in business characteristics between KP and non-KP firms in KSA. To this end, a matched sample was created baonupon age, size and sector. The 54 KP firms (being the number of firms that have a secured credit facility under KP) were matched against 54 non-KP firms to produce a sub-sample of 108 firms. The Y_2 dependent variable here is a dummy variable where debt under the KP is equal to 1, using the same seven variables as explainers. The model formulated to test the dependent variable Y_2 (n= 108) is as follows:

$$Y_2 = \beta_0 + \beta_1 AGE + \beta_2 SIZE + \beta_3 TANG + \beta_4 GROW + \beta_5 COLL + \beta_6 SFI + \beta_7 EXT + error$$

Note: variables are explained in Table 1.

The third stage of this study was an examination of the differences in the collateral required when lending to SMEs under the KP in KSA. Thus, to test this, the collateral required by banks when lending to SMEs was distributed between the two groups of SMEs in the sample (KP SMEs and non-KP SMEs). As the data in those two groups is categorical, the *Chi-square* test was selected as an appropriate test to conduct a comparison between the two groups which contained categorical data (Pallant 2010).

There several of limitations associated with this study. Firstly, no previous research has specifically assessed SMEs in KSAwith regard to certain business characteristics and the KP. Another drawback is several SMEs only returned partially completed questionnaires. This did not, however, adversely affect data collection and the response rate was sufficient to conduct a robust analysis of this study and to meet the stated research aims.

Results

Sample description

Initially, we examined the motivation for bank loans (start-up or business expansion or both) concerning to the of bank loans secured (KP or non-KP). It was found that 54 of the 247 SMEs that secured a KP loan and the majority (72 per cent) of those loans were granted to SMEs for business expansion projects in sectors with tangible assets (Table 2). 56 SMEs secured a bank loan at the start-up stage, mostly in the sectors with tangible assets. Surprisingly, only start-up loans were secured under the KP. The SMEs that did not secure debt-funding through the KP (non-KP) totalled 193 SMEs.

Table 2: Motivations for Kafalah and non-Kafalah bank loans by sector groups

Bank Loan	Type of Debt	Sector	Frequency	Percentage
	Start-up Debt	Tang=1	38	18.3%
1 <i>5 1</i> £		Tang=0	11	5.3%
154 firms (Non-		Total	49	23.6%
KP Debt)	Expanded Debt	Tang=1	61	29.3%
Ki Debt)		Tang=0	39	18.8%
		Total	100	48.1%

¹The size of the loans was categorised to three levels. As the majority of the sample received the same level, the size of the financing in each group (KP or Non-KP loan) was comparable.

	Both Forms of Debt	Tang=1	4	1.9%	
		Tang=0	1	0.5%	
		Total	5	2.4%	
	Start-up Debt	Total	-	-	
	Expanded Debt	Tang=1	38	18.3%	
54 firms		Tang=0	14	6.8%	
(KP Debt)		Total	52	25.1%	
` ,	Both Forms of Debt	Tang=1	1	0.4%	
		Tang=0	1	0.4%	
		Total	2	0.8%	
	Total		208	100.0%	

Note: From the total of the sample of 247 SMEs; 208 firms successfully secured bank debt-funding, while 39 firms, which had no bank debt-funding at all. Tang is explained in Table 1.

In all, of the total of 247 SMEs, 208 firms successfully secured bank debt funding (54 secured under the KP and 154 secured under the non KP), while 39 SMEs had no bank debt funding at all. This indicates the low patronage of the guarantee scheme provided for SMEs, perhaps due to the respondents' limited awareness of the credit guarantee scheme. This result is consistent with the findings of Waked (2016) in relation to KSA and Mat Nawi (2015) in relation to Malaysia.

The next stage of this study was to test the association between the seven business characteristics and debt-funding for SMEs in KSA. A cross-tabulation was undertaken to examine the relationships between the various SME characteristics and the debt variables, including loans for start-ups and debt financing for business expansion (see Appendix 2). Statistically significant relationships were found between both classification of debt and the age of firm, size, sophisticated financial information and external expertise. However, only external expertise has a sizeable positive effect on both types of debt in Saudi SMEs.

Next, given the predominance of debt for expansion projects, we focused on 'expanded debt' and examined how this form of debt was associated with business characteristics for non-KP SMEs. We conducted chi-squared tests to examine these relationships (Appendix 3). Statistically significant relationships were found between non-KP expansionary debt and sophisticated financial information and external expertise, with moderate size effects. Therefore, this suggests that SMEs that manage to secure bank loans outside KP relied significantly on the financial advisors and the associated sophisticated financial information they may generate to assist them bridge the asymmetric information gap.

With regard to this paper's second aim, the group of SMEs that successfully secured debt funding through KP were matched against non-KP firms. Using cross-tabulations, the relationship between the business characteristics was examined and significant relationships with regard to size, growth prospects, collateral and external expertise were found (refer to Appendix 4). When comparing the chi-squared tests of the non-KP group and the matched sample, it is notable that collateral becomes significant under KP and sophisticated financial information is no longer an explanation for KP debt for SMEs. This is preliminary evidence that collateral is used by KP banks to compensate for the asymmetric information gap and that sophisticated financial information in that instance is less relevant.

In relation to the third aim of this study, the KP objectives were to increase bank lending to SMEs generally, to minimise the default risks, to assist start-up businesses, to lend to services firms, to lend to SMEs with a limited financial track record and to reduce the need for collateral (Altokhais 2016; Jafori and Al Mamun 2017). The initial results here highlight that KP did not support the entire SME sector; areas with low tangible assets such as services, tourism and retail were neglected (see Appendix 5). The KP as applied by the financial intermediaries concentrated on sectors with existing tangible collateral, to the detriment of other sectors. This result also suggests that the KP did not support the start-up stage for SMEs, as they emphasised the firm's capacity to provide collateral as pledged assets and property, which tends to be a feature of the expansionary stage of SME growth (Appendix 6). Table 2 shows that only 2 (3.7 per cent) of the 54 SMEs firms successfully secured start-up debt-funding through the KP.

Hypothesisestesting

The preliminary findings suggest that the first null hypothesis can be rejected, confirming that there is an association between these firm characteristics and debt financing for SMEs in KSA. As shown in Table 3 below, firm ageis a very significant predictor at the 1 per cent level and external expertise is a significant predictor at the 5 per cent level. Two other SME features (tangibility and collateral) are weakly significant. These four business characteristics can predict the likelihood of SMEs securing debt outside the KP in KSA. In particular, older firms that engage external expertise are more likely to secure bank loans. This confirms the rejection of null hypotheses in this study and the acceptance of the alternative hypothesis, which states that there is an association between firm characteristics (H1, H3, H5, H7, H9, and H11) and debt financing for SMEs in KSA.

Table 3: Binary logistic regression parameter estimates of predictors, categorised by non Kafalah expanded debt (n = 193)

Variabls	В	p-value	Exp(B)
AGE	1.243	.007***	3.467
SIZE	.053	.901	1.055
TANG	.793	.079*	2.211
GROW	128	.754	.880
COLL	.779	.062*	2.180
SFI	255	.586	.775
EXT	927	.019**	.396
Constant	234	.628	.792

Note: * Significant at 10% level, ** Significant at 5% level *** Significant at 1% level. Variables explained in Table 1.

N= 193 are all the SMEs in the sample that secured non Kafalah debt.

Model: $Y_1 = \beta_0 + \beta_1 AGE + \beta_2 SIZE + \beta_3 TANG + \beta_4 GROW + \beta_5 COLL + \beta_6 SFI + \beta_7 EXT + error$

Hypothesis 2 formulated in this study was empirically tested using the *binary logistical regression*, employing debt-funding (KP debt v.s non-KP debt) and the same seven business characteristics. As illustrated in the following table (Table 4), the results of the binary logistic regression for debt (KP v.s non-KP) shows that collateral, sophisticated financial information and external expertise are very significant predictors of securing a KP bank loan. Growthprospects are significant at the 5 per cent level and firm size is weakly significant.

Table 4: Binary logistic regression parameter estimates of predictors, categorized by KP v.sNon-KP debtfunding (n = 108)

В	p-value	Exp(B)
.690	.392	1.993
1.050	.095*	2.858
581	.358	.560
1.244	.045**	3.470
-2.625	.001***	.072
2.377	.006***	10.770
-2.938	.001***	.053
514	.506	.598
	.690 1.050 581 1.244 -2.625 2.377 -2.938	.690 .392 1.050 .095* 581 .358 1.244 .045** -2.625 .001*** 2.377 .006*** -2.938 .001***

Note: * Significant at 10% level, ** Significant at 5% level *** Significant at 1% level. Variables explained in Table 1.Model: $Y_2 = \beta_0 + \beta_1 AGE + \beta_2 SIZE + \beta_3 TANG + \beta_4 GROW + \beta_5 COLL + \beta_6 SFI + \beta_7 EXT + error$.

These five business characteristics can distinguish between firms that successfully secured debt-funding through the KP and those that did not. In particular, employing external expertise is an excellent predictor of the ability of Saudi SMEs securing bank loans, irrespective of the KP. An interesting note here is that collateral is a more significant predictor under the KP than non-KP loans. This is an unexpected outcome and warrants further investigation. Overall, the null hypotheses (H2, H4, H6, H8, H10, and H12) are also rejected in this study and instead an alternative hypothesis has been accepted, which states that there is a difference in firm characteristics between SMEs which obtained funding from the KP, and SMEs that did not secure KP funding in KSA.

The third research question is empirically tested using the *Chi-square test*, and aimed to investigate whether the KP has met its objectives and reduced the need for collateral requested by Saudi banks when lending to SMEs. After excluding the 39 firms which had no bank debt-funding, the distribution of collateral can be compared between those two groups using the Chi-square test of equality of proportions, as it is the most appropriate test for such a comparison.

Table 5 illustrates a clear and significant association between debt and collateral [Chi-square = 24.50, p = 0.001 (P<0.05)]. A Chi-square test of proportion was used to pinpoint precisely where the differences lay across the types of collateral required by Saudi banks: pledged assets; property; personal account; personal guarantee; second part guarantee; and bonds. From Table 5, a significantly higher proportion (20.4 per cent) of firms not covered by the KPguarantee used a personal account as collateral, compared to the proportion (1.9 per cent) covered by the KP guarantee [p=0.001 (P<0.05)]. This is a positive outcome for the SME sector, as entrepreneurs have less personal exposure when borrowing for their businesses, under the KP.

Table 5: The association between SME bank debt and loan collateral (test ofequality of proportions)

Collateral Type	Non KP Debt (n=142) ^a	KP Debt (n=54) ^b	Chi-square value	p value	Test of proportion
Pledged assets	44 (31.0%)	30 (55.5%)			0.002***
Property	41 (28.9 %)	19 (35.1 %)			> 0.05
Personal account	29 (20.4 %)	1 (1.9 %)			0.001***
Personal guarantee	15 (10.6 %)	3 (5.6 %)	24.9	0.001	> 0.05
Second party guarantee	12 (8.5 %)	1 (1.9 %)			> 0.05
Bonds	1 (0.7 %)	0			> 0.05
Total	142	54		196	

Note: * Significant at 10% level, ** Significant at 5% level *** Significant at 1% level.

- a. 142 are the firms who provided collateral information on the survey out of the 154 SMEs who secured non-KP debt (that excludes the 39 firms which had no bank debt-funding). See Appendix 1 for details of the debt categories.
- b. 54 firms successfully secured debt-funding through the KP.

Conversely, there is a significantly higher proportion (55.5 per cent) of firms covered by the KP guarantee who have pledged assets as collateral, compared to 31 per cent not covered by the KP guarantee [p=0.002 (P<0.05)]. This is a negative outcome for the SME sector, as SMEs with tangible assets to pledge are more likely to secure a bank loan under the KP. This is contrary to the stated objectives of the KP, where the policy objective was to reduce the need for loan collateral from SMEs and to assist start-up businesses and SMEs with limited tangible assets to pledge as collateral (Altokhais 2016; Jafori and Al Mamun 2017). This latter point is confirmed by the analysis of the *Kafalah*loans by SME sector in Appendix 4. Hence, the null hypothesis 3 is also rejected and the alternative hypothesis accepted which proves that there is a difference in the collateral required when lending to SMEs under the KP in KSA.

Discussion

This paper sets out to identify the SMEs characteristics that influence success in securing debt-funding in KSA, in addition to examining how accurately such characteristics can predict whether or not an SME can successfully secure debt-funding through the KP.

These matters have been addressed in the findings, but while it is clear that business characteristics and debt-funding are related, the nature of this relationship varies significantly from one situation to another. Thus, expanded debt-funding is related to business characteristics such as the age of the firms, the sector involved, collateral and access to external expertise (Beck et al. 2006; Cassar and Holmes 2003). Therefore, a significant relationship exists between debt-funding and these four variables.

The SME characteristics that predict KP bank loan success are the size of the firm, its growth prospects, the capacity to pledge assets as collateral, the generation of sophisticated financial information and employing external expertise. Growing firms tend to seek extended financing to support their development (Albazr 2017). Essentially, SFI enables banks to familiarise themselves with the past performance of the SME. As such, financial information represents the firm's forecasted financial capability and indicates whether debtor obligations can be settled when due. This study, agreeing with Allee and Yohn (2009), provides evidence that external expertise is a significant factor in predicting KP bank loan success, due to established relationships with trustworthy and reliable financial experts and the capacity to reduce the asymmetric information between the banks and SMEs.

Collateral is found to be a determining factor in debt-funding from the perspective of the banks, as it is held as security in cases where SMEs fail to pay back at the agreed time, or on the agreed terms. Clearly, providing collateral has a positive impact on debt financing (Beck et al. 2006), and SMEs without collateralised assets face challenges in accessing external finances (Mac an Bhaird and Lucey 2010). Interestingly, the most common form of collateral under the KP includes pledged assets and property (90 per cent of the collateral required of SMEs, see Table 5). Outside the KP, these forms of collateral make up 60 per cent of types of collateral required by banks of SMEs. Therefore, while personal accounts and personal guarantees as collateral have decreased dramatically, the Saudi banks appear to have substituted these personal collateral components with pledged assets and property. This paper thus confirms Cassar and Holmes (2003) that SMEs without tangible assets find it difficult to secure external financing, and that sectors with tangible assets are more likely to secure a loan under the KP. Specifically, a positive relationship exists between collateral and the borrower-lender relationship in KSA, in line with Fatoki and Asah (2011). However, the collateral offered to banks under the KP is based on tangible (fixed) assets, which disadvantages SMEs without tangible assets, such as the service, retail and tourism sectors. This is clear evidence that the implementation of the KP results in substantially supporting sectors with existing tangible collateral, which conflicts with the original aims and objectives of the scheme.

As established in the literature, the age of the firm is an important factor determining the capital structure choice, and our findings confirm this positive association between an SME's age and its access to finance. This implies that older firms would have enough experience, assets and financial information certified by experts and are thus capable of accessing bank loans (Vos et al. 2007; Bell and Vos 2009). This is explained by information asymmetries and agency theory. Older firms usually have a track record of financial information, which indirectly reduces information asymmetries and these businesses are a lower risk than smaller, younger businesses. Our findings concur with Dong and Men (2014) that in emerging markets, younger, smaller firms in the nonmanufacturing sectors face the greatest obstacles to securing external finance.

The majority of firms that benefited from the KP were supported in their growth stage and provided collateral. This infers that the KP as implemented by the financial institutions was biased against start-up businesses as they have the lowest capacity to provide collateral as pledged assets and property at the business expansion stage.

Theoretically, our finding of a positive association between the size of an SME and access to external finance supports the trade-off theory proposition which predicts a positive association between a firm's size and leverage, as larger firms should have more debt than smaller firms (Harrison, Panasian, and Seiler, 2011; Barros, Nakamura, and Forte 2013; and Albaz, 2017). Large firms are more diversified and less volatile (Fama and French, 2002) and fail less often (Nagano, 2003). They possess a more established reputation, have more stable cash flows, and are more likely to be liquid; thus increasing their potential to access external finance, if required (Riportella and Martínez, 2003; Antoniou, Guney, and Paudyal, 2008). In contrast, small firms borrow less since they are a riskier proposition (Booth et al. 2001; Joeveer, 2005) and financial institutions may even discriminate against SMEs during the loan application process (Abor and Biekpe, 2009).

It equally supports agency theory with its associated information asymmetry and adverse selection problems as postulated by Jensen and Meckling (1976). This involves the struggles between the equity owners and the managers, and between debt holders and equity owners/managers. The challenge of information imbalance can increase the difficulty of accessing bank credit since the bank may not have enough information to rely on for the safety of the loan and this creates adverse selection problem. The source of SMEs' financing challenges lies in the information gap between the borrower and lender of funds, causing serious information asymmetry between the two parties. The lack of relevant information will have an adverse effect on the decision of the lender to lend to the borrower. Hence, financial institutions, in rare situations, are only able to leverage on collateral security and raise lending rates to reduce the potential risk of credit losses (Cheng Ya and Zhifei, 2014). This is the foundation for explaining the financial gap between banks and SMEs, in addition to the challenges to financial accessibility faced by SMEs, even with the availability of KP in KSA. Specifically, this study shows that the inadequate accounting records generated by SME operators creates the information asymmetry problem for banks, and this has led to the problem of adverse selection, as predicted in agency theory. Thus, the inability of SME operators to present adequate financial record is presumed to lead to adverse selection for the banks, by exposing them to potential default risks, where often the financial provider is unaware of this information, as documented by Holmes et al. (2003).

In summary, the findings indicate strongly that a lack of tangible collateral hinders Saudi SME access to debt financing, even though the KP policy initiative did reduce the reliance on personal guarantees from entrepreneurs. This concurs with Bougheas, Mizen, and Yalcin(2006) who maintain that collateral requirement is a key characteristic for SMEs to secure debt finance.

Conclusion and recommendations

The study makes a number of important contributions to understanding the SME sector in KSA; in particular, which Saudi SMEs businesses are likely to attract debt-funding and how successful the KP bank loan guarantee is in the SME sector. It specifically exposes the failures of the government-sponsored KP debt program within the service and tourism SME sectors where a paucity of collateral is a frequent problem. Rather than supporting the service sector, the KP as applied by the banking intermediaries, concentrated on sectors with existing tangible collateral to compensate the banks for reduced personal guarantees. This is in direct contravention of the program objectives, which underline the policy commitment to support the entire SME sector through reduced collateral requirements.

Given these findings, there are a number of policy recommendations to be made; the development of a supporting infrastructure for SMEs via the Chamber of Commerce within KSA; various SME strategies to boost the likelihood of accessing bank credit; and finally, evidence-based revisions and expansions of the KP. Firstly, we recommend that as part of the entrepreneurial eco-system in KSA, the Chamber of Commerce provide active support (communication, training and network events among others) for SMEs, to develop SFI in collaboration with the professional financial and accounting expert intermediaries. Moreover, we suggest that SMEs themselves should engage more proactively to generate sophisticated financial information and take up opportunities to inform themselves of the benefits of employing external professional expertise.

The SMEs should also save in proportion to their earnings where practical, and, thereby, ultimately be less reliant on bank debt for growth and/or accumulate more tangible assets such as property, which may then be pledged as collateral to access external finance at their expanding period of growth. We would recommend that SMEs should also consider accessing non-traditional sources of finance, as an alternative to bank finance, such as crowdfunding platforms and microfinance institutions. These alternative sources of finance may allow Saudi SMEs to circumnavigate the collateral requirements of private debt providers.

We also argue that the Chamber of Commerce should make representations to the KSA government to hold the banking institutions accountable for their KP lending practices in relation to the KP objectives. In particular, there should be minimum targets set to lend to SMEs in services and tourism sectors. To reduce the SME reliance on funding from the banking sector, we recommend that government policy should be expanded to include non-traditional sources of finance that may be more inclined to fund service industries and start-up SMEs.

Finally, SME finance intervention programs should be considered as one spoke in the wider wheel of policy intervention to develop a nurturing SME ecosystem to enable SME growth and in particular support high-growth firms. We recommend that government policy be expanded to include active non-financial support for start-ups and established SMEs, including but not limited to, e-commerce training, mentoring and innovation incubation centres for high-potential start-ups, among others.

References

- Abdulsaleh, A. M., and A. C. Worthington. 2013. Small and medium-sized enterprises financing: A review of literature. *International Journal of Business and Management*. 8 (14): 36.
- Abor, J., and N. Biekpe. 2005. What determines the capital structure of listed firms in Ghana? *African Finance Journal*. 7 (1): 37-48.
- Abor, J., and N. Biekpe. 2007. Corporate governance, ownership structure and performance of SMEs in Ghana: implications for financing opportunities. *Corporate Governance*. 7 (3): 288-300.
- Abor, J., and N. Biekpe. 2009. How do we explain the capital structure of SMEs in sub-Saharan Africa? Evidence from Ghana. *Journal of Economic Studies*. 36 (1): 83-97.doi:10.1108/01443580910923812.
- Albaz, N. 2017. Modelling Credit Risk for SMEs in Saudi Arabia. Doctoral dissertation.
- Albasri, M. F., A. Mishra, and I. Elbeltagi. 2016. Entrepreneurial characteristics and SME growth in Saudi Arabia: The Role of the financial support system. Proceedings of the Eighth Saudi Students' Conference in the UK. World Scientific, 39-52.
- Allee, K. D., and T. L. Yohn. 2009. The demand for financial statements in an unregulated environment: An examination of the production and use of financial statements by privately held small businesses. *The Accounting Review*. 84: 1-25.
- Alrashidi, Y.A. 2013. Exporting motivations and Saudi SMEs: An exploratory study. World. 3(6).
- Altokhais, S. A. 2016. Factors related to the financial assistance of SMEs through Kafala programs in Saudi Arabia. *Journal of Contemporary Scientific Research*. 1: 2209-0142.
- Antoniou, A., Y. Guney, and K. Paudyal. 2008. The determinants of capital structure: Capital market-oriented versus bank-oriented institutions. *Journal of financial and quantitative analysis*. 43 (1): 59-92. doi.org/10.1017/S0022109000002751.
- Aremu, M. A., and S. L. Adeyemi. 2011. Small and medium scale enterprises as a survival strategy for employment generation in Nigeria. *Journal of Sustainable Development*. 4: 200-206.
- Ayed, W. H. B., and S. G. Zouari. 2014. Capital structure and financing of SMEs: The Tunisian case. *Journal of International Economics and Financial*. 6 (5): 96-111. doi:10.5539/ijef.v6n5p96.
- Balakrishnan, S., and I. Fox. 1993. Asset specificity, firm heterogeneity and capital structure. *Strategic Management Journal*. 14: 3-16.
- Balsmeier, B., and S. Vanhaverbeke. 2018. International financial reporting standards and private firms' access to bank loans. *European Accounting Review* 27: 75-104.
- Bany-Ariffin, A. N., F. Mat Nor, and C. B. McGowan Jr. 2010. Pyramidal structure, firm capital structure exploitation and ultimate owners' dominance. *International Review of Financial Analysis*. 19 (3): 151-164. doi:10.1016/j.irfa.2010.03.002 152.
- Barbosa, E. G., and, C. D. C. Moraes. 2004. Determinants of the firm's capital structure: The case of the very small enterprises. *Economics Working Paper Archive at WUSTL, Finance*. 302001, 1-73.
- Barros, L. A., W. T. Nakamura, and D. Forte. 2013. Determinants of the capital structure of small and medium sized Brazilian enterprises. *BAR-Brazilian Administration Review*. 10 (3): 347-369.doi:10.1590/S1807-76922013000300007.
- Beck, T., A. Demirgüç-Kunt., L. Laeven., and V. Maksimovic. 2006. The determinants of financing obstacles. *Journal of International Money and Finance* 25: 932-952.
- Beck, T., A., Demirgüc-Kunt, and V. Maksimovic. 2008. Financing patterns around the world: Are small firms different? *Journal of Financial Economics*. 89 (3): 467 487. doi:10.1016/j.jfineco.2007.10.005.
- Bell, K., and E. Vos. 2009. SME capital structure: The dominance of demand factors. SSRN Working Paper.
- Berger, A. N., and G. F. Udell. 2006. A more complete conceptual framework for SME finance. *Journal of Banking and Finance*. 30: 2945-2966. doi:10.1016/j.jbankfin.2006.05.008.

- Booth, L., V. Aivazian., A. Demirguc-Kunt., and V. Maksimovic. 2001. Capital structure in developing countries. *The journal of finance*. 56 (1): 87-130. doi:10.1111/0022-1082.00320.
- Bougheas, S., P. Mizen., and C. Yalcin. 2006. Access to external finance: Theory and evidence on the impact of monetary policy and firm-specific characteristics. *Journal of Banking and Finance*. 30: 199-227.
- Bruns, V., and M. Fletcher. 2008. Banks' risk assessment of Swedish SMEs. Venture Capital. 10: 171-194.
- Carpenter, R. E., and B. Petersen. 2002. Is the growth of small firm constrained by internal finance? *Review of Economics and statistics*. 84 (2): 298 309. doi:10.1162/003465302317411541.
- Cassar, G., 2004. The financing of business start-ups. *Journal of Business Venturing*. 19; 261-283.
- Cassar, G., and S. Holmes. 2003. Capital structure and financing of SMEs: Australian evidence. *Accounting and Finance*. 43: 123-147.
- Chakraborty, I. 2010. Capital structure in an emerging stock market: The case of India. *Research in international business and finance*. 37 (3): 295-314. doi:10.1016/j.ribaf.2010.02.001
- Cheng H., W. Ya and L. Zhifei. 2014. "Analysis on Financing Difficulties for SMEs due to Asymmetric Information." Cheng Huang Global Disclosure of Economics and Business, 3(2), pp. 28-31.
- Coco, G. 2000. On the use of collateral. *Journal of Economic Surveys*. 14: 191-214.
- Cole, R. 2008. What do we know about the capital structure of privately held firms? Evidence from the Surveys of Small Business Finance. *Small Business Administration*, *Washington*
- Coleman, S., and R. Cohn. 2000. Small firms' usage of financial leverage: Evidence from the 1993 national survey of small business finances. *Journal of Business and Entrepreneurship*. 12: 87-103.
- Curran, J., and R. Blackburn. 2000. Researching the Small Enterprise. Sage, London.
- Esperanca, J., Paulo, A. P. M Gama, and M. A. Gulamhussen. 2003. Corporate debt policy of small firms: an empirical (re) examination. *Journal of Small Business and Enterprise Development*. 10(1): 62-80.
- Dalitso, K., and Q. Peter. 2000. The Policy Environment for Promoting Small and Medium-Sized Enterprises in Ghana and Malawi. Institute for Development Policy and Management. University of Manchester, Manchester.
- De la Torre, A., M. S. M. Pería, and S. L. Schmukler. 2010. Bank involvement with SMEs: Beyond relationship lending. *Journal of Banking and Finance*. 34: 2280-2293.
- Dong, Y. and C. Men. 2014. SME financing in emerging markets: Firm characteristics, banking structure and institutions. *Emerging Markets Finance and Trade*. 50 (1): 120-149.
- Dorasamy, M., M. Marimuthu., J. Jayabalan, M. Raman, and M. Kaliannan. 2010. Critical factors in outsourcing of accounting functions in Malaysian small medium-sized enterprises (SMEs). Kajian Malaysia. *Journal of Malaysian Studies*. 28: 39-69.
- European Commission. 2017. The New SME Definition: User Guide and Model Declaration. Accessed February 21, 2018. https://ec.europa.eu/digital-single-market/en/news/new-sme-definition-user-guide-and-model-declaration
- Fama, E., and K. French. 2002. Testing trade-off and pecking order predictions about dividends and debt. *The review of financial studies*. 15 (1): 1-33. doi:10.2139/ssrn.199431.
- Fatoki, O. O., and F. Asah. 2011. The impact of firm and entrepreneurial characteristics on access to debt finance by SMEs in King Williams' Town, South Africa. *International Journal of Business and Management*. 6: 170-179.
- Faulkender, M., and M. A. Petersen. 2005. Does the source of capital affect capital structure? *The Review of Financial Studies*, 19: 45-79.
- Government of Saudi Arabia. 2016. Saudi Arabia's Vision for 2030. Available online. Accessed February 8, 2019. http://vision2030.gov.sa/en.
- Hall, G., P. Hutchinson, and N. Michaelas. 2000. Industry effects on the determinants of unquoted SMEs' capital structure. *International Journal of the Economics of Business*. 7: 297-312.
- Han, L., S. Fraser, and D. J. Storey. 2009. Are good or bad borrowers discouraged from applying for loans? Evidence from US small business credit markets. *Journal of Banking & Finance*. 33 (2): 415-424. doi:10.1016/j.jbankfin.2008.08.014.
- Harrison, D. M., C. A. Panasian, and M. J. Seiler. 2011. Further evidence on the capital structure of REITs. *Real Estate Econ.* 39 (1): 133-166. doi:10.1111/j.1540-6229.2010.00289.
- Hassan, K. A. 2018. Institutional Support for Entrepreneurship Development: A Scenario of SMEs in KSA. *Saudi Journal of Business and Management Studies (SJBMS)*. 3(4): 477-489.

- Holmes, S., P. Hutchinson, D. Forsaith, B. Gobson, and R. McMahon, 2003. Small Enterprise Finance. John Wiley & Sons: Milton Old, Australia.
- Honhyan, Y., 2009. The determinants of capital structure of the SMEs: An empirical study of Chinese listed manufacturing companies. Journal of Finance and Economics. 77: 117-146.
- Honjo, Y., and N. Harada. 2006. SME policy, financial structure and firm growth: Evidence from Japan. Small Business Economics. 27 (4-5): 289 – 300. doi:10.1007/s11187-005-6703-0.
- Huang, G., and F. M. Song. 2006. The determinants of capital structure: Evidence from China. China economic review. 17 (1): 14-36. doi:10.1016/j.chieco.2005.02.007.
- Jafori, S., and A. Al Mamun. 2017. A qualitative enquiry: Islamic microfinance and SMEs development in Saudi Arabia. International Journal of Science Arts and Commerce. 1. Available online. Accessed April 3, 2018: http://www.ijsac.net/.
- Jensen, M.C. and W. H. Meckling, 1976. Theory of the firm: managerial behavior, agency costs and ownership structure. Journal of Financial Economics. 3 (4): 305-360.
- Joeveer, K. 2005. What do we know about the capital structure of small firms? Working Paper Series, Prague, Center for Economic Research and Graduate Education, Charles University. 1-38.
- Jordan, J., J. Lowe, and P. Taylor. 1998. Strategy and financial policy in UK small firms. Journal of Business Finance and Accounting. 25, 1-27.
- Kamweru, M. R. 2011. Challenges Faced By Small & Medium Enterprises in Accessing Finance in Kiambu Town, Kenya.
- Klapper, L., L. Laeven, and R. Rajan. 2006. Entry regulation as a barrier to entrepreneurship. Journal of financial economics. 82(3): 591-629.
- Klapper, L. F., V. Sarria-Allende, and R. Zaidi. 2006. Firm-level analysis of small and medium size enterprise financing in Poland. World Bank Policy Research Working Paper 3984, Washington: World Bank.
- Mac an Bhaird, C., and B. Lucey. 2010. Determinants of capital structure in Irish SMEs. Small Business Economics. 35: 357-375.
- Mat Nawi, H. 2015. Determinants of capital structure in small and medium-sized enterprises in Malaysia. PhD diss., Brunel University London.
- Magembe, B., A. Sethibe, and E. Kitindi. 2007. Lending decision making and financial information: The usefulness of corporate annual reports to lenders in Botswana. The International Journal of Applied Economics and Finance. 1: 55-66.
- Motwani, J., N. M. Levenburg, T. V. Schwarz, and C. Blankson. 2006. Succession planning in SMEs: An empirical analysis. International Small Business Journal. 24: 471-495.
- Myers, S. C., 1984. The capital structure puzzle. The Journal of Finance. 39: 574-592.
- Myers, S. C. and N. S. Majluf. 1984. Corporate financing and investment decisions when firms have information that investors do not have. Journal of Financial Economics 13: 187-221.
- Nagano, M. 2003. Determinants of corporate capital structure in East Asia: Are there differences from the industrialized countries? Working Paper Series, Waseda University Institute of Finance.
- Newman, A. 2010. Capital structure determinants of private small and medium-sized enterprises in China. Doctoral diss., University of Nottingham.
- Newman, A., S. Schwarz, and D. Borgia, D. 2014. How does microfinance enhance entrepreneurial outcomes in emerging economies? The mediating mechanisms of psychological and social capital. *International Small* Business Journal. 32 (2): 158-179. doi:10.1177/0266242613485611.
- Pallant, J. 2010. SPSS Survival Manual, 4th ed., Berkshire: McGraw-Hill Education.
- Porter, M. 2008. Competitiveness as an engine for economic growth: implications for Saudi Arabia, The Global Competitiveness Forum. January 21, Riyadh, Saudi Arabia.
- Rahatullah Khan, M., 2013. Mapping entrepreneurship ecosystem of Saudi Arabia. World Journal of Entrepreneurship, Management and Sustainable Development, 9: 28-54.
- JS Ramalho, J. and J.V. da Silva, 2009. A two-part fractional regression model for the financial leverage decisions of micro, small, medium and large firms. Quantitative Finance, 9(5), pp.621-636.
- Riportella, C. C., and J. C. Martínez. 2003. What do we know about the financial behaviour of the Spanish SMEs? An empirical analysis. Business Economics Working Paper, Series 08, Universidad Carlos III de Madrid.
- Rocha, R., S. Farazi, R. Khouri, and D. Pearce. 2011. The status of bank lending to SMEs in the Middle East and North Africa region: Results of a joint survey of the Union of Arab Bank and the World Bank. The World

Bank.

- Romano, C. A., G. A. Tanewski, and K. X. Smyrnios. 2001. Capital structure decision making: A model for family business. *Journal of Business Venturing*. 16: 285-310.
- Sivakumar, A. D., and S. Sarkar. 2012. Women entrepreneurs in small and medium scale businesses in Saudi Arabia. *International Journal of Finance and Policy Analysis*. 4: 25-32.
- Steffen, H. 2017. Benchmarking SME Policies in the GCC a survey of challenges and opportunities, The EU-GCC Chamber Forum is a program co-financed by the European Commission
- Storey, D., 1994. Understanding the Small Business Sector. Thomson Learning, London.
- Vos, E., A. J. Y. Yeh, S. Carter, and S. Tagg. 2007. The happy story of small business financing. *Journal of Banking & finance*. 31 (9): 2648-2672. doi:10.1016/j.jbankfin.2006.09.011.
- Waked, B. 2016. Access to finance by Saudi SMEs: Constraints and the impact on their performance. PhD diss., London College of Business.
- Wang, Y. 2016. What are the biggest obstacles to growth of SMEs in developing countries?—An empirical evidence from an enterprise survey. *Borsa Istanbul Review*. 16 (3): 167-176.
- Westhead, P., M. Cowling, and C. Howorth. 2001. The development of family companies: Management and ownership imperatives. *Family Business Review*. 14: 369-385.
- Zamberi Ahmad, S. 2012. Micro, small and medium-sized enterprises development in the Kingdom of Saudi Arabia: Problems and constraints. *World Journal of Entrepreneurship, Management and Sustainable Development*. 8(4): 217-232.
- Zoppa, A. and R. G. McMahon. 2002. Pecking order theory and the financial structure of manufacturing SMEs from Australia's business longitudinal survey. *Small Enterprise Research*. 10: 23-41.

Appendix 1: Debt financing categories

	Start-up debt	49 (19.8%)
N 17D 1 1 4 60	Expanded debt	100 (40.5%)
Non-KP debt financing	Start-up and expanded debt	5 (2.0%)
categories	No debt	39 (15.8%)
	Total	193 (78.1%)
VD dobt financing actoropies	Expanded debt	52 (21.0%)
KP debt financing categories	Start-up and expanded Debt	2(0.8%)
	Total	54 (21.9%)
Total		247 (100.0%)

Appendix 2: Cross tabulations of SME characteristics with debt-funding (n = 247)

SME characteristics versus Debt		p value	Fisher Exact	Cramer's V
	Start-up	<.0005 ***	<.0005 ***	.307^^
AGE	Expanded	.014 **	.017 **	.156
	Both	.632	1.000	.031
	Start-up	.004 ***	.005 ***	.188
SIZE	Expanded	.043 **	.045 **	.131
	Both	.376	.463	.057
	Start-up	.065 *	.084 *	.118
TANG	Expanded	.390	.402	.055
	Both	.845	1.000	.013
	Start-up	.625	.736	.032
GROW	Expanded	.621	.679	.032
	Both	.266	.429	.072
1.	-			

	Start-up	.457	.591	.053
COLL	Expanded	.713	.739	.026
	Both	.779	1.000	.020
	Start-up	.066 *	.081 *	.120
SFI	Expanded	.026 **	.032 **	.145
	Both	.792	1.000	.017
	Start-up	<.0005 ***	<.0005 ***	.337^^
EXT	Expanded	<.0005 ***	<.0005 ***	.337^^
	Both	.504	.703	.047

Note: * Significant at 10% level, ** Significant at 5% level *** Significant at 1% level, ^Size effect, moderate relationship, ^^ Size effect: strong relationship,

Variables explained in Table 1.

Appendix 3: Cross tabulation of SME characteristics versus expanded debt-funding, excluding the Kafalah bank debt (n = 193)

Expanded Debt v's			
SME Characteristics	p value	Fisher Exact	Cramer's V
AGE	.048 **	.062 *	.143
SIZE	.243	.301	.086
TANG	.165	.170	.101
GROW	.679	.752	.031
COLL	.098 *	.116	.137
SFI	.007 ***	.011 **	.200^
EXT	.001 ***	.001 ***	.260^

Note: * Significant at 10% level, ** Significant at 5% level *** Significant at 1% level. ^Size effect, moderate relationship, ^^ Size effect: strong relationship,

Variables explained in Table 1. Kafalahprogramme debt SMEs (54) are excluded here.

Appendix 4: Cross tabulation of SME characteristics with *Kafalah* **Debt (n = 108)**

SMEs Characteristics			
Kafalah Debt Finance	p value	Fisher Exact	Cramer's V
AGE	.206	.312	.122
SIZE	.077 *	.115	.170
TANG	.531	.676	.060
GROW	.011 **	.019 **	.244^
COLL	<.0005 ***	<.0005 ***	.386^^
SFI	.531	.676	.060
EXT	<.0005 ***	<.0005 ***	.418^^

Note: * Significant at 10% level, ** Significant at 5% level *** Significant at 1% level. ^Moderate size effect,^^ Strong size effect.

Variables explained in Table 1. 54 SMEs that secured Kafalah bank loans are matched with 54 SMEs that did not secure Kafalah bank loans.

Appendix 5: SME sectors supported by Kafalah Programme

Sector	Tangibility	Frequency (count)	Percentage
Construction	Tangible Assets	26	48.1%
Manufacturing	Tangible Assets	13	24.1%
Services	Intangible Assets	9	16.7%
Travel & Tourism	Intangible Assets	2	3.7%
Other	Intangible Assets	4	7.4%
Total		54	100%

Appendix 6: Collateral required by banks when lending to SMEs

Collateral	Responses	
	N	Percentage
Pledged assets	74	37.7%
Property	60	30.6%
Personal account	30	15.3%
Personal guarantee	18	9.2%
Second part guarantee	13	6.7%
Bonds	1	0.5%
Total	196	100.0%