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The Access of Non-oil Related SMEs to Bank Lending in an Oil-based Economy: Case Study of Oman

Abstract

Diversifying the SME sector is a means of promoting employment rates and improving the income per capita for many unstable economies, such as oil-based economies; hence is a key economic driver for sustaining growth. However, there is a lack of bank financing provision for non-oil related small and medium firms, in spite of the ample liquidity and profitability within the banking sector of these economies.

This research is keen to investigate the non-oil related SME accessibility to bank credit during the specific period of global oil price recession (2014-2017). The uniqueness of this period is that these economies currently suffer from a dramatic reduction in state budget revenues that probably impact on bank liquidity; hence, it is expected to affect the credit available to the non-oil related SME sector. For empirical analysis part, the Logistics regression analysis is suggested to be used to examine the cases primary business owners' desire towards bank credit (i.e. rejected, discouraged, no need and approved loan applicants).

Entrepreneurship Track 5

Word count: 2000

Research Scope

In specific cases, such as Gulf Cooperation Council countries (GCCs), oil-based economies heavily rely on oil activities, as this has been the economic driver for prosperity since it was discovered. With a total contribution of more than 60%, the revenue generated from the export activities of the oil industry in 2013 (Cherif and Hasanov., 2014). In Oman, for example, the petroleum sector contributes 49% of the total of GDP to economic growth and participates with 84.7% of the state budget revenue. In comparison, the non-oil sector contributes a total of 7.8% of the GDP (National Center for Statistics and Information, 2012 cited in Al Mawali et al., 2016).

The boom in oil revenues has provided opportunities to improve economic growth, the standard of living per capita as well as allowing social affairs, such as education and health services, the chance to develop (Callen et al., 2014; Cherif and Hasanov., 2014). In addition, the increases in oil fiscal due to the high market price have expanded the liquidity, assets and deposit base of the financial sector. As a result, the banking sector of the oil-based economies is better capitalized, more liquid and profitable during the upswing of the hydrocarbon sector (Beck, 2010); thus increasing the credit share and asset price (IMF, 2016).

However, the role of heavily oil domination over economic activities has been known by economists as a ‘natural resource curse phenomenon’ that is referred to as the case of the ‘Dutch Disease’ (Ahrend, 2006 and Frederick & Ploeg, 2011). The curse of the Dutch Disease has produced disadvantageous side effects on such economies resulting in a significant sharp upwards shift on the real exchange rate of the hydrocarbon sector (i.e. the inflow of foreign currency) of the oil commodity exports. This, in turn, leads to the deterioration of the non-oil activities of the competition in the export market (Amiri et al., 2018).

The appreciation of oil exchange rates leads to an increase in the cost of manufactured goods, government sector expenditures and wages, social welfares and income per capita (Gylfason & Zoega, 2006; Frederick & Ploeg, 2011). Thus, the cost of maintaining the living standard within the community becomes very expensive. Therefore, the local markets of these economies witness an expansion in the consumption of imported goods because they are cheaper than the local manufactured goods.

Another negative feature is that the oil commodity price is sensitive and more vulnerable, thus making it more susceptible to losing its stability due to external shocks and political volatility and uncertainty. The significantly sharp reduction in oil commodity prices impact negatively on income allocations, improvements of social affairs, such as education and health services, and state budget revenues (Carneiro, 2007 and Frederick & Ploeg, 2011); except in diversified economies (Cherif and Hasanov., 2014) Moreover, oil reservation is threatened to depletion as in Oman and Bahrain (Cherif and Hasanov., 2014). Therefore, many international agencies have appealed to improve the diversification and acceleration growth of non-oil related SMEs in many oil-based economies (Callen et al., 2014 and IMF, 2016).

It is widely acknowledged that the SME sector significantly contributes to economic growth in terms of enhancing employment levels, increasing income per capita and enhancing export activities. Many of the oil exporting economies, for example, Botswana, Malaysia and Indonesia, have given successful examples regarding developing non-oil activities and decreasing oil share

to the state budget revenues (Frederick and Ploeg, 2011). By 2004, the SME sector in Malaysia had become fundamental to economic growth and represented 97% of the total market establishments of the country (Khan and Khalique, 2014).

However, prior research has highlighted that the lack of credit being made available to the SME sector is the major obstacle hindering the growth and sustainability of SMEs in the market (Wang, 2016). The empirical research conducted by Beck (2010) disclosed that despite banks in oil-based economies being profitable and liquid, a lower number of loan shares were provided to firms in the SME sector.

In GCC countries, the credit available to this sector representing only 2% of the total credit portfolio compared to non-oil exporters, due to the heavy concentration on oil activities (Rocha et al, 2011).

Theoretical and Empirical Background

The adequate provision of the bank credit to SMEs is the major impulse to the economic development and industrial competition within the market (Beck and Demirguc-Kunt 2006). Nonetheless, prior studies significantly recognized that some SMEs faced difficulties in obtaining the required finance (Beck et al, 2006; Beck, 2010; Canton et al, 2013 and Cole & Sokolyk, 2016); as a result of the imperfect information that marred the relationship between the lenders and SME entrepreneurs (Stiglitz and Weiss, 1981; Beck, 2007 and Nekaa et al., 2017).

According to the theoretical framework posited by Stiglitz and Weiss (1981), it is difficult for banks to verify whether applicants are safe or pose a risk. One way for banks to reduce risk is to enhance their screening devices and increase loan application costs to compensate for potential payment default issues. However, two risk types of may occur adverse selection (risk assessment issue) and moral hazard (monitoring issue) (Krasniqi, 2010) which result in banks' lending smaller investments than required (Stiglitz and Weiss, 1981).

The provision of inaccurate information and increased application costs resulted in safe borrowers being discouraged. According to Levenson and Willard (2000), in America approximately 6.36% of firms' encountered credit rationing; 4% of these firms were discouraged because they expected their application to be denied and 2% represented rejected entrepreneurial borrowers. This issue has caught the attention of many previous researchers including: Kon and Story, 2003; Freel et al, 2012; Cowling et al, 2012; Cowling et al, 2016 and Rostamkalaei et al, 2018.

Myers and Majluf (1984) posited that the capital structure of firms is determined via a specific financial hierarchy (Pecking Order Theory) in order to avoid the undervaluation issue that may exist due to the information opacity. With this uncertainty, business owners prefer to rely on financing from internal sources, such as retained earnings, when it is depleted, then request debts and followed by issuing equities when the debt is not enough to sustain their businesses. Several studies have developed their hypotheses to investigate the relationship of the POT and credit availability for the small firms via concerns related to the firm's age as a determinant (Serrasqueiro & Nunes., 2012; Caneghem & Campenhout, 2012 and Robb & Robinson, 2014).

Signaling is a further theory that has been linked to the relationship between SMEs and lenders in many literature reviews via proposing signals that potentially reflect financing availability

such as financial statements, past performance and the business owners' gender and age (Ross, 1977; Caneghem & Campenhout, 2012 and Robson et al, 2013). This has been proposed by Spence (1973) to identify the signaling model of the labor market context. It explains the ability of the signaler (i.e. the insider, such as the firm's owner) to disclose quality signals of unobservable information to the outsiders in order to meet their requirements (Connelly et al, 2011). Thus, its main objective is to reduce the opacity among the two parties.

With the present research empirical model, the hypotheses regarding the determinants of non-oil related SME bank lending in Oman during the oil price recession in the global market were derived from the extant previous studies of the relevant subject. There is a set of factors has been highlighted in the literature which is suggested to modeling the typology of firms credit desire whether to be applicants or non-applicants for the bank credit (Freel et al, 2012; Carter & Mwaura, 2014; Cole and Sokolyk, 2016; Rostamkalaei, 2017). The former status illustrates firms that got approved or denied a loan application, while the non-applicants are those firms that are not needed for the bank credit or in need but they are discouraged.

Firm characteristics such as type of business sector, age, size, location, export orientation are assumed to effect credit availability for such firms. In addition, the characteristics of the primary business owner (e.g. age gender, nationality, prior relevant experience, formal education degree) are speculated to have a different effect over firms' accessibility to bank credit. For instance, Parker and Praag (2006) found that education would promote the performance of Dutch entrepreneurs directly and indirectly, where the rate of return increases to 13.7%. An additional year of schooling led to a reduction in the constraints of capital by 1.18 percentage points respectively. The factors of banking relationship, availability of quality business information in form of formal business and audited financial report and using external advice may enhance approaching bank credit successfully (see Appendix1).

By analyzing primary dataset using logistics regression model in Stata platform this research attempts to examine the following objectives for the period of 2014-2017:

- (1)The degree and determinants that cause discouragement in banking credit among the non-oil related SMEs;
- (2) Determinants of 'no-need non-oil related SMEs' for bank finance;
- (3) Determinants that cause bank loan application denial for the non-oil related SMEs; and
- (4) Determinates of approved bank loan applications for the non-oil related SMEs

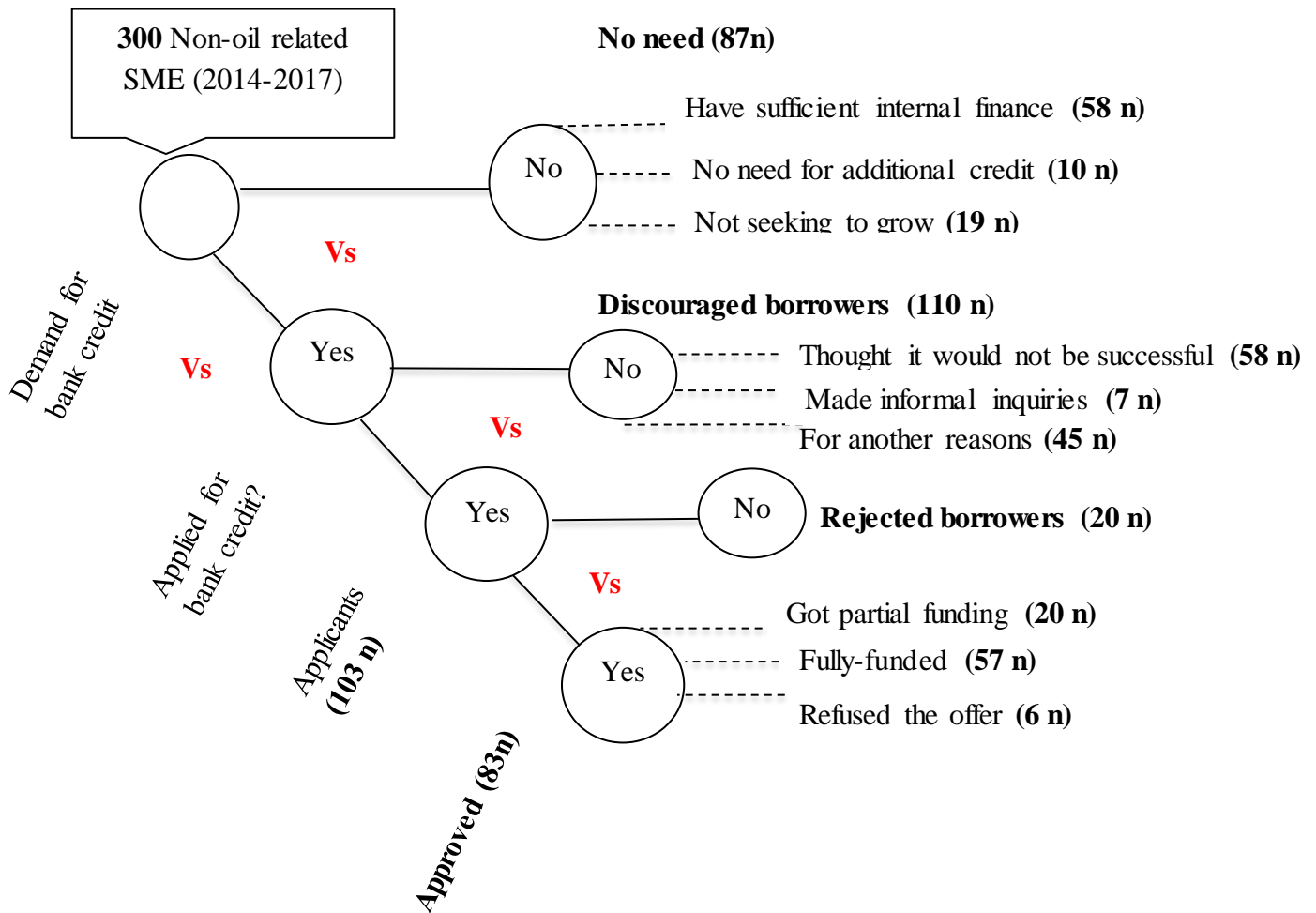


Figure (6): Diagram illustrates status of SMEs bank credit demand during 2014-2017 in Oman

Source: Adopted and amended from Cole and Sokolyk (2016)

Research Contribution

This study is interested in fulfilling the call of international agencies such as the World Bank, IMF and IFC and the policy-makers in investigating the demand and supply of credit for the SME sector. In other words, ‘who needs debt and who gets debts’ to promote the growth of the non-oil SME sector. In doing so, this will contribute to the extant empirical studies (Krasniqi, 2010; Brown et al, 2011; Freel et al, 2012; Mac an Bhaird, C. 2013; Cole and Sokolyk, 2016; Rostamkalaei, 2017; Xiang et al, 2015; Cowling et al, 2016 and Rostamkalaei et al, 2018). Information about the types of firms' desires toward bank lending remains scarce particularly about non-applicants affected by the discouragement or not need in the context of less developed economies.

Unlike previous studies, this research will include the factors of the audited financial report (by Big 4 companies/ non-Big 4 companies), business advice sources, relationship banking together to identify their impact on the cases of discouragement, no need, rejection, and approval of bank loan application (e.g. Freel et al., 2012; Cowling et al., 2016; 2016; Rostamkalaei., 2017; Rostamkalaei et al., 2018). In addition, using the method of multinomial logit model to estimate the probability of being applicants or non-applicants will add value to the findings through providing a comparative analysis as there is lack of empirical evidence that has compared the status of non-oil related SMEs owners' desires for bank funding.

Using the context of Oman especially during the period of oil price crisis will provide a diverse understanding and knowledge about the research phenomenon that is induced from the differences of the cultural contexts, perceptions, attitudes, market policies and regulations, and economic-political status. Finally, this research will help in particular the Oman government and policy-makers and in general other similar context governments such as GCC countries to take appropriate actions and implement the required initiatives to assist the reform of the developing non-oil related SME sector and ultimately reinforce its diversity.

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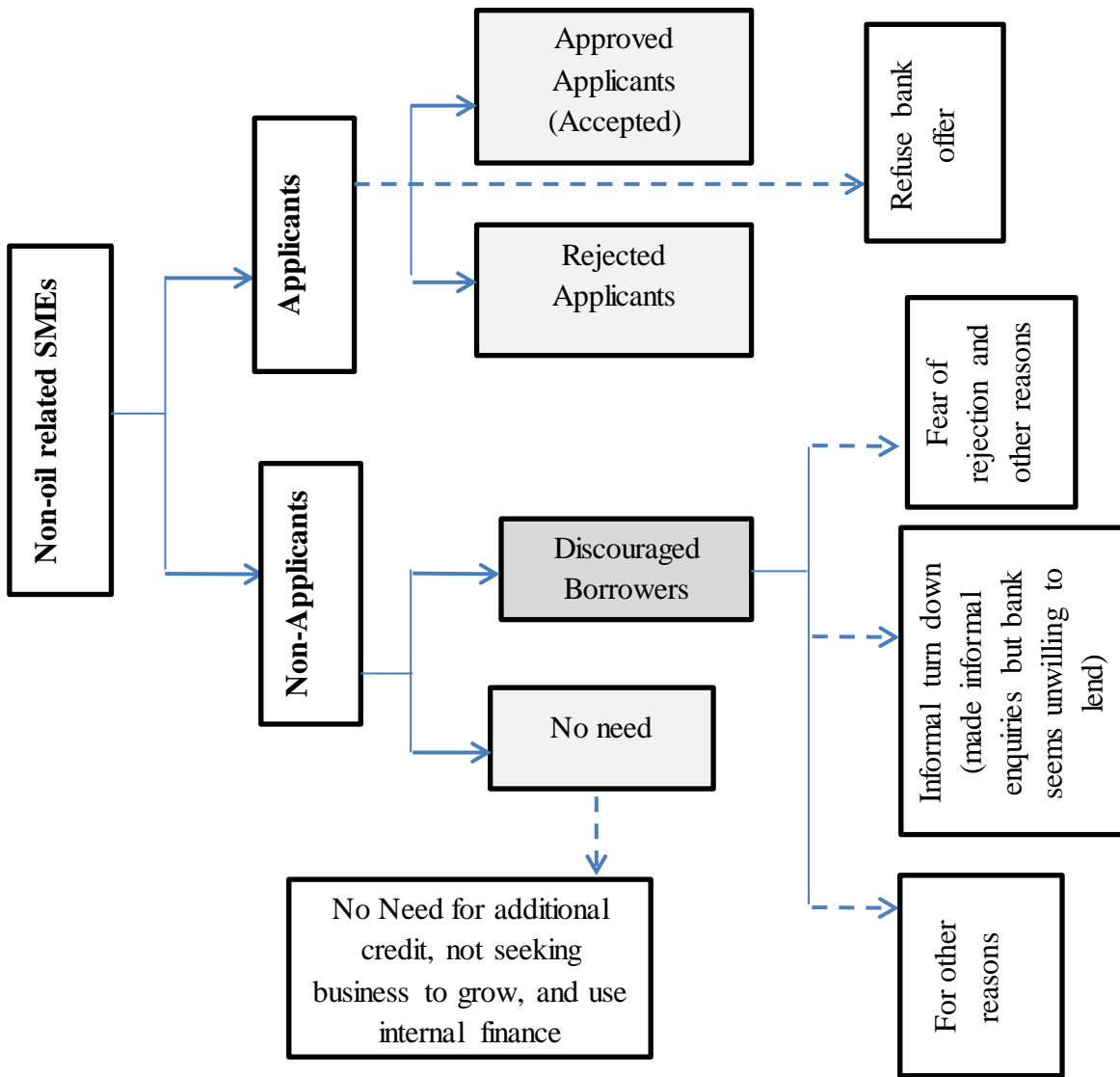
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Appendix (1): Definition of the research variables to investigate the determinants of the non-oil related SME applicants and non-applicants for bank funding

Model (1): Non-oil related SME demand for credit during 2014-2017	
Dependent Variables (Yes=1)	
Approved Applicants	Firms owners report that they apply successfully for the bank lending Firms owners got partial of required funding = 1 Firms' owners report that they apply but got rejection =1
Non-Applicant For bank Financing	No Need: Firm's owner who do not need for external finance as they have sufficient internal funding; otherwise 0 Firms owners who do not need for external finance because they have sufficient internal finance =1; otherwise 0 Firms no need for external finance as they are not seeking their business to grow = 1; otherwise 0 Discouraged Borrowers (Need for funding but who did not apply because of fear of rejection or another reasons): Firms owners need finance but did not apply during the last 4 years because they it would not be successful = 1; otherwise 0 Firms' need external finance but did not apply since the business was operated = 1; otherwise 0
Independent Variables	
Firms Characteristics	
Type of business activities	Categorical variables for manufacturing, extraction/processing for natural resources, wholesale and retail, business service, consumer service, and others
Legal status	= Categorical variables for are sole-owners, limited partnership and Limited liability Companies
Age (years of trading)	Categorical variables for firms trading age of more than 3 years
Number of Employees	Categories of self-employed, 2-5 workers, 6-25 workers and 26-99 workers
Location	Categories of headquarter across Oman governorates: Muscat,
Export orientation	Categories of not exporting, goods export, service export or both
Sales growth	Categorical variables for sales over the past 4 years increased, decreased or remained unchanged
Primary Owners Characteristics	
Gender	Dummy variable take 1 if Female or 2 if male
citizenship (primary owner)	Dummy variable take value 1 if Omani firms and value 2 if Omani-fronted firms
Age	Categorical variables for primary owner age: under 20, 20-29, 30-39, 40-49, 50 and over
Years of Experience	Categories of owner experience less than 1 years, 1-5 years, 6-10 years, 11-15 years, or more than 15 years

Financial qualification or training	Dummy variables has value 1 when primary owner has financial qualification or training
Highest formal qualification degree	Categories of highest education degree that owner primary obtained
Business information quality	
Business plan	Dummy variable if firm has business plan statements= 1, otherwise= 0
Audited annual financial report	Categories whether firm has audited annual financial report by Big4 audit firms, non-Big4 audit firms and not audited
External advice measurement	
Usage of the advice	Dummy variable If apply if firm use external advice source (bank manager, informal source, accountant, solicitor, government and private sector) equal to1, otherwise 0
Type of external advice	Dummy variable if firm use external advice= 1, 0= if not using external advice
Significance of the external advice	Scale (1=not useful, 2= not useful, 3= neutral, 4= useful, 5= very useful, 0= NA
Bank relationship with main bank measurement	
Duration of bank relationship	Categorical variables for Length of relationship with main bank in years
Type of financial or non-financial services used in main bank	categories of personal current, business current, overdraft, deposit account, bank loan, personal credit cards, business credit cards, non-financial services, and other
Level of stratification with the main bank	Categorical indicating whether firms very satisfied, fairly satisfied, neither satisfied nor dissatisfied, fairly dissatisfied, very dissatisfied



Appendix (2): Structure and scope of the data analysis explaining the credit desires for bank funding ‘who needs borrowings and who got the borrowings?’ in Oman

Source: Adopted and modified from Freel et al (2012) and Carter Mwaura (2014)