Impact of financial inclusion on sustainability of enterprises in Saudi

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ABSTRACT

This research measures the relationship between financial inclusion and the sustainability of financing small and medium enterprises in the Kingdom of Saudi Arabia, and the methodology of the research is based on the use of data at the level of companies, where there are 267 thousand small and medium enterprises in the Kingdom, 68% of which are managed by expatriates. The number of micro-enterprises reached 1.5 million, in addition to 230 thousand small enterprises and 37 thousand medium enterprises, all representing 99% of the number of enterprises in the Kingdom in mid-2015, and about 996 thousand small enterprises with a localization rate of less than 13.37%. From 2009 to 2019. Through the adoption of statistical analyzes, the effect of financial inclusion on the availability of financing for small and medium enterprises was analyzed and studied. This research showed that there are positive results for the financial inclusion of credit available to listed small and medium companies, and that promoting financial inclusion helps in the survival and sustainability of small and medium companies in the Kingdom of Saudi Arabia.

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1. INTRODUCTION

No matter how big or small, a company’s performance is improved socially, environmentally, and economically when adopting the programs of sustainability [1]–[4]. This fact is confirmed by a study made on almost one hundred Brazilian companies to explore how size can be an affecting factor in applying sustainability programs. Such study found that when a company has highly integrated and mature management, performance is not influenced by its size [5]. Nevertheless, the absence of awareness, expertise and resources makes the benefits of sustainability programs still not assured for small and medium enterprises [6]–[8]. Bigger companies are less flexible and more strategic than small and medium enterprises, therefore, this nature of business strategies in small and medium enterprises makes it difficult to cope with sustainability practices [9]. At the same time, the large size of a company makes it more visible to the public, and thus, more scrutinized, and vulnerable [9]–[11].

However, several studies have examined the possibility of integrating sustainability standards into small and medium enterprises’ activities [2], [3], [8], [12]–[14]. In fact, small and medium enterprises (SMEs) still have some strategic qualities that can enable the implementation of sustainability programs [8], [13]–[16], argued that in SMEs, environmental management is a measurement tool of sustainability and it is attributed to the encouragement driven by relevant associations and other companies in the same field [17]. In addition, there

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are pressures stemming from stakeholders to implement sustainability standards internally and chain wide [13]. Few of the empirical studies dealt with the effect of financial inclusion on financial stability [18], [19]. However, there has been no empirical study examining this relationship between sustainability and financial inclusion, due in part to the paucity and newness of data on this relationship. Thus, the contribution of this applied study is to measure the nature of the relationship that links financial inclusion to sustainability in small and medium-sized companies in the Kingdom of Saudi Arabia.

Regarding this situation in Kingdom of Saudi Arabia, self-financing and working capital represent one of the most important sources of internal funding for enterprises of small, medium, and even micro size, in addition to external financing represented by commercial banks, investment funds and funds for small government enterprises and financing companies [4]. The total number of banking institutions that grant financing and mediums is about 34, including 13 banking institutions and 21 non-banking institutions. In this context, the total bank credit granted to the sector amounted to 93,601 million Saudi riyals, of which about 3,685 million riyals are directed to micro-enterprises and 20,821 million riyals are directed to small enterprises, while about 69,095 million riyals are directed to medium enterprises. It is worth noting that the ratio of the financing given to medium, small, and micro companies to the gross financing provided by the banking sector amounted to 4.81% in 2018. Facilitate the access of medium, small, and micro companies to fund one of the mechanisms included in the “Saudi Arabia 2030 vision” for the advancement of enterprises operating in the sector as the vision aims to raise the percentage of bank credit granted to the sector from 5% of the current rate to 20% in 2030.

The Saudi Central Bank has been interested in supporting opportunities to benefit from modern technologies in increasing the access of small and medium-sized companies to finance. This prompted this researcher to study the relationship between sustainability and financial inclusion and financing in small and medium-sized companies in the Kingdom of Saudi Arabia. The results showed a positive relationship, as the sustainability of small and medium-sized companies increased significantly by supporting financial inclusion.

2. RESEARCH METHOD

2.1. Influence of financial inclusion on banking services in Saudi Arabia

Banking services in Saudi Arabia has changed since financial inclusion was adopted. Banking services have become more diverse, more accessible, and more appropriate in order to have successful financial inclusion. Nevertheless, the high operational costs represent a challenge to sustainability programs, so data inconsistency reduction, which is a basic principle for the data availability theory of SMEs financing, is very essential for SMEs, financial institutions, and banks to lower such costs.

Saudi Arabia's promotion of financial inclusion from 2009 to 2019 dramatically altered the layout of the banking system by means of a series of methods, policies, and regulations to promote product providers and financial services diversification. Such series includes, for instance, facilitating of the governmental funds for SMEs to balance the risks lending: reducing the reserve ratio for the banks (that is, to meet the needs of prudent operation and to maintain certain percentage of loans for small and medium enterprises); reducing interest rate on loans dedicated to starting companies of innovative nature; differentiating between calculating and evaluating the ratios of non-performing loan and loan-to-deposit (LTD) for small and medium-sized enterprises.

Fintech is the main tool for financial inclusion and support for sustainable development goals that can be achieved through a gradual plan to develop infrastructure to support the Kingdom's digital financial transformation. The employed digital finance technology is providing with significant advantages represented in the enhancement of operational processes and the reduction of related costs. Platforms of digital borrowing, for example, allow SMEs to have fast access to convenient, innovative, and various financial products at competitive and reduced rates, thus, decreasing the dependence on banks. Financial service providers are now capable of storing and obtaining clients’ data more efficiently and accurately, making transactions immediately, creating customized financial products easily, and succeeding in the groups of borrowers more widely thanks to digital lending and payment systems. In fact, traditional banks are forced to employ digital systems due to the heightened competition brought by many new Fintech companies like SMEs.

With regard to credit information systems, the depth of credit information index is one of the basic elements of the Doing Business index issued by the World Bank. It measures the rules and practices that affect the extent and scope of coverage, and the availability of credit information in records and credit information centers. A royal decree was issued permitting the licensing of information companies. Fiduciary. A closed joint stock company subject to the supervisory authority of the Saudi Arabian Monetary Agency [20]. Donor institutions provide credit information to individuals and businesses, and financing laws and regulations oblige finance companies to verify credit behavior.
The Saudi Credit Information Company (SIMAH) was established in 2002 with the ownership of 10 Saudi banks at the time, as a custodian for credit data and information from all relevant parties to be exchanged between them to develop the credit market and thus achieve strategic economic and financial goals as stipulated, controlled and supervised by the Saudi Arabian Monetary Agency (SAMA). SIMAH provides its credit information on the individual and corporate sectors and provides all negative and positive credit information.

The ease of access to finance index focuses on establishing a comprehensive system that enables small and medium enterprises to access financing at all stages of work through a set of financial instruments. It can be measured through several indicators, including the percentage and value of lending given to SMEs, the value of capital formation as percentage of the gross domestic product, in addition to the ease of obtaining financing.

The total number of credit reports issued in (2004-2018) reached 82.5 million credit reports for the Saudi market, while the total number of credit reports for the individuals and companies' sector in SIMAH databases reached 14.9 million credit reports. As for the total number of credit accounts in SIMAH databases, it reached 47.05 million accounts until the end of 2018, and the total number of credit assessments in SIMAH reached about 8 million credit assessments until the end of 2018. It supports the financial infrastructure to ensure the growth and participation of the private sector, and works to increase the confidence of lenders and investors and reduce the state of uncertainty when the ability to assess and manage risks, in addition to providing the necessary credit information to reach a clear picture for the borrower that supports the decision making process to improve the ability to analyze credit risk and assessment of the borrower's financial solvency based on credit information.

SIMAH, under Saudi Arabian Monetary Agency (SAMA) supervision, is responsible for the collection and the analysis of information that has demographic nature in addition to the available financial and non-financial variables in the credit reports, for providing assistance to financing donors or related parties in extrapolating borrowers' credit behavior by relying on complex mathematical models that use credit report variables and data as key inputs to support the lending decision, and for limiting any discrepancies in credit information, reducing the percentage of bad loans, increasing collection rates, as well as facilitating obtaining financing at a cost that includes pricing risk with great accuracy [6], [21]. SIMAH also pays great attention to supporting monetary policy and its tools, as lenders 'the ability to price risk dynamically accurately and varying according to the likelihood of defaulting the borrower allows one of the most important monetary policy tools, which is interest rates, to directly affect economic behavior, such as borrowing, investment and consumption rates.

2.2. Measuring financial inclusion

In order to measure financial inclusion, the coverage of financial services presented by local institutions were measured by the Living Financial Inclusion Index whose value indicates the effect that financial services have upon social institutions and groups by showing the coverage of such services. In Saudi Arabia, financial inclusion needs widened usability, coverage, and consistency with financial services. Easiness of using financial services, their availability and utility are three factors added by [22] to the index before calculation. The first step was to collect two types of data on financial services from two domains, namely, personnel financial services and financial institutional services. The second step was to add insurance intensity, population use of financial services and insurance penetration as three variables to financial services usability [23]. Finally, the added benefits of both deposits and lending were examined before representing financial inclusion indicators accurately.

2.3. Control variables

It is unquestionable that company’s ability to access finance is affected by its macroeconomic conditions and its characteristics [24]–[26]. Characteristics comprise company’s dimension, which is a lagged sales logarithm (log SALES), inventory status, which equates the inventory value with total assets (inventory), firm age (log FIRM AGE), sale growth rate (growth), return on assets (ROA), and whether the state owns part or all of the company (state), which makes it difficult to have loans from banks owned by the state. Debt availabilities for SMEs in Saudi Arabia were dramatically improved by the employment of financial inclusion and the subsequent advancement of lending services with higher accessibility as a result of turning the lending products to be more suitable and the lending providers to be more diverse. This study presumes that debt financing of SMEs in Saudi Arabia was positively affected by financial inclusion. Thus, the following econometric model is used:

\[
Access to finance_{it} = \beta_0 + \beta_1 CONCENTRATION_{jt} - 1 + \beta_2 INCLUSION_{jt} - 1 + \beta_3 Concentration \times Inclusion + \beta_4 Control\, variables + \epsilon
\]
where finance probability refers to company’s access to finance while finance size indicates a method of the ordinary least squares (OLS) models, which is probity and ordinary. Regional macroeconomic conditions and firm characteristics of various levels and times constitute the group of control variables, year dummy and industry dummy.

The test of equation is to find how a company’s accessibility to finance is influenced by bank concentration. Our model has an additional interaction variable: the interaction between financial inclusion and bank concentration (Concentration×Inclusion). Such variable is concerned with testing the effects of financial inclusion on a company’s accessibility to finance under the influence of the structure of banking market.

Furthermore, sample selection may cause bias in estimation when analyzing finance size and finance probability by probity model or OLS model because some SMEs might not have loans from banks [4]. Therefore, Heckman’s selection models are used to avoid such inconsistency. Finance probability and finance size are analyzed in robust testing by a unified model. Following Heckman’s selection models, the probability λ. Afterwards, the λ is added as an impact variable in the finance size equation so that effect of sample selection can be eliminated.

3. RESULTS AND DISCUSSION

The objective of this paper is to evaluate how financing availability for SMEs is affected by financial inclusion in Saudi Arabia. The study hypothesized that financial inclusion has a positively assisting influence on SME financing. The hypothesis is confirmed when Inclusion coefficients are found to be statistically significant.

In addition, it is found that bank concentration suppresses the influence that financial inclusion has upon the financing availability of SMEs. This finding is indicated by the significantly negative value of the interaction variable (Concentration×Inclusion). In other words, when having a highly concentrated bank market, the impact of financial inclusion is decreased, i.e., bank concentration can be partially displaced by financial inclusion.

When the bank’s concentration is below the 32%-38% percentage, the size of the company’s funding increases and the likelihood that it will be positively affected by financial inclusion (given the bottom-line scale see in Table 1-last row). The results indicate that although financial inclusion has positive effects on access to finance, small businesses still do not have the same easy access to bank finance as both large corporations (Log SALES) and state-owned enterprises (STATE). Small ones may do better financially.

Table 1. The impact of financial inclusion

<table>
<thead>
<tr>
<th>Variables</th>
<th>Financial Size</th>
<th>Financial Probability</th>
<th>Firm Fixed Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baseline</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concentration</td>
<td>0.202*** (3.27)</td>
<td>5.46* (5.43)</td>
<td>0.441 (4.53)*</td>
</tr>
<tr>
<td>Inclusion</td>
<td>0.135*** (3.39)</td>
<td>2.22*** (3.53)</td>
<td>0.167 (3.58)</td>
</tr>
<tr>
<td>Concentration×Inclusion</td>
<td>-0.442*** (-4.98)**</td>
<td>-6.022** (-4.31)</td>
<td>(-.43)</td>
</tr>
<tr>
<td>Growth</td>
<td>0.009*** (3.34)</td>
<td>0.321** (6.52)</td>
<td>0.001 (0.46)</td>
</tr>
<tr>
<td>Log Sales</td>
<td>0.031*** (22.28)</td>
<td>0.603** (25.24)</td>
<td>0.036*** (3.44)</td>
</tr>
<tr>
<td>ROA</td>
<td>-0.272*** (-8.88)</td>
<td>-3.653*** (-15.19)</td>
<td>-0.093** (-6.34)</td>
</tr>
<tr>
<td>Log Firm Age</td>
<td>-0.009*** (-2.68)</td>
<td>0.012 (0.22)</td>
<td>0.007 (0.84)</td>
</tr>
<tr>
<td>Inventory</td>
<td>0.103*** (7.53)</td>
<td>2.684* (11.69)</td>
<td>0.103*** (5.45)</td>
</tr>
<tr>
<td>State</td>
<td>0.049* (12.38)</td>
<td>0.567* (8.83)</td>
<td>0.023 (4.89)</td>
</tr>
<tr>
<td>Government intervention</td>
<td>-0.269** (-3.82)</td>
<td>-3.832*** (-3.67)</td>
<td>0.639 (4.51)</td>
</tr>
<tr>
<td>GDP growth</td>
<td>-0.274* (-2.28)</td>
<td>1.821 (0.94)</td>
<td>-0.402* (-2.91)</td>
</tr>
<tr>
<td>Log GDP</td>
<td>0.001 (0.18)</td>
<td>-0.245** (-2.77)</td>
<td>0.017 (3.21)</td>
</tr>
<tr>
<td>Year dummies</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Sector dummies</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Threshold in inclusion (if exceeded, Concentration has negative effect)</td>
<td>0.46</td>
<td>0.90</td>
<td>0.80</td>
</tr>
<tr>
<td>Threshold in Concentration (if exceeded, inclusion has negative effect)</td>
<td>32%</td>
<td>38%</td>
<td>31%</td>
</tr>
</tbody>
</table>

S, SS and SSS refer to the respective level of statistical significance (1%, 5% and 10%).

4. CONCLUSION

Over the last decade, the lending market in Saudi Arabia has witnessed the emergence of many small financial institutions not owned by the state. They have been able to create fierce competition with the bigger institutions owned by the state. This research is aimed at identifying the relationship arising between
SMEs financing and financial inclusion from 2009 to 2019 in Saudi Arabia. It also tries to answer the questions of how much influence financial inclusion approaches and policies have upon the accessibility to finance for SMEs. The results showed that financial inclusion has positive effects on the availability of credit for SMEs and that debt financing for SMEs has been greatly enhanced by employing financial inclusion. The results also indicate that the sustainability and survival of SMEs is supported by financial inclusion that helps these companies reduce their dependence on large financial institutions.

REFERENCES


Impact of financial inclusion on sustainability of enterprises in Saudi (Karima Hassan Mohamed Soliman)

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