Promoting SME Access to Finance: Evidence from the Manufacturing Sector in Egypt

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The manufacturing sector and its small and medium enterprises (SMES) segment are considered to be drivers of job creation. In Egypt, both these sectors have seen their share in total employment decline over the past decades. This paper examines the recent efforts by the Egyptian government to promote manufacturing sector growth and expand the sector's access to finance, particularly to SMES. Using the World Bank Enterprise Surveys data from 2013, 2016 and 2020, the paper explores to what extent SMES in the manufacturing sector have benefited from those recent financing programs. Findings indicate that insufficient access to finance remains a major constraint on manufacturing SMES. The funding initiatives were not appropriately directed towards the most credit-constrained companies. This paper puts forward evidence-based policy recommendations to facilitate more effective banking and non-banking financing that can boost their employment generation capacities.

Key Words: SMES, Access to finance, Manufacturing sector, Job creation, Banking and non-banking financial services, Egypt

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INTRODUCTION

The Egyptian labor market suffers from a lack of dynamism in its private sector, particularly that of its small and medium-sized enterprises (SMES), often referred to as the 'missing middle' (World Bank

2014). These are considered a main job-creation engine in both developed and developing countries and are more likely to provide formal employment than the microenterprises that dominate employment in the private sector of developing countries. They play a key

role in poverty reduction, social inclusion and innovation (Abisuga-Oyekunle, Patra, and Muchie 2019; Loewe et al. 2013). In Egypt, there has been a sluggish growth of SMES since the 1990s, and precarious work has become the norm (Assaad 2014).

Limited or lack of access to finance is one of the major obstacles for small and medium-sized enterprises (SMES) growth (Ayadi and Sessa 2017; Hampel-Milagrosa, Loewe, and Reeg 2015). In addition, there is strong evidence that access to finance, targeting SMES, can contribute to substantial job creation (Dao and Qian Liu 2017; Kumar 2017; Ayyagari et al. 2016; Beck 2013). To facilitate access to finance and SME growth, and by extension generate employment, the Central Bank of Egypt (CBE) has launched many initiatives to financially support SMES in the last five years, especially those in the manufacturing sector. This is due to the fact that the manufacturing sector represents one of the main economic activities of SMES (El-Said, Al-Said, and Zaki 2014), and is therefore, considered a major vector for employment generation (Zaki et al. 2018). The potential of employment generation is reinforced by the manufacturing sector's higher proportion of small and medium enterprises (SMES) than that of the private sector as a whole.[1]

Despite these numerous funding initiatives, there is no evidence on the reach of this funding to manufacturing SMES and/or its impact on their growth and sustainability. Previous research highlighted a striking deindustrialization in the overall economy and among SMES (Assaad et al. 2019). The manufacturing sector,[2] despite having the most employment-intensive sector from the 1980s to the mid-2000s (El-Ehwany and El-Megharbel 2009), has seen its

[1] See online appendix figure 1 (https://emuni.si/ISSN/2232-6022/15.217-244a.pdf).

[2] The manufacturing sector is defined according to the United Nations' last international standard industrial classification (United Nations 2008), encompassing 24 subsectors (at the 2-digit classification).

share in total private sector employment shrinking to 14% in 2018, down from 18% in 1998. Moreover, the share of manufacturing in SMES' employment decreased (Assaad et al. 2019). Manufacturing represented 46% of employment in the small firms in 1996 and declined by almost half to 24% in 2017. As for the share of manufacturing in medium-sized firms, it dropped from 51% in 1996 to 28% in 2017 (Assaad et al. 2019). This important deindustrialization in the overall economy and SMES requires further investigation and the evaluation of current policies.

The main objective of this policy paper is two-fold. First, it sheds light on the policy and institutional framework shaping SME finance in Egypt and in particular, finance of the manufacturing sector. This analysis is conducted through in-depth interviews with stakeholders. Second, it examines the extent to which SMES in the manufacturing sector benefited from these funding initiatives and proposes solutions to make said initiatives more adequate and/or adapted to SMES. For this purpose, we rely on the World Bank Enterprise Surveys (ES) in 2013, 2016 and 2020[3] to answer three questions. First, did the perception of firms for access to finance as a constraint change before and after the recent funding programs and who benefited the most? Second, what are the major reasons that do not encourage firms to take bank loans? Third, how are SMES defined and how does this matter in terms of access to finance?

The paper is divided into six sections. Following this introduction, the second section summarizes the literature on SME financing constraints, and the link between access to finance, SME growth and employment generation. The third section presents the data sources. The policy context including the institutional and legal reforms, and initiatives that aimed to boost SME growth in the manufacturing sector, are presented in the fourth section. The fifth section presents our findings on access to finance using the ES data. The sixth section, based on a synthesis of our findings, proposes evidence-based policy solutions and recommendations on how to

[3] See https://www.enterprisesurveys.org.

ease access to finance for SMES, before the seventh section delivers the conclusion.

LITERATURE REVIEW

Limited Access to finance among SMES

In a systematic review, Kersten et al. (2017) show that limited access to finance is often cited as a major constraint to SMES in low- and middle-income countries. In Egypt, previous studies demonstrated that access to finance is a major obstacle for SME growth (Ayadi and Sessa 2017; El-Said, Al-Said, and Zaki 2014). It is estimated that SME access only 10% of banking finance (Saif 2011). Despite the relatively high employment intensity of the manufacturing sector and its contribution to job creation, SMES can be particularly constrained by a finance gap. This challenge is more pronounced, among small enterprises, in the textiles and garments sector as it relies on relatively expensive equipment (Hampel-Milagrosa, Loewe, and Reeg 2015).

Several reasons are presented to explain this phenomenon: the prevalence of informality among SMES; the rigid precautionary measures of the Egyptian banking system; the lack of financial literacy among SME entrepreneurs; and the high interest loans (Ayadi and Sessa 2017; Hampel-Milagrosa, Loewe, and Reeg 2015).

In developing countries, informal SMES face much bigger financial challenges than formal firms as formal financing initiatives are primarily geared toward formal businesses. Thus, the informal status substantially affects the ability of SMES to benefit from formal funding, and consequently their ability to grow and eventually formalize (Peer, Ardic, and Hommes 2013). In Egypt, smaller firms are more likely to be informal than medium and large ones and thus less likely to obtain funding.[4]

Very few banks-and mostly national banks-lend money to SMES. Nasr (2009) and El-Said, Al-Said, and Zaki (2014) showed that banks prefer to lend to large firms, while smaller firms usually present greater risks related to their relative instability, insufficient sales

[4] See online appendix figure 2 (https://emuni.si/ISSN/2232-6022/15.217-244a.pdf).

and revenue records, lack of administrative and business documents (registration, license, tax cards) and less reliable financial statements. Consistent with the literature (Banerjee and Duflo 2014), interviews with bank officials responsible for SME funding also confirmed that banks are risk-averse to SMES, as they offer fewer guarantees and are associated with higher operation costs and lower returns compared to larger firms and treasury bond investments (authors' interviews, May 31st and June 8th, 18th, and 25th 2020).

The lack of sufficient financial education or financial literacy (in terms of bookkeeping, financial documents, business plans) is relatively widespread among SMES, which prevents them from providing the information required by banks to grant loans (Plakalović 2015). El Saady (2011) and Hampel-Milagrosa, Loewe, and Reeg (2015) argue that in Egypt, many SMES are not capable of providing reliable financial documents (such as business plans and financial statements), constituting an impediment to a loan application, which is also consistent with results from several interviews.

The complexity of the banking loan application procedures (administrative and legal procedures) and the collateral requirements represent another impediment for SMES. This is demonstrated in Egypt (Houssien 2014; Nasr 2009). Other obstacles, such as a minimum required deposit amount, high interest rates and difficulty in repaying the loan, were also documented in Egypt. This explains why SMES can be discouraged from dealing with banks or taking a bank loan (Nasr 2009; Tolba, Seoudi, and Fahmy 2014). Most of them (especially the micro and small enterprises) depend on their social networks in order to obtain the needed funds (Houssien 2014).

Relationship between Access to Finance and SME Growth

As for the relationship between access to finance and employment, it is not straightforward. On the one hand, firms can use loans to increase their capital investment, which will not necessarily translate into more jobs, and depends on the degree of labor-capital substitutability or complementarity (Dao and Qian Liu 2017; Ayyagari et al. 2016). On the other hand, firms can use loans to hire and train more people, and thus can expand in terms of employment. Ayyagari et al. (2016) show that the impact of access to finance on employment growth differs depending on firm size. Increased finance will lead to higher employment growth in Micro, Small and

Medium enterprises (MSMES) than in large firms. In the same vein, Dao and Qian Liu (2017) show that reducing small firms' finance constraint contributes to firm employment growth, given the fact that small firms are more financially constrained and more labor-intensive than large firms. They also find that more jobs will be created in labor-intensive enterprises as compared to less capital-intensive enterprises. However, this result obtained at the firm level has not yet been demonstrated at the macroeconomic level, insofar other factors come into play such as the wage level, the aggregate cost of financing, and the behavior of enterprises that are not constrained by access to external finance.

Dinh, Mavridis, and Nguyen (2010) demonstrate that the impact of easing access to finance on firm-level job growth is also dependent on the sector and the firm's age. Obtaining a loan has a larger positive impact on job creation in the manufacturing sector than it does in the sales and services sectors. Younger firms which contribute more to net job growth are more likely to generate jobs through securing funding than more mature firms, because both manufacturing and young SMES are more credit-constrained than those in the services sector and older firms, respectively.

DATA SOURCES

The first question provides analysis of policy and institutional environment facing SMES, particularly manufacturing ones, information was scattered, and sometimes scarce. Thus, we proceeded by collecting all relevant information from laws, and newspapers.[5] Then, we conducted 22 in-depth semi-structured interviews with banking officials, researchers, and representatives from international and national support organizations that either work with

[5] See online appendix 2 for the questionnaire's guidelines (https://emuni.si/ISSN/2232-6022/15.217-244a.pdf).

SMES or in the field of access to finance. The interviews were conducted between the end of May 2020 and the end of October 2020. We interviewed four Egyptian university scholars with expertise in labor markets, SMES, supply chains, and finance; one representative from a national bank and one representative from a regional bank; four officials from banking and non-banking regulatory institutions; eight representatives from international organizations; four representatives from national support organizations; and two independent SMES consultants. This is also besides a stakeholders' consultation session that gathered eleven representatives from three national banks, four national support/regulatory institutions, three international organizations and one national initiative.

To explore to which extent CBE funding initiatives were successful in lessening the constraint of limited finance for SMES, we employed descriptive analysis based on data from The World Bank Enterprise Surveys (ES) in 2013, 2016 and 2020.[6] The ES data are periodically representative random samples of private sector firms. The survey excludes firms in agricultural and extractive industries, public enterprises (or those fully owned by the government), financial enterprises and those employing fewer than five workers. Inference can be drawn for the manufacturing and service sectors, including retail, wholesale, accommodation, and ICT (Kuntchev et al., 2013).

POLICY CONTEXT: EGYPT'S REFORMS AND PROGRAMS

The regulatory framework is of great importance to SME growth. It builds the trust of the entrepreneurs in their relation to business and to the state (Hampel-Milagrosa, Loewe, and Reeg 2015). Nevertheless, it could explain the stagnation of small enterprises (Altenburg, Hampel-Milagrosa, and Loewe 2017). Therefore, in recent years, the government of Egypt implemented institutional reforms, enacted multiple laws and modified existing ones to regulate and improve SMES' access to finance. It also introduced specific programs for SME lending in late 2015.

[6] See https://www.enterprisesurveys.org.

Institutional Reforms

To reduce the fragmentation of the SME policy framework, the Micro, Small and Medium Enterprises Development Agency (MSMEDA) was established in 2017 as the main entity responsible for introducing SME policies and strategy as well as their implementation (OECD 2018).

In response to the difficulties SMES encounter in obtaining financing from the banking sector, the Financial Regulatory Authority (FRA) was established in 2009 as the sole entity supervising all non-banking transactions, replacing various authorities (the Capital Market Authority, the Insurance Supervisory Authority, and the Mortgage Finance Authority). The FRA aims to increase SMES' access to a larger and more diversified financing, by granting licenses to non-banking corporations such as leasing and factoring companies.

Legal Reforms

In July 2020, the government adopted law No. 152/2020 for MSMES that introduced a unified definition of MSMES; regulations regarding their funding; the facilitation of MSME financing entities (such as business incubators and accelerators, funding entities) and formalization incentives. One major development of this new law is the adoption of a unified definition of MSMES based on several criteria: the annual business turnover; the paid or invested capital for recently established enterprises (less than two years of age); and the sectoral activity (industrial vs non-industrial activity). This definition is very close to the CBE's current definition and is summarized in table 1.

The major drawback of this definition is that the number of employees is not included in the criteria. As demonstrated below, this definition does not match the classification of enterprises by the number of employees, which is the case for the Central Agency for Public Mobilization and Statistics (CAPMAS) definition and the ES conducted by the World Bank. Subsequently, SMES targeted by the CBE's financing initiatives and that of other funding entities are considerably larger than small and medium enterprises defined ac-

TABLE 1 Unified Definition of MSMES According to the New MSME Law

Criteria			Firm Size		
Years of activity	Annual business turnover/ Paid or invested capital		Micro enterprise	Small Enterprise	Medium Enterprise
Active for more than 2 years	Annual business turnover		Less than EGP 1 million	EGP 1 million–50 million	EGP 50 million–200 million
Active less than 2 years	Paid or invested capital	Industry project	Less than EGP 50,000	EGP 50,000–5 million	EGP 5 million–15 million
		Non-industry project	Less than EGP 50,000	EGP 50,000–3 million	EGP 3 million–5 million

NOTES Adapted from Shehata Partners (2020).

cording to the number of workers. Furthermore, in order to ease access to formal finance, the Movable Collaterals Law 115/2015 was enacted and became effective in March 2018. This law allows banks to accept moveable/intangible assets and securities as collaterals, instead of only accepting real estate and other immovable collaterals like plants. The lack of sufficient collaterals was identified as one of the greatest obstacles that SMES face in Egypt with high value of collaterals, reaching 158% of the loan value in 2016.[7]

SMES Finance Initiatives

Recently, the CBE has become a major player and facilitator of access to finance for SMES, and particularly those in the manufacturing sector. In 2016, the CBE mandated national banks to dedicate a minimum of 20% of their total loan portfolio to the financing of SMES (OECD 2018). Banks were allowed to extend these loans at competitive interest rates of 5% and 12% for small and medium firms respectively (Oxford Business Group 2019).

In 2017, the CBE injected EGP 30 billion to the banking sector to encourage funding micro enterprises at a competitive 5%

[7] See https://tradingeconomics.com.

interest rate. Around 10 million customers are supposed to profit from this initiative (OECD 2018; Enterprise 2017). In 2018, the CBE launched a four-year financial scheme of EGP 200 billion to fund SME projects through short-term facilities for working capital, and exempted banks from the reserve requirements of specific credit facilities for SME financing (OECD 2018). In December 2019, the CBE dedicated EGP 100 billion to loans at a 10% diminishing interest rate targeted to medium-sized manufacturing firms. In an attempt to alleviate the economic consequences of the COVID-19 crisis, in March 2020 the rate was reduced to 8% (Egypt Today 2020). This initiative initially concerned firms whose annual revenues ranged between EGP 50 million and 1 billion. In April 2020, this cap was removed, allowing even larger firms to benefit from this program (CBE 2020). In general, it seems that most of the funding was directed to either medium enterprises, or large corporations, which established small firms that are affiliated to them, in order to be able to benefit from preferential interest rates (authors' interview, October 15th 2020).

The launch of numerous funding initiatives by the CBE as described above is a positive development. Due to the recent timing of these funding initiatives, there is no evidence on their impact on firm performance, growth, and job creation. Moreover, all of these measures, although announced as dedicated to small and medium-sized enterprises, bore a definition of firm size used by the Central Bank that resulted-in targeting large enterprises while excluding the smaller ones, which is discussed below.

RESULTS: PATTERNS OF SME ACCESS TO FINANCE OVER TIME

Limited Finance Remains an Obstacle for Manufacturing SMES

The ES data shows that small firms were more likely to perceive access to finance as the most important obstacle. In 2013, access to finance was the second most important obstacle that small firms perceived as affecting their operation. This was true for SMES in both the manufacturing and non-manufacturing sectors. After the initiatives, access to finance seemed to improve more for small non-manufacturing firms than their manufacturing counterparts. Table

TABLE 2 Evolution of the Top 10 Business Environment Constraints, As Perceived by Small Firms (5–19 Workers)

	Constraints	Manufacturing			Non-manufacturing		
		2013	2016	2020	2013	2016	2020
Top ten constraints	Political instability	42	13	15	54	21	22
	Access to finance	19	17	10	13	15	3
	Electricity	11	17	4	5	17	1
	Corruption	5	5	18	5	4	17
	Practices of competitors in the informal sector	5	5	13	2	3	9
	Tax rates	4	7	23	4	5	27
	Business licensing and permits	4	7	4	3	6	4
	Inadequately educated workforce	3	3	4	2	3	2
	Crime, theft and disorder	3	4	1	6	8	1
	Access to land	1	3	0	1	7	1
Rest of constraints	Tax administration	1	5	5	0	1	5
	Labor regulations	1	5	2	3	2	3
	Customs and trade regulations	1	3	1	1	3	3
	Don't know	0	0	0	0	0	0
	Transport	0	2	0	0	4	1
	Does not apply	0	1	0	0	1	0
	Courts	0	4	1	1	2	0
Total		100	100	100	100	100	100

NOTES In percentage. Based on ES data (https://www.enterprisesurveys.org).

2 shows the top ten business environment constraints perceived by small firms in manufacturing and non-manufacturing sector. Between 2013 and 2020, for small non-manufacturing firms, the ranking of access to finance as a barrier to growth fell six places (2nd to 8th), compared to a fall of only three places (2nd to 5th) for small manufacturing firms. This reflects that access to finance was still considered a barrier, more so for firms in the manufacturing sector than those in the non-manufacturing one. Firms in the manufacturing sector were apparently less likely to benefit from these initiatives than those in the non-manufacturing sector.

As for medium-sized firms, the lack of access to finance ranked as

TABLE 3 Evolution of the Top 10 Business Environment Constraints, As Perceived by Medium Firms (20–99 Workers)

	Constraints	Manufacturing			Non-manufacturing		
		2013	2016	2020	2013	2016	2020
Top ten constraints	Political instability	43	18	16	59	25	26
	Electricity	15	15	8	7	14	2
	Access to finance	9	17	5	6	11	8
	Tax rates	6	7	25	3	10	18
	Corruption	6	5	9	3	4	15
	Business licensing and permits	4	8	6	4	9	6
	Practices of competitors in the informal sector	4	4	9	2	2	13
	Labor regulations	3	5	4	4	8	2
	Inadequately educated workforce	3	5	7	2	2	0
	Crime, theft and disorder	2	1	3	4	4	2
Rest of constraints	Access to land	2	2	0	1	3	0
	Transport	2	2	1	1	1	2
	Customs and trade regulations	1	5	3	2	5	2
	Tax administration	1	3	3	1	1	4
	Don't know	0	0	1	0	0	1
	Does not apply	0	2	0	0	1	0
	Courts	0	1	1	0	1	0
Total		100	100	100	100	100	100

NOTES In percentage. Based on ES data (https://www.enterprisesurveys.org).

the third most important obstacle for both manufacturing and non-manufacturing sectors in 2013. In 2020, it ranked 8th for manufacturing firms and 5th for non-manufacturing firms (table 3). Moreover, between 2013 and 2020 the proportion of medium-sized firms perceiving access as the most important obstacle fell for those in the manufacturing sector (from 9% in 2013 to 5% in 2020), whereas it increased for the non-manufacturing sector (from 6% in 2013 to 8% in 2020). Thus, funding initiatives were more effective for medium enterprises in the manufacturing sector than for small firms in lessening the perceived burden of access to finance, as shown in its lower ranking in 2020 compared to 2013.

TABLE 4 Distribution of Firms According to their Loan Uptake and Reasons Why to Apply for Loans for Small (5–19) and Medium Firms (20–99) in the Manufacturing Sector

Firm Size	Reasons not to apply for a loan	2013	2016	2020
Small (5–19 workers)	Took a loan in previous fiscal year	6	5	5
	No need for a loan*	58	68	57
	Application procedures were complex	7	10	8
	Interest rates were not favorable	14	7	11
	Collateral requirements were too high	5	2	11
	Size of loan and maturity were insufficient	1	0	0
	Did not think it would be approved	4	4	1
	Other	5	3	7
	Total	100	100	100
Medium (20–99 workers)	Took a loan in previous fiscal year	7	11	7
	No need for a loan*	67	65	64
	Application procedures were complex	7	10	7
	Interest rates were not favorable	7	5	7
	Collateral requirements were too high	4	1	8
	Size of loan and maturity were insufficient	1	0	2
	Did not think it would be approved	3	2	2
	Other	4	2	4
	Total	100	100	100

NOTES * Establishment had sufficient capital.

Reasons Not to Apply for Loans

The ES data shows that the percentage of manufacturing SMES who took a loan in a reference period (last fiscal year) is quite low (table 4). Small firms were less likely (5–6%) than medium firms (7–11%) to take a loan. The most important reason that manufacturing SMES do not take a loan was the lack of need as the establishment had sufficient capital. Medium firms were more likely than small firms to report this reason. More than two thirds of medium firms (67–73%) did not need loans, compared to slightly more than half (57–58%) of small firms.

On the other hand, a third of small firms did not take loans in 2020, either because application procedures were complex (8%), or interest rates were not favorable (11%), or collateral requirements were too high (11%). Despite the new Moveable Collaterals Law, the percentage of firms who reported not taking a loan due to onerous collateral requirements increased substantially between 2013 and 2020. Interviews suggested that there were issues in applying the Moveable Collaterals Law, especially arising from the complex and lengthy procedures of the pricing/evaluation of moveable assets (authors' interview, October 15th and 20th 2020). These procedures require the formation of a three-party committee to assess said assets.

Contradictions in Defining SMES

An important factor that may explain the low rates of access to finance relates to the definition of SMES. CAPMAS, the main statistical office of Egypt usually classifies SMES based on the number of employees, which is somewhat similar to the World Bank classification used in implementing the ES data. Thus, most datasets on SMES in Egypt, hence evidence-based research, rely on the 'number of employees' definition of SMES (Assaad et al. 2019; El-Said, Al-Said, and Zaki 2014; Hampel-Milagrosa, Loewe, and Reeg 2015; Hendy and Zaki 2013). According to this definition firms employing 5–19 workers are small, those employing 20–99 workers are medium-sized, and those with 100 workers or more are large (World Bank 2016).

As for the CBE, it defined SMES based on the annual sales/revenues whereas the number of employees was only indicative. Accordingly, CBE funding initiatives targeted small firms defined as those with annual sales between EGP 1 million and 50 million, and medium firms as those with annual sales between EGP 50 million and 200 million. Looking at the cross-distribution of establishments by their annual sales categories and the number of their employees (table 5) clearly reveals that there was a strong mismatch between the firm size definitions based on the number of workers (used by CAPMAS and the World Bank), and those based on annual sales (used by the CBE).

In 2013 and 2016, the majority (87% and 77%, respectively) of

TABLE 5 Distribution of Firms by Categories of Annual Sales by Firm Size

Firm size	Year	Annual sales									Total
		EGP 10,000–200,000	EGP 200,001–500,000	EGP 500,001–1,000,000	EGP 1,000,001–10,000,000	EGP 10–20 million	EGP 20–50 million	EGP 50–100 million	EGP 100–200 million	EGP 200 million+	
Small (5–19 workers)	2013	30	27	20	21	1	0	0	0	0	100
	2016	16	29	22	31	1	1	1	0	0	100
	2020	3	15	31	48	3	1	0	0	0	100
Medium (20–99 workers)	2013	3	4	15	60	10	4	2	1	0	100
	2016	0	7	12	58	10	6	3	2	2	100
	2020	0	0	7	55	17	11	5	1	4	100
Large (100+ workers)	2013	1	0	1	23	19	22	10	11	13	100
	2016	0	0	1	15	18	23	10	10	22	100
	2020	0	1	2	9	8	25	16	11	29	100

NOTES * In percent.

small firms (5–19 workers) respectively had annual sales below EGP 1 million, the threshold above which a firm was considered 'small' according to the CBE definition. Therefore, based on the annual sales definition, the CBE treated most small firms (5–19 workers) as micro firms.

Furthermore, most medium firms (20–99 workers) earned between EGP 1 million and 50 million per year (74 and 83% in 2013 and 2016, respectively), which was the range of sales used to define a small firm according to the CBE. Thus, CBE initiatives designed for small firms, as defined by their annual sales, were actually directed to medium-sized firms (20–99 workers). Similarly, access to finance programs for medium firms whose annual sales ranged between 50 and 200 million EGP were more directed toward large enterprises (100+ workers).

This finding may explain why, over time, medium firms (20–99 workers) were more likely than small firms (5–19 workers) to perceive access to finance as a less important obstacle, since funding initiatives targeted firms with larger annual sales than those typically exhibited by small firms.

POLICY OPTIONS

In order to enable SMEs in the manufacturing sector to grow and generate jobs, there must be a coordinated strategy of solutions to alleviate their credit constraints. This should entail developing a mix of banking and non-banking financial services that are reliable, accessible and interconnected. This set of solutions should also be accompanied by efforts to increase the profitability of SMEs, especially those in the manufacturing sector, through enhancing the business environment's taxation system, and the speed and cost of bureaucratic procedures. The following section puts forward some suggestions based on the above analysis of the national context, and other countries' experiences.

Evaluate Funding Initiatives

There is a pressing need for the evaluation of the various SME financing programs. Even though several meta evaluations of SME financing programs in developing countries have been carried out, very few have evaluated programs that specifically targeted employment growth at firm level (Kumar 2017). To our knowledge, in Egypt, no impact evaluation of SMEs financing programs on output, employment, firm performance, wages or productivity has been implemented or has been made available to the research community. It is thus necessary to conduct systematic impact evaluation of the SMEs programs aimed at facilitating access to finance. This will enable the identification of problems, which in turn will help to amend future programs.

Moreover, despite the CBE's 2016 stipulation that banks are required to allocate 20% of their capital/portfolio to SME loans, it is not clear whether or not banks have met this stipulation. There is no data to verify whether commercial and non-commercial banks have reached this threshold, but according to interviews, there was mixed evidence in this regard. Interview results indicated that the percentage of the banks' capital used as loans to SMES might still be substantially lower than 20% (authors' interview, May 12th and June 8th 2020), even though one national bank recently reported that it was able to reach this quota (authors' interview, June 25th 2020). Other interviewees confirmed that it was difficult for banks to reach out to small businesses, as the risks and costs that banks face while dealing with small firms, especially those in the manufacturing sector, remain high (authors' interview, October 19th 2020).

Another necessary policy is the development of quantitative data on loans directed to SMES to assess the effectiveness of these initiatives.

Better Targeted SME Finance Programs

Programs that facilitate access to finance around the globe were most effective for credit-constrained firms that are able to use credit efficiently (Kersten et al. 2017). SME finance programs need to be better targeted to firms that are credit-constrained, particularly in the manufacturing sector, and firms that have the potential to grow or to make effective use of the financing. Previous research suggested that the potential to grow can be examined on the basis of past profitability (Banerjee, Cole, and Duflo 2004), whereas the efficient use of financing can be reflected by the ability to export (Kersten et al. 2017).

Table 6 shows that in Egypt, small firms (5–19 workers) with annual sales between EGP 500,000 and 1 million, and those between EGP 1 million and 10 million, were the most likely to be credit constrained. These firms make up an important share of all small firms in the manufacturing sector (table 5).

Although the segment of small firms with annual sales between EGP 1 million and 10 million saw a rise in their share over time, reaching 48% of small firms (table 5), and were eligible-in theory-for the CBE directed lending program, they became less likely to take a loan in 2020 (6.9%), compared to 2013 (10.5%) and 2016 (9.1%) (table 7).

Therefore, it is crucial to prioritize funding to the segments of

TABLE 6 Percentage of Small and Medium Manufacturing Firms Perceiving Finance as a Major or Very Severe Obstacle

Annual sales (EGP)	Small (5–19 workers)			Medium (20–99 workers)		
	2013	2016	2020	2013	2016	2020
10,000–200,000	43	31	27			
200,001–500,000	39	33	31			
500,001–1,000,000	29	18	38	43	51	65
1,000,001–10,000,000	32	34	36	27	35	25
10–20 million				23	32	14
20–50 million				20	27	9

NOTES Based on ES data (https://www.enterprisesurveys.org).

TABLE 7 Percentage of Small Firms (5–19 Workers) who Took a Loan in the Previous Fiscal Year for Selected Annual Sales Categories

Annual sales (EGP)	2013	2016	2020
10,000–200,000	11.2	4.8	7.1
200,001–500,000	3.8	3.7	3.5
500,001–1,000,000	6.1	11.4	5.7
1,000,001–10,000,000	10.5	9.1	6.9

NOTES Based on ES data (https://www.enterprisesurveys.org).

firms most exposed to funding constraints and are most likely to use credit in an efficient way, based on their past profitability and the strength of their supply chain. These include companies whose annual business turnover is between EGP 500,000 and one million (the upper bracket of micro–enterprises), as well as small manufacturing enterprises with an annual business turnover between EGP one million and 10 million (the lower bracket of small enterprises). Such loan programs should be regularly assessed and potentially revised every two or three years, depending on their results in reaching the right segment and their effects on employment, output and firm performance.

Egypt also has room to implement finance programs targeted to innovation, R&D or technological upgrading, especially in the manufacturing sector. The international evidence shows that these programs result in positive impacts on firm performance and revenue, which increase with firm size and loan size (Kersten et al. 2017). The effect of these programs is most beneficial for large, exporting firms or small, new R&D intensive firms. While the new MSMES law specifies that the industrial sector constitutes one of the key sectors of MSMES, focus should be on the sectors that are most intensive in labor, more tradable, and rapidly growing in terms of job creation. For instance, some of the most employment-generating manufacturing subsectors also have a large share of SMES, which include food, electrical equipment, textile and pharmaceutical sectors.[8]

Financial Literacy Training

In general, small and/or informal enterprises lack adequate financial education necessary to apply for formal funding, or to use efficiently the loans they receive, regardless of loan type. They can also hold multiple books (Malhotra et al. 2007). Therefore, it is crucial to provide owners of small firms and their staff, especially accountants, with financial literacy training.

The example of the Uwezo fund in Kenya sheds light on the conditions of a successful finance training program, aiming to generate productive self-employment for targeted groups, namely youth, women and the disabled (Mutiso and Muigai 2018). Emily (2016) noted two important conditions for the success of such programs. First, it is crucial that the training takes place before enabling access to funds, to reduce the chance of misuse. Second, the training should cover a diverse range of topics essential to business management while focusing on financial literacy topics.

It is also necessary to combine directed loan programs with business development services (BDS), such as speeding licenses, connections with other/bigger suppliers and financial training for staff. Moreover, to improve and facilitate the ease of access to BDS in Egypt, leveraging digital financial and non-financial transformation is important. A website and/or an online platform is strongly needed, containing all papers needed to establish a business, apply for loans, submit tax statements, build financial statements and

[8] See online appendix figure 4 (https://emuni.si/ISSN/2232-6022/15.217-244a.pdf).

benefit from non-financial services and various training programs offered in the market. This online platform should include all resources in the business domain.

Developing Banking Services

As shown in table 4, an increasing share of firms-particularly small firms-do not take loans, because of collateral requirements. Therefore, the law allowing banks to use moveable assets as collaterals is an important step towards easing the process of providing adequate collateral to the bank. Although the law was made effective in March 2018, banks were not adequately capable of lending against moveable assets due to several challenges, including the pricing process of these assets, the timely liquidation in case of defaults, and the weak insurance environment (authors' interview, October 20th 2020). Therefore, efforts are needed to activate and better operationalize this law by creating a collateral registry, improving the regulatory environment and adopting timely measures for liquidation to encourage banks to lend against moveable assets.

Another mechanism by which the government could facilitate access to finance for formal firms who lack qualifying collateral assets is a partial credit guarantee program. In general, banks perceived guarantee funds as the most influential programs in access to finance, more so than interest subsidies, direct credit programs, and regulatory subsidies such as those allowing lower provisions (Beck, Demirguc-Kunt, and Levine 2005). These programs should encourage banks to lend to small firms as the risk of default is partially assumed by the government. As the loan is only partially covered by the government, banks assume some risk and still have the incentive to undertake a credit investigation, while firms are incentivized not to take excessive risk. It is crucial to verify the success of these credit guarantee programs in extending the outreach of banks to small firms that have not borrowed previously, rather than providing the banks with an option for cheaper loans for their existing clients. One successful example is the partial guarantee fund (NGF) in Colombia, where beneficiary firms from this program expanded more in terms of output and employment than their nonbeneficiary counterparts (Arráiz, Meléndez, and Stucchi 2014). With the CBE funding initiatives approaching their end, it is highly recommended that the government starts piloting a partial credit fund guarantee that – if appropriately designed and rigorously monitored and evaluated – could spur a leap in access to finance, growth and sustainability among small firms.

Moreover, in order to select the firms most likely to use the credit efficiently, bank employees should be well trained to conduct thorough credit analysis and check said firms' past performance, via receiving the appropriate credit course.

New Areas of SME-Adapted Non-Banking Financial Services

Factoring represents a potential area of opportunity for small industries. When supplying for large buyers, small suppliers are compelled to wait before receiving their payments from these buyers. Factoring is when small suppliers 'sell' their invoice (known as accounts receivable by the seller) to a factor, usually a bank or a financial institution. This factor purchases the accounts receivable at a lower price (discounted by an interest rate in addition to service fees). Then the factor collects the payments from the buyers. Reverse factoring occurs when the factor pays the buyers' invoice to the suppliers in a shorter time frame in exchange for a discounted price. It is an approach of factoring that works better in contexts of high fraud or where credit information is scant, because it requires very little information about the buyer (Beck, Demirguc-Kunt, and Levine 2005; Malhotra et al. 2007). Hence it is not a lending technique, but a tool for providing immediate cash flows to small-sized suppliers in return for their production.

Factoring is still underdeveloped and not well known among enterprises (De Vries 2004) despite evidence of its success in many countries. It represents an important tool for small exporters, since they usually need to wait a long time before receiving their payables (Auboin, Smythe, and Teh 2016). Vasilescu (2010) showed that while textiles and clothing sectors were the industries which benefited the most from factoring, other manufacturers like those of industrial and farm equipment, office equipment, electronics and processed food are also likely to use factoring services. Klapper (2006) and Malhotra et al. (2007) point to the use of digital channels as one of the most important lessons learned in this program. Providing factoring services online helped reduce the cost and time of transactions. In Egypt, factoring is still at an embryonic stage. However, according to interviews with experts, it is increasing and can be a promising option (authors' interview, June 15th and October 6th, 14th, 20th, and 25th 2020).

Leasing also represents another alternative financing solution for SMES. Leasing is a means of non-bank financing in which a company (the lessee) can use an asset provided by an intermediary (the lessor) in exchange for regular payment for a specified period of time. The asset can be machinery, equipment, vehicles, and properties. At the end of the lease period, depending on the terms of the contract between the two parties, the asset may be returned to the lessor, be transferred to the lessee, or sold to a third party (International Finance Corporation 2017; Kraemer-Eis and Lang 2012).

Contrary to a bank loan, which is guaranteed by collaterals and the firm's credit history, leasing relies on the lessee's cash flows and profit created by the use of the leased asset rather than by the ownership of the asset (Kraemer-Eis and Lang 2012). In the event of default or bankruptcy, the lessor can quite easily recover the asset, which remains its property during the contract period (Mol-Gómez-Vásquez, Hernández-Cánova, and Köeter-Kant 2020; Ramalho et al. 2018). For these reasons, leasing is particularly interesting for young firms and SMES, which often face difficulties in obtaining bank credit due to insufficient guarantees and/or short credit history (Kraemer-Eis and Lang 2012). Mol-Gómez-Vásquez, Hernández-Cánova, and Köeter-Kant (2020) noted that in the European context, leasing is an adequate alternative financing technique for less developed countries, as banks can be more risk-averse when the regulatory and legal frameworks are relatively weak. Leasing could also facilitate the formalization of SMES by creating a credit record that could afterwards be used when applying for a bank loan (Ramalho et al. 2018).

Although leasing has experienced a strong growth over the past fifteen years in Egypt, its volume of activity remains marginal. The various FRA reports[9] have nevertheless shown that leasing is more and more used to finance the purchase of land and real estate while its financing of capital equipment is declining.[10] This trend is explained by the higher risk associated with capital goods, particularly its depreciation value, unlike real estate whose value is strongly rising in Egypt and consequently preferred for leasing (authors' interview, October 25th 2020). It is therefore crucial that equipment needs in the manufacturing sector are assessed and that equipment leasing in particular is supported and incentivized.

Thus, leasing and factoring can play a substantial role in easing finance constraints and as an alternative and a complementary means to banking finance. International Finance Corporation (2017) highlighted three lessons learned from the practice of leasing in Africa over the past ten years relevant to the Egyptian context. First, dialogue between the different actors (central bank, regulatory entities, financial institutions, SMES, and researchers) is crucial in order to determine what are the obstacles (in terms of regulatory constraints, risks of recovering lease assets in the event of default) for the development of leasing finance. Second, the development of leasing finance must be part of a national strategy and receive governmental financial support (as is the case in Cameroon and Ethiopia). Third, an assessment of equipment needs specific to the manufacturing sector would improve the practice of leasing.

Conclusion

Although SMES in Egypt encounter many difficulties (informality, regulatory constraints, access to the international market, etc.) limiting their development, recent data from the ES clearly identify insufficient access to finance as a major constraint. Moreover, the literature clearly shows that larger access to finance not only contributes to the growth of SMES, but also to employment growth at

[9] See https://fra.gov.eg.

[10] See online appendix figure 3 (https://emuni.si/ISSN/2232-6022/15.217-244a.pdf).

the firm level. Therefore, the recent financing initiatives for SMES on the part of the CBE and the MSMES law appear encouraging. However, these initiatives do not seem to have resulted in a full relaxation of the SME financing constraint. This paper highlights the

fact that the CBE financing initiatives were not appropriately directed towards the most constrained companies. Moreover, the unified definition of MSMES, based solely on the business turnover and paid capital without accounting for the firm's number of employees, can introduce biases of access to finance in favor of relatively large enterprises.

To be effective, financing programs should target the most constrained SMES which demonstrate growth potential. The smallest companies among SMES (whose annual business turnover ranges between EGP 1 and 10 million) being the most financially constrained should therefore have priority. But lending to these SMES also represents a relatively higher cost and risk for banks. To overcome this, it is necessary to train bank employees in the management of credit applications specific to SMES. There are also a number of manufacturing sectors within these enterprises that are more promising than others and should be better targeted. The government of Egypt ought to also look at other ways of supporting these enterprises financially, whether by introducing a partial credit fund guarantee program or encouraging factoring or leasing services for small enterprises. These solutions have had a positive impact in some countries and are considered viable options for the Egyptian context. Equally crucial is the need to combine direct loan programs with business development services (BDS), such as speeding licenses, connections with other/bigger suppliers and financial training for firms.

Finally, the little evidence on the impact of the recent CBE financing program necessitates regular impact evaluations of SME finance programs, which aim to facilitate their access to finance.

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