

DOI: 10.53555/ks.v10i2.3591

Examining The Impact of Egyptian Government Financial Programs on Smes Performance: The Mediating Role of Government Non-Financial Support

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ABSTRACT

This study aims to identify the importance of government financial support (GFS) for SMEs in Egypt and contributes to the Resource-Based View (RBV) by showing how government non-financial support (GNFS) acts as an intermediary between financial aid and Small & Medium Sized Enterprises (SME) performance.

The study employed a mixed approach. Exploratory research and a quantitative technique utilizing self-administered survey questionnaires. Out of 193 distributed questionnaires, 154 were returned, with valid responses used for the analysis. The empirical results using smart PLS showed that GFS has a significant positive impact on SME's performance. Additionally, non-financial support mediates the relationship between GFS and SME's performance. This study offers valuable insights for business managers, professionals, and government officials on addressing mismatches between support provided and the actual needs of SMEs. It highlights the importance of tailoring non-financial support programs (e.g., training, networking) to address the specific needs of SMEs for improved performance. By identifying key areas such as training, consultancy, marketing support, and government policies, the study provides practical guidance to stakeholders, aiming to foster sustainable growth and success of SMEs in Egypt.

Keywords: SMEs performance, government financial Support, Non-financial Support, Resource-Based View

INTRODUCTION

Small and Medium Enterprises (SMEs) are often "resource-constrained" as stated by Woschke et al. (2017). SMEs play an important role in the economic, infrastructure and social development of the country. Many developed countries recognize the importance of SMEs in strengthening economic growth and serving as a key generator of employment and income. Mahrous et al. (2020) argued that entrepreneurial firms operate in an environment characterized by high risk and reduced predictability. This environment is often dominated by rapid change, difficult decisions, and high customer expectations, creating pressure for entrepreneurs. Moreover, Chilembi (2021) argue that SMEs often struggle with limited access to funding. This has led to government interventions such as subsidized credit programs and credit guarantee schemes (CGSs) by enhancing their creditworthiness and reducing the risk of insolvency. Ombongi and Long (2018) believe that despite these challenges, SMEs remain vital to developing economies. Government support, including tax breaks, financial assistance, and training programs, is essential for their survival, growth, and improved market potential.

Given the importance of SMEs to the economy, it is important to study SMEs performance. This study is intended to investigate and fill a research gap of the impact of government financial support to improve the performance of SMEs both directly and indirectly through the government non-financial support programs. Several previous studies, e.g., Cin et al., 2017; Motta, 2018; Feranita & Nugraha 2019, among others, have identified the role of government support on SMEs performance. Although, access to finance is important for SMEs, but it is not enough on its own. This may be mediated by non-financial support programs through provided government programs and government policies (Cudjoe et al., 2017).

This research sheds light on the significance of government support programs to SMEs in Egypt. In doing so, this research raises and answers two crucial questions: Does government's financial support alone positively affect SMEs performance? Does non-financial support play a mediating role in the relationship between government's financial support and SMEs performance?

In effect, the study advises Egyptian policymakers to focus on effective public support systems to foster SMEs' innovation. If these programs are managed properly and equitably, they can stimulate economic growth and competitiveness, creating a better working environment.

The study is organized as follows, the next section reviews the existing literature on SMEs' performance, government financial support, resource-based view and the mediating role of government non-financial support. Section 3 highlights the main

findings of the exploratory research. Followed by research methodology and the findings of empirical research. The last section presents implications, draws conclusions, notes limitations, and suggests directions for future research.

LITERATURE REVIEW AND HYPORHESES DEVELOPMENT

SMEs Performance

SMEs are enterprises that seek to take advantage of market opportunities to ensure survival and growth in the short term and aim to maximize revenues and profits in the long term. (Park et al., 2020). Naveed et al. (2022) expressed there is no universally accepted definition of SMEs, as these definitions vary widely. The “Small Enterprise Development Law number 152” - approved by the President of the Arab Republic of Egypt on July 13, 2020 - sets a definition for small and medium enterprises to be any “newly incorporated industrial enterprise with a paid up or invested capital between EGP 5 million and EGP 15 million, or any newly incorporated non-industrial enterprise with a paid up or invested capital between EGP 3 million and EGP 5 million.

Performance serves as a critical benchmark for assessing how successfully an enterprise meets its objectives, ultimately determining whether it thrives or fails (Ostgaard & Birley, 1995; Sefiani & Bown, 2013). Sefiani and Bown (2013) found that performance represents the company’s ability to achieve specific outcomes and make appropriate decisions, critically assessing its progress towards its goals. This notion of performance is deeply connected to growth, survival, success, and competitiveness, as discussed by Wolff and Pett (2006). Enterprise performance provides insight into both its strengths and weaknesses. Performance can be understood as achieving specific objectives in line with acceptable standards, covering aspects of completeness and value (Harash et al., 2014).

Joo and Suh (2017) examined the relationship between government support and SMEs performance in Korea and China, revealing a positive relationship between tax incentives, government financial assistance (GFS) schemes and SME performance. Ahmed (2021) asserts that building strong relationships with external agencies such as government agencies, financial institutions, and other business partners is crucial to secure valuable resources needed for enhancing performance.

Government Support Programs

Government support refers to programs designed by the government to boost and encourage the success of SMEs (Peter et al., 2018). One of the main reasons why SMEs struggle and don't do well is because they don't get enough financial support (Musabayana, 2022). This difficulty in securing finance frequently serves as a main reason behind government intervention that involves financial support, direct subsidized credit programs and indirect credit guarantee schemes. For instance, loan guarantee funds have become popular programs in the realm of credit support instruments and served as a complementary tool to assist viable and creditworthy companies facing liquidity challenges and difficulties in obtaining funding. However, the effectiveness of these schemes is debated, with limited evidence of their additional or incremental impact.

Ahmed (2021) argued that the effectiveness of these programs and initiatives varies across different countries worldwide. The primary goal of the government's support for SMEs is to create competitive, sustainable, and innovative businesses that are able to produce goods and services and create jobs. SMEs in developing countries have a huge impact on the economy, thus governments in these countries enact policies and programs supporting SMEs by offering financial assistance, tax breaks and training programs to teach entrepreneurs how to start and run businesses. Government intervention through business support programs can improve SMEs performance and create job opportunities in low- and middle-income countries (Cravo & Piza 2018). As argued by Feranita and Nugraha (2019) government support does not only expand R&D investments, registration of copyrights and patents for SMEs, but also increase investment in tangible assets and human resources and marketing. Government support programs not only to nurtures quick access to resources but also helps SME’s financial and non-financial position at underdeveloped stages (Hansen et al., 2009).

In the same way Egypt has undertaken economic and legislative reforms to support startups including streamlining business startup procedures, allowing 100% foreign ownership, unrestricted repatriation of profits, and implementing monetary policies as well as financial incentives for SMEs.

Governments financial support for SMEs

The ability of firms to capitalize on competitive resources and improve performance is frequently linked to GFS. GFS is utilized to secure competitive resources that strengthen firm's capabilities and subsequently boost its performance. Additionally, government-provided financial incentives are considered key drivers of innovation in both developed and developing countries. (Alkahtani, et al., 2020). Previous research has demonstrated a positive correlation between tax incentives, as a form of GFS, and firm performance (Jayeola et al., 2022). After outbreak of the coronavirus disease (COVID-19) there is a significant increase in both perceived and actual government involvement in providing financial assistance to SMEs (Jayeola, et al., 2022).

Feranita and Nugraha (2019) highlighted that the growth of European SMEs is highly dependent on financial access. Accordingly, the government must develop programs to assist SMEs in resolving challenges in accessing finance through providing guaranteed loan programs, direct loan programs, micro-credit loans (Prelipcean & Boscoianu 2014). Gassiah, and Kikula,(2022) mention that challenges in accessing credit hinders the ability of SMEs to contribute to economic and social development. In the same way, the Egyptian government has introduced policies to provide credit to SMEs at preferential rates. Notable among these are the measures and schemes implemented by the Central Bank of Egypt. In 2017, the central bank also started a project to put around 30 billion euros (1.4 billion euros) into the banking system. This money is supposed to help small businesses get loans more easily, and it's expected to help about 10 million customers in the next few years.

Examining government support for small businesses is crucial to ensure that policies and programs meet the needs of SMEs, especially during digital transformation (Chen, et al., 2021). Although, the value of financial assistance is undisputed, there is limited empirical evidence in Egypt on how much such support enhances SME performance under government programs.

Thus, based upon all previous studies the researchers developed the following hypothesis:

H1: 'There is a significant statistical relationship between government's financial support and SMEs performance'.

Government Non-Financial Support Programs for SMEs:

Assessing SMEs performance through the lens of resource-based view (RBV)

SMEs' performance can be assessed through the lens of their resources (Kamardi et al., 2022). SMEs' ability to manage its resources, allows to exploit different market opportunities that will enhance its performance. The RBV emphasizes that organizations derive competitive advantage and profitability from unique resources, both tangible and intangible (Barney, 1991). Park et al. (2020) explained that leveraging existing resources and competencies to seize new opportunities is much easier than acquiring new skills, traits, or functions for each different opportunity.

According to the RBV, a company must develop dynamic capabilities (DC) to succeed. DC refers to a firm's ability to integrate, develop, and reconfigure its internal and external resources and competencies in response to rapidly changing business environments (Yang & Yang, 2022). Chigara (2021) confirmed that it's important to notice that a resource must be valuable, rare, imperfect imitability, and non- substitutability to deliver competitive advantage and ensure sustainable performance.

The importance of governments' non-financial support for SMEs

SMEs face many challenges that limit their performance (Zaato et al., 2022). One of these challenges is the limited access to finances. Furthermore, SMEs need more support for things like research and development to expand, access to markets and institutional support (Jayeola, et al., 2022). As a response, governments have begun implementing non-financial strategies to aid the development and growth of SMEs. These include training for owners and managers, professional development for employees, and consulting services enhance workforce skills to become more creative and more willing to embrace risks associated with uncertainty and even stimulates innovation (Alkire, et al., 2014). Emphasizing government support, especially through technological improvements and open innovation in organizations, can significantly contribute to corporate growth through leveraging all available resources effectively, including collaborations with external parties (Guan & Yam, 2015). Even with many support programs in place, SMEs still struggle and often fail.

The Mediating Role of Government Non-financial Support in the Relationship between Financial Support and SMEs Performance

de Oliveira et al. (2021) asserts that qualitative and empirical studies proved that government's financial support alone is not enough for SMEs enhanced performance and growth. Non-financial measures such as business development services, technical guidance, monitoring, and communication and market access could enhance performance and growth. (Cudjoe, et al., 2017). Therefore, acquiring non-financial business support services can help SMEs owners especially in developing countries to better understand and manage their working environment and market dynamics, this understanding can account for the varying growth potentials and performance levels among MSMEs. (Lwesya, et al., 2021). Thus, it can be concluded that non-financial support could mediate the relationship between the financial support and SMEs performance.

Hence, after reviewing the previous literature, the authors came up with the second hypothesis:

H2: 'Government's non-financial support mediates the relationship between government financial support and SMEs performance'.

Figure 1: Conceptual framework

Source: authors (2022)

EXPLORATORY RESEARCH

Introduction

This study conducted exploratory research aiming to uncover new and intriguing insights by delving into a research topic and grasping the views and opinions of small business owners regarding government's financial and non-financial support for SMEs in Egypt. Researchers utilize semi-structured interviews to collect data through feedback, exploring participants' thoughts and feelings (DeJonckheere & Vaughn, 2019).

Mbaka and Isiramen (2021) clarified the main advantages of the exploratory research are that it lays the groundwork for understanding a research problem, helping to develop hypotheses for subsequent studies. However, exploratory research also has its drawbacks. It can produce false positive results due to a high risk of Type I errors, particularly when conducted with small sample sizes, which may lead to unreliable conclusions. In mixed methods research, they can explore concepts, generate hypotheses, or interpret quantitative results.

Interview Procedures and Participants Characteristics

Researchers conducted the interview with three subject matter participants two of them are founders of small businesses and third one is a high-ranked governmental figure who is responsible for public companies' finance, governance & reform programs.

The researchers considered few aspects before conducting the interview: voluntary participation, informed consent, anonymity, confidentiality, and recording permissions. The researchers provided background information on the topic, purpose, and relevance of their research.

The semi-structured interviews were analysed using coding, which involves using words or phrases to identify what a quote or sentence relates to. Then, by connecting these quotes or sentences to specific codes, they managed to create a comprehensive view of what was said about their core topic. Then came the interpretation phase, as once the researchers finished coding the interviews, they began analysing the data associated with each code. (Interview questions in appendix)

Findings & Discussion

The conducted interviews with the two founders revealed that SMEs are facing challenges when aiming for financial accessibility including limited access to loans and credit, lack of collateral to secure traditional bank loans, high interest rates that hinder investment and growth, risk-averse lending practices by banks, dealing with bureaucratic complexities like complicated applications, long approval times, and heavy paperwork, but at the same time they mention that some of the SMEs' owners lack the required financial knowledge required to understand of financial terms. Additionally, they mentioned that current financial support programs for SMEs have significant design issues that reduce their effectiveness. Many adopt a one-size-fits-all model, overlooking the varied needs of different SME sectors. They suggested to improve access to financial resources, government policies can be adjusted by expanding credit guarantee schemes, promoting alternative lending models like crowdfunding and peer-to-peer lending, and encouraging banks to adopt more SME-friendly lending practices.

The three participants agreed that non-financial support services could greatly benefit SMEs in Egypt. Business skills training programs and consultancy support provide essential knowledge in financial management, marketing, operations, and strategic planning for SME owners. Additionally, they agreed that GFS can greatly enhance the operational efficiency of SMEs by allowing them to invest in equipment and technology, upgrade operations, and boost productivity and taking better decisions.

Moreover, the three participants argued that targeted combinations of financial and non-financial support programs can significantly enhance the performance of SMEs. Offering both credit access and financial literacy training helps SME owners effectively use loans and manage their finances. Providing grants for technology adoption along with technical training allows SMEs to utilize digital tools for better operational efficiency and market expansion. However, one participant added that that government technical support is inadequate and suggested that both the private and public sectors, as well as researchers, need to conduct more studies and research to identify effective solutions to this issue.

The participants assured that policymakers can develop a more comprehensive support system by setting up SME support hubs that provide a variety of services such as financial aid, business training, mentorship, and market access assistance. Establishing online platforms can serve as a central resource where SMEs can find information, apply for programs, and connect with key stakeholders.

Participants agreed that government-supported technological advancements benefit SMEs in various ways. They enhance internet connectivity, provide access to cost-effective technology solutions, and offer e-commerce platforms that enable online sales and broaden market reach. Additionally, financial technology (FinTech) solutions offer alternative financing options and streamline financial transactions for SMEs.

Finally, the participants confirmed that GFS offers export financing through loans and credit guarantees to aid their involvement in global trade. Trade missions and exhibitions help SMEs showcase their products and services at international events. They mentioned that global competitiveness could be boosted by providing additional support such as training in export procedures, cultural awareness, language skills, and guidance on international legal and regulatory frameworks may be needed.

Conclusion

The interviews highlight key challenges and potential solutions for supporting SMEs in Egypt. Interviewees emphasized the need for an integrated ecosystem combining financial support such as expanding credit guarantee schemes, promoting alternative lending models, and offering SME-friendly lending practices with business skills training, mentorship, market access facilitation, and technology adoption support as non-financial support actions.

The participants suggested the following recommendations:

- Develop SME support hubs and centralized online platforms for accessible information.
- Foster public-private partnerships to utilize private sector expertise.
- Pair financial resources (e.g., credit or grants) with capacity-building initiatives (e.g., literacy or technical training).
- Provide targeted export support like financing, market intelligence, and legal guidance to boost international competitiveness.
- Address technology gaps and offer comprehensive export procedure training.
- Tax incentives, regulatory reforms, and supportive procurement policies benefit SMEs.

In conclusion, a multifaceted approach integrating financial and non-financial elements with streamlined, tailored policies and collaborative efforts among the government and private sector are essential to enhance SME growth and competitiveness in addition to further research to develop effective solutions for the inadequacy of government technical support issues.

METHODOLOGY

Sample and Data Collection

The research population included all SMEs entrepreneurs and managers across Egypt. The research sample encompassed 193 business owners and managers of various SMEs were selected as participants for this study as they represent a knowledgeable source of information and have clear understanding of business operations which will improve the accuracy of answers. (Semrau et.al, 2016) Only 154 questionnaires were eligible for analysis. Data was collected using a self-administered questionnaire. The questionnaire was developed in the English language based on the data required and measurements that were developed to test hypotheses and translated into Arabic language. To guarantee that the English one is like the Arabic questionnaire, the questionnaire was translated into Arabic and then re-translated back to English to make sure that all questions involved in the questionnaire have the same meaning. The questionnaire starts with a cover page that explains the aim of the research and the importance of the respondent's answers to the research to attract attention and ensure the confidentiality of their answers. The questionnaire contains four sections: financial support, non-financial support, firm performance, and background information.

In addition to quantitative questionnaires, the authors adopted an exploratory study through fruitful interviews with industry experts to interpret quantitative research findings and propose meaningful research implications and recommendations. Finally, the researchers employed the Smart PLS statistical technique to test the mediating effect of government non-financial support in the relationship between government financial support and SMEs performance.

Measurements

This study utilized multi-item scales from prior research (Ahmad & Xavier, 2012; Engelen et al., 2015) to measure constructs, employing a five-point Likert scale (1 = strongly disagree, 5 = strongly agree).

Financial government support was measured using a seven-item scale taken from (central bank of Egypt) without any modifications to the items.

Non-Financial Government Support: As discussed by Ahmad and Xavier. (2012) was then further divided into:

Government Programs: Measured by five statements related to business incubators, the adequacy of the programs, and prioritization of SMEs.

Government Policies: Measured by six statements regarding tax burdens, regulations, and licensing difficulties.

SME Performance: This was taken as a multidimensional construct and was measured using the scales from Engelen et al. (2015) on the following aspects: Customer Satisfaction, Market Effectiveness, and Financial Performance. The respondents assessed their firm's performance over three years on twelve comparative statements. The study also recognizes some challenges related to accessing objective financial data; therefore, it considers financial and non-financial metrics, such as sales growth and customer satisfaction, as performance indicators, respectively, which is consistent with Engelen et al. (2015) and Neneh (2018).

Control Variables Results

Research indicates that firm size, gender, and educational level of entrepreneurs can influence SME performance, but findings are mixed. Serrasqueiro and Nunes (2008) find that larger firms may benefit from economies of scale, diversification, and better market adaptability. However, smaller firms are praised for flexibility, customer focus, and adaptability (Ruzzier & Ruzzier, 2015). Despite these traits, empirical results (e.g., Ebrahimi, 2018) show firm size often does not significantly impact SME performance. In terms of gender, it was found that women-led businesses face challenges such as limited access to financial resources, fewer business networks, and lower technological innovation, which affect performance (Elam et al., 2022). However, government policies in Egypt support businesses in strategic areas (e.g., IT), regardless of gender. Educational level also affects SMEs' performance. Entrepreneurs with higher education levels are generally better at risk management and performance (Radipere & Dhliwayo, 2014). Yet, structural model results show no significant impact of education on SME performance. While theoretical insights highlight the potential effects of firm size, gender, and education on SME performance, empirical results are inconsistent. In Egypt, government support prioritizes strategic sectors over specific demographics like size, gender, or education level.

DISCUSSION

Table 1 presents a demographic profile of the 154-questionnaire collected from High-tech SMEs is presented in table 1. Referring to entrepreneurs' gender, it is apparent that 77.9% of entrepreneurs are males, and 22.1% are females. Regarding the age of entrepreneurs, 49% were young and energetic entrepreneurs (less than 25 years), while 11% of entrepreneurs were more than 51 years old. In terms of employment perspective, 51.3% of SMEs disclosed that their level of employee engagement was between 50–250, and 37.7% of SME had from 10 to 49 employees and 11% of SMEs had from 0 to 9 employees. For SMEs classification based on sales, 38.3% of SMEs revealed annual sales generation between 200,000 and less than 1 million Egyptian pounds and 11% of SMEs earned less than 50,000 thousand Egyptian pounds of annual sales.

Table 1Demographic profile of SMEs

Classification		Frequency	Percentage
Gender	Male	120	77.9%
	Female	34	22.1%
Age	Less than 25 years	49	31.8%
	25-30 years	47	30.5%
	31-40 years	35	22.7%
	41-50 years	12	7.8%
	More than 51 years	11	7.1%
Education	Diploma and secondary school	7	4.5%
	Bachelor's degree	138	89.6%
	Post-graduate study (master's and PhD)	9	5.8%
Numbers of employees	0-9 employees	17	11%
	10-49 employees	58	37.7%
	50-250 employees	79	51.3%
Sales	Less than 50,000 thousand	17	11%
	50,000>200,000 thousand	58	37.7%
	200,000>1 million	59	38.3%
	More than 1 million	20	13%

Table 2 presents a complete description of the descriptive statistics analysis showing the mean, standard deviation, skewness and kurtosis values. Regarding mean scores, all mean scores are above 3.3, with the highest mean scores is for government policies 1 as part of non-financial government support, which reflect the tendency of the participants in considering the importance of government policies applied. On the other hand, the lowest mean score was 3.38 for item number 9 and 11 in SMEs performance, which shows that participants recognize that they are not realizing growth in sales revenues and return on sales (ROS) compared to the major competitors. Standard deviation measures the spread of observations about the mean. The larger the standard deviation, the wider the observations are. The test statistics of the skewness test range from -1 to +1 (Hair & Alamer 2022)., suggesting that data of financial support, non-financial support and SMEs performance are typically distributed. For Kurtosis, the results reported in Table 2 indicate that pattern of responses is considered normally distributed, as none of those variables exceeded ± 2 as suggested by Hair and Alamer (2022). In the current study, Smart PLS 4.0 was utilized. First of all, the PLs-SEM is now most widely used in several social sciences research as it allows testing complex models with many constructs, indicator variables and structural paths without imposing any assumptions on the data (Hair et al., 2019). Secondly, Smart PLS is needed in testing the reflective measurement model which is the case in this research.

Table 2Mean, standard deviation Skewness and Kurtosis

Items	Mean	Std. Deviation	Skewness	Kurtosis
Fin1	3.4091	1.37965	-.527	-.939
Fin2	3.3766	1.39128	-.405	-1.145
Fin3	3.4091	1.36057	-.366	-1.092
Fin4	3.4870	1.34425	-.487	-.922
Fin5	3.4026	1.30118	-.460	-.930
Fin6	3.3636	1.28245	-.408	-.902
Fin7	3.4286	1.37607	-.505	-.971
Nonfin1	3.4351	1.34274	-.541	-.863
Nonfin2	3.4870	1.26407	-.531	-.728
Nonfin3	3.4286	1.31784	-.399	-.941
Nonfin4	3.3506	1.39810	-.473	-1.037
Nonfin5	3.3831	1.36338	-.425	-.931
Nonfin6	3.5065	1.35881	-.536	-.952
Nonfin7	3.4675	1.36802	-.598	-.875
Nonfin8	3.3442	1.36425	-.441	-1.020
Nonfin9	3.5000	1.31978	-.588	-.793
Nonfin10	3.4091	1.32652	-.516	-.834
Nonfin11	3.3636	1.36635	-.387	-1.060
perf1	3.4805	1.39195	-.556	-.952
perf2	3.5130	1.33938	-.458	-.965
perf3	3.3961	1.31068	-.467	-.877
perf4	3.5325	1.35843	-.481	-1.013

perf5	3.4481	1.36742	-.402	-1.114
perf6	3.4610	1.28914	-.469	-.885
perf7	3.4091	1.31663	-.392	-.967
perf8	3.5584	1.36237	-.541	-.938
perf9	3.3831	1.40120	-.421	-1.051
perf10	3.4156	1.32202	-.443	-.939
perf11	3.3831	1.34406	-.336	-1.058
perf12	3.4416	1.37193	-.515	-1.022

Table 3 report on measurement model, reliability and AVE. According to Hair et al. (2006), all standardized factor loadings should be at least 0.5 and preferably at least 0.7 which means that the construct explains at least 25 factors % or preferably at least 49% of the variance of each indicator. According to Table 3, all standardized factor loadings are greater than 0.7 accounting for more than 50% of the indicator variance. However, some elements of SMEs performance factor loadings were loaded with non-financial support, thus, these elements were excluded ending up with four items of SMEs performance (2,4,6 and 7). In addition to examining standardized factor loading, in order to assess convergent validity, it is proposed to use average variance extracted (AVE) to illustrate "the amount of variance that a construct explains in its indicators relative to the overall variance of its indicators" (Hair et.al 2021). AVE values should be above minimum level 0.5 (Hair & Alamer, 2022), as reported in table 3 all AVE values were greater than 0.7 exceeding the 0.5 threshold and supporting the convergent validity of their latent constructs.

Following convergent validity assessment, discriminant validity through comparing Heterotrait-monotrait ratio (HTMT) was conducted with a threshold of 0.85 (Hair et al., 2021). Hair and Alamer (2022) identified that HTMT could be from 0.85 and less than 0.90. HTMT ratios reported in table 4 are lower than 0.90 which reflect a good discriminant validity.

Table 3 Measurement model, reliability and validity

Scale/items	Factor Loading*	Cronbach's alpha**	Composite reliability **	Average variance extracted (AVE)***
Financial support				
Fin1	0.832	0.940	0.941	0.734
Fin2	0.883			
Fin3	0.882			
Fin4	0.837			
Fin5	0.845			
Fin 6	0.855			
Fin7	0.863			
Non-financial support				
Nonfin1	0.855	0.962	0.962	0.724
Nonfin2	0.855			
Nonfin3	0.847			
Nonfin4	0.869			
Nonfin5	0.857			
Nonfin6	0.840			
Nonfin7	0.839			
Nonfin8	0.836			
Nonfin9	0.838			
Nonfin10	0.871			
Nonfin11	0.851			
SMEs performance				
perf2	0.903	0.906	0.906	0.781
perf4	0.871			
perf6	0.886			
perf7	0.874			

*Factor loadings >0.7; ** Composite reliability >0.7; *** AVE > 0.5

In table 4 Fornell-larcker criterion where the square root of the AVE of each construct should be greater than the construct's highest correlation with any other construct within the model. By checking output of Fornell-Larcker in table 4, it is shown that the square root of AVE (on the diagonal) is higher than the correlations between constructs (off the diagonal) concluding a good discriminant validity. Moving to reliability assessment, Composite reliability is considered more appropriate for studies using SEM, it is noted that composite reliability value of 0.7 or greater represents good reliability (Hair et al., 2009).

Table 4 Discriminant validity

Constructs	Heterotrait-monotrait ratio (HTMT) – Matrix*			Fornell and Larcker		
	Financial support	Non-financial support	SMEs performance	Financial support	Non-financial support	SMEs performance
Financial				0.857		
Non-financial support	0.899			0.855	0.851	
SMEs performance	0.834	0.894		0.772	0.835	0.884

*HTMT from 0.85 and less than 0.9

The reported results in table 5 shows that the outer loading statistics which is the relationship between reflective constructs and their indicators are higher than 0.7, suggesting strong effect between indicators and relevant constructs. Regarding multicollinearity, the reported results of the variance inflation factor (VIF) show values less than 5, confirming the absence of multicollinearity in the data set (Hair & Alamer, 2022).

Table 5 Outer loading and multicollinearity (VIF)

	Financial support*	Non-financial support*	SMEs performance*	VIF**
Fin1	0.832			2.872
Fin2	0.883			3.645
Fin3	0.882			3.482
Fin4	0.837			2.839
Fin5	0.845			2.788
Fin6	0.855			3.029
Fin7	0.863			2.918
Nonfin1		0.855		3.227
Nonfin2		0.855		3.344
Nonfin3		0.847		3.280
Nonfin4		0.869		3.609
Nonfin5		0.857		3.639
Nonfin6		0.840		3.167
Nonfin7		0.839		2.924
Nonfin8		0.836		2.945
Nonfin9		0.838		3.345
Nonfin10		0.871		3.563
Nonfin11		0.851		3.335
perf2			0.903	3.089
perf4			0.871	2.441
perf6			0.886	2.730
perf7			0.874	2.508

*Outer loadings > 0.7; ** VIF<5

Regarding model fit analysis table 6, the common criteria for assessing the quality of fit model are: SRMR, Exact fir criteria (d ULS and d G) and NFI (Hair & Alamer, 2022). The SRMR of the difference between observed and expected correlations as an absolute measure of model parameter fit, less than 0.10 or a value of 0.08, is considered a good fit (Hair & Alamer, 2022). Table 6 shows that the SRMR of the estimated model is 0.039 which is lower than 0.08 indicating a good fit. Exact fit parameters refer to the difference between the empirical covariance matrix and the covariance matrix inherent in the overall factor model, and both (d ULS) and (d G) are used to illustrate two different ways of estimating this difference calculated. A model is best suited when the difference between the correlation matrix predicted by your model and the empirical correlation matrix should be non-significant ($p > 0.05$) otherwise the model fit is not established (Hair & Alamer, 2022).

According to Table 6, the values of d ULS and d G are greater than 0.05 and accordingly the model has a good fit. Finally, NFI (Normed fit index) calculated one of the first fit measures provided by SEM, it calculates the chi2 value of the proposed model (1 minus Chi2) and compares the parameters about, because Chi2 in the proposed model does not show a value to judge model fit Provide appropriate information. NFI values range from 0 to 1, where the closer the NFI is to 1, the higher the fit NFI value above 0.9 generally represents an acceptable fit (Hair & Alamer, 2022) NFI values accordingly shown in (Table 6). equal to 0.890 It turned out to be close to 0.9 or close to 1 and as such the NFI represents an acceptable fit

Table 6 Model fit analysis

	Estimated model
SRMR	0.039
D ULS	0.385
D G	0.443
Chi-square	380.466
NFI	0.890

The Mediating Effect

The next step table 7 is to estimate the design model in Smart PLS. The structural model examines the internal model validity of the direct relationships among the latent parameters and includes the path coefficient (β) and the t value. The results show that GFS is positively associated with SMEs performance ($\beta = 0.774$, $p = 0.000$), The R² of SMEs performance equals 60% which means that 60% of variation in SMEs performance is due to financial government support. Accordingly, H1: 'There is a significant statistical relationship between government's financial support and SMEs performance' is accepted.

Table 7 Hypothesis testing with the structural model

Relationships	Path Coefficient	Standard deviation (STDEV)	T statistics*	P values**	Remarks
Financial support-> SMEs performance	0.774	0.059	13.103	0.000	supported

*Sig at >1.96; **Sig at <0.05 at 5% significance level

The Mediating Effect of Non-Financial Support in the Relationship between Government's Financial Support and SMEs Performance.

The last step table 8 is assessing the mediating effect of non-financial support in the relationship between government's financial support and SMEs performance.

After running the bootstrapping procedure, we find that both indirect effects (Financial -> non-financial and non-financial-> SMEs performance) are significant. The next step of the mediation analysis focuses on the significance of the direct effects from Financial->SMEs performance it is statistically nonsignificant. Accordingly, we conclude that non-financial support fully mediates the financial support to SMEs performance (Hair & Alamer, 2022). The R² of SMEs performance equals 71% which means that 71% of variation in SMEs performance is due to government support (financial and nonfinancial support).

Figure 2: The Structural Equation Model (Smart PLS)

Source: Authors (2022)

Table 8 Direct and indirect effects

Type of effect	Effect	Path coefficient	T-statistics*	P values**	Remarks
Total effect	Financial->SMEs performance	0.733	13.026	0.000	Significant Total effect
Indirect effect	Financial->non-financial->SMEs performance	0.545	4.567	0.000	Significant Indirect effect
Direct effect	Financial->SMEs performance	0.228	1.444	0.1444	Insignificant Direct effect
Conclusion	Full mediation (indirect only)				

*Sig at >1.96; **Sig at <0.05 at 5% significance level

RESEARCH CONCLUSION

This study underscores the significant impact of GFS on the performance of SMEs. The results reveal that non-financial support plays a crucial mediating role between financial assistance and SME performance. Exploratory research confirmed these findings, with interviewees highlighting the benefits of non-financial support, as well as the benefits of combining financial and non-financial support programs—like pairing credit access with financial literacy training or grants with technical training—can significantly improve SME performance.

In summary, the integration of financial and non-financial government support is crucial for optimizing the performance of SMEs and fostering sustainable economic development. As for the control variables, the study found that firm size, gender and educational level do not mediate the relationship between government programs and SME performance. The discrepancies could be due to some participants who work in Information Technology sector prioritize support for businesses in strategic IT and technology areas, regardless of the firm's size, gender, or educational level of the entrepreneur.

Hence, the researchers concluded that SMEs in developing countries like Egypt are in drastic need for government non-financial support as well as financial support. SMEs in developing countries are in need of non-financial support to boost their technical, managerial and technological abilities that will enable them of attaining a competitive advantage locally and internationally.

RESEARCH RECOMMENDATIONS

Integrating both financial and non-financial support programs can greatly improve SME performance specifically in developing countries. Providing credit access along with financial literacy training, or offering grants for technology adoption together with technical training, can enhance operational efficiency and promote market expansion. Managers can strategically identify the specific skills, technologies, or mentorship programs that are most essential for their organizations before engaging in non-financial government initiatives. This proactive approach helps mitigate challenges associated with mismatches between the support offered and the actual needs and expectations of the company.

On the other hand, professionals and government bodies should recognize the need for tailored services to avoid offering generic training and advisory programs that may not fully address the unique requirements of individual businesses. By understanding the nuanced types of support and policies necessary for driving private sector development, governments can ensure that their interventions are targeted and effective. Government policies should focus on expanding credit guarantee schemes, promoting alternative lending models, and fostering SME-friendly lending practices to improve access to financial resources. It is essential for governments to tailor their policies to the nation's needs by carrying out needs assessments and integrating input from SME implementers, workers, and various stakeholders during policy formulation. Tax incentives, such as lower tax rates for SMEs, can stimulate investment and growth. Regulatory reforms that streamline licensing processes and lessen administrative burdens can improve the business environment.

RESEARCH LIMITATIONS AND FUTURE RESEARCH SUGGESTIONS

Despite our careful efforts, this study has limitations that need to be acknowledged. The sample size of 154 questionnaires from SME top & middle managers in Egypt is relatively small, potentially affecting the reliability and generalizability of our findings. Additionally, the sampling method may introduce biases, and the cross-sectional nature of the data limits the ability to observe changes over time. We also recognize that by focusing solely on SME managers, we missed insights from other stakeholders who could have provided additional relevant information.

To address these limitations, future research should consider larger sample sizes and include perspectives from various stakeholders. Longitudinal studies could provide a more comprehensive view of the impact of financial and non-financial support on SMEs over time. Comparative analyses across different industries could also offer valuable insights into the specific challenges and opportunities faced by SMEs in various sectors.

Additionally, exploring the impact of financial constraints on SMEs' growth, success, or performance and analyzing productivity differences between large companies and SMEs in Egypt would further enrich the scholarly contribution of this research.

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APPENDIX

Interview Questions

1. In your view, what are the biggest challenges facing SMEs in Egypt when aiming for financial accessibility?
2. Can you identify the limitations occurring in current Egyptian financial support programs that hinder SMEs effectiveness?
3. What are the main benefits of the Egyptian governmental non-financial support services (training, consultancy, etc.)?
4. How can policymakers in Egypt improve the delivery and effectiveness of non-financial support programs for SMEs?
5. Do you believe that the synergy of financial and non-financial government support programs would be more effective regarding SME performance?
6. How can policymakers design more holistic ecosystem supporting programs that integrates both financial and non-financial aspects for SMEs?
7. What is the influence of the current governmental supporting programs policies on SMEs performance? And are there specific policies that have proven being effective or ineffective?
8. To what extent are Egyptian government's training and consultancy support programs contributing to SMEs growth in Egypt?
9. In your opinion, how can government's technological advancements support SMEs growth and success?
10. What are the main challenges facing SMEs in Egypt in terms of loans and credit accessibility? How can government policies be adjusted to improve access to financial resources for SMEs?
11. What is the impact of the Egyptian government's financial support on SMEs operational efficiency? and are there particular areas where this support could be more beneficial?
12. Do you believe that Egypt's government's financial support facilitates SMEs international expansion? and what type of additional support might be needed to enhance SMEs global competitiveness?