

Revisiting Small and medium enterprises development challenges in the Democratic Republic of Congo: The relevance of government support, financial access, ICT adoption, and management competency

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Keywords

Government support, Financial access, ICT adoption, and Management Competency, Small and Medium Enterprises: The Democratic Republic of Congo

Abstract

This study reviews the role of government support, financial access, ICT adoption, and management competency in developing SMEs in DR Congo. The study employed a quantitative approach using a sample of 177 SMEs located in the country's selected regions (Lubumbashi, Kolwezi and Kinshasa). Findings from the study revealed the importance of strengthening ICT adoption and management competency of SMEs in the selected region. As for government support and financial access, the study's conclusions showed a need to review their various interventions to ensure they meet their intended purpose: to support SME development. These findings suggest that to develop SMEs further, all parties involved in their management should devise plans to increase the usage of ICT and offer training to improve their management skills.

Background and Introduction

The foundation of any robust economy is made up of Small and Medium-sized businesses (SMEs), which are crucial to the development and prosperity of nations (Endris & Kassegn, 2022). More importantly, a thriving SME sector may help African economies, which are experiencing historically poor growth rates, improve employment, alleviate poverty, and innovate in technology (Endris & Kassegn, 2022).

The DR-Congo is the continent's second-largest nation in central Africa, behind Algeria. It is also the fourth most populated country behind Nigeria, Ethiopia, and Egypt, and is four times the size of France. The DR-Congo has an area of 2,345,410 Km². It has 26 provinces and a population estimated to be between 98.3 million and over 100 million, of which 44% reside in urban areas. According to estimates, 77.2% of people in the DR-Congo lived below the poverty line (less than \$1.9 per day) in 2010; by 2022, that number had dropped to 73.1%. Nonetheless, its poverty rate remains among the highest globally (Agarwal, 2022; Kuka, Oh & Song, 2021). According to the World Bank, more than 90% of the nation's SMEs are tiny, employing one to nine people, and about half have been in business for less than five years. Informal SMEs make up the majority of the DR-Congo's SME sector, according to the World Bank (2019). DR-Congo's informal economy is expected to account for 47% of GDP, which is more than the 40% of other unstable peer nations and about 36% of sub-Saharan Africa. According to Kamba (2016), SMEs in the DR-Congo employ two out of every three workers. This suggests that SMEs account for at least 80% of economic activity that generates revenue. The SME sector accounts for at least 80% of jobs in Kinshasa, the capital city, making it the largest employer.

DR-Congo SMEs have many obstacles. As an example, a study by Woldie et al. (2018) found that SMEs in the Democratic Republic of Congo face significant challenges in accessing finance, securing loans due to high poverty levels, and maintaining an adequate regulatory environment. Corruption and bribery, along with taxation and lack of infrastructure, further exacerbate these issues, affecting the overall business environment. Nongolola's 2020 study on SMEs' performance in Kinshasa, DR-Congo, found that political and legal factors are crucial for survival and sustainability, while economic, technological, and social factors were less important. Sadiki Mutarushwa, Vwima, and Lebailly (2020) found that SMEs in the South-Kivu province of the DR-Congo face challenges such as lack of access to finance, electricity, load-shedding, corruption, bribery, and lack of basic infrastructure, equipment, and management skills, which hinder their growth. Lipoko et al. (2021) studied SMEs in Kinshasa, DR-Congo, highlighting challenges such as lack of

government support, family influence, and political instability. They found that families encourage youths to seek jobs, while the government struggles to create a conducive environment for SMEs. The results of earlier research on SMEs in the DR-Congo have brought to light important issues, necessitating further investigation into how managerial skill, financial access, ICT use, and government support affect SMEs in selected regions of the country.

Based on the above research background, the following research question were formulated:

Primary question: To what extent does government support, financial access, ICT adoption and management competency affect SMEs in the DR-Congo?

The Resource-based view theory (RBV) as a lens of the study

According to Krusi and Bazelmans (2022), the resource-based view theory (RBV) identifies the key resources that an organization might utilize to gain a sustained competitive advantage. The RBV theory is concerned with "why firms are different and how firms could gain sustainability and competitive advantage by the efficient deployment of its available resources" (Maiti, Krakovich, Shams Riad & Vukovic, 2020:1526).

The Resource-Based View (RBV) theory, which emphasizes how internal resources and capabilities influence business performance and competitiveness, is pertinent to this subject. SMEs in the DR-Congo must obtain and utilize government support, financial resources, ICT adoption, and management competencies in order to overcome environmental obstacles, boost productivity, and accomplish sustainable growth. How these resources assist create a competitive edge in a challenging business environment like the DR-Congo is explained by the RBV.

Literature Review

Government support

Support from the government is essential for SMEs because it allows them to access limited resources and helps them grow as startups to establish a stable position in a volatile market. Government support guarantees SMEs' long-term survival and viability while boosting their profitability (Alkahtani et al., 2020). Government support refers to tools like laws, rules, development policies, and potential funding for the growth of the SME sector (Alkahtani, Nordin & Khan, 2020). The government offers SMEs a variety of support schemes that fall into two categories: financial and non-financial. Non-financial support includes information technology, grants, loans, social assistance, tax allowances, and productivity support. Financial support includes working cash, grants, loans for real estate, and other forms of help. According to Nordin, Hussain, Hasin, Rahim, and Alias (2022), non-financial assistance given to SMEs can be divided into three groups: operational skills, managerial aptitude, and financial advice. The aforementioned categories primarily cover a range of activities, including advice, relaunch initiatives, training, business model evaluation, general assistance, instruction, and information sharing (Nordin et al., 2022). Working capital, grants, real estate loans, and other forms of help are all considered financial support (Arshad, Ahmad, Ali, Khan & Arshad, 2020).

Based on the aforementioned explanations of the "Government Support" concept, Kumar and Singh (2023) provided examples of the many kinds of programs and goals available to SMEs. (Figure 1).

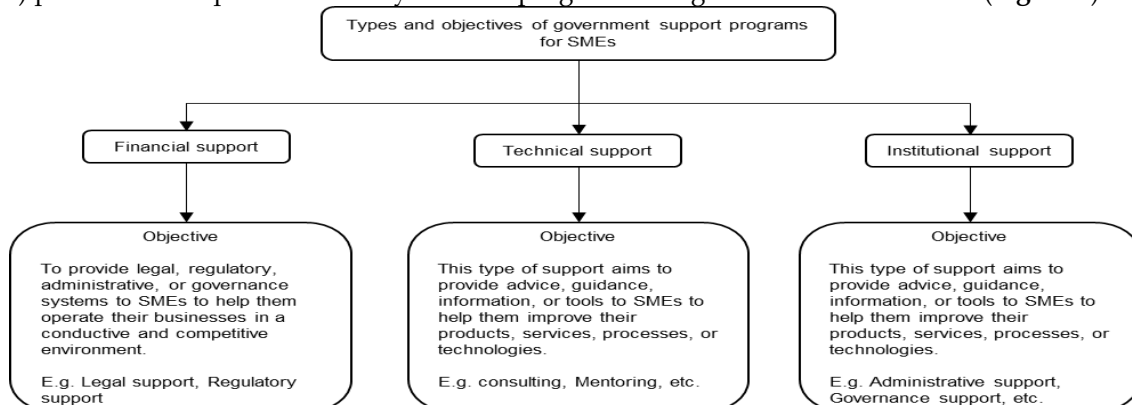


Figure 1: Types and objectives of various government support

Source: Kumar and Singh (2023)

The DR-Congo offers two types of support for SMEs: other private support structures and government support structures (Lokonde, 2022). Various strategies are in place to strengthen the SME sector. These strategies include the following:

1. Establishing a government ministry specifically focused on SMEs, presently called the "Ministry of Entrepreneurship and Small and Medium-sized Enterprises": 2018 saw this recently created federal agency launch. Its primary focus is helping new and established businesses with regulatory restrictions, capital access, training, and assistance.
2. The National Agency for the Development of Congolese Entrepreneurship (ANADEC). This office operates under the supervision of the Minister of Entrepreneurship and Small Business. It offers SMEs technical know-how in several fields, including coaching, consultancy, training, and incubation or mentorship. Its five primary areas of interest are agro-pastoral, processing, crafts, services, and small commerce.
3. Implementing a national SME strategy: The DR-Congo government has implemented national strategies to support the SME sector. The plan was mainly designed to ensure the competitiveness of SMEs and formalise thousands of informal businesses operating in the country.
4. The creation of a support Project for the Development of Micro, Small and Medium-sized Enterprises (PADMPME): As part of the implementation of the national SME development strategy, in 2016, the Government of the DR-Congo set up another initiative called the "Support Project for the Development of Micro, Small and Medium-sized Enterprises" (PADMPME). It is a joint initiative with the World Bank for \$100 million US dollars. This initiative aims to support the growth of SMEs in the DR-Congo and strengthen their resilience in a turbulent business environment.
5. The creation of an office called "Guarantee Fund for Entrepreneurship in the DR-Congo" (FOGEC): FOGEC was created in 2020 to promote entrepreneurship amongst the youth population. This government institution was created to provide technical and financial assistance to business startups, small-sized businesses and medium-sized businesses.
6. Private sector support institutions include the National Federation of Congolese Companies (FEC) and the Confederation of Congolese Small and Medium-sized Enterprises (COPEMECO). The two institutions were created to protect the interests of the private sector and SMEs.

Apart from the government institutions listed above, the SME sector is regulated by small business charters. The charter guides the definition of SMEs and other regulations in the industry.

Moreover, in 2017, a law was passed in parliament to regulate subcontracting in the private sector, aiming to strengthen Congolese SMEs by establishing rules and defining subcontracting as consensual, onerous, and written. According to this legislation, all subcontracting activities in the DR-Congo should be reserved only for businesses owned by Congolese people, regardless of their legal form, but should have their head office in any city of the DR-Congo (Lokonde, 2022:156).

To sum up, the DR-Congo has several government assistance programs, both new and old, that are designed to assist SMEs. However, the actual effectiveness of these programs is still unknown. Many individuals wonder if they provide long-lasting effects and satisfy the needs of small enterprises.

Financial Access

Financial access can be defined as "the capacity of the enterprise to acquire financial services, which comprises insurance, payments, credit, deposit and other services connected to risk management" (Rajamani et al., 2022:74). Several factors should be taken into account when determining financial access; These standards have been demonstrated to be applied globally. These requirements include having a bank account for the particular firm, having access to financial services, being able to use those services effectively, having access to credit, and obtaining loans from financial institutions at reasonable and competitive rates. More than 40% of SMEs in developing nations have at least somewhat restricted access to outside capital, and 20% face severe restrictions, according to Brixiová, Kangoye, and Yogo (2020).

The Central Bank of Congo and several microfinance organisations oversee the financial industry in the DR Congo. There are roughly nineteen commercial banks: eleven are small, six are medium-sized, and three are major. Banks consist of Access Bank, Standard Bank, and Equity Bank, to name a few. There are also 98 microfinance organisations. According to Hunguana, Fall, Lartes, Goases, and Gwarinda (2020), the

DR-Congo was ranked 152 out of 190 countries for easy access to credit and 184 out of 190 economies for ease of doing business.

Since banking institutions were seen as hazardous and they lacked collateral, SMEs primarily used personal savings from friends or family to fund their start-ups.

Furthermore, Woldie et al. (2018) noted that some SMEs used their inheritances to finance their operations. However, this is severely constrained because only a small percentage of Congolese can inherit something valuable to serve as collateral, while the majority live below the poverty line. Due primarily to the requirement for more information asymmetry, an indefinite percentage of the population obtains financial services through formal financial organisations. Furthermore, most SMEs who asked for loans had their applications denied, according to Woldie et al. (2018), either because they required additional security or collateral. Another problem that affected SMEs' capacity to secure loans from financial institutions was the absence of financial accounts, according to Woldie et al. (2018). Another issue mentioned by SME owners was high interest rates. Finally, Woldie et al. (2018) discovered no proportional relationship between SMEs' loan payback and firm expansion. Thus, this circumstance represents a significant roadblock to the growth of SMEs in the DR Congo.

In the DR-Congo, just 25.8% of adult males and 24% of females had access to a bank account, according to Hunguana et al. (2020). All told, these figures correspond to about 10 million bank accounts. **Figure 2** depicts the financial inclusion by gender in DR-Congo, which is the percentage of the population with access to a bank account. As may be observed, "Banked" refers to those who currently hold an account with a commercial bank. "Other formal" comprises regulated businesses like mobile phone companies or microfinance institutions, while "Informal" denotes the proportion of people who keep their money in savings clubs or community-based projects.

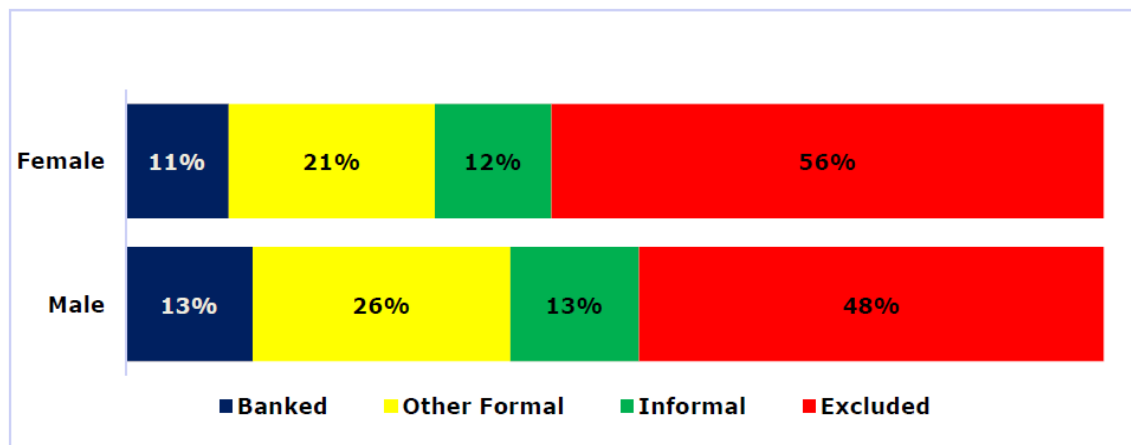


Figure 2: Gender/ bank and financial services accessibility (male vs female) in DR-Congo

Source: Hunguana et al. (2020)

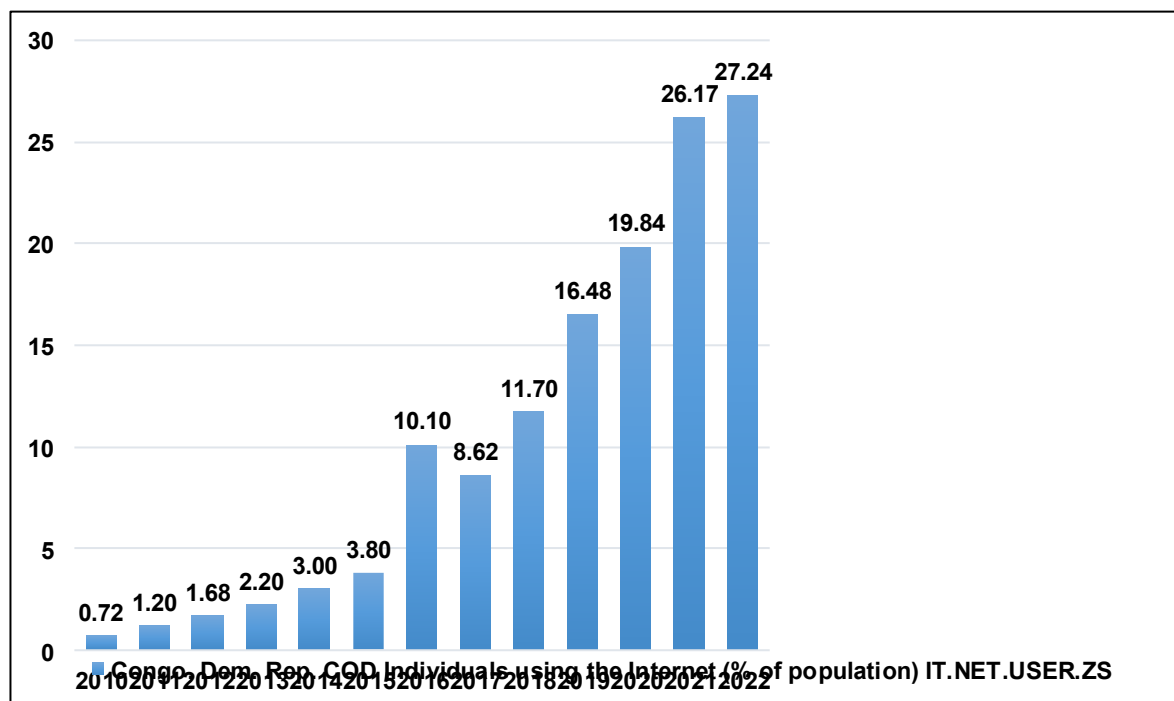
ICT adoption

Kusumaningtyas and Suwanto (2015:297) state that ICT adoption refers to the "willingness to take the new innovation-related computers and Internet". (ICT) Refer to "capabilities offered to organisations by computers, software applications and telecommunications to deliver data, information and knowledge to individuals and processes". It covers a wide range of products and services, including, but not limited to, computers, the Internet, mobile phones, managed services, and corporate software. Conversely, ICT infrastructure describes the networks, systems, or services that make it easier for ICT to operate and process (Audu, 2018). Chege et al. (2019) asserted that SMEs can benefit from ICT. These benefits consist of the following: It helps SMEs better understand the needs of their customers, markets, products, or rivals. It also allows SMEs stay current with technological advancements and improve their marketing strategies. Finally, it allows SMEs assess how innovation, product quality, and technology dynamics affect business performance. In addition to Chege et al. (2019)'s list of several advantages, Tarutė and Gatautis (2013) noted that ICT benefits SMEs in four key ways, which include the following: enable more visibility for SMEs;

supports financial transactions; would allow SMEs to access more information; and enable SMEs to transcend traditional barriers.

Established in 2002, the Regulatory Authority for Post and Telecommunications of the DR-Congo (ARPTC) is the industry regulator in the DR-Congo. The Congolese Post and Telecommunications Society (SCPT), a national network provider (fixed network), and four mobile network providers – Vodacom DR-Congo, Airtel DR-Congo, Orange DR-Congo, and Africell DR-Congo – make up the majority of the ICT market. With about 35% of the market, Vodacom leads the mobile and Internet services sector; yet, the Internet penetration rate is among the lowest in Africa. In the 2000s, it was expected to be less than 1%; in 2005, it was 0.23%; in 2010, it was 0.72%; in 2015, it hit 3.8%; and as of the second quarter of 2019, it was estimated to be 17% (CIPESA, 2019). Tobias and Neureiter (2020) also noted that, at roughly 26%, DR-Congo has the lowest average mobile connectivity penetration in Sub-Saharan Africa, while the area has a 43% penetration rate.

The evolution of Internet access rates in DR-Congo is depicted in the following diagram (Figure 3). The



penetration rate is erratic, as seen, indicating sluggish growth.

Figure 3: **Individuals using the Internet (% of population) in the DR-Congo**

Source: Adapted from World Bank (2024)

To obtain an improved perspective of the Internet penetration rate in both countries, the following diagram (Figure 4) illustrates the ranking of Internet users in selected African countries.

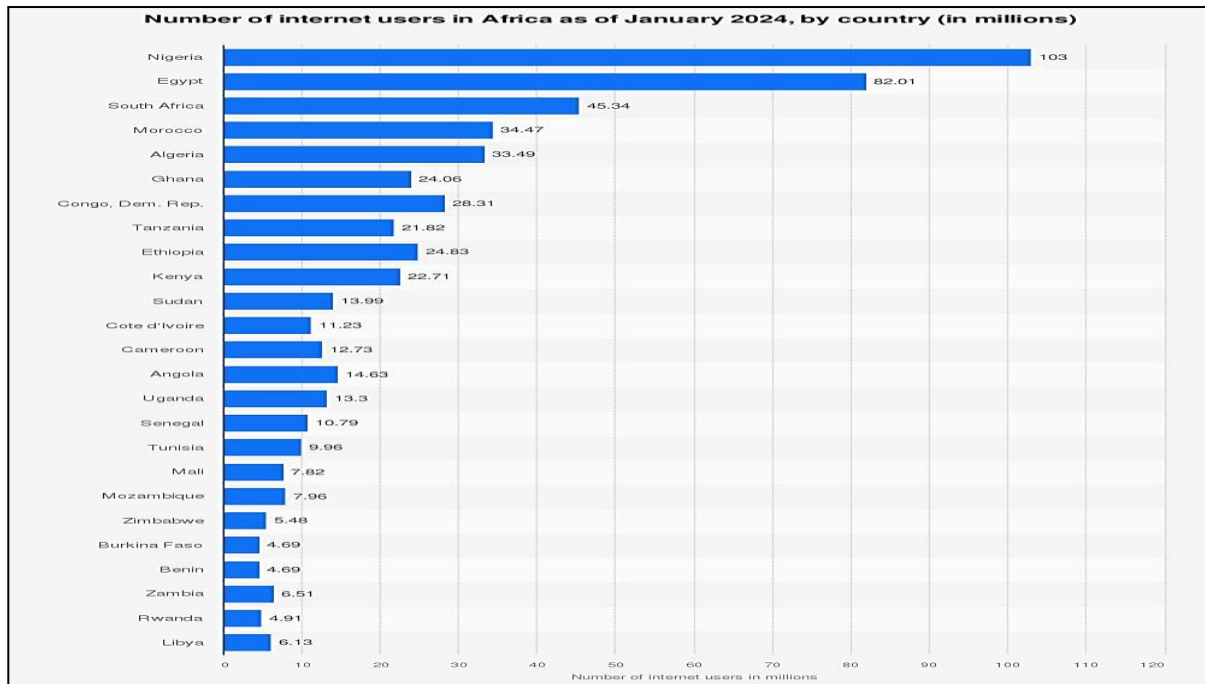


Figure 4: Internet users in Africa

Kalumendo (2022) used a sample of 53 respondents to investigate the obstacles to SMEs' computerisation in the DR-Congo's North Kivu Province. The study's conclusions showed that SMEs face difficulties in adopting ICT. Among the issues noted are the management's attitude toward the adoption of ICT, the need for managers to be better informed about the advantages of ICT, and the lack of funds to purchase ICT equipment. The availability of infrastructure was another obstacle because ICT equipment was said to be quite expensive. In this challenge, the necessity of a steady supply of electricity was also stressed. ICT operators are therefore forced to operate in the unorganised sector due to the overly cumbersome laws in the industry, and external support from the government and other stakeholders needs to be addressed. The study's conclusion suggested a better strategy for ICT adoption to boost DR-Congo SMEs' competitiveness.

Management competency

According to Monang, Sudirman, Siswanto, and Yassierli (2022), management competencies indicate business owners' general ability to perform tasks efficiently, emphasising the connection between managerial and entrepreneurial responsibilities. According to Emmanuel, Rikwentishe, and Attayi (2023), managerial competencies include effectively managing internal and external resources inside the organisation, irrespective of the manager's position in the hierarchy. Effectively managing and coordinating relationships with the government, clients, authorities, suppliers, and any other parties engaged in an organisation's growth and development strategy is a component of external competency. Addressing problems and disputes inside the company requires internal capabilities. However, external talents are necessary to preserve and maintain good stakeholder interactions. A person's ability to complete a specific task is frequently linked to their individual competencies (Emmanuel et al., 2023).

Management competency is essential for SMEs' sustainability and expansion in the DR-Congo's uncertain political and economic landscape. A very unpredictable and competitive business environment is produced by the nation's persistent problems, which include political instability, inadequate infrastructure, little support from the government, and pervasive poverty. To successfully plan, coordinate, and oversee their business activities under such circumstances, SMEs must have good managerial competencies. Stability inside the company depends on the ability to manage internal resources, settle disputes, and make wise decisions. In order to obtain opportunities and get beyond logistical or regulatory obstacles, it is equally crucial to establish and maintain excellent relationships with external players, such

as suppliers, customers, and government authorities. SMEs in the DR-Congo run the danger of subpar performance, constrained expansion, and even company failure in the absence of these vital management skills. Therefore, for SMEs to succeed in such a precarious economy, increasing management competency is not only advantageous but also essential.

Research methodology

The study was quantitative in nature and employed an exploratory research approach. The study's target population comprised SMEs in selected cities (Kinshasa, Lubumbashi & Kolwezi) in DR Congo. The sample consisted of 177 established business in the selected regions. SMEs were sample in the selected economic regions owing to their economic importance of the country.

The study made use of a cluster sampling approach. The study employed a self-administered electronic questionnaire with closed-ended questions, and in order to minimize central tendency bias, it was evaluated using a 6-point Likert scale. The study used existing data collection instruments, divided into two sections: A, which contained demographics and business information; B-D, which asked about variables like government support, financial access, ICT adoption, and management competency. The construct employed to measure government support was borrowed from the GEM expert survey (2021); financial access was evaluated using the GEM expert survey (2021) scale, ICT adoption using the scale developed by Chege et al. (2019) management competency was assessed through Zacca and Dayan (2018) scale. In the DR-Congo, SMEs were mainly contacted through the open-access website of the subcontracting authority of the private sector (ARSP). Full details of their membership are provided.

The data was analysed using SPSS version 28. For the purpose of this study, data were analysed strictly using descriptive and frequencies statistics. The following section provides an overview of the sample.

Table 1: Profile of SMEs

SME profile	Frequency	Percentage
Gender		
Male	155	87.6
Female	22	12.4
TOTAL	177	100
Number of Employees		
Micro (between 1 and 5 employees)	20	11.3
Micro (between 6 and 10 employees)	43	24.3
Small (11-49 employees)	84	47.5
Medium (50-249 employees)	29	16.4
Large (More than 250 employees)	1	0.6
TOTAL	177	100
Number of Years in Operation		
Between 3.5 and 10 years	133	75.1
Longer than 10 years	44	24.9
TOTAL	177	100
SME sector		
Agriculture	11	6.2
Mining	7	4.0
Manufacturing	6	3.4
Construction	31	17.5
Education	1	0.6
Trade (including wholesale)	20	11.3
Transport / Distribution	10	5.6
Health Safety	1	0.6
Tourism	2	1.1
Financial Services	4	2.3
Services (Salon, Hairdresser etc.)	84	47.5
TOTAL	177	100

Table 1 shows that the majority of the sample consisted of male-owned SMEs, 87.6% vs 12.4% for females. The gender profile confirmed previous studies that indicated that male ownership in SMEs is significantly higher than that of females, with most businesses operating for over 3,5 years to 10 years. The largest percentage of the sample was also from the service sector (n=84, 47.0%), then the construction (n=31, 17.5%) and trade (n=20, 11.3%) sectors. Ahinful et al. (2021) posited that the business sector in which an SME operates can influence the ability to enter and exit the market, ultimately impacting the firms' concentration levels and performance.

Table 2:

	Mean	Std Deviation
Government support		
A1	2,68	1,632
A2	2,86	1,573
A3	2,96	1,557
A4	2,86	1,531
A5	2,29	1,349
A6	2,43	1,495
A7	2,37	1,432
Financial Access		
B1	3,06	1,654
B2	2,59	1,399
B3	2,28	1,365
B4	2,95	1,577
B5	2,25	1,339
B6	2,17	1,294
B7	2,24	1,348
B8	2,84	1,501
ICT Adoption		
C1	5,16	1,122
C2	4,85	1,160
C3	5,27	0,821
C4	4,62	1,143
C5	5,13	0,866
C6	5,31	0,737
C7	5,11	0,988
Management competency		
D1	4,88	1,009
D2	5,11	0,787
D3	5,17	0,686
D4	5,19	0,831
D5	5,05	0,900
D6	5,37	0,653

- The low mean average score of $\bar{X} = 2$ on the government support scale indicates that DR-Congo SME owners believe that government support is insufficient and ineffectual. This reflects persistent issues such limited access to infrastructure (science parks, business incubators), training, and services, which is in line with other research showing the nation's lack of institutional support.
- With an average mean score of $\bar{X} = 2.5$ for financial access, DR-Congo SME owners have moderate to limited access to capital. This is a reflection of persistent issues including stringent lending requirements and a lack of specifically designed financial products for SMEs.
- Given a high mean average score of $\bar{X} = 5$ for ICT adoption, SMEs in the DR-Congo are actively utilising digital tools to enhance marketing, communication, and business operations.

- The high mean score of $\bar{X} = 5$ for management competency indicates that DR-Congo SME owners believe they have good managerial abilities. This shows how confident they are in their ability to manage internal operations, stakeholder interactions, and decision-making.

Discussion of findings

In relation to government support, overall mean results for all items measuring this scale were negative. These findings could have several causes, as the preceding sections suggested, the DR-Congo has several initiatives to support their SME sector. However, the study's findings demonstrate a discrepancy between the goals of these initiatives and their real effects. Bureaucracy, complex procedures, paperwork, and the overall approval processes are just a few of the problems that have been identified by the literature research on the difficulties SMEs face when trying to obtain government-related assistance (Nongolola, 2020; Sadiki Mutarushwa et al., 2020; Woldie et al., 2018). The competency and effectiveness of government workers should be added to the previously mentioned issue; SMEs' incapacity to receive sufficient and adequate support from government representatives frequently results in frustration and discouragement, which influences their impression of government services in general. In addition, the nation's poor state of affairs is typified by a dearth of governance, weak institutions, and general corruption, all of which have slowed the development of the formal SME ecosystem (Sadiki Mutarushwa et al., 2020; Woldie et al., 2018) Even if there have been recent revisions to introduce new policies and support institutions to help SMEs, some of the policies pertaining to SMEs are still in effect. It is crucial to remember that the new regulations and programs aimed at helping SMEs have not yet been assessed (Lokonde, 2022). Furthermore, it is important to remember that the majority of SMEs are informal in nature, meaning that they are not supported by officially recognized government organizations but rather by unofficial networks and community support. The primary cause of the reliance on informality is a lack of effective governance and the rule of law, which fosters an atmosphere in which institutions established by the government are deemed unneeded and unimportant.

Concerning Financial access, Although the aforementioned research backs up the idea that SME performance and financial access are positively correlated, the study has shown that this relationship is only occasionally true for the DR-Congo. There are a number of financial institutions in the nation, but their effectiveness is still in doubt. According to Msomi and Maharaj (2022), 90% of African SMEs stated that funding is a major concern for both new and expanding investments. Small businesses' restricted access to financial markets due to perceived risk, informational obstacles, and increased intermediation costs can be the reason of this. According to Doacă (2022), SMEs' ability to obtain financing depends on the caliber of institutional development. The inefficiency of DR-Congo's financial systems could be a reasonable explanation for these findings. Access to finance for SMEs is mostly dependent on strong and efficient financial markets that link lenders and investors looking to participate in companies. More structure is required in the financial systems of emerging and developing nations.

As for ICT adoption, overall, most of the SMEs that were sampled reported making effective use of tools at their disposal. ICTs are used by SMEs in the DR-Congo to access data and other business-related information in order to improve customer service. As mentioned previously, ICT improves customer experience by streamlining operations and processes. SMEs may therefore use technology to automate processes, reduce errors, and make data-driven choices. Increased profitability, cost reduction, and revenue growth can thus result from better systems and processes Chege et al. (2019). Despite the fact that ICT has been reported as beneficial for DR-Congo SMEs, challenges such as the high costs, the limited number of providers, and the general need for knowledge about ICT benefits.

Lastly, in relation to management competency, it was eye-opening to notice that on overall majority of the SMEs sampled have excellent management acumen. SME owners appeared to be competent in managing resources at their disposal effectively and efficiently; optimal use of resources ensures that proper allocation is done, waste is minimised, and management action is focused. An effective and efficient utilisation of resources will ultimately result in increased production and customer satisfaction, which will improve performance (Emmanuel et al., 2023). This particular skill is important given the characteristic of the turbulent business environment in the DR-Congo.

Conclusion, limitations and recommendations

This study sought to answer the primary research question: to what extent do government support, financial access, ICT adoption, and management competency affect SMEs in the DR-Congo? The results of the frequencies analyses reported that ICT adoption and management competencies were among the key priorities for SMEs development. Findings of the study also revealed that government support and financial access although important for SMEs appeared to be least helpful mainly owing to the inability to ensure their efficiencies,

A number of helpful suggestions are made in light of the study's findings, which again examined important SME development issues in the DR-Congo with an emphasis on the importance of financial access, government support, ICT adoption, and management competency. These include the following:

- **Government support:** The government should ensure information is accessible and shared, and consider using social media for advertising programs. Regular monitoring and communication among stakeholders can ensure goals are met. Government employees should receive training in order to provide better support to SMEs.

- **Financial access:** The DR-Congo has launched the "Guarantee Fund for Entrepreneurship" to offer technical and financial support to SMEs. However, its effectiveness is uncertain. More initiatives should be initiated, with international experts and stakeholders collaborating to improve strategies. The credit guarantee scheme should simplify lending, registration, and tax regimes.

- **ICT adoption:** A literature review for DR-Congo highlighted challenges in technology adoption, including limited operators, internet costs, resource requirements, and sector legislation. The government regulates the ICT sector, requiring constant monitoring and evaluation of policies to ensure they align with regional and continental standards. The DR Congo needs to upgrade its ICT infrastructure for efficient service, collaborating with the private sector. The low internet penetration rate in the country suggests exoneration for ICT-related requirements, enabling private operators to import at lower costs and resell to the public.

- **Management competency:** To further improve SMEs' capacity for management, a variety of training methods, including coaching, mentoring, on-the-job training, and role-playing, should be applied either singly or in combination.

A major limitation of the study is that it only uses data gathered from SMEs in the cities of Kinshasa, Lubumbashi, and Kolwezi to draw its conclusions. When compared to other DR-Congo regions, these urban centres offer comparatively greater market access, infrastructure, and business support services. The results might therefore not accurately represent the difficulties or experiences that SMEs in rural or underdeveloped regions of the nation confront. As such, it is important to use caution when interpreting the results, as they cannot be applied to all SMEs in the DR-Congo.

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Appendix A: Descriptive statistics/ DR Congo

Government support			Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree	Total
DR Congo	A wide range of government assistance for new and growing firm can be obtained through contact with a single agency	Count	58	45	15	22	29	8	177
		%	32.8%	25.4%	8.5%	12.4%	16.4%	4.5%	100.0%
	Science parks and business incubators provide effective support for new and existing firms	Count	44	45	25	28	25	10	177
		%	24.9%	25.4%	14.1%	15.8%	14.1%	5.6%	100.0%
	There are adequate number of government agency for new and growing firms	Count	40	44	20	38	26	9	177
		%	22.6%	24.9%	11.3%	21.5%	14.7%	5.1%	100.0%
	There are adequate number of government programs for new and growing businesses	Count	39	53	19	34	23	9	177
		%	22.0%	29.9%	10.7%	19.2%	13.0%	5.1%	100.0%
	The people working for government agencies are competent, effective in supporting new and growing business	Count	63	53	29	16	11	5	177
		%	35.6%	29.9%	16.4%	9.0%	6.2%	2.8%	100.0%
	Almost anyone who needs help from a government program for a new and growing business can find what they need	Count	62	52	20	17	20	6	177
		%	35.0%	29.4%	11.3%	9.6%	11.3%	3.4%	100.0%
	Government programs aimed at supporting new and growing business are effective	Count	58	62	20	15	15	7	177
		%	32.8%	35.0%	11.3%	8.5%	8.5%	4.0%	100.0%

Appendix B: Descriptive statistics/ DR Congo (cont'd)

Financial access			Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree	Total
DR Congo	Equity funding is available for new and growing firms	Count	41	43	17	28	37	11	177
		%	23.2%	24.3%	9.6%	15.8%	20.9%	6.2%	100.0%
	Debt funding is available for new and growing firms	Count	47	56	20	32	20	2	177

	%	26.6%	31.6%	11.3%	18.1%	11.3%	1.1%	100.0%
Government subsidies available for new and growing firms	Count	66	52	21	23	11	4	177
	%	37.3%	29.4%	11.9%	13.0%	6.2%	2.3%	100.0%
Funding available from informal investors (family, friends and colleagues) who are private individuals (other than founders) for new and growing firms	Count	43	42	17	37	31	7	177
	%	24.3%	23.7%	9.6%	20.9%	17.5%	4.0%	100.0%
Professional business angels funding is available for new and growing firms	Count	66	54	21	21	12	3	177
	%	37.3%	30.5%	11.9%	11.9%	6.8%	1.7%	100.0%
Venture capitalist funding available for new and growing firms	Count	68	60	16	19	12	2	177
	%	38.4%	33.9%	9.0%	10.7%	6.8%	1.1%	100.0%
Funding available through initial public offerings (IPOs) for new and growing firms	Count	66	55	23	14	15	3	176
	%	37.5%	31.3%	13.1%	8.0%	8.5%	1.7%	100.0%
Private lenders funding available (Crowdfunding) available for new and growing firms	Count	44	43	23	33	30	3	176
	%	25.0%	24.4%	13.1%	18.8%	17.0%	1.7%	100.0%

Appendix C: Descriptive statistics/ DR Congo (cont'd)

	Technology adoption		Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree	Total
DR Congo	Internet connectivity is available to business if needed	Count	5	4	4	13	70	81	177
		%	2.8%	2.3%	2.3%	7.3%	39.5%	45.8%	100.0%
	Technology applications are user-friendly	Count	5	7	5	27	82	51	177
		%	2.8%	4.0%	2.8%	15.3%	46.3%	28.8%	100.0%
	New technology improves the existing business process	Count	1	2	2	14	83	75	177
		%	0.6%	1.1%	1.1%	7.9%	46.9%	42.4%	100.0%
	Some applications were replaced by a new system in the firm	Count	1	15	8	38	80	35	177
		%	0.6%	8.5%	4.5%	21.5%	45.2%	19.8%	100.0%
	Technology is used to promotes business efficiency	Count		4	4	20	86	63	177
		%		2.3%	2.3%	11.3%	48.6%	35.6%	100.0%
	Use of technology enhance quick service to	Count			6	11	83	77	177

	customers	%			3.4%	6.2%	46.9%	43.5%	100.0%
	Use of technology enables the firm to get market information	Count	2	3	8	15	81	68	177
		%	1.1%	1.7%	4.5%	8.5%	45.8%	38.4%	100.0%

Appendix D: Descriptive statistics (cont'd)

Management			Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree	Total
Democratic Republic of Congo	Managers make resource allocation decisions that achieve maximum results	Count	2	9		28	97	41	177
		%	1.1%	5.1%		15.8%	54.8%	23.2%	100.0%
	One of our greatest strengths is achieving results by organising and motivating people	Count		1	4	28	86	58	177
		%		0.6%	2.3%	15.8%	48.6%	32.8%	100.0%
	One of our greatest strengths is organising resources and coordinating tasks	Count		1	1	20	100	55	177
		%		0.6%	0.6%	11.3%	56.5%	31.1%	100.0%
	One of our greatest strengths is our ability to supervise, influence and lead people	Count		4	2	17	87	67	177
		%		2.3%	1.1%	9.6%	49.2%	37.9%	100.0%
	One of our greatest strengths is our ability to delegate effectively	Count	1	2	7	24	86	57	177
		%	0.6%	1.1%	4.0%	13.6%	48.6%	32.2%	100.0%
	One of our greatest strengths is our ability to keep this organisation running smoothly	Count			2	11	84	80	177
		%			1.1%	6.2%	47.5%	45.2%	100.0%