

Prioritizing the Key Internal Capabilities for Nurturing the Post-war Recovery and Sustainable Competitiveness of SMEs: Fuzzy Delphi Approach

Mebrahtom Teklehaimanot Tesfa*

Quality and Operations Management chair
School of Mechanical and Industrial Engineering
Ethiopian Institute of Technology -Mekelle
Mekelle University,
Mekelle ,Ethiopia
mebreat@gmail.com

Hailekiros Sibhato Gebremichael

Industrial Systems Engineering chair
School of Mechanical and Industrial Engineering
Ethiopian Institute of Technology -Mekelle
Mekelle University,
Mekelle ,Ethiopia
hailishs@yahoo.com

Kinfe Tsegay Beyene

Quality and Operations Management chair
School of Mechanical and Industrial Engineering
Ethiopian Institute of Technology -Mekelle, Mekelle University
Mekelle, Ethiopia
kinfe.tsegay@mu.edu.et

**Corresponding author: mebreat@gmail.com*

Abstract

Small and medium enterprises (SMEs) are recognized as engines of sustainable economic growth globally. Nevertheless, SMEs are facing tremendous and restrictive external and internal challenges deterring their long-term survival and contributions. Moreover, previous studies in these regards focused on developed countries' context and more on the important external factors without prioritizing their impact. Therefore, this study aims to examine the internal factors and prioritize them based on their impact on the SMEs' sustainable competitiveness from the least developed economic perspective taking Tigray as a case. The study used the Fuzzy Delphi Method to analyze the quantitative data collected using a questionnaire instrument. Sixteen senior experts from Universities, SME owners and managers, SME

regional office directors and experts, and the regional Innovation, Science and Technology bureau have participated in the study. Based on literature reviews and discussions with the experts, 11 internal factors were selected for this study. The findings of the study revealed that all the factors are accepted with an expert consensus value above 75% the threshold value ($d \leq 0.2$), and the fuzzy score value ($A \geq 0.5$). Dynamic capability, product quality, Entrepreneurial capability, and Innovation capability are the top four internal factors that have an impact on the sustainable competitiveness of SMEs in their respective order. This research contributes to minimizing the research gap described and has important policy, managerial, and practical implications to improve SMEs' competitiveness. This is critical for Tigray where SMEs' contribution is highly expected in the postwar recovery and growth.

Keywords

Competitiveness, capabilities, sustainability, Fuzzy Delphi, SMEs

1.Introduction

Small, and Medium Sized Enterprises (SMEs) play a critical role in economic and social development and are essential to every economy, including developing and -least-developed countries (LDCs) (Abebe 2014; Ganne et al. 2022; Neagu, 2016). Firms under this category account for above 50% employment rate and represent roughly 90% of all businesses globally (Ganne et al. 2022). Their contribution to Gross Domestic Product (GDP) is lower, at around 35 percent in developing countries and around 50 percent in developed countries. Additionally, SMEs are 70% less productive than large firms (WTO 2016). There are about 168 million registered SMEs globally in 155 different business types which have more than 508 million employees, which is a bit higher when compared with 2010 data that shows 125 million formal registered SMEs globally (Gonzales et al., 2014; Kushnir et al. 2010).

Currently, global economic activity is experiencing a very broad and sharper-than-expected strike, with big inflation which has not been experienced in the last several decades. The Global growth rate forecasting has been shifted from 6.0 percent in 2021 to 3.2 percent in 2022 and 2.7 percent in 2023 which is the weakest growth profile since 2001 except for the global financial crisis and the sensitive phase of the COVID-19 pandemic (IMF 2022). In Ethiopia, in 2019/20 the registered SMEs were 111,547 with total employment of 1,569,163 which shows an increment in the number of SMEs to 115,200 firms, but a substantial loss in the number of employment to 585,119 in 2020/21 (NBE 2021). But in 2023 the Ministry of Labor and Skills Minister report indicates there are more than 2 million enterprises in the country and 98% of these are categorized as SMEs (MLS 2023). From these, more than 6000 SMEs (in manufacturing only) are registered in Tigray.

However, despite their positive influence on the development of the continent, SMEs in Africa are still continuously facing many restrictive obstacles that are impeding their long-term survival and contribution to the continent. As a result, the mortality rate of SMEs in Africa is very high which shows 5 out of 7 businesses fail in the first year of establishment (Bosma et al. 2019; Bushe, 2019). Most SMEs in Ethiopia are currently struggling for survival instead of sustainable development (MLS 2023). According to different findings, there are several challenges and opportunities in the country which are related to the competitiveness of SMEs. Raw material shortage, creativity, market access, adapting to change, and human competencies (Ayalew & Abdissa, 2022; Endris & Kassegn, 2022; Gebreselassie 2020; Mehari, 2016). In contrast, there are many opportunities like government support, a big market, and market potential (Ahmed & Özer Canarslan 2023; Teka, 2022).

Depending on this, the factors affecting the competitiveness of SMEs are the main key issues for researchers to study and identify proactively their degree of impact. The competitiveness of the SMEs can be affected internally and externally (Alamineh 2020). Globally, some of the barriers and obstacles to SMEs' competitiveness are financial, managerial capacity, quality of products, and market problems (OECD 2009). Other scholars mention different factors which have an impact on the SMEs competitiveness like innovation capability, (Alghanmi, 2020; Ferreira & Coelho 2019; Koffi et al. 2021; Alam & J Jillbert 2019; Sulistyo & Ayuni, 2020) dynamic capability, (Ferreira & Coelho 2019; Vu, 2020) entrepreneurial capability, (Adjabeng et al. 2022; Ferreira & Coelho, 2019; Vu, 2020) product quality

(Ahmedova 2015; Bambenger 1989; Dunk, 2007; Luchs, 1986). Additionally, intellectual capital (Todericiu & Stanit, 2015), Organizational Learning and Leadership Style (Isabel & Vargas 2015), Innovation activity, Intellectual property, Internationalization, information and communication technology (ICT), and human capital and strategic management (Ahmedova 2020; Gumel & Bin Bardai 2023).

The above research did not recommend which factor can affect the SMEs' competitiveness than others. Identifying key factors for SMEs' competitiveness is vital and should be followed worldwide from each country's unique viewpoint. But only identification of the key factors is not the final solution, it is vital to realize the influencing power of the capabilities and recognize the mutual relationships among the key factors (Teka 2022). This study is a new approach to prioritize the key capabilities and factors depending on their influence on manufacturing SMEs' competitiveness here in Ethiopia and to conduct an empirical investigation accordingly. A total of 11 key factors and capabilities were identified in consulting the experts and from the literature survey.

Based on the above discussion, this paper attempts to address the following research questions:

What are the key internal capabilities and factors that influence SMEs' competitiveness?

How to prioritize the internal key factors and capabilities of SMEs using the fuzzy Delphi technique?

How to establish the contextual relationship among the key capabilities and factors?

So, researching and prioritizing the key factors that can affect SMEs' competitiveness is crucial for their sustainable growth, by exploiting the opportunities and tackling the challenges. Additionally, it will give clues for the policymakers to their strategy development and indicate the future research direction in the literature. This study aims to identify the key internal capabilities that affect the competitiveness of SMEs and prioritize them according to their magnitude using the fuzzy Delphi method. Additionally, fuzzy logic is used to overcome the uncertainty problem associated with experts' evaluations.

2.Literature Review

Theory of Competitiveness

The competitiveness theory was generated from the trade theory (wealth is set by endowments) which is the idea of Adam Smith and after different extensions and debates to the name "competitiveness theory by Michael Porter. That theory reaches how to measure competitiveness after different extensions and debates from the stage model and diamond model (Cho & Moon 2020). The evaluation of international competitiveness starts from input-oriented evaluation and reaches to outcome-orientation evaluation (Aiginger et al. 2013). The players in competitiveness are the organization, customers, and competitors. Competitiveness can be evaluated in terms of product, firm, industry, and nation (Moon & Peery Jr 1995). But it does not mean that these are the only stage of competitiveness because different literatures have many views (Aiginger et al. 2013; Bhawsar & Chattopadhyay 2015; Chursin & Makarov, 2015; Fagerberg, 1988; Feurer & Chaharbaghi, 1994; Moon & Peery Jr 1995).

Competitiveness in a country (region), industry, and firms are different in terms of their meaning and factors used for measurement. National Competitiveness is the ability of a country (region, location) to deliver the beyond-GDP goals for its citizens today and tomorrow to improve their quality of life (Ai & Ushakov 2019; Martinović & Milović, 1 C.E.; Weng 2019). Firm competitiveness is the capability to meet customer requirements at a profit which is realized through offering goods and services with customer value higher than those offered by competitors (Chikán et al.2022; Stevenson 1996; Jannesson et al. 2014; Moon & Peery Jr, 1995; Vlachvei & Notta 2019). The industrial or sector-wise competitiveness may be categorized as inter-sector (different industry) or intra-sector (same industry) competitiveness. But in general, the definition can be taken as the "extent to which a business sector offers potential for growth and attractive return on investment"(Moon & Peery Jr, 1995; Neary, 2006; Oral & Reisman, 1988). In general, the competitiveness definition according to the Organization for Economic Cooperation and Development (OECD) is given as "the ability of companies, industries, regions, nations or supranational regions to generate, while being and remaining exposed to international competition, relatively high factor income and factor employment levels on a sustainable basis" (Hatzichronoglou 1996).

2.1 Identifying key Internal Capabilities and Factors

Identifying the key factors and capabilities for the SMEs' sustainable competitiveness starts from the literature survey. In the literature, factors and capabilities are considered enablers of the SMEs' sustainable competitiveness (Parmar &

Desai 2020). Various researchers have discussed the different factors and capabilities and their role in SMEs' competitiveness. Taçoğlu et al. (2019) identified the factors and capabilities that are affecting and influencing the process, performance, and assets of small and medium enterprises. In general, the factors and capabilities that influence SMEs' competitiveness are categorized as internal and external (Gumel & Bin Bardai 2023). According to (Deros et al.2006) 15 factors were identified as main actors for the SMEs' competitiveness. Taçoğlu et al.(2019) Presented 11 internal factors and their role in the SMEs' sustainable competitiveness. Many researchers have put efforts into identifying key factors and capabilities for the SMEs' sustainable competitiveness. But still, prioritizing the factors according to their impact is in the growing stage, and developing countries like Ethiopia much needed to adopt this kind of strategy.

The factors were identified from the extensive literature review available on various databases such as Scopus, Science Direct, Google Scholar, PubMed, etc. The search strings used to search the articles were: “SMEs”, “Sustainability”, “competitiveness” “key factors” etc. Initially, 60 internal factors were documented through the literature review. During the finalization of the factors, the repeated factors and capabilities were separated and counted as the same. After experts’ opinions, a total of 21 key factors and capabilities were identified. The identified factors were further classified into different categories, such as (1) dynamic capability, (2) innovational capability, (3) product quality (4) entrepreneurial capability (5) Managerial capacity, (6)ICT,(7) Organizational learning, (8) Human capital, (9) Internationalization,(10) Leadership style and (11) Intellectual capital.

3. Methodology

The Fuzzy Delphi Method (FDM) is a structured communication technique for eliciting and refining expert opinions on complex or controversial issues. It is a combination of the Delphi method and fuzzy set theory (Alghawli et al., 2022). The Delphi method is a process of gathering and synthesizing expert opinions through a series of anonymous rounds of questioning, while fuzzy set theory is a mathematical framework for dealing with uncertainty and imprecision (Yusoff et al. 2021).

Table 1. Questionnaire in Fuzzy Delphi method (FDM)

<i>No.</i>	<i>Section</i>	<i>Key factor</i>	<i>Sub-factors</i>
1	M	Managerial capacity	M1:Education and qualifications managers
			M2: Experience of managers
2	I	Innovation capability	I1: Product innovation
			I2: Process innovation
			I3: Organizational innovation
			I4: Market innovation
3	H	Employee Skill	H1: Teamwork skill
			H2: Interpersonal skill
4	C	Intellectual capital	C1: Human capital
			C2: Structural capital
			C3: Relational capital
5	D	Dynamic capability	D1: Integration capability
			D2: Re-configuration capability
			D3: Sensing Capability
			D4: Learning capability
6	T	Digitalization	T1: Internet Advertising
			T2: E-commerce Purchases and sells
7	O	Organizational learning	O1: Culture
			O2: External alignment
8	P	Product Quality	P1: Conformance
			P2: Features
			P3: Reliability
9	N	Internationalization	N1: Attitude
			N2: Efficiency of resources

10	S	Leadership style	S1: Autocratic
			S2: Democratic
			S3: Participative
11	E	Entrepreneurial capability	E1: Entrepreneurial autonomy
			E2: Risk-taking capability
			E3: Pro-activeness capability
			E4: Innovativeness capability

Phase 1

This phase is mainly the literature survey and informal discussion with SME owners and other senior researchers on the SMEs' competitiveness. The main target of the informal discussion with the SME managers and owners and the scholars was to identify the needs in the specific sector to achieve sustainable competitiveness. Additionally, the literature review helps to identify the key factors and capabilities for the SMEs' competitiveness. For the literature reviews databases such as Scopus, Science Direct, Google Scholar, and PubMed have been used with keywords like "SMEs", "Sustainability", "competitiveness" and "key factors".

Phase 2 (development and design)

A. Questionnaire preparation

The questionnaire is aimed to meet the criteria and conditions of using the technique of fuzzy Delphi Method. This technique involves the use of a mathematical formula to obtain the consensus of experts. Instruments used by researchers are the instruments that have been modified based on the needs of the study researchers. The original of this questionnaire was adapted from previous studies in the area (Rejab et al. 2019).

The process of data collection in the study was carried out using the structured questionnaire and analyzed with techniques of a fuzzy number. A 7-point scale was used to determine the expected key capabilities against SMEs' competitiveness to obtain the consent or consensus of a group of experts. To facilitate experts, answering questionnaires, researchers have put the value of a scale of 1 to 7 to replace the Fuzzy value as shown in Table 3.

Panel of experts

A panel of experts is defined as a group of persons who are skillful in the scope of a study area. The number of experts suggested by most of the previous studies ranges between 10 to 20 experts (Abdullah & Othman 2023). 16 experts have been appointed of which 5 from the University, 5 SME owners and managers, 2 Innovation, Science and Technology agency/bureau officers, and 4 SME officers. Experts were selected by purposive sampling method following inclusion criteria, which were a minimum of BSc degree holder and having at least 5 years experience in the field.

The Questionnaire with 11 domains was given on hand to all experts, and they were requested to rate their degree of agreement for each item using the 7-point Likert scale (1 = extremely disagree and 7 = extremely agree). Experts were free to give or write down their opinions and comments at the side of each item. The questionnaires were collected after the completion of the ratings.

Table 2. Classification of heterogeneous experts

Expert	Background	Number of participants
University	Lecturers, researchers	5
SME owners and managers	Managers, owners	5
SMEs office	Experts	4
Science and innovation office	Experts	2
Total		16

Determine linguistic scale:

To address the issue of fuzziness among the experts' opinions, a linguistic scale is determined to frame the respondents' feedback. The linguistic scale is similar to a Likert scale with an additional of fuzzy numbers given to the scale of responses based on the triangular fuzzy number.

Table 3. Linguistic variables for 7- point scale (Sulaiman et al. 2020)

Linguistic Variables	Likert Scale	Fuzzy Scale
Extremely agree	7	0.9/1.0/1.0
Strongly agree	6	0.7/0.9/1.0
Agree	5	0.5/0.7/0.9
Unsure	4	0.3/0.5/0.7
Disagree	3	0.1/0.3/0.5
Strongly Disagree	2	0.0/0.3/0.1
Extremely disagree	1	0.0/0.0/0.1

For every response, three fuzzy values were given to consider the fuzziness of the experts' opinions: minimum value (m1), most plausible value (m2), and maximum value (m3). The level of agreement scale should be in odd numbers (three-, five- or seven-point linguistic scale). The higher the scale, the more accurate the response analysis could be. In this study, a seven-point linguistic scale was used.

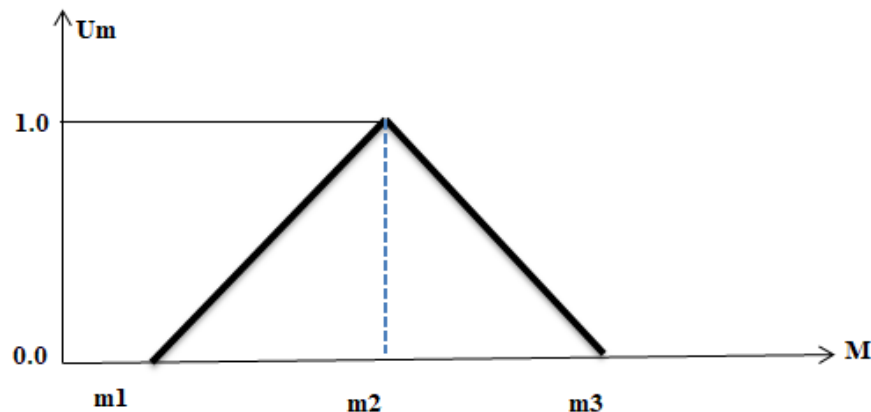


Figure 1. Graph the triangle against the value of the triangular

The membership function (U_m) of this can be represented.

$$U_m = \begin{cases} 0, & x < m1 \\ \frac{(M-m1)}{(m2-m1)}, & m1 \leq M \leq m2 \\ \frac{(m3-M)}{(m3-m2)}, & m2 \leq M \leq m3 \\ 0, & M > m3 \end{cases}$$

-----eq. 1

Where ' $m1, m2$ and $m3$ are real numbers and $m1 \leq m2 \leq m3$ See Figure 2.

Triangulation of fuzzy number (TFN) and Defuzzification

TFN is a process of transforming experts' agreement from a Likert scale to Fuzzy Numbers. Each Likert scale point has three ratings, which are average minimum value, most reasonable value, and maximum value. The reason for using the Fuzzy Number is to eliminate the vagueness of an expert's opinion that could not be scored by a Likert scale. Demonstrates the differences between the 7-point Likert scale and the set of Fuzzy numbers. For an item to be accepted, all experts' consensus should be >75%, and the threshold $d \leq 0.2$. The Defuzzification process is a method to rank items by identifying them (Ismail et al. 2021; Rejab et al. 2019).

$$A_{max} = \frac{(m1 + m2 + m3)}{3} \dots \dots \dots eq. 2$$

The threshold value is also calculated using the following equation (Ghazali et al. 2019; Yusoff et al. 2021).

$$d(m,n) = \sqrt{\frac{1}{3}\{(m1-n1)^2+(m2-n2)^2+(m3-n3)^2\}} \dots \dots \dots eq. 3$$

Where, $m1$, $m2$, and $m3$ are average values for all the experts' evaluations; $n1$, $n2$, and $n3$ are fuzzy values for all three values for every expert.

B. Determination of item acceptability

There were three prerequisites to be fulfilled to determine the acceptability of the constructs and their respective items. The prerequisites (Manakandan et al., 2017) were;

- threshold value, $d\text{-construct} \leq 0.20$
- experts agree on evaluated items $\geq 75\%$ and ranking of the items

The threshold value, $d\text{-construct}$ indicates the selection of certain constructs based on the consensus of the experts for each construct. However, before that, a threshold value (d) for each item was found, by calculating the difference between the average fuzzy number and each expert fuzzy number (Ismail et al. 2021).

4. Results and discussions

Results

The sixteen experts have submitted all the questionnaires (100% response) that were distributed by the researchers. All the items within the eleven constructs had scored average Likert scoring of five to seven, which was on the scale of agree to highly agree. These scores were converted into fuzzy numbers. Post FDM analysis, the first prerequisite was fulfilled whereby all the eleven constructs had threshold value (d) ≤ 0.2 .

Table 4. Results of a consensus of the experts

No. item /element		TFN		Defuzzification				The consensus of the experts
		d	% of consensus	m1	m2	m3	Score fuzzy (A)	
1	D1	0.159	94	0.969	0.894	0.881	0.915	Accepted
2	D2	0.130	100	0.994	0.938	0.788	0.906	Accepted
3	D3	0.158	100	0.981	0.906	0.750	0.879	Accepted
4	D4	0.159	100	0.965	0.937	0.879	0.912	Accepted
5	I1	0.170	100	0.981	0.919	0.775	0.892	Accepted
6	I2	0.171	94	0.963	0.888	0.725	0.858	Accepted

7	I3	0.193	100	0.969	0.881	0.725	0.858	Accepted
8	I4	0.175	100	0.975	0.894	0.738	0.869	Accepted
9	E1	0.134	100	0.981	0.894	0.725	0.867	Accepted
10	E2	0.120	100	0.988	0.906	0.738	0.877	Accepted
11	E3	0.152	100	0.975	0.881	0.713	0.856	Accepted
12	E4	0.094	100	0.994	0.913	0.738	0.881	Accepted
13	P1	0.161	100	0.981	0.894	0.725	0.867	Accepted
14	P2	0.156	94	0.969	0.881	0.713	0.854	Accepted
15	P3	0.134	100	0.981	0.894	0.725	0.867	Accepted
16	M1	0.177	94	0.956	0.844	0.663	0.821	Accepted
17	M2	0.151	100	0.969	0.856	0.675	0.833	Accepted
18	O1	0.204	94	0.919	0.850	0.681	0.817	Accepted
19	O2	0.206	94	0.956	0.863	0.700	0.84	Accepted
20	T1	0.172	100	0.950	0.813	0.625	0.796	Accepted
21	T2	0.172	10	0.950	0.813	0.625	0.796	Accepted
22	H1	0.172	100	0.975	0.881	0.713	0.856	Accepted
23	H2	0.152	100	0.975	0.881	0.713	0.856	Accepted
24	N1	0.152	94	0.931	0.781	0.588	0.767	Accepted
25	N2	0.174	94	0.913	0.756	0.563	0.744	Accepted
26	S1	0.181	81	0.844	0.731	0.544	0.706	Accepted
27	S2	0.203	81	0.881	0.744	0.563	0.729	Accepted
28	S3	0.202	88	0.869	0.756	0.569	0.731	Accepted
29	C1	0.208	100	0.988	0.919	0.763	0.890	Accepted
30	C2	0.177	94	0.963	0.869	0.700	0.844	Accepted
31	C3	0.185	94	0.963	0.850	0.663	0.825	Accepted

For the second prerequisite, all the thirty items had expert consensus greater than 75%. The third prerequisite was used to rank the items within the constructs by calculating the average fuzzy numbers. The findings are summarized in the and Table 5.

As shown in above table 4, all items recorded a value of threshold ($d \leq 0.2$). this result shows that all of the mentioned items (factors) have an expert consensus (Cheng & Lin, 2002). The expert agreement percentage value (ranges 100% to 81%) shows all factors score above 75% and all Defuzzification values for the factors also exceed the cut value of $\alpha=0.5$. All the constructs are listed (prioritized) in Table 5 as per their position of the expert agreement result.

Table 5. Prioritized list of factors according to analyzed data and experts' agreement

No.	Factors	value score		% of consensus	Rank
		Fuzzy evaluation	Average of fuzzy number		
1	Dynamic capability	14.4	0.9	98	1
2	Product Quality	13.967	0.873	100	2
3	Entrepreneurial capability	13.925	0.87	100	3
4	Innovation capability	13.91	0.87	98.5	4
5	Intellectual capital	13.711	0.86	98	5
6	Employee Skill	13.633	0.852	100	6
7	Managerial capacity	13.233	0.827	94	7

8	Organizational learning	13.067	0.817	94	8
9	Digitalization	12.833	0.802	100	9
10	Internationalization	11.900	0.744	94	10
11	Leadership style	11.500	0.719	81	11

5. Discussion

From the findings of the analysis using the fuzzy Delphi technique carried out, the researchers identified that; all the elements as agreed by the experts. The identified senior experts for each construct prioritized the factors. Accordingly, all the factors and capabilities, listed in the research were found important for the SMEs to have sustainable competitiveness.

Dynamic Capability

From the dynamic capability perspective, the experts agreed that: integration, re-configuration, and sensing capabilities have a sustainable impact on SMEs competitiveness. SMEs with good integration capability help to integrate their internal processes, systems, and partners across the entire value chain (suppliers, customers, and other stakeholders). In the ever-changing and dynamic business environment, the ability to adapt and reconfigure resources and capabilities is crucial for survival and success, especially for small and medium enterprises (SMEs). This is where re-configuration capability comes into play to identify and assess changes in the external environment and market demands, evaluate existing resources and capabilities, redeploy resources and reconfigure capabilities to meet new challenges and opportunities, develop new capabilities as needed (Chumphong et al. 2020; Hernández-Linares et al., 2021; Mansouri, Malainane et al. 2022; Prabowo et al. 2021; Rashidirad & Salimian 2020; Sijabat et al. 2021).

Innovation capability

For sustainable SME competitiveness, the experts have agreed that Innovation capability (product, process, market, and organization) is a key driver of competitiveness for SMEs. By investing in their ability to innovate, SMEs can achieve sustainable growth, enhance their market position, and remain competitive in the face of ever-changing market conditions. Understanding the challenges and implementing appropriate strategies can empower SMEs to unlock their innovative potential and achieve remarkable success (Heenkenda et al. 2022; Koffi et al. 2021; Mansouri, Malainane et al. 2022; Nimfa et al. 2021; Novillo-Villegas et al. 2022; Purwati et al. 2021).

Entrepreneurial capabilities

From the Entrepreneurial capabilities (entrepreneurial autonomy, risk-taking, pro-activeness, and innovativeness) perspective, the experts have concluded that it is essential for SMEs to be able to identify and exploit opportunities, adapt to changing market conditions, and achieve sustainable growth. SMEs with higher levels of entrepreneurial capability are more likely successful in starting and growing their businesses, more innovative and adaptable to changing market conditions, achieve higher levels of profitability and growth, and create more jobs (Adjabeng et al. 2022; Fan et al. 2021; Hu et al. 2022; Vu, 2020).

Product quality

From the product quality (conformance, features, and reliability) perspective and SME competitiveness the experts have agreed that, by prioritizing product quality and implementing effective strategies, SMEs can gain a significant competitive edge in the market, ensuring long-term success and sustainable growth. Product quality plays a crucial role in the competitiveness of Small and Medium Enterprises (SMEs). High-quality products are essential for SMEs to attract and retain customers, build brand reputation, and ultimately achieve sustainable business growth through customer satisfaction and loyalty, improved pricing power, reduced costs, enhanced brand reputation, and access to new markets (Harjadi et al., 2020; Helall, 2020; Nailevich, 2023; Rajasa et al., 2023; Tali et al., 2021).

Managerial capacity

The experts' view on the managerial capacity (education, qualification, and experience of managers) with SMEs competitiveness reveals that there is a strong positive relationship between managerial capacity and the competitiveness of small and medium-sized enterprises (SMEs). The efficient managerial capacity helps SMEs to have increased **profitability, improved innovation enhanced operational efficiency, and stronger relationships with stakeholders.**

Organizational learning

Organizational learning (culture and external alignment) is an essential driver of SME competitiveness. By fostering a culture of learning, acquiring new knowledge, and continuously adapting to change, SMEs can position themselves for success in today's competitive marketplace. By actively investing in OL practices and strategies, SMEs can equip themselves with the necessary tools and resources to thrive in a dynamic and ever-evolving business environment (Paper et al. 2023; Strategy & Learning 2022).

Digitalization

In the 21st century, digitalization is no longer just a buzzword; it is a fundamental force transforming every aspect of our lives, including the business landscape. Small and medium-sized enterprises (SMEs) are particularly impacted by this digital revolution, as they face both opportunities and challenges in adapting to the changing environment. Digitalization (internet advertising and e-commerce sales and purchases) helps SMEs to have sustainable competitiveness through increased efficiency and productivity, enhanced customer engagement and reach, improved decision-making, greater flexibility and agility, and reduced costs (Ángel et al. 2023; Kö et al. 2022).

Employee skills

Experts have reached the same consensus on the role of employee skills (teamwork and interpersonal skills) on SMEs' competitiveness. There is a strong and positive correlation between employee skills and the competitiveness of Small and Medium Enterprises (SMEs). In today's rapidly evolving and globalized economy, skilled employees are essential for SMEs to survive and thrive. SMEs having skilled employees benefit from increased productivity and efficiency, improved innovation and problem-solving, enhanced customer service and satisfaction, and better decision-making (Dalziel, 2013; Jansen & Lanz 2014).

Internationalization

Internationalization and SMEs competitiveness are intimately intertwined and the internalization (attitude and efficiency of resources) can unlock an excess of opportunities for SMEs. It has an impact on market expansion, increased Innovation, enhanced brand image, and diversification (Anand 2015; Jankowska 2011; Lu & Beamish, 2001; Segura et al. 2015).

leadership style

The relationship between leadership style (democratic, autocratic, and participative) and the competitiveness of small and medium-sized enterprises (SMEs) is a complex and multifaceted one. While no single leadership style guarantees success, understanding the potential impact of different approaches can be invaluable for SME owners and managers. By carefully considering their specific context and adopting a flexible, adaptable leadership style, SMEs can foster a competitive advantage and achieve sustainable growth in the marketplace (Faeq, 2022; Khalil et al. 2022; Reed 2021). SMEs can unlock the full potential of their intellectual capital (human, structural, and relational) and achieve a sustainable competitive advantage in the marketplace. This factor was evaluated through human capital, structural capital, and relational capital (Absah et al., 2018; Suraji, 2020; Todericiu & Stanit 2015). In general, the experts have agreed that all the identified eleven constructs (thirty factors and capabilities) have a great role in the SMEs' competitiveness. However, from their impact magnitude on the SMEs' competitiveness, the eleven constructs have been prioritized depending on the expert's agreement that brings a dynamic capability to the first and takes leadership style to the eleventh rank.

6. Conclusion

This paper explored the application of the Fuzzy Delphi Method to prioritize experts' attitudes quantitatively for the identified internal factors and capabilities depending on their impact on SME's competitiveness. Eleven constructs (thirty factors and capabilities) that affected SMEs' sustainable competitiveness were identified from an intensive literature review and considered for this study. Then, the selected sixteen experts were asked to rate their attitude toward the factor and their impact on the SMEs' competitiveness using the Likert linguistic value (1 to 7). Depending on the collected experts' view it has been passing through a Defuzzification process to get each factor's impact on the SME competitiveness.

The result indicates that all the identified eleven constructs and all factors and capabilities have a great role in the SMEs' competitiveness. Depending on the experts' views and agreement, the first construct was dynamic capability and the eleventh rank was taken by leadership style. Therefore, the results in this paper are feasible and practical and could be taken as a reference for the policymakers and SME owners to enhance the SMEs' competitiveness. For future research, the experts' consensus should be supported with empirical investigation depending on their rank and researchers could conduct the empirical study in this regard. Furthermore, the number of experts who participated in this survey was 16, it may be possible to extend this value to 20. Lastly, the researchers and the experts have identified 11 constructs (30 factors and capabilities) from the literature and discussed with the experts' comments. However, it may need to extend the number of constructs by doing extra interviews and literature surveys.

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