

# The Moderating Role of Technological Capabilities in the Relationship between Entrepreneurial Marketing and Firm Performance: A Qualitative Approach

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## Abstract

Entrepreneurial marketing (EM) is a dynamic and innovative approach to marketing that is particularly well-suited for startups and small businesses. Thus, the study focuses on Sudanese SMEs in order to assist them in achieving profitability, sustainability, and competitive advantage in the long term. Consequently, our objectives are to develop the research pre-model and to explore in depth how entrepreneurs, managers, and employees of SMEs in Khartoum-Sudan are familiar with the concepts of the research pre-model, and how they can employ and take advantage of study concepts. To achieve these objectives, we relayed on the qualitative method an inductive approach to test the validity and to develop the research pre-model. Hence, we have designed an open-ended question scenario and conducted a certain interview utilizing multiple qualitative methods to gather the data from the purposive sample which consists of (15) individuals. We have divided the scenario into three main parts of questions, first open-ended questions about EM, in this regard the most important question that has been asked to the interviewees was “What

are the factors/dimensions that comes to your mind when you hear about EM”? Secondly, open-ended questions about technological capabilities TCPs. “The commonly thought view of TCPs proposes that firms with strong technological capability can rapidly identify technological opportunities and the value of technological resources and utilizing modern equipment, in this scope benefits of entrepreneurial marketing should therefore be enhanced by a firm’s high technological capability”. e.g., “What are the expected advantages that will be rewarded by employing TCPs in SMEs”? Finally, we have grouped data into concepts, categories, and themes and then utilized a manual-thematic analysis as a method for identifying, analyzing, and interpreting patterns within data. In this scope we have analyzed the data and interpreted the results within three main themes. Accordingly, significant new dimensions have been discovered and generated which led to our final developed and adapted research model.

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**Keywords:** Entrepreneurial marketing, Technological capabilities, Firm performance, Qualitative approach, Thematic analysis

## **1. Introduction**

### **1.2. Background of the study**

Considering the great development in technology in the existing era, innovative and creative processes in addition to the role of marketing to meet the needs and desires of consumers as well as the intensity of competition, organizations have become required to look ahead and develop long-term strategies, one of these strategies can be realized by implementing “Entrepreneurial Marketing” EM which we assume will allow to accomplish sustainable competitiveness. As a concept entrepreneurial marketing (EM) was launched in 1982, and many researchers tried to describe this concept. The word is also associated with marketing activities in small businesses with limited capital and who need to rely on innovative and unsophisticated tactics. EM can be seen as a modern paradigm integrating crucial aspects of marketing and entrepreneurship into an integrated concept in which marketing is a business-based operation.

The other concept of this study is technological capabilities (TCPs) which represent the moderator variable, including the concept, and definitions of TCPs. Moreover, the moderating effect of technological capabilities has been tested in frequent of the previous studies for instance, Haeussler et al. (2012) discovered that a fully moderating of technological capabilities on the relationship between strategic alliances and product development in high technology new firms.

The importance of this research is to increase the understanding of how entrepreneurial marketing dimensions affect the performance of SMEs. Moreover, this study will explore how certain dimensions of EM are correlated

with the firm performance dimensions. Thus, the research focuses on identifying correlations of EM dimensions and their impact on the performance of SMEs in Khartoum-Sudan. On the one hand, this research attempts to explore the moderating role of technological capabilities in the relationship between entrepreneurial marketing and firm performance as well as explain the effect between entrepreneurial marketing and firm performance in Sudanese small and medium enterprises.

The expected outcome of the research is to contribute academically to fill the gap in the literature providing a first study that will connect entrepreneurial marketing with the firm performance via technological capabilities in SMEs in Sudan. Moreover, this study will fill the gap similarly in the literature given that there is still a scarcity of quantitative and qualitative studies. The findings will also help managerially the policymakers who are concerned about small and medium-sized enterprises within the country and can thus use the results of a study to formulate better strategies in order to support these enterprises. Company owners will consequently benefit from the research outcome by getting to know and considering the ideas incorporated in this analysis of entrepreneurial marketing. Our study could, lastly, increase the interest in further developing the field of EM of other academics and researchers.

## **2. Research problem**

### **2.1 Statement of the research:**

In Sudan, governments are facing enormous economic slowdowns and unemployment problems. In addition, the forces of globalization and technological advancements are putting pressure and demands on the rate of enhancement in social and economic development.

In such situations entrepreneurship is thought of as the main accelerator of economic development, using job creation, utilization of resources, improved production through innovation, value creation, and wealth accumulation. However, due to the challenges that face the success of entrepreneurship (finance, management of business, policies, etc.), there is a pressing need to adopt a holistic approach to this phenomenon to generate high levels of dynamism, innovation, effectiveness, and introduce policies, programs, and initiatives that foster entrepreneurship development (Khattab & Al-Magli, 2017).

Likewise, business organizations in Sudan are challenged with intense competition in this manner making the survival and growth of any business dependent on their ability to offer superior value to customers Osman et al. (2018). Similarly, there were a few studies conducted in the field of entrepreneurial marketing in SDN. Thus, this study attempts to address the gaps and limitations in the literature to formulate a problem statement.

According to our reviews of the previous studies, we found that there is a gap and deficiency in the field of entrepreneurial marketing specifically in SMEs, s who operate in Sudan. Moreover, there is little or nothing well-known about the EM dimensions and their impact on the firm performance of SMEs in Sudan. The gaps in the literature are considerable; additionally, there is still no commonly accepted definition of EM, or EM dimensions and practices particularly in small and medium-sized enterprises, despite the scientific and practical importance of the entrepreneurial marketing field Nora Sadiku-Dushia, et al., (2019).

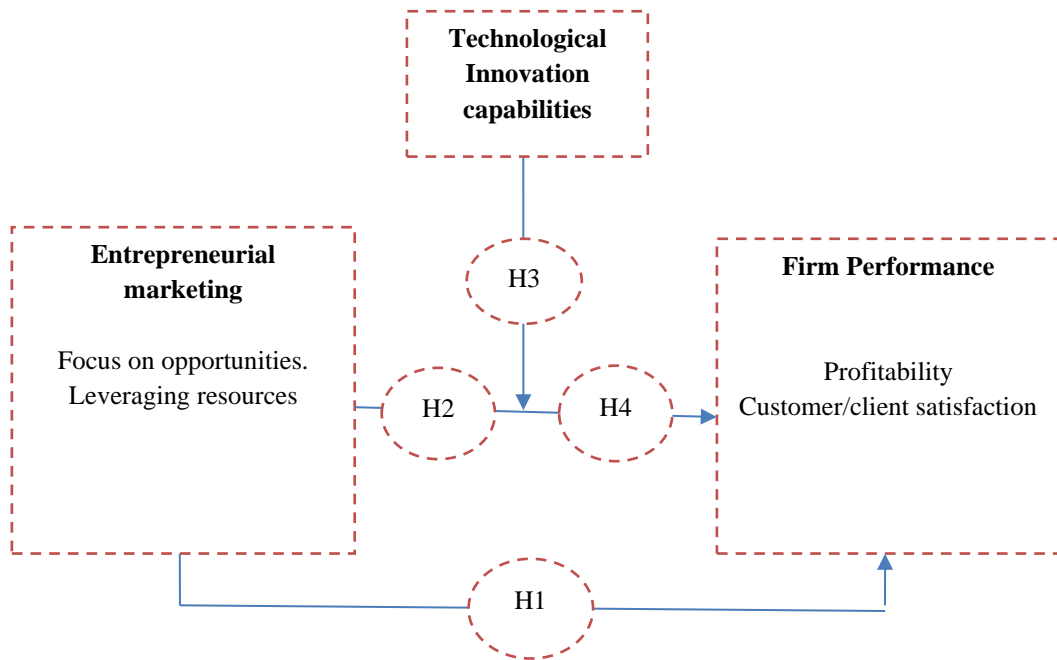
Therefore, this study attempts to address the above-mentioned research gaps and limitations in the existing entrepreneurial marketing literature. Moreover, we will try to address this gap by presenting scientific solutions and practical contributions with systematic foundations to help these enterprises reach the desired goal. On the other hand, the existence of contemporary technological capabilities indicates the importance of the technological capabilities that SME, s firms are supposed to implement in Sudan to gain the desired achievement by applying an entrepreneurial marketing strategy. There is previous research that examines only the direct impact of technological capabilities on firm or marketing performance Camisón, & Villar-López, 2014, Tzokas et al. 2015). Consequently, this study shows the need for a complementary interaction between (entrepreneurial marketing and firm performance) which will be developed by technological capabilities as a moderator variable.

## **2.2. The Pre-Model of the Study**

Figure (2.2.1) below presents the assumed conceptual framework for this study which proposes the relations between entrepreneurial marketing and firm performance. Based on the literature and to monitor the relationship between the two factors, we suggest that technological capabilities can play a moderating role in linking up and developing the relationship between entrepreneurial marketing and firm performance.

The model has formulated from the literature, the model represents the method in which entrepreneurial marketing influences firm performance. First, creating and delivering superior technological innovation capability enables a firm to meet the demand of customers or even delight customers. Given the possibility that background characteristics may influence the link between entrepreneurial marketing and firm performance, we draw on strategy literature and identify (Innovation) as a moderating factor.

**Figure (1).** Study pre-models



*Figure (2.2.1). Study pre-models the relationship between entrepreneurial marketing and firm performance and the moderating role of technological innovation capabilities.*

### **3. Literature review**

#### **3.0 Introduction**

The literature review sheds light on the areas of entrepreneurial marketing (EM), firm performance, and technological capabilities. The discussion of each is conducted by the review of relevant literature to explain the relationship between Entrepreneurial marketing and firm performance. It will also explain the moderating effect of technological capabilities on the relationship between Entrepreneurial marketing and firm performance.

The fact of its originality means a growing business venture is more likely to face both uncertain market conditions and limited resources for marketing. When pursuing new opportunities with limited resources, the entrepreneur must use innovative approaches in the face of such constraints. While the marketing approaches used by entrepreneurs reflect this innovative orientation, they may vary in their relationship or effect on outcome goals. It is critical for a new venture to understand which entrepreneurial marketing practices are most effective and therefore important to achieve a variety of successful outcome goals and ultimately for profitability and satisfaction. Therefore, the purpose of this study is to link entrepreneurial marketing practices with firm performance in SMEs in Sudan.

### **3.1. The concept of entrepreneurial marketing**

Entrepreneurial Marketing “EM” has gained significant academic legitimacy since its inception in the 1980s, and a sizeable body of various research on it has emerged (Hallbäck & Gabrielsson, 2013). Entrepreneurial marketing is a marketing strategy that can be better suited to resource constraints and challenges in SMEs (SMEs).

Common to all definitions of EM is the concept that it lies at the nexus between entrepreneurship and marketing. Entrepreneurial marketing has opened the door to many research streams that have led to diverse views and meanings of the EM term. An alternative marketing model was needed to be identified which could also be used among small enterprises.

Entrepreneurial marketing is an initial phenomenon that appeared in small companies or new enterprises. Thus, entrepreneurial marketing can be interpreted as marketing with an entrepreneurial mindset since it is the organizational role of marketing considering innovativeness, risk-taking, proactiveness, and the pursuit of opportunities without regard for the resources currently; Effective entrepreneurial marketing creates value for customers "through relationships, particularly through innovation, creativity, sales, and immersion into the market, networking or flexibility. Therefore, this point makes small and medium enterprises establish more focused business conditions to achieve targeted goals through an entrepreneurial marketing approach.

In this study, we have drawn the concept of EM developed by Zahra & Garvis, (2000); Zahra, et al. (2003). argue that EM includes seven dimensions. Five of these dimensions – proactiveness, innovation orientation, taking risk orientation, focusing on opportunity, and leveraging resources– derive and come from the literature on entrepreneurship. While other two dimensions of EM –value creation–and customer satisfaction orientation are derived from the literature on marketing Hooley, et al., (2001); Kohli & Jaworski, (1990).

According to Alqahtani & Uslay, (2020); and Morris et al., (2002;); organizations that choose EM as their strategy benefit from interlinking among the underlying dimensions. These interlinking are valuable when pursuing exploratory as well as exploitative innovation. Thus, the interlinking between the EM dimensions offers firms yet a different advantage, allowing them not only to create exploitative or exploratory innovation but to rotate between these innovation types. Its dimensions and their interconnections make EM a unique strategic posture. the researcher agrees that it is theoretically necessary to distinguish EM from other strategic situations such as market orientation (MO) and entrepreneurial orientation (EO) to establish EM as a distinct field of research. In the literature on entrepreneurship, businesses following an EO concentrate on creativity, proactiveness, and risk-taking, according to their

school of thinking, although many EO dimensions are shared by EM, such as leveraging resources is not an aspect of EO and autonomy, and competitive aggressiveness is not a feature of EM.

This research has contributed to the EM context arguing that traditional marketing that is created in literature may not be completely applied to small and medium enterprises. The company's conduct is another stream of entrepreneurial marketing analysis Hills & Hultman, (2011). This stream found the EM as a more promising opportunity to describe the marketing of companies that are small and resource-limited enterprise-driven entrepreneurial actions. Subsequently, the extent of research has extended from small companies to large companies. Many previous studies illustrate that however limited, entrepreneurial marketing can be used for any size of business. Hisrich & Ramadani, (2019); Kraus, Harms, & Fink, (2009).

Crick, et al. (2020). Suggested that entrepreneurial marketing EM relates to rising innovative products in close interface with customer's orientation, leveraging resources of partners, and by innovative techniques to attain market acceptance these results are very interesting. In marketing and entrepreneurship literature, the concept of EM has primarily been associated with the need for creativity and innovation in small firms. However, a different stream of literature perceives EM as entrepreneurship in marketing and views it as an entrepreneurial and innovative practice in corporate and large-scale Learning styles businesses Morris et al., 2002).

This research responds to the call by Webb et al. (2011), Lam and Harker (2015), and Jayawarna et al. (2014). for an EM theoretical base to advance the theory and the relationship between marketing and entrepreneurship and their link with firm performance which can then be used to make clear how small and medium terms enhances EM and other terms development skills. The connection between execution theories, sense-making, implementation, and contextual marketing demonstrates a clear interrelation between entrepreneurship and marketing and provides "a unique framework for advancing the understanding of the process and entrepreneurship and its potential marketing link" Mpanza, P. (2016). EM is not only the nexus between marketing and entrepreneurship, but furthermore marketing and entrepreneurship – customer-focused and entrepreneur/innovation-focused.

All EM definitions, however, have something in common; they all include both marketing and entrepreneurial aspects. The most frequent EM definition that can be found in the literature Rashad, N. M. (2018). defines EM as “proactive identification and exploitation of opportunities for acquiring and retaining profitable customers through innovative approaches to risk management, resource leveraging and value creation. The further definitions



of EM that may be frequently found in the literature will be chronologically existed in Table 1 below:

**Table 3.1.1.** Definitions of entrepreneurial marketing EM

Yea	Definitions	Author
2000	“EM is marketing carried out by entrepreneurs or owner-managers of entrepreneurial ventures.”	Stokes (2000, p. 2)
2018	“Proactive identification and exploitation of opportunities for acquiring and retaining profitable customers through innovative approaches to the risk management, resource leveraging and value creation.”	Rashad, N. M. (2018).
2000	“Marketing of small firms growing through entrepreneurship”.	Bjerke and Hultman (2002, p. 15)
2006	“EM is the overlapping aspects between entrepreneurship and marketing; therefore, it is the behavior shown by any individual and/or organization that attempts to establish and promote market ideas, while developing new ones in order to create value”	Bäckbrö & Nyström (2006, p. 13)
2009	“A particular type of marketing that is innovative, risky, and proactive, focuses on opportunities and can be performed without resources currently controlled.”	Kraus et al. (2009, p. 30)
2011	“EM is a spirit, an orientation as well as a process of passionately pursuing opportunities and launching and growing ventures that create perceived customer value through relationships by employing innovativeness, creativity, selling, market immersion, networking and flexibility.”	Hills and Hultman (2011, p. 6)
2012	“EM is a set of processes of creating, communicating and delivering value, guided by effectual logic and used a highly uncertain business environment.”	Ionita (2012, p. 147)
2012	“The marketing processes of firms pursuing opportunities in uncertain market circumstances often under constrained resource conditions.”	Becherer et al. (2012, p. 7)
2016	“EM is a combination of innovative, proactive, and risk-taking activities that create, communicate, and deliver value to and by customers, entrepreneurs, marketers, their partners, and society at large.”	Whalen, et al. (2016).

*Source: Nora Sadiku-Dushia, et al., (2019). Edited by researcher*

### 3.1.1. Entrepreneurial marketing dimensions:

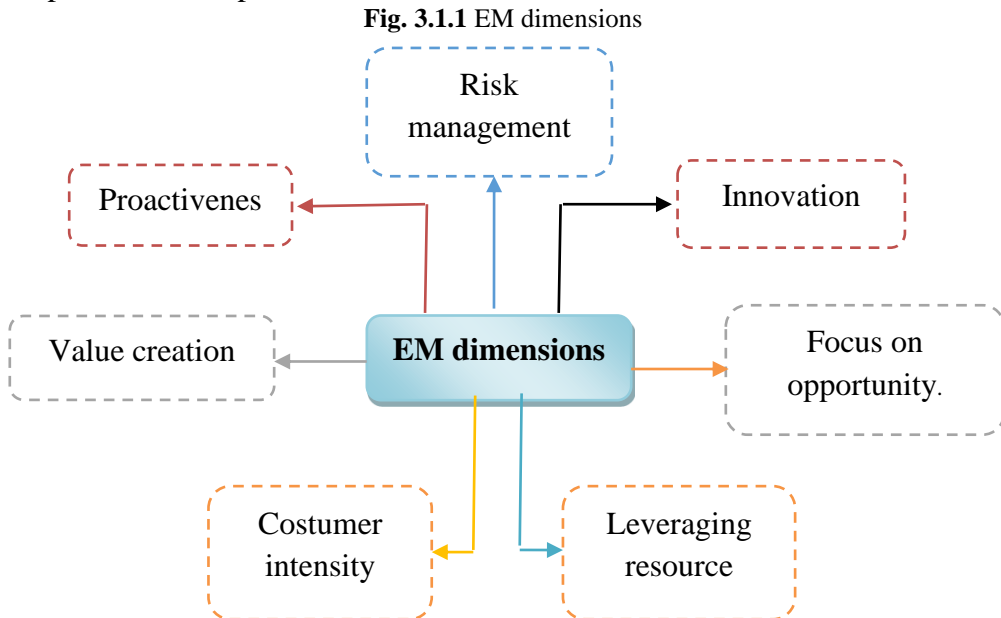
Different researchers have used various classifications in recent years when reviewing the behavior of the business EM. These classifications vary



in terms of content but are different in the number of dimensions they are used according to the context of the analysis. Although the behavior of EM is widely studied, no consensus exists on several dimensions of the behavior of EM. Kilenthong, et al. (2015).

Previous researchers have recognized a variety of dimensions of EM behaviors like innovation-oriented risk-taking, focus on opportunity, and flexible approaches for markets Hills & Hultman, (2013); furthermore, Miles and Darroch (2006) in their study, analyzed how large companies could exploit entrepreneurial marketing processes to gain and renew a competitive advantage, Their study has used previous research on entrepreneurial marketing and entrepreneurship practices, using examples from a long-term business case study in New Zealand, Sweden, the United Kingdom and the United States, to show how large corporations can strategically use their entrepreneurial marketing processes to build or identify, evaluate and take advantage of entrepreneurial opportunities better and more effectively.

They adopted risk management, pro-activeness, opportunity-driven, innovation, customer intensity, value creation, and resource leveraging as the variables explaining this competitive advantage. Their findings provided insight into the use of entrepreneurial marketing dimensions for large corporations to expand.



*Resource: Sadiku-Dushi, et al., (2019), Becherer, et al., (2012)*

### 3.2. Firm performance:

The concept of firm performance needs to be distinguished from the broader construct of organizational effectiveness. Firm performance is an

important construct in strategic management research all around the world, and it is regularly employed as a dependent variable. Despite its importance, there is little agreement on its description, dimensionality, or measurement, which limits advances in research. Successful businesses are essential for developing countries. many economists compare them to an engine in terms of determining their economic, social, and political development. Every company should operate under performance conditions to survive in a competitive business environment.

“The term "Firm performance" is a word used to describe a subset of organizational effectiveness that encompasses financial and operational results. The operational performance could be best viewed as an antecedent to financial performance, mediating the effect of resources. While customer satisfaction may be an antecedent to financial performance, is it not a performance outcome as well? This varies according to the researcher's definition of firm performance in their research. Based, on today's highly competitive environment, organizations need to protect the long-term interests of customers”. Selvam, et, al. (2016).

“firms' performances nowadays, are the first to be examined by investors from all over the world, as the world has smaller in the sense that enterprises may now be conducted from anywhere. Globalization enhances commercial operations and high performance, and it allows businesses to expand their opportunities for growth by eliminating barriers to corporate trade and financial investment. Furthermore, with the greatest generational spread in technology, people who are interested and concerned about attaining their tasks from anywhere are encouraged to look for any company around the world that has a strong track record of investment performance. As a result, the company's performance is the most essential factor that encourages customers to come. consequence, those in charge of running firms must improve their performance by implementing new plans and procedures to update their operations and transactions throughout their life cycle”. Al-Matari, et, al. (2014).

Consequences, any company's management must be able to measure its performance. It is impossible to enhance a process without first measuring the results. consequence, measuring the influence of organizational resources on business performance is necessary for improving organizational performance. The company's success can be attributed to its performance throughout a specific time frame. Thus, business performance, or firm performance as we refer to it in this study, is a subset of organizational effectiveness that covers operational and financial outcomes. Taouab, & Issor, (2019). provided a set of definitions to illustrate the concept of organizational performance:

- Performance is a set of financial and non-financial indicators that offer information on the level of accomplishment of objectives and results.
- Performance is dynamic, requiring judgment and interpretation.
- Performance may be illustrated by using a causal model that describes how future results can be affected by current actions.
- Performance may be understood differently depending on the person involved in the assessment of the firm performance.
- To define the concept of performance, it is necessary to know its fundamental characteristics to each area of responsibility.
- To report a firm's performance level, it is necessary to be able to quantify the results.

### **3.3. The concepts of technological capabilities TCPs as a moderating role:**

Customers nowadays are choice-seeking, demanding, and knowledgeable, and the power balance has changed from companies to value-seeking customers in today's customer-centered hypercompetitive situations. consequence, controlling technological innovation capability for greater company performance through the fulfillment of consumer expectations is becoming increasingly important for all businesses. Only forward-thinking businesses that maximize consumer value by utilizing their technological capabilities efficiently will survive and prosper.

TCPs are part of the research approach which studies the capability concept, this approach analyzes how the capacity of a certain enterprise will promote the use of resources in the functional sector of a certain organization. On the other hand, the competitive advantage of the company therefore would depend on the capability of the company.

As a concept technological capability refers to the ability of an organization to use a wide range of technologies, to develop innovative concepts to produce new products that are accepted by the consumer, and to adopt a rapid process development. This description thus underlines that technological capability not only involves technological mastering, but also investment in research and development, autonomous decision-making, and an innovative emphasis. In the past, technology has been an important source of competitive advantage for innovation Taghizadeh et al. 2020). The commonly thought view of technological capability proposes that firms with strong technological capability can rapidly identify technological opportunities and the value of technological resources, obtain the resource and benefit from it, thus success in product innovation (Wu, 2014; Zhou, & Wu, 2010; Srivastava, et al. 2015; Blomkvist, et al. 2017).

The classification of the capability depends on its purpose. Technological capabilities are a core element of information usage and

technology as an innovation requirement in the enterprise, Technological capability is the ability to make effective use of technological knowledge in production, engineering, and innovation Srivastava, et, al. (2015). By these means capabilities are defined as “a firm’s capacity to deploy resources, using organizational processes, to affect a desired end” Haeussler, et, al. (2012). The technological capability of a company is high if more technological advances than other companies in service have traditionally been produced. The technology capabilities of a firm are founded on what the firm has done well in the past and will likely keep the firm on the effective road. In addition, strong technical capabilities will make the business look more inward rendering the company's external information less important Ferna and Garcı, (2012).

According to the theory of dynamic capabilities DC and results in the literature suggest that the TCPs play a significant and positive moderating role. Therefore, few previous studies investigated TCPs as moderate variables such as Wu, (2014) investigated a significant and positive moderate effect of TCPs on the relationship between cooperation with competitors and product innovation, while Haeussler, et al. (2012) state that TCPs influence effectively on relationship between Strategic alliances and product development, while Ferna and Garcı, (2012) investigated a significant and positive moderate effect of TCPs. And (José and Ortega, 2010) confirmed a significant and positive moderate effect of TCPs on the relationship between Competitive strategies and firm performance.

### **3.4. Technological Capability and Firm Performance**

Over the past decade, firms' technological capability has been an essential strategic resource allowing them to achieve competitive advantage in their industry, especially in high-tech industries, for example, businesses with greater technological skills are more creative and are consequently performing at a high level. Those firms with superior technology capabilities can protect greater efficiency gains by developing process innovation and can make more distinctions in response to the changing business environment through innovative products.

In technologically competitive marketplaces, technological capability represents a significant potential source of competitive advantage and superior performance. Furthermore, technological capability helps a firm's ability to recognize and use new external knowledge to continue competence development, which may lead to improved performance. Wang, et, al. (2006). Additionally, greater technological capability typically enables firms to create and offer innovative products or services in novel ways that customers appreciate, and so determines a company's overall and new product development performance.

José and Ortega, (2010) indicated technological capabilities improve the relationships between (quality orientation and cost orientation) respectively and performance. The stronger a firm's technological capabilities, the more simply it can integrate knowledge from beyond sources, and the greater are the opportunities that such knowledge will prove useful in creating innovative new products. Moreover, a firm with strong technological capabilities may be willing to select trusting, capable partners who not only offer access to desirable resources, but also help the firm avoid technology leakage and opportunistic behavior, and innovation benefits of cooperating with a competitor should therefore be enhanced by a firm's strong technological capabilities. Wu, J. (2014).

### **3.5. A qualitative approach**

The objective of this study is to examine and address the extended knowledge of entrepreneurial marketing EM and to which extent the Sudanese entrepreneurs, managers, and employees are familiar with the discipline of EM as a strategy that can be implemented in their enterprises. Thus, we have designed the main question of EM: What are the factors/dimensions that come to your mind when you hear about entrepreneurial marketing? And for the firm performance on the other side, to develop the research pre-model. And to achieve this goal the study was conducted using a qualitative approach by implementing a thematic analysis.

Since the study adopts a qualitative methodology, we briefly go over the numerous trustworthiness verification techniques we used to begin thematically analyzing our qualitative data. As a result, the current study and other studies are in line (Singh, N., et al. (2021). That may be used as an illustration of how to modify the suggested general framework for trustworthiness verification to fit certain qualitative approaches. (See Appendix 2).

#### **3.5.1. Data collection instruments and sampling**

The data used for this research has been gathered by conducting six (6) interviews and “discussions” employing various methods of qualitative structure, these methods were (semi-structured, in-depth FGDs, Mini-FGDs, mutual interviews, and individual interviews) with nascent Sudanese entrepreneurs, managers, and employees whom active in the fields of services and industries. Moreover, we implemented a subjective sampling to select information-rich cases for this study. In this context, our study comes together in line with Nouri, P., et al. (2018).

Following purposive sampling in qualitative methodology and to address the exact research community of SMEs in Khartoum-Sudan, we have sent out the invitation letter for 28th entrepreneurs male and female alike. First

of all, we searched for the right participants through their profiles on the most frequently used platforms in SDN, (Facebook and LinkedIn) thus, most of the participants were in the middle age between 24 to 40. Meanwhile, participants were from different disciplines of academics, service, and industry. Moreover, after obtaining the participants' permission, all discussions were audio-recorded. The discussions lasted between 40 and 60 min. (see appendix 1).

The strategy we have relied on in this methodology is to improve the questions, and scenarios throughout the discussions respectively as well as modify the research pre-model for further development. Furthermore, four of these discussions were conducted in the English language, whereas two discussions were carried out in the Arabic language.

### **3.5.2. Data analysis**

Thematic analysis was used because of its ability to provide useful perspectives to capture additional dimensions for the study in helping, confirm theories and develop the pre-model to explain certain phenomena. Meanwhile, the inductive approach was applied because of its ability to offer flexibility and the Let-it-flow approach to provide some novelty for the research.

Thematic analysis was conducted to create an in-depth analysis to recognize the specific themes researched during the discussions. Furthermore, we utilized thematic analysis, as a method for identifying, analyzing, and interpreting patterns within data, to examine the data that was gathered Nouri et al. (2018).

Following the six phases of thematic analysis, we employed Clarke and Braun's (2013) approach as follows:

Familiarization with the data: we thoroughly investigated the data collected from discussions with entrepreneurs. This was accomplished by repeatedly evaluating the data that had been acquired. Thus, we were able to become as familiar with the data as feasible by repeatedly listening to the recorded data and writing down the recorded discussions.

- I. Coding: We have created an initial coding list for the main and intersection dimensions.
- II. Searching for themes: Building themes and gathering all the coded data relevant to each sub-theme involved an active process that we engaged in.
- III. Reviewing themes: We considered whether the created themes provide a compelling and convincing narrative regarding the collected data. This was a crucial stage in building the underlying themes.

- IV. Writing up: To provide the reader with a coherent and persuasive narrative about the data, we finally integrated the analytic narrative and data extracts.

### 6.3. Result and Conclusion

The results based on entrepreneurial marketing, technological capabilities, and firm performance themes are shown in Table 1. below:

#### First theme: Entrepreneurial marketing (EM)

- What are the factors/dimensions that come to your mind when you hear about entrepreneurial marketing?

The first question has been designed to assist the researcher in exploring and investigating in depth the boundaries of “EM.” Thus, most of the respondents started their speech that when it comes to the EM aspect you should consider innovative thinking to generate and promote new ideas, products, processes, or new services to be implemented in the market. This finding is in line with some previous studies, Crick, J. et al. (2020). Whalen, P., et al. (2016).

*{“It’s a way of your thinking first of all, thinking innovationaly. This is the main aspect for entrepreneurial marketing. Yeah, the very most important word is innovation. You implement innovation in your marketing, even in the marketing disciplines and even in the entrepreneurship.” (Mini-FGD, female 1)}*

Likewise, another participant has given quite interesting questions about EM, she thought about new and innovative ideas regarding the problems that may face entrepreneur and how it helps them to solve them and to enhance people life. And another participant has also explained that new ideas or what we can call innovation is the first aspect of EM and this can help produce new platforms and bring excellent achievements for the firm.

*{“The first aspect is supposed to be new ideas in the field of marketing so that we can produce a new platform or pursue a strategy and achieve excellence for the company.” (3rd Interview, Male)}*

One of the participants has contributed that EM has connection with blue ocean whereas entrepreneurs always seek to invest in a market where there are no competitors or entering a new market to cover or to fulfill utilizing a specific methods or strategy.

*{“If I may contribute, I think entrepreneurial marketing is more related to the Blue Ocean investments. Where we consider all entrepreneurs are only investing in the areas that’s not actually covered by other businessmen or other investors. Then they will need specific marketing tactics so they can survive in their Blue Oceans before the competition join them.” (Mini-FGDs, Male)}*



On the other hand, we observed that one of the participants has come up with a new dimension for EM which is “Segmentation” how to segment various fields to distribute and contribute the firm's products and services.

*{“The second idea is on what context do they segment the market? The segmentation processes. Before we found a product or a service, we assigned a certain segment in the market to be served by our service or product. What are the criteria that will be, and this depends on what is the area we are going to contribute our product or service? Is it an education or health or social context or even industry?” (Mini-FGDs, Female 2)}.*

The first participant has Clearfield his view by saying: although they encounter numerous uncertainties and difficulties along the way, entrepreneurs must be flexible and ready to adjust to shifting market conditions. By this sense he also came up with the main dimension of EM which is (Customer intensity) saying that entrepreneurs are skilled at listening to their consumers and acting on their input. Entrepreneurial marketing is all about understanding and meeting client needs.

*{“Agility: Entrepreneurs need to be agile and adaptable to changing market conditions, as they face many uncertainties and challenges along the way. Customer Focus: Entrepreneurial marketing is all about identifying and satisfying customer needs, and entrepreneurs are adept at listening to their customers and responding to their feedback.” (2nd Mini-FGDs, Male 1)}*

On one hand, the second respondent has stating and confirm the core two elements of EM he said that entrepreneurial marketing implies introducing fresh, cutting-edge goods or services to the marketplace, which calls for both innovation and creativity. And he added to his speech saying that (Taking risk) is a key component of entrepreneurial marketing, therefore entrepreneurs are recognized for taking risks and are frequently prepared to invest in novel and unproven concepts.

*{“Innovation and Creativity: Entrepreneurial marketing involves bringing new and innovative products or services to the market, which requires creativity and innovation. Risk-taking: Entrepreneurs are known for taking risks and are often willing to invest in new and unproven ideas, which is an important dimension of entrepreneurial marketing.” (2nd Mini-FGDs, Male 2)}*

Based on the literature we mentioned earlier that (leveraging recourse) is the main dimension for EM. The participant has also come up with the same view saying: entrepreneurs must manage their resources, including time, money, and human capital, effectively and efficiently. Participant added (Networking) as a new term for EM and she discussed that networking is important for entrepreneurs to expand their businesses and find success, entrepreneurs must have a strong network of partners and contacts.

*{“Resource leveraging: Entrepreneurs need to be efficient and effective in managing their resources, including time, money, and human capital. Networking: Entrepreneurs need to create a strong network of connections and partners to help them grow their business and accomplish success.” (2ndMini-FGDs, Female)}.*

In order to examine the feasibility of customer intensity and leveraging resource we found that all the participants have come together and approved that customer intensity is more important and more feasibility for SMEs, one of the participants described in detail that the main focus for any firm is firm-based customers and to fulfill their needs, wants, and desires. And how to manage and leverage your resources to meet customer or client expectations. Likewise, another participant has also explained why customer intensity is needed for the firm? because a customer is the center of every successful firm that works innovatively to create or deliver products or services to satisfy their needs and wants. Following some opinion's quotation respectively:

*{“As a marketing specialist, the first step we start with and go forward is the customer. Without the customer, there is no product, there is no market, there's no anything. What your customer need and then think about how to leverage your resources to meet the needs of the customer and to make profit at the same time”. (Mini-FGDs, Female 2)}.*

*{“I think customer intensity because I think when you become a customer center, I think you will be more effective than other way of marketing. Because sometimes when we talk about entrepreneurship that creative or innovative way in doing business, or creative way of creating products or services you offer, unless it satisfies the customer needs, I think it will not succeed.” (Mutual Interview, Female 2)}.*

Based the literature an according to Rashad, N. M. (2018)., proactive identification considers one of the EM core dimensions, this view has come together with what the participant has said in this discussion.

*{“I am thinking entrepreneurial marketing is about proactive. So, I think this will be the main factor. So, I'm not sure about definite factors, but this is what comes to my mind.” (Mutual Interview, Female 2)}.*

We can summarize that a participant has stated that SMEs should scale, enhance, or optimize the resources they have to avoid the market challenges and to keep their work process in continual volume and this will lead you to understand and optimize your budget boundaries.

*{“So, for me, the major factors for that would be the resources, the scale. Because when we talk about small and medium sized enterprises, that becomes sometimes a challenge because maybe you don't have the capacity to have a full team running your marketing. So, you need to think about how you optimize the resources you have and how you can scale it without maybe the need of hiring more people”. (1st Interview, female)}.*

One of the main contributions that we have gained is that one of the Participants has added risk-taking as a dimension of EM, she argued that the SM projects are facing many threats during their establishment stages and along with their durability in the market, thus, managing this threats and risks can remind you to be unique from competitors.

*{“In entrepreneurial marketing, I see the importance of taking risks as long as you have opportunities, as long as they are small projects, you can see the risks to be unique from competitors outside the framework”. (2nd Interview, Female)}*.

According to the FGDs, this time all participants has come up with an additional dimension "Value creation" which is initially consider core dimension according to the literature see (Fig. 1:1 Sadiku-Dushi, et al., (2019), Becherer, et al., (2012). they clarified that every firm should offer a specific value to be transferred to the customers.

*{“Also, a good factor that you should bring with you is a value creation that your business should have a value to represent”. (FGDs, Female2)}*.

*{“In my opinion when you are entering a new market, or you are entering a new business as an entrepreneur I think one of the most important think that you need to know about how to sell your product and also you need to know your target market and the value that you will provide to your costumers” (FGDs, Male 2)}*.

Based on the same question, we found two interviewees have explained that EM is based on opportunities and how you can get the advantage of it and the entrepreneur should be skillful to create new opportunities.

*{“The second thing is how can we take advantage of opportunities in modern fields, especially through the process of marketing and change, and relying on quality. It can be according to the skills. These can be the foundations.” (3rd Interview, M)}*.

Based on the ongoing development for the scenario question consequences, the following are some potential advantages and benefits generated throughout the discussion for each of these three dimensions:

### **Customer Intensity:**

*{“I believe that Customer Intensity can rapidly increase customer loyalty and retention and can assist in positive word-of-mouth referrals and PR.” (2nd Mini-FGDs, Male 1)}*.

*{“For me as a customer representative this dimension improve customer satisfaction and NPS scores.” (2nd Mini-FGDs, Female)}*.

*According to my experience in the firm focusing on customer could help to reach higher revenue and profits due to repeat business and cross-*

*selling opportunities this can assist also to get more accurate customer personas and targeted marketing.” (2nd Mini-FGDs, Male 2)}.*

### **Focusing on Opportunities:**

*I think it increase innovation and agility in response to market changes and can explore new idea and new market.” (2nd Mini-FGDs, Female)}.*

*For me focusing on opportunity can improve scalability and diversification of products or services. (2nd Mini-FGDs, Male 2)}.*

*I think there are many benefits for focusing on opportunity I can mention for example Improve competitiveness and market share, higher rate of ROI, profitability, enhance reputation and brand image. (2nd Mini-FGDs, Male 1)}.*

### **Risk Management:**

*{“I think managing any risk for the firm can minimizing potential losses or damages to the company, moreover, can represent a protection of company assets and resources.” (2nd Mini-FGDs, Male 1)}.*

*{“Risk management in the firm is important to Improve compliance with legal and regulatory requirements also a creation of a more stable and predictable business environment.” (2nd Mini-FGDs, Male 2)}.*

*{“I believe that managing risk can provide a heighten confidence and trust of stakeholders, investors, and customers.” (2nd Mini-FGDs, Female)}.*

Overall, each of these measures can support a business in thriving and succeeding in its sector. A corporation can develop a more sustainable business model and lay a better foundation for long-term growth and profitability by modifying consumer intensity, focusing on opportunities, and managing risks effectively.

### **Second Theme: Technological capabilities (TCPs)**

- Do you think that technological capabilities can play the moderator role between entrepreneurial marketing and firm performance? If yes, why do you think it is important?

Throughout the discussions, we have observed that all participants unanimously agreed that TCPs are important to play the moderating role between entrepreneurial marketing and firm performance, one of the participants said it is important to control and likely to make a positive impact on the relationship between two factors. while another participant has compromised that TCPs can play a moderating role since it is based on innovation when it comes to EM.

Likewise, a third participant has said that utilizing TCPs is highly essential for SMEs which helps you to optimize the firm performance and assist you to achieve your work efficiently instead of doing it manually. It can

also help measure the firm's track and standardize the firm process as well. Following are some quotations from the discussions:

*{“it’s highly important because maybe something I mentioned in the first point is when you have limited resources because of the scale of the business and the corporate year and even it’s important in a corporate level, but for SMEs, it’s highly important that you would know what you are doing and how it’s performing for you”. (1st Interview, Female)}*

*{“I think technology and co-innovation can help the firm so you can come up with technology solution and its benefits you so you can grow up and evaluate and develop your firm process, and this will lead you to efficiency in the work in the outputs and so on therefore, TCPs is very beneficial” (FGDs, Female 2)}.*

*{“Definitely yes, using technology, gathering data or information will be easy to sort them out, analyzing them in the basic stages, it will be more accurate and easier than the traditional way” (Mini-FGDs, Female 2)}.*

*{“Based on my knowledge, I think that technological capabilities can play a moderate role in linking entrepreneurial marketing with firm performance. Because technological innovation can help firms to develop new products, enhance existing ones, and improve processes, which can result in increased performance. Entrepreneurial marketing, on the other hand, can help firms to identify new market opportunities and create customer value. Therefore, combining these two factors through technological innovation can lead to better firm performance.” (2nd Mini-FGDs, Male 1)}.*

*{“I agree, because TCPs are important to explore and utilize new models and new opportunities for the firm.” (2nd Mini-FGDs, Female)}.*

- If you had to pick one factor which is most important to you, what are the other dimensions of TCPs you think can give best interactions and effectiveness beside innovation.

By asking this question we intend to investigate and explore more dimensions of TCPs that can assist extend adaptation from the new dimensions. Thus, a respondent explained that utilizing technology in business can provide more security to keep your resources and information safe and away from your competitors.

*{“Other factors like security and maybe enjoyment and the risk you can face if you are using a technology” (Mutual Interview, Female 2)}.*

Another participant addressed about how to be skillful and can do a job and work wherever you are, and this argument we can see how it was efficient in real practice during the COVID-19 period. Therefore, it considers as technologies transformation to keep works constantly.

*{“the ability to work remotely so you can optimize like the resources you have, so you get the best of the best. You're not limited to a geographical*

*limit. So, technology starts with the equipment that helps you and the software that help you optimize whatever job you're doing” (1st Interview, Female)}.*

With the same line, another respondent has assumed that communicating technologically can be one of TCPs dimensions because periodically you need to keep in contact with your customer to know his extended needs and wants.

*{“Communication. Because we are talking about the technological aspect, whenever he is in contact with the customer and knows the extent of his needs, this affects entrepreneurial marketing. According to what we are talking about small companies.” (2nd Interview, Female)}.*

We have also obtained a new dimension for TCPs throughout FGDs. Respondent contributed that artificial intelligence "AI" will give the firm good engagement, and good interactions especially since we are come up with the technology in everything.

*{“Maybe the use of artificial intelligent (AI) will gives you good engagement, good interactions specially we are come up with the technology in everything.” (FGDs, Female 2)}.*

*{“I can contribute that Research and Development Capability: This dimension focuses on an organization's ability to develop new technologies and improve existing ones through research and development activities. Also, Technological Acquisition: This dimension focuses on an organization's ability to acquire external technologies through partnerships, licensing, or unions and purchases.” (2nd Mini-FGDs, Female)}.*

*{“I think the other dimensions for TCPs are the ability of an organization to generate new business models that take advantage of technical advancements and add value for consumers and shareholders. Other dimensions can be the ability of the firm to quickly adjust to shifting market conditions, customer wants, and technology improvements by saying the focus of the agility and flexibility dimension.” (Mini-FGDs, Male 1)}.*

### **Third theme: Firm performance (FP):**

- What are the main dimensions or measurements of the firm performance that you can suggest being adapted by this study?

In this context we designed to explore in depth the FP elements, Thus, most of the participants have agreed that financial performance is most important measurement that firms strive to achieve, and this can help firms evaluate their progress and the proceed levels they reached in certain time.

*{“I think when we had to measure his performance. I think the most important one or the most important factor is the financial performance. Because this the only way he can measure is not the only way or maybe the important one in measuring his success as a new or established company or*



*firm. So, I think the financial performance will be the factor". (Mutual Interview, Female 2)}.*

*{“One of the most important measurements is financial performance this includes metrics such as revenue, profit, return on investment (ROI), and shareholder value. The second important measurement is: Customer satisfaction this measure shows how well the company meets the needs and expectations of its customers.” (2nd Mini-FGDs, Male 2)}.*

*{“I think Operational efficiency: This let the firm to know the effectiveness and efficiency of internal processes and operations. I can also add employee satisfaction: This can measure how satisfied and engaged employees are with their work and the company.” (Mini-FGDs, Female)}.*

- Based on the previous discussion we have developed the questions sicario to adapt revenue and sustainability as a measurement for FP, one of the participants has agreed that revenue and sustainability can be an appropriate measurement for FP.

*{“I think yes because as I said before revenue or profits is one of the business establishment reasons. Obviously, this business logic will be followed by sustainability in order to keep growth and preserve a reliable market share among competitors. This can vastly extend the firm’s life cycle.” (FGDs, M1)}.*

whereas to of the respondents have accepted revenue to be adopted by SMEs in Sudan but in terms of sustainability they do not feel the same way.

*{“Absolutely, especially here in Sudan if you are not generating revenue first of all you cannot be sustained in the market by the way, the sustainability related to revenue here in Sudan. If you do not get a revenue, you cannot sustain in the market and you fail so I think it’s an important dimension for measuring FP.” (FGDs, Male 2)}.*

One of the participants has argued that sustainability is not an appropriate measurement for SMEs due to their small operations and they are still in the risk line, so they are not aware of being sustained as a large company.

*{“Actually, sustainability I do not think can be an appropriate dimension for SME due to their small enterprise, but revenue may be an appropriate dimension for measuring FP defiantly it will be.” (FGDs, Female2)}.*

Furthermore, one of the respondents indicated that growth can be one of the FP measurements because every entrepreneur spends some expenses and invests in growing his firm in the future.

*{“I think if I can express myself well, I think the growth that they are. Because sometimes he can invest his returns on in growing his company”. (Mutual Interview, Female 2)}.*

The other dimension that has been generated throughout the discussions is customer satisfaction. In this context more than two participants



have accepted that customer satisfaction can be an accurate measurement for FP, they expressed that any business opposed to getting a considerable market share among competitors, this logic can be achieved by beginning with customer acquisition and customer retention to keep them for a long term and then gain their loyalty for a firm.

{“It starts with customer acquisition because that's the main goal of any business that needs to be tracked with the right tools as well. Customer retention. How long is the customer staying with you and why they're leaving if in case they left, then you mean here customer satisfaction. Yeah, it's a work as customer satisfaction as well”.

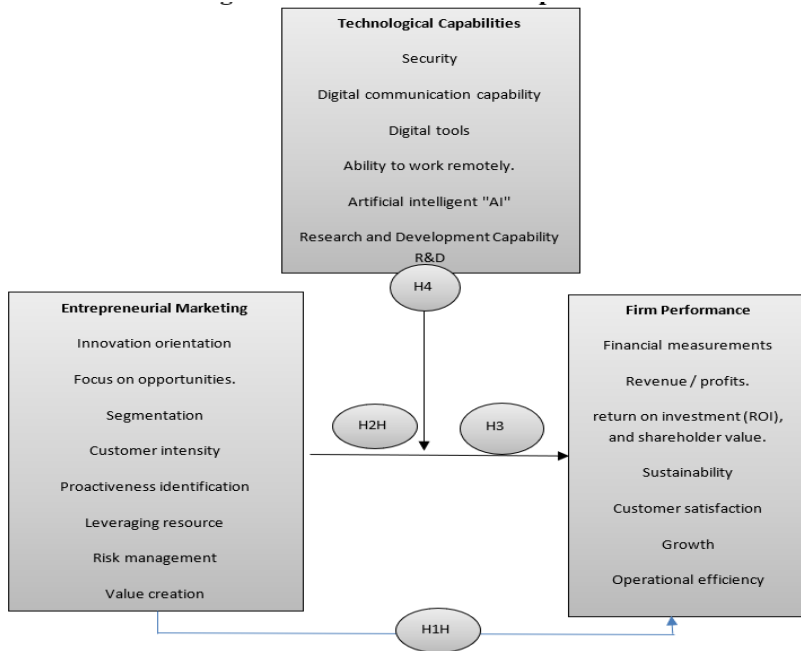
{“the second measurement should be satisfaction in the two sides the costumer side and in the employee side and this all will complete the picture of your vision.” (FGDs, Female 2)}.

### 3.5.3. Summary of thematic analysis

Table 3.5.3 Presents the generated multidimensional findings for entrepreneurial marketing, technological capabilities, and firm performance.

First theme	Dimensions	Second theme	Dimensions	Third Theme	Dimensions
Entrepreneurial marketing	Innovation orientation	<b>Technological capabilities "TCPs"</b>	Security	<b>Firm Performance "FP"</b>	Financial performance: Revenue/profits. return on investment (ROI), and shareholder value
	Focus on opportunities		Digital communication capability		Sustainability
	Segmentation		Digital tools		Customer satisfaction
	Customer intensity		Ability to work remotely		Growth
	Proactiveness identification		Artificial intelligent "AI"		Operational efficiency
	Leveraging resource		Research and Development Capability R&D		Employee satisfaction
	Risk management		Technological Acquisition		
	Value creation		New business models		
	Agility		Agility and Flexibility		
	Networking				

*Resource: Own editing, based qualitative discussions.*



**Figure (6.4.1).** Developed research model,  
 Source: own editing based on qualitative thematic analysis.

## Conclusion

The findings we have obtained throughout the discussions have generated and integrated multidimensional and frequent intersections between the main elements of EM, FP, and TCPs. These investigated contributions can help researchers for further exploration by addressing and experimenting with the patterns of EM and FP in the future.

As usual at the end of every discussion we present our research pre-model for the participants to get additional information and to see how the model is accurate. All participants have accepted the research pre-model and some of them had suggested additional dimensions to be included in the final model, However, to be more precise they have accepted that Innovation orientation is more likely to be incorporated for the EM as it is beneficial for new ventures to create innovation, it is particularly valuable to adopt EM as a strategic posture. (Bachmann, J. T., Ohlies, I., & Flatten, T. (2021); R. Jones, J. Rowley (2011)). Innovation orientation is also recognized as an important success factor for new ventures (Rosenbusch et al., 2011).

It is widely accepted in the literature on the mainstream entrepreneurship network that building relationships with external organizations enables entrepreneurs to have access to vital resources for the creation and development of new ventures. The concept of "marketing by networking" has also indicated the expanding use of networking by business

owners to market their businesses, goods, and services. According to that, we intend to employ networking in our study to address the impact of the manager and an entrepreneurs' relations in their business and how it can assist in superlative achievement in line with many studies (O'Donnell, A. (2014).; Jones, R., Suoranta, M., & Rowley, J. (2013). ; Gliga, G., & Evers, N. (2023).

According to thematic analysis, we further intend to employ "Networking" on Sudanese SMEs which refers to the real communication process with contacts in the network; it is about individuals and businesses collaborating and working together via the sharing of knowledge, ideas, and technology. Small and medium-sized enterprises (SMEs) and entrepreneurs will likely have some sort of network that includes every aspect of the network domain, encompassing personal contact, social, business, industrial, trade, and marketing networks.

Entrepreneurial marketing by networking is used by SME entrepreneurs to develop, enhance, and support all aspects of the marketing activity by networking with customers and potential customers and by industry and business networks (specifically about promotions), word-of-mouth communication, and information-gathering activities. Gilmore, A., & Carson, D. (1999).

Drawing on the resource-based view (RBV) of the firm this study attempts to investigate how technological communication capability (TCC) capability drives a firm's performance through influencing the effectiveness of communication campaigns and the firm's market-based performance. As well as we attempt to address the influence of the Ability to work remotely and artificial intelligence (AI) as a technological capability to support the positive impact on firm performance by utilizing entrepreneurial marketing. On the other hand, there was a suggestion from participants regarding customer/client satisfaction to be utilized as an additional measurement for FP. In this manner, the focus of our study is on an enterprise's employees and an entrepreneur therefore, the study is built to adapt and to measure the FP efficiency and effectiveness.

Additionally, and based on the discussion's findings we can promote the literature on EM by generating numerous new dimensions such as Segmentation which can be a significant new addition acquired from the discipline of marketing, likewise the dimensions of agility and flexibility. These two dimensions can be a considerable contribution to the field of entrepreneurial marketing which need more discussions and investigation to explore in detail the new EM model. According to Selvam, et, al. (2016), in their multidimensional model regarding firm performance, (FGDs, and F2) have come up in line that customer/client satisfaction is more accurately to be adopted by this research instead of sustainability, especially in the market of SMEs in Sudan.

Based on the literature, the final research model we have developed and generated from the discussions seems more logical specifically in terms of entrepreneurial marketing “EM” because it matches and goes along with the entrepreneurial marketing “EM” model (Dimensions) that resulted from Sadiku-Dushi, et al., (2019), Becherer, et al., (2012). figure (1:1). On the other hand, we also found that the dimensions we have adopted for the firm performance FP are coherently alike, according to the multidimensional model of FP which contains customer satisfaction and revenue/profit as the main dimension. Selvam, et. al. (2016). Consequently, the qualitative data we collected employ inductive thinking or induction reasoning since it moves from specific (questions) about research occurrences to broader models, generalizations, and theories.

During the discussions there was also a new addition to the field of EM, Participants contributed three additional dimensions they were as following: (Branding and promotion, Adaptability, and Passion and dedication) these factors may reflect as inputs to other main factors in the field of entrepreneurial marketing. Although these generated dimensions do not exist in the EM literature but rather, we recommend further research to address, examine, and investigate these new factors to explore the new EM model and perspective in both disciplines marketing and entrepreneurship alike. To conclude, based on the qualitative-thematic analysis and according to the previous studies that have addressed entrepreneurial marketing the following are the chosen dimensions and final research model for our quantitative phase of this study. Based on the final model we can further improve and develop our research questions, objectives, and hypothesis.

### **Limitations:**

Several potential limitations are pertinent to this study which impose some clarification. One of the limitations is that we faced during the discussions that the reality of the field of entrepreneurial marketing is still not widely known and still unknown for many entrepreneurs in Sudan therefore the participants do not have much information or an integrated idea about it. Moreover, and due to personal and technical reasons, some participants were unable to attend and complete the discussion on many occasions so that is why we have implemented other qualitative methods such as (Mini focus group discussions, mutual interviews, individual interviews, and at last focus group discussion), although we have sent out the invitation letters for more than 25th individuals, but only 15th of them have responded and conducted the discussions.

## Authorship

1. **1<sup>st</sup> author**, Conceptualization, Data curation, Formal Analysis, Investigation, Visualization, Methodology, Writing – Original Draft, Writing – Review & Editing.
2. **2<sup>nd</sup> author**, Methodology, Writing – Original Draft, Writing – Review & Conceptualization, Supervision.

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**Appendix 1.** The profile of the respondents from different Sudanese SMEs.

No	Participants	Position	Field	Location
1	Mini-FGDs, Female 2	Executive manager	Industry	Khartoum-SDN
2	Mini-FGDs, Male	Marketing Consultant	Industry-Giad motors	Khartoum-SDN
3	Mini-FGDs, Female 1	Associate professor	Service-University of Khartoum	Khartoum-SDN
4	Mutual interview Female 1	Associate professor	Service University of Khartoum	Khartoum-SDN
5	Mutual interview Female 2	Associate professor	Service University of Khartoum	Khartoum-SDN
6	1 <sup>st</sup> Interview	An entrepreneur	Service Marketing Agency	Khartoum-SDN
7	2 <sup>nd</sup> Interview	A lecturer	Service University of Kordofan	Khartoum-SDN
8	3 <sup>rd</sup> Interview	Associate professor	Service University of Kordofan	Khartoum-SDN
9	FGDs, Female 1	An entrepreneur	Service Delivery	Khartoum-SDN
10	GGDs, Male 1	An entrepreneur	Industry- soap manufactory	Khartoum-SDN
11	FGDs, Male 2	Head of marketing	Service-Sudanese post company	Khartoum-SDN
12	FGDs, Female 2	Brand and communication professional	Service Sudani-telecom	Khartoum-SDN
13	2 <sup>nd</sup> Mini-FGDs, Male 1	Representative of marketing and Sale Unit	Industry Giad motors	Khartoum-SDN
14	2 <sup>nd</sup> Mini-FGDs, Female	Customer representative	Matiz factory For groceries	Khartoum-SDN
15	2 <sup>nd</sup> Mini-FGDs, Male 2	Sales manager	Mhameed's furniture, décor and building supplies	Khartoum-SND

## Appendix 2. Trustworthiness verification finding: Various qualitative methods criteria

Measures of Trustworthiness	Methods and verification strategies
<p>1. Credibility:</p> <ul style="list-style-type: none"> <li>● Adequacy of the research methods and its components.</li>   <li>● Triangulation of data method</li>   <li>● Triangulation of respondent</li>   <li>● Reflective explanation</li> </ul>	<p>The justification for choosing a qualitative approach is explained along with the research's objective and background.                      The research methods have investigated what they claim to.                      The study explained the general research strategy that was designed to accomplish the study's objectives.                      The sampling approach was wisely chosen.</p> <p>The researcher utilized multiple methods for collecting the data.</p> <p>The study employed respondents from different disciplines.</p> <p>The researcher considered the respondents' emergent thinking and impressions during the discussions.</p>
<p>2. Transferability:</p> <ul style="list-style-type: none"> <li>● How effectively a single study's outcomes from one context will transfer to other contexts</li> </ul>	<p>To broaden the findings' applicability, data were gathered across a variety of contexts and times.                      Data from each respondent was used to represent theoretical concepts.</p>
<p>3. Dependability:</p>	<p>We highlighted the numerous processes outlined in our methodology section and explicitly described our research processes to create an audit trail.                      We further increase the transparency of our research process by including tables that explain how the coding scheme was theoretically derived, how it was operationalized, and how it performed.</p>
<p>4. Confirmability:</p> <ul style="list-style-type: none"> <li>● Reflexive analysis</li> </ul>	<p>The goal is to make sure that the results are independent from the researcher's biases.                      The researcher attempted to accurately record our concerns and biases throughout the study process as part of the reflective analysis.</p>