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## Article

# Show me your networks and i'll tell you your future: entrepreneurial networks and SME performance

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*Suggested Citation:* John, Elia (2024) : Show me your networks and i'll tell you your future: entrepreneurial networks and SME performance, Cogent Business & Management, ISSN 2331-1975, Taylor & Francis, Abingdon, Vol. 11, Iss. 1, pp. 1-13,  
<https://doi.org/10.1080/23311975.2024.2363433>

This Version is available at:

<https://hdl.handle.net/10419/326322>

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To cite this article: Elia John (2024) Show me your networks and i'll tell you your future: entrepreneurial networks and SME performance, Cogent Business & Management, 11:1, 2363433, DOI: [10.1080/23311975.2024.2363433](https://doi.org/10.1080/23311975.2024.2363433)

To link to this article: <https://doi.org/10.1080/23311975.2024.2363433>



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Published online: 05 Jun 2024.



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# Show me your networks and i'll tell you your future: entrepreneurial networks and SME performance

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## ABSTRACT

The main objective of this study is to examine how entrepreneurial networks influence Small- and Medium-sized Enterprises (SMEs) nonfinancial performance. By exploring nonfinancial dimensions of SME performance influenced by entrepreneurial networks, the study contributes to the development of a more comprehensive theoretical understanding of the role of networks in SME success. Entrepreneurial networks involve social, business, and supporting networks, while nonfinancial performance encompasses customer perspective, internal business processes, and learning and growth. A study used a survey method to collect primary data from 278 SMEs. To assess the impact of entrepreneurial networks on SME performance, a study employed multiple linear regression models while considering the influence of control variables such as the entrepreneur's age, sex, and firm size. Overall, the findings indicate that social networks have a significant positive relationship with customer perspective, business networks and supporting networks are statistically significant and positively associated with internal business processes, and supporting networks are positively and significantly related to learning and growth. This implies that, SMEs with owners who are embedded in a web of entrepreneurial networks have a strong chance of achieving success in their businesses beyond financial measures. The study contributes by extending the body of knowledge regarding Resource Dependence Theory (RDT) and presenting valuable evidence for understanding the importance of networking to SME performance in a context of developing countries such as Tanzania. It also provides insights to policy makers to design policies and programs that foster the creation and maintenance of supportive network environments for SMEs.

## ARTICLE HISTORY

Received 1 November 2023  
Revised 23 May 2024  
Accepted 25 May 2024

## KEYWORDS

Entrepreneurial networks;  
SMEs; SME performance;  
non-financial performance

## REVIEWING EDITOR

Eric Liguori, Florida State  
University, United States



## SUBJECTS

Business, Management  
and Accounting;  
Entrepreneurship and  
Small Business  
Management; Marketing

## 1. Introduction

The competitive and uncertainty nature of market conditions are driving Small and Medium Enterprises (SMEs) to constantly look for several tactics to survive, compete and grow. Such tactics include the formation of network relationships that improve SMEs' innovative and competitive capabilities in an ever-changing business environment (Fatima & Bilal, 2020; Franco et al., 2016; Lin & Lin, 2016). Network relationships frequently serve as a mechanism for SMEs to overcome their intrinsic challenges, including the lack of key resources that are important for enhancing SME performance (Dwumah et al., 2024; Jeong et al., 2019). More specifically, networks provide SMEs with an opportunity to access a variety of resources, such as capital, market information, market knowledge, and new business opportunities (Partanen et al., 2020). Therefore, creating appropriate social networks (relationships) among SMEs entrepreneurs can be regarded as the basis for a competitive edge for their firms (Fatima & Bilal, 2020; Franco et al., 2016).

A vast amount of research on networking and business performance relationships has revealed that networks lead to better SME performance (Dwumah et al., 2024; Fatima & Bilal, 2020; Franco et al., 2016;

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Jeong et al., 2019). Networking activities in the form of social groups, clusters, alliances (Sorenson, 2018), and trade shows (Gerschewski et al., 2020) have become common among entrepreneurs. Nonetheless, there is limited exploration of nonfinancial dimensions of SME performance within the context of networking (Tiwasing et al., 2022). While previous research has extensively examined the impact of entrepreneurial networks on financial indicators such as sales and profitability, there is a gap in understanding the relationship between entrepreneurial networks and SME performance in relation to other important dimensions of performance (Vătămănescu et al., 2022) particularly from the perspective of the Balanced Scorecard (BSC) model. The Balanced Scorecard model is widely recognized for its holistic approach on measuring business performance (Kaplan & Norton, 2005); however, existing studies on entrepreneurial networks and SME performance have not explicitly incorporated the BSC framework to assess nonfinancial performance measures. Therefore, the study aims to fill this gap by integrating the nonfinancial dimensions from the BSC model that are influenced by entrepreneurial networks. By doing so, the research seeks to provide a more comprehensive understanding of how entrepreneurial networks contribute to SME success across multiple dimensions as measured by the BSC perspectives (i.e. customer perspective, internal business processes, and learning and growth).

In addition, most research related to the nexus between networks and SME performance has been undertaken in advanced economies, with limited focus given to research in developing nations (Cerviño et al., 2024; Dwumah et al., 2024; Thrikawala, 2011). Moreover, according to Bhuiyan and Imam (2012), the resulting effect of networking relationships on business outcomes and processes is contextual and should be considered very cautiously. This is also supported by Shaw (2006), who suggested that the importance of networks depends on the culture, sector, and community. Hence, generalising the findings to other areas and industries might be misleading. Thus, it is essential to evaluate the effects of network relationships in the Tanzanian context. Similarly, building on the Resource Dependency Theory (RDT), which was originally formulated based on observations of large and formal organizations, this study attempts to show how the theory can also be applicable and adequately capture dynamics of networking and resources dependencies in SME context. The study argues that in order to grow and sustain their performance, SMEs must pull external resources existing within different types of entrepreneurial networks that they are part of.

Considering these arguments, this study investigates the influence of network relationships on nonfinancial performance of selected manufacturing SMEs in Tanzania. The network relationships referred to here are of three types, namely, social, business, and supporting networks, collectively termed 'entrepreneurial networks'. This network typology approach is more synchronized and appealing compared to previous research, and thus adds to the originality of this study. Therefore, the main objective of this study is to examine the impact of entrepreneurial networks on nonfinancial SME performance. By extending the focus beyond financial indicators, the study seeks to provide a more broad analysis of the role of entrepreneurial networks in driving SME success. Hence, the research question guiding this study can be restated as follows: *how do entrepreneurial networks influence SME performance beyond financial indicators and what are the non-financial dimensions through which these networks contribute to SME success?*

The rest of the paper is organised as follows: first, the theory on which this study is based is presented, and then continues with defining and classifying entrepreneurial networks. Afterward, the relation between entrepreneurial networks and SME performance is presented. This is followed by explaining the methods applied to conduct this study, presentation as well as discussion and conclusion of the study findings. From there, the theoretical and practical implications are presented. Finally, the study limitations and suggestions for future research are indicated.

## 2. Literature review and hypotheses development

### 2.1. Resource Dependence Theory

The Resource Dependence Theory (RDT) is a theoretical framework that emanates from strategic management and organizational studies. Developed by Jeffrey Pfeffer, Gerald R. Salancik, the theory contends that no organization is resource-sufficient (Pfeffer & Salancik, 2015; Salancik & Pfeffer, 1978). Thus, it argues that in order for any organization to be able to maintain its viability, grow and accomplish its

goals, it must seek external resources from other actors such as customers, suppliers, competing firms and government agencies (Abdurakhmonov et al., 2021; Pfeffer & Salancik, 2015). RDT suggests that to achieve this resource dependence, organizations attempt to use several strategic actions. One among these strategies is networking activities which may involve social relationships (i.e. family members and friends) and interfirm relationships (e.g. alliances/joint ventures) (Abdurakhmonov et al., 2021). Consequently, organizations must actively create relationships and networks with these external actors to obtain critical resources like capital, raw materials, information as well as knowledge and expertise. In general, this theory suggests that entrepreneurs have to use their entrepreneurial networks to get the resources they need to support their business and enhance business performance (Pomegbe et al., 2020). Therefore, it can be suggested that, entrepreneurs must develop and sustain entrepreneurial networks with key stakeholders to gain access of critical resources, ultimately enhancing SME performance. Nevertheless, the theory's applicability to SMEs is limited, as these organizations often operate in different contexts with distinct resource constraints and networking dynamics.

## 2.2. Definition of entrepreneurial networks

Originally, networks and networking concepts emerged from sociology and anthropology and subsequently found applications in the fields of organizational behavior and business (Gibson et al., 2014; Peverelli et al., 2011; Premaratne, 2002). Social relationships are familiar to any community or culture (Allen, 2019; Gu et al., 2008). People emanate and live in social settings where they cooperate with others in various social endeavors (Allen, 2019; Thoits, 2011). Therefore, as with any person, an entrepreneur engages in a diverse range of interactions with people, including family members, to business acquaintances. Consequently, contemporary researchers acknowledge that entrepreneurs and their ventures rely on other external stakeholders to accomplish their objectives instead of perceiving them as self-sufficient individuals capable of performing all activities individually (Fatima & Bilal, 2020; Klyver et al., 2008). Hence, networking and social relationships are becoming increasingly central research areas in the field of entrepreneurship, especially for SMEs.

According to *Longman Dictionary of Contemporary English*, the word network refers to 'a group of people and/or organisations that are connected or that work together'. In general, networks are referred to as 'connections and interactions between individuals, groups, and organizations' (Gibson et al., 2014; Širec & Bradač, 2009). For a business venture, networks include all contacts that an entrepreneur formally or informally creates, develops, and maintains with several actors, such as business associates, firms, individuals, associations, and institutions, to achieve mutual benefits and sharing of resources and (Franco et al., 2016) as well as identifying business opportunities and obtaining identity (Lin & Lin, 2016). Since entrepreneurs or business owners are mainly responsible for composing these networks, these relationships can also be termed entrepreneurial networks (Abu-Rumman et al., 2021; Fernandes & Ferreira, 2022; Premaratne, 2002). Entrepreneurial networks consist of four main elements: actors, resources, actions, and relationships.

## 2.3. Entrepreneurial networks typology for SMEs

Several approaches have been used to classify the network links between ventures and people. Networks can vary based on the nature of the participants involved and their relationships or interactions. Kusumawardhani et al. (2009) make the case that networks can be categorized based on the meaning and underlying reasons for interactions. For instance, Faroque et al. (2017) recognized two forms of networks: social or personal networks and inter-firm networks (business networks). A social network comprises actors with whom an entrepreneur has direct and/or indirect informal relationships. These networks may involve relatives, close friends, customers, distributors, suppliers, and creditors who an entrepreneur regularly meets to exchange resources, such as materials, capital, knowledge, and advice, as well as receiving moral support (Faroque et al., 2017). Business networks consist of formal and collaborative business relationships formed to access strategic resources that are not within the control of an entrepreneur (Milovanović et al., 2016). Through business networks, firms can obtain professional advice, decrease risk and production costs, and increase flexibility (Milovanović et al., 2016) and innovation (Faroque et al., 2017).

Other scholars have classified entrepreneurial networks into three forms: exchange, communication, and social networks. Exchange networks are concerned with commercial transactions between suppliers and customers. Communication networks include people and institutes with which small businesses have non-commercial relationships that provide information and links about business events and trends. These connections may include bank consultants, government agencies and other related entities. Social networks contain informal and formal contacts, ranging from relatives, friends, and other individuals to assist an entrepreneur (Bhuiyan & Imam, 2012; Felzensztein et al., 2010; Jeong et al., 2019). Finally, other studies categorize networks into three types: inter-firm, social, and supporting networks. Inter-firm networks involve relationships with both large and small businesses and include competitors. Social networks encompass connections between family members, close friends, and acquaintances. Supporting networks mainly consist of organizations, such as government bodies or agencies, Non-Governmental Organizations (NGOs), financial institutions, and other institutes that provide support and assistance specifically for SMEs (Milovanović et al., 2016; Ongonga & Abeka, 2011; Thrikawala, 2011).

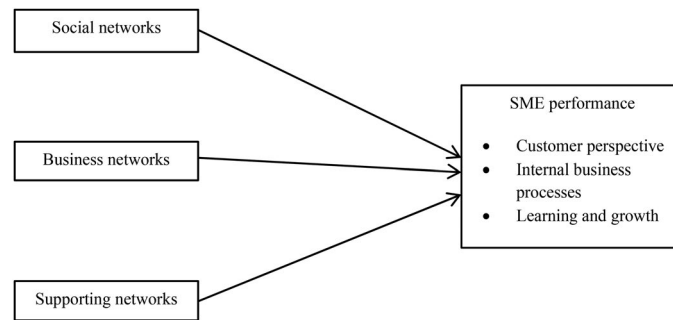
In summary, the extant literature indicates that SMEs tend to establish and maintain entrepreneurial networks that can be classified into three main categories: social networks, business networks, and supporting networks. These categories contain almost all types of networks formed by SMEs to facilitate entrepreneurial activity. In line with this perspective, this study classifies entrepreneurial networks according to these three forms. This categorization allows for a systematic examination and analysis of the different types of networks that entrepreneurs engage in for their business activities. However, it is important to note that these networks can overlap, meaning that connections can exist in all types of networks. However, the distinguishing factor lies in the underlying purposes and objectives of these relationships. The nature of relationships in social networks is primarily driven by personal connections and social interactions, business networks primarily revolve around business-related motives, and supporting networks are mainly for providing professional support.

#### **2.4. Entrepreneurial networks and SME performance**

Several studies provide empirical evidence on the importance of networks in SME performance (Bucaioni et al., 2024; Fatima & Bilal, 2020). This is because of their role in facilitating access to resources that are not within a firm's reach (Franco et al., 2016; Pulka et al., 2021). Social and personal networks have a significant and positive influence on the financial outcomes of SMEs (Dar & Mishra, 2020). For instance, Neneh (2018) asserted that entrepreneurs who have social, business, and support networks are more likely to access key resources such as financial support, business information, and non-material support. Consequently, these resources enhance SME performance in terms of sales and profit. Likewise, Thrikawala (2011) is of the view that SMEs experience better sales performance due to the acquisition of finance, technology, skilled labor, advice, and raw materials from inter-firm networks, social networks, and supporting networks. According to Ge et al. (2009), the larger the size of entrepreneurial networks, the more resources a firm can acquire, leading to better performance in terms of profitability, sales, liquidity, market share, and new product development. It has also been postulated that small business owners who constantly engage with outside actors have a better chance of running successful enterprises in terms of sales, profit, and market expansion. This is because such contacts offer a steady and dependable supply of resources along with important positive effects on firm operations of the firms (Abeka, 2011).

Kuépié et al. (2016) confirm that the majority of prosperous small traders in relation to monthly profit owe much of their success to their strong affiliation with social networks. Watson (2007) further stressed this by linking the survival and growth of a firm to the presence of entrepreneurial networks. Širec and Bradač (2009) posit that firms that engage in regular collaborations with research, educational, and supportive institutions as well as end users, suppliers, and agents experience growth in their income and assets. This type of cooperation allows ventures to achieve better business performance. Through social networks, it is simple to access the financial, intellectual, and cultural resources that are crucial for effective business performance. Furthermore, the importance of networks cannot be understood for entrepreneurs, as they synergistically contribute to ensuring efficient business performance and maintaining a lasting competitive advantage (Akintimehin et al., 2019). Finally, through the trust created by the history





**Figure 1.** The conceptual model.

of social relations, entrepreneurial networks enhance pricing and selling capabilities, resulting in positive overall firm performance (Pratono, 2018).

In summary, it appears clear that entrepreneurial networks are positively linked to business performance (see Figure 1). Nevertheless, as previously emphasized, most existing research on entrepreneurial networks and business performance has concentrated on financial metrics. Limited empirical research has explicitly investigated how social relations influence nonfinancial measurements within the SME domain. Consequently, this study proposes the following three hypotheses:

- H1: Social networks have a positive relationship with SME performance.
- H2: Business networks have a positive relationship with SME performance.
- H3: Supporting networks have a positive relationship with SME performance.

### 3. Methods

#### 3.1. Sample and data collection

The study population consisted of manufacturing SMEs located in Tanzania's two largest cities: Dar es Salaam and Mwanza. The choice of these cities was influenced by specific factors. Firstly, Dar es Salaam, being the country's commercial hub, hosts around 70 percent of all industries in Tanzania, encompassing a wide range of entrepreneurial activities, from large corporations to small businesses (BEKEFI, 2006). In addition, the city is home to a substantial number of manufacturing SMEs, which constitute the primary interest of this study (Olomi, 2009). Second, Mwanza, as Tanzania's second-largest city in terms of population size and commercial and industrial activities, boasts a concentration of SMEs (Mbura, 2007).

Before embarking into data collection exercise, ethical approval for this study was obtained from the ethical and research committee at The University of Dodoma known as Institutional, Research, Review, Ethical Committee (UDOM-IREC). Furthermore, respondent's consent of their participation in the survey was verbally sought and presented at the beginning of the questionnaire. Respondent identities were kept anonymous, and all data sources were duly acknowledged in the study. A total of 278 SMEs were selected to collect data for this study. The study employed a survey method in which entrepreneurs from these SMEs completed self-administered questionnaires. Utilizing the simplified formula proposed by Israel (1992), the estimated sample size for this study was calculated by;

$$n = \frac{N}{1 + N(e)^2}$$

In this formula, 'n' represents the sample size, 'N' denotes the population size, and 'e' signifies the level of precision set at 0.05. Applying this formula to a sample population of 904, the resulting sample size is computed as 278.

$$n = \frac{904}{1 + 904(0.05)^2} = 278$$

In Tanzania, SMEs are categorized based on several measurements including the number of employees they have and their capital investment in machinery. From these two indicators SMEs are divided into micro, small, and medium-size enterprises. Micro enterprises are those having 1 to 4 employees and a capital investment of up to Tshs 5 million. Small enterprises employ between 5 and 49 individuals with capital investments ranging from Tshs 5 million to Tshs 200 million. Meanwhile, medium enterprises consist of businesses with 50 to 99 employees and capital investments ranging from Tshs 200 million to Tshs 800 million (URT, 2003).

### **3.2. Measures**

#### **3.2.1. Independent variable (entrepreneurial networks)**

The types of entrepreneurial networks were determined by surveying respondents and asking them about the kind and number of individuals, organizations, and institutes they engaged with regarding their business endeavors, resource assistance, and discussions related to their business activities such as market information, suppliers, and technology.

#### **3.2.2. Dependent variables**

The non-financial performance of businesses was assessed using three key indicators: customer perception, internal business processes, and learning and growth. These indicators were evaluated based on entrepreneurs' perceptions of their business. As defined by Kaplan and Norton (2005), customer perspective gauges how satisfied customers are with the organization's products or services. The internal business process perspective assesses the processes employed to create and deliver products and services aligned with customer expectations. The learning and growth perspective measures the initiatives and opportunities organizations provide their employees for learning and professional development in their respective fields. To measure these perspectives, all items were rated on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Respondents were requested to express their agreement or disagreement with each statement provided.

#### **3.2.3. Control variables**

To reduce the influence of external factors on SME performance, control variables were introduced into the analysis. These control variables were comprised of factors related to the entrepreneur (including gender, age, educational background, and work experience) and other factors related to the enterprise itself (such as age and legal status).

## **4. Findings**

### **4.1 Reliability and validity assessment**

Cronbach's alpha was used to assess the internal reliability and consistency of primary constructs. Cronbach's alpha is commonly used to measure the internal consistency. Gliem and Gliem (2003) recommend that when utilizing Likert-type scales, it is crucial to compute Cronbach's alpha coefficient for internal consistency for any scale or subscale that is being used. An alpha value above 0.70 is usually recommended (DeVellis & Thorpe, 2021). The values of Cronbach's alpha for business, social, and supporting networks were 0.731, 0.713, and 0.715, respectively. Similarly, scores of 0.716, 0.720, and 0.729 were observed for customer perspective, internal business processes, and learning and growth, respectively. A thorough process was performed to assess the content validity of this study. This process involved clear definitions of all key concepts in the study, reviewing the items to be evaluated, and the scales to be used. The questions within the measurement tool (questionnaire) adequately addressed the concepts related to entrepreneurial networks and the performance.

Before analyzing the relationship between variables, missing data were checked through descriptive statistics and they were not present in this study. Moreover, the study tested the assumptions of multiple linear regressions to ensure the validity of the results. Firstly, the assumption of linearity was examined



to confirm that the relationship between the independent and dependent variables is linear. This was assessed using scatter plots and confirmed linearity (Pallant, 2020). Likewise, the normality of the residuals was verified using values of kurtosis and skewness. From which all values were within the acceptable range of -3 and 3 (Brown, 2006). The values of VIF, on the other hand were less than 5 which support that the issue of multicollinearity among the independent variables was not problematic (Miles, 2014).

#### 4.2 Multiple linear regression results for entrepreneurial networks and customer perspective

The final fitted linear regression model in Table 1 examines the relationship between entrepreneurial networks and customer perspective. The results indicate a significant positive association between customer perspective scores and the mean scores of social networks ( $\beta=0.3585$ ,  $p=0.0576$ ) and support networks ( $\beta=0.1728$ ,  $p=0.0133$ ). In other words, having a larger social and supporting network size is likely to lead to an improvement in product and service quality as well as an increase in customer attraction and retention. Nevertheless, for business networks, the findings show a negative and statistically insignificant relationship with customer perspective scores ( $\beta=0.1766$ ,  $p=0.4461$ ). This suggests that, regardless of the size of a firm's business networks, it does not seem to have an evident impact on the attributes related to the customer perspective.

With regard to demographic variables, only firm size had a significant impact on customer perceptions. Enterprises with to 5-49 employees had a significantly higher average customer perspective score ( $\beta=0.1728$ ) than those with to 1-4 employees.

#### 4.3 Multiple linear regression results for entrepreneurial networks and internal business processes

Concerning the relationship between entrepreneurial networks and internal business processes, the results of the linear regression model in Table 2 indicate that the mean size scores of business networks ( $\beta=0.4717$ ,  $p=0.0162$ ) and supporting networks ( $\beta=0.2031$ ,  $p=0.0465$ ) were statistically significant and positively associated with internal business process scores. This implies that the use and formation of

**Table 1.** Entrepreneurial networks and customer perspective.

| Variables           | B       | S.E    | t     | p      |
|---------------------|---------|--------|-------|--------|
| Constant            | 3.9007  | 0.0805 | 48.47 | <.0001 |
| Social networks     | 0.3585  | 0.1879 | 1.91  | 0.0576 |
| Business networks   | -0.1766 | 0.2314 | -0.76 | 0.4461 |
| Supporting networks | 0.1728  | 0.0693 | 2.49  | 0.0133 |
| <b>Firm Size</b>    |         |        |       |        |
| 1-4 employees*      |         |        |       |        |
| 5-49 employees      | 0.1728  | 0.0693 | 2.49  | 0.0133 |
| 50-99 employees     | 0.0270  | 0.3097 | 0.09  | 0.9305 |

Note: \*Reference category.

**Table 2.** Entrepreneurial networks and internal business processes.

| Variables            | $\beta$ | S.E    | t     | p      |
|----------------------|---------|--------|-------|--------|
| Constant             | 3.1824  | 0.1119 | 28.45 | <.0001 |
| Social networks      | 0.1362  | 0.0972 | 1.4   | 0.1625 |
| Business networks    | 0.4717  | 0.1949 | 2.42  | 0.0162 |
| Supporting networks  | 0.2031  | 0.083  | 2.45  | 0.0465 |
| <b>Business type</b> |         |        |       |        |
| Food processing*     |         |        |       |        |
| Woodwork             | -0.4186 | 0.0979 | -4.28 | <.0001 |
| Textile              | -0.1871 | 0.0908 | -2.06 | 0.0404 |
| Ironwork             | 0.0463  | 0.1360 | 0.34  | 0.7339 |

Note: \*Reference category.

**Table 3.** Entrepreneurial networks and networks learning and growth.

| Variables            | $\beta$ | S.E    | t     | p      |
|----------------------|---------|--------|-------|--------|
| Constant             | 15.0954 | 0.3121 | 48.37 | <.0001 |
| Social networks      | −0.0181 | 0.0186 | −0.97 | 0.3318 |
| Business networks    | 0.0087  | 0.0093 | 0.94  | 0.3476 |
| Supporting networks  | 0.2498  | 0.1181 | 2.12  | 0.0354 |
| <b>Firm's age</b>    |         |        |       |        |
| 5-8 years*           |         |        |       |        |
| 9-12 years           | 0.2031  | 0.0830 | 2.45  | 0.0151 |
| 12+ years            | 0.0132  | 0.0853 | 0.16  | 0.8769 |
| <b>Business type</b> |         |        |       |        |
| Food processing*     |         |        |       |        |
| Woodwork             | 0.3753  | 0.1030 | 3.64  | 0.0003 |
| Textile              | −0.0865 | 0.0965 | −0.90 | 0.3712 |
| Ironwork             | 0.2871  | 0.1435 | 2.00  | 0.0465 |

Note: \*Reference category.

business and support networks by an entrepreneur can have a positive impact on the internal business processes of the firm.

In terms of demographic variables, only the type of business exhibited a significant relationship with internal business processes. The results demonstrate that textile and woodwork ( $\beta = -0.4186$ ) enterprises ( $\beta = -0.1871$ ) recorded significantly lower mean internal business scores than food-processing enterprises. Nevertheless, the average scores for ironwork enterprises ( $PE = 0.0463$ ) were not significantly different from those for food processing firms.

#### 4.4 Multiple linear regression results for entrepreneurial networks and learning and growth

A linear regression model was employed to examine the direct relationship between entrepreneurial networks and learning and growth while taking demographic variables into account. In the initial analysis, two demographic variables (age of the firm and type of business) were found to have a significant influence on learning and growth. The findings in Table 3 reveal that only the average score for the size of the supporting networks ( $\beta = 0.2498$ ,  $p = 0.0354$ ) is positively and significantly related to learning and growth. This suggests that an increase in the size of supporting networks has a positive effect on an enterprise's capacity to learn and expand.

Regarding demographic variables, firms aged 9-12 years ( $\beta = 0.2031$ ) had significantly higher average scores for learning and growth than those aged 5-8 years. Nonetheless, there was no significant difference in the average scores for learning and growth between firms aged 12 years or older ( $\beta = 0.0132$ ) and those aged 5-8 years. In relation to the type of business, the results indicate that woodwork firms ( $\beta = 0.3753$ ) and ironwork firms ( $\beta = 0.2871$ ) had significantly higher average scores for learning and growth than food-processing enterprises. On the other hand, textile firms ( $\beta = -0.0865$ ) did not exhibit a significant difference in their average scores for learning and growth compared to food processing enterprises.

## 5. Discussion and conclusion

This study aims to extend the current understanding of entrepreneurial networks and SME performance by examining the nonfinancial dimensions through which these networks contribute to SME performance. As highlighted earlier, prior studies in the field of entrepreneurship have revealed that entrepreneurial networks, such as social and business networks, play a substantial role in influencing the performance of SMEs (Boohene et al., 2020; Franco et al., 2016; Jeong et al., 2019; Vătămănescu et al., 2020). Boohene et al. (2020) identify some of these financial measures, such as profit, sales, return on investment (ROI), return on assets (ROA), and market share. However, it is noteworthy that there has been limited investigation into whether entrepreneurial networks can have an equal influence on SMEs' performance, especially from a nonfinancial perspective (Dobrovic et al., 2018). Drawing inspiration from the Balanced Scorecard (BSC), which underscores the utilization of both financial and non-financial metrics for assessing business performance (Kaplan & Norton, 2005), this study aims to explore nonfinancial aspects, including customer perspective, internal business processes, and learning and growth. In

addition, in contrast to prior research that focuses on the joint implications of entrepreneurial networks on SME performance, this study examines the separate effects of the three types of entrepreneurial networks on nonfinancial performance. In light of this, this study is expected to contribute valuable insights to the expanding realm of research focusing on the intersection between networking and SME performance. By providing empirical evidence and theoretical insights into these dimensions, the study enriches scholarly discussions and debates in the field of entrepreneurship and small business management.

The results of this study demonstrate that entrepreneurial networks influence nonfinancial performance. In other words, the effect of social capital<sup>1</sup> on performance can be strengthened by the presence of all types of entrepreneurial networks. These findings align with previous research suggesting that social relations (networks) provide firms with access to diverse resources. The more extensive these networks, the larger the amount of resources an enterprise can secure, thus leading to improved business performance (Chen et al., 2018). For example, Lwango et al. (2017) observed a positive influence of social networks in form of family members on SME profitability. Additionally, Sheng et al. (2011) reveal a significant and positive relationship between business ties (involving suppliers, buyers, and competitors) and sales, market share, and profit growth rate. Likewise, network relationships expedite innovation, lower transaction costs, improve reputation, and generate new market opportunities (Lin & Lin, 2016). Notably, strategic networks based on criteria related to the activity, business abilities and actor's personality has a positive influence on sharing competitive knowledge among members resulting into innovative performance (Vătămănescu et al., 2020). More evidence on the consistency of the findings of this study with previous research was provided by Bhuiyan and Imam (2012). They postulate that network formation affects enterprise performance and growth. According to them, entrepreneurs with the strongest networking relationships with various actors and individuals tend to achieve greater success than entrepreneurs who do not possess similar levels of network contact.

In addition, the results of this study may provide insights into the reasons underlying prior research outcomes, indicating that certain types of networks (relations) might not have a significant impact or could even have an adverse influence on a firm's performance. For instance, the findings of this study show that business and support networks have an insignificant relationship with learning and growth. Similarly, it was observed that both business and social networks have an insignificant and negative association with customer perspective and learning and growth, respectively. This disparity in the impact on various performance measures could be attributed to the fact that different types of entrepreneurial networks do not exert similar effects on different performance indicators unless moderated by other variables (Fatima & Bilal, 2020). Similarly, SME performance can be determined by other attributes, such as dimensions of entrepreneurial orientation, which include innovativeness, risk-taking, autonomy, proactiveness, and aggressiveness (Kusumawardhani et al., 2009). In sum, these findings highlight the importance of network types and characteristics in shaping and enhancing nonfinancial performance with SME perspective.

Consequently, it can be concluded that, in circumstances characterized by high economic uncertainty, prevalent market imperfections, and weak formal legal institutions, networks can play a crucial role in assisting entrepreneurs in penetrating and competing in the market. For instance, network members are more likely to establish larger businesses because these networks provide valuable links and reliable mechanisms for enforcing agreements that facilitate access to crucial resources such as supplier credit and other inputs. They also facilitate information exchange regarding technologies and market trends, as well as simplify access to equity investments. Similarly, in situations where resource and information barriers are prominent, networks can generate positive externalities that help SMEs overcome these challenges, ultimately enhancing their performance (Biggs & Shah, 2006).

## 6. Study implications

### 6.1. Theoretical implications

This study adds to the literature by investigating the three major types of entrepreneurial network in relation to SME performance on nonfinancial perspective. Hence, the study extends existing theoretical frameworks by broadening the understanding of entrepreneurial networks beyond their financial impact on SMEs. It further confirms how the RDT can also be pertinent to small businesses whose

entrepreneurial networks particularly social networks are mainly informal. Therefore, SMEs with owners who are embedded in a web of entrepreneurial networks have an access to diverse resources at their disposal and thus have a strong chance of achieving success in their businesses.

## 6.2. Practical implications

The findings of the present study inform that, by understanding the nonfinancial benefits of entrepreneurial networks, policymakers can design policies and programs that foster the creation and maintenance of supportive network environments for SMEs. In addition, entrepreneurs can benefit from the study's insights by gaining a deeper understanding of how entrepreneurial networks can enhance various aspects of performance beyond financial measures. This knowledge can inform strategic decisions related to networking activities, partnership development, and resource mobilization. Finally, the study provides practical guidance in relation to business supporting services needed by SMEs especially in Tanzania. It affirms the importance of developing programs and initiatives aimed at building networking capabilities and facilitating connections among SMEs and relevant stakeholders.

## 7. Limitations and recommendations for future research

Although this study makes valuable contributions, it has some limitations. First, it is important to note that this research was conducted on manufacturing SMEs. Therefore, caution should be exercised when generalizing the findings to other SMEs sectors with distinct characteristics. Thus, further research should be extended to other SME sectors such as services and retail. Second, the study is limited by its reliance on cross-sectional data gathered from SME owners/managers at a single data collection point. Therefore, future studies should consider conducting longitudinal studies to determine if the causal relationship between entrepreneurial networks and SME performance changes or remains consistent over a period of time. Third, the study relied on quantitative data; thus, future studies may integrate quantitative and qualitative methodologies to leverage the strengths of both approaches. Finally, the results of this study provide a valid understanding of the suggested relationships for SMEs in Tanzania. Hence, to generalise the findings in other countries, further investigation will be required.

## Note

1. Social capital refers to actual and potential resources that are embedded within social relations of actors. These resources may include finance, mutual trust and benefits, access to market information and business opportunities (Boohene et al., 2020).

## Author contribution

Elia John is the single author of this manuscript and was involved in the conception, design, analysis, and interpretation of the results, as well as the drafting of the manuscript.

## Disclosure statement

No potential conflict of interest was reported by the author.

## Funding

The authors declare that no funding was received for the preparation or submission of this manuscript.

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**Data availability statement**

Data will be available upon reasonable request.

**References**

- Abdurakhmonov, M., Ridge, J. W., & Hill, A. D. (2021). Unpacking firm external dependence: How government contract dependence affects firm investments and market performance. *Academy of Management Journal*, 64(1), 327–350. <https://doi.org/10.5465/amj.2018.0067>
- Abeka, E. O. (2011). Networks, micro small enterprises (MSE'S) and Performance: The Case of Kenya. *African Research Review*, 5(6), 172–187. <https://doi.org/10.4314/afrrev.v5i6.15>
- Abu-Rumman, A., Al Shraah, A., Al-Madi, F., & Alfalah, T. (2021). Entrepreneurial networks, entrepreneurial orientation, and performance of small and medium enterprises: are dynamic capabilities the missing link? *Journal of Innovation and Entrepreneurship*, 10(1), 29. <https://doi.org/10.1186/s13731-021-00170-8>
- Akintimehin, O. O., Eniola, A. A., Alabi, O. J., Eluyela, D. F., Okere, W., & Ozordi, E. (2019). Social capital and its effect on business performance in the Nigeria informal sector. *Heliyon*, 5(7), e02024. <https://doi.org/10.1016/j.heliyon.2019.e02024>
- Allen, J. A. (2019). Community through culture: From insects to whales: How social learning and culture manifest across diverse animal communities. *BioEssays: news and Reviews in Molecular, Cellular and Developmental Biology*, 41(11), e1900060. <https://doi.org/10.1002/bies.201900060>
- Bhuiyan, B. A., & Imam, M. O. (2012). Impact of network formation on entrepreneurial performance and growth: A study of selected small enterprises in Bangladesh. *Asia-Pacific Journal of Business*, 3(1), 29–38.
- Biggs, T., & Shah, M. K. (2006). African SMEs, networks, and manufacturing performance. *Journal of Banking & Finance*, 30(11), 3043–3066. <https://doi.org/10.1016/j.jbankfin.2006.05.004>
- Boohene, R., Gyimah, R. A., & Osei, M. B. (2020). Social capital and SME performance: the moderating role of emotional intelligence. *Journal of Entrepreneurship in Emerging Economies*, 12(1), 79–99. <https://doi.org/10.1108/JEEE-10-2018-0103>
- Brown, T. A. (2006). *Confirmatory factor analysis for applied research*. Guilford publications.
- Bucaioni, V., Murgia, G., & Taalbi, J. (2024). The impact of explorative and exploitative collaborations on SMEs innovative performance. *Journal of Small Business Management*, 1–32. <https://doi.org/10.1080/00472778.2024.2322989>
- Cerviño, J., Chetty, S., & Martín Martín, O. (2024). Impossible is nothing: Entrepreneurship in Cuba and small firms' business performance. *Journal of Small Business Management*, 1–33. <https://doi.org/10.1080/00472778.2024.2322991>
- Chen, F.-W., Lin, M.-X., & Wang, T. (2018). Sustainable resource acquisition path: A dynamic model of embedded entrepreneurial network governance under uncertainty. *Sustainability*, 10(11), 4061. <https://doi.org/10.3390/su10114061>
- Dar, I. A., & Mishra, M. (2020). Dimensional impact of social capital on financial performance of SMEs. *The Journal of Entrepreneurship*, 29(1), 38–52. <https://doi.org/10.1177/0971355719893499>
- DeVellis, R. F., & Thorpe, C. T. (2021). *Scale development: Theory and applications*. Sage publications.
- Dobrovic, J., Lambovska, M., Gallo, P., & Timkova, V, University of Prešov in Prešov, Faculty of Management. (2018). Non-financial indicators and their importance in small and medium-sized enterprises. *Journal of Competitiveness*, 10(2), 41–55. <https://doi.org/10.7441/joc.2018.02.03>
- Dwumah, P., Amaniampong, E.-M., Animwah Kissiedu, J., & Adu Boahen, E. (2024). Association between entrepreneurial orientation and the performance of small and medium enterprises in Ghana: the role of network ties. *Cogent Business & Management*, 11(1), 2302192. <https://doi.org/10.1080/23311975.2024.2302192>
- Faroque, A. R., Morrish, S. C., & Ferdous, A. S. (2017). Networking, business process innovativeness and export performance: the case of South Asian low-tech industry. *Journal of Business & Industrial Marketing*, 32(6), 864–875. <https://doi.org/10.1108/JBIM-06-2015-0113>
- Fatima, T., & Bilal, A. R. (2020). Achieving SME performance through individual entrepreneurial orientation: An active social networking perspective. *Journal of Entrepreneurship in Emerging Economies*, 12(3), 399–411. <https://doi.org/10.1108/JEEE-03-2019-0037>
- Felzensztein, C., Gimmon, E., & Carter, S. (2010). Geographical co-location, social networks and inter-firm marketing co-operation: the case of the salmon industry. *Long Range Planning*, 43(5-6), 675–690. <https://doi.org/10.1016/j.lrp.2010.02.006>
- Fernandes, A. J., & Ferreira, J. J. (2022). Entrepreneurial ecosystems and networks: a literature review and research agenda. *Review of Managerial Science*, 16(1), 189–247. <https://doi.org/10.1007/s11846-020-00437-6>
- Franco, M., Haase, H., & Pereira, A. (2016). Empirical study about the role of social networks in SME performance. *Journal of Systems and Information Technology*, 18(4), 383–403. <https://doi.org/10.1108/JSIT-06-2016-0036>



- Ge, B., Hisrich, R. D., & Dong, B. (2009). Networking, resource acquisition, and the performance of small and medium-sized enterprises: An empirical study of three major cities in China. *Managing Global Transitions: International Research Journal*, 7(3), 221–239.
- Gerschewski, S., Evers, N., Nguyen, A. T., & Froese, F. J. (2020). Trade shows and SME internationalisation: Networking for performance. *Management International Review*, 60(4), 573–595. <https://doi.org/10.1007/s11575-020-00421-y>
- Gibson, C., H., Hardy, III, J., & Ronald Buckley, M. (2014). Understanding the role of networking in organizations. *Career Development International*, 19(2), 146–161. <https://doi.org/10.1108/CDI-09-2013-0111>
- Gliem, J. A., & Gliem, R. R. (2003). *Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales*.
- Gu, F. F., Hung, K., & Tse, D. K. (2008). When does guanxi matter? Issues of capitalization and its dark sides. *Journal of Marketing*, 72(4), 12–28. <https://doi.org/10.1509/jmkg.72.4.012>
- Israel, G. D. (1992). *Determining sample size*.
- Jeong, S. W., Jin, B. E., & Jung, S. (2019). The temporal effects of social and business networks on international performance of South Korean SMEs. *Asia Pacific Journal of Marketing and Logistics*, 31(4), 1042–1057. <https://doi.org/10.1108/APJML-08-2018-0326>
- Kaplan, R. S., & Norton, D. P. (2005). *The balanced scorecard: measures that drive performance* (Vol. 70). Harvard Business Review US.
- Klyver, K., Hindle, K., & Meyer, D. (2008). Influence of social network structure on entrepreneurship participation—A study of 20 national cultures. *International Entrepreneurship and Management Journal*, 4(3), 331–347. <https://doi.org/10.1007/s11365-007-0053-0>
- Kuépié, M., Tenikue, M., & Walther, O. J. (2016). Social networks and small business performance in West African border regions. *Oxford Development Studies*, 44(2), 202–219. <https://doi.org/10.1080/13600818.2015.1082540>
- Kusumawardhani, A., McCarthy, G., & Perera, N. (2009). *Framework of entrepreneurial orientation and networking: a study of SMEs performance in a developing country*.
- Lin, F.-J., & Lin, Y.-H. (2016). The effect of network relationship on the performance of SMEs. *Journal of Business Research*, 69(5), 1780–1784. <https://doi.org/10.1016/j.jbusres.2015.10.055>
- Lwango, A., Coeurderoy, R., & Giménez Roche, G. A. (2017). Family influence and SME performance under conditions of firm size and age. *Journal of Small Business and Enterprise Development*, 24(3), 629–648. <https://doi.org/10.1108/JSBED-11-2016-0174>
- Miles, J. (2014). Tolerance and Variance Inflation Factor. In *Wiley StatsRef: Statistics Reference Online*. John Wiley & Sons Inc. <https://doi.org/10.1002/9781118445112.stat06593>
- Milovanović, B. M., Primorac, D., & Kozina, G. (2016). Two-dimensional analysis of the influence of strategic networking on entrepreneurial orientation and business performance among SMEs. *Tehnicki Vjesnik/Technical Gazette*, 23(1)
- Neneh, B. N. (2018). Customer orientation and SME performance: the role of networking ties. *African Journal of Economic and Management Studies*, 9(2), 178–196. <https://doi.org/10.1108/AJEMS-03-2017-0043>
- Ongonga, J. O., & Abeka, E. O. (2011). Networking in the Kenyan informal sector: An attempt to manage the market failures. *African Journal of Business Management*, 5(28), 11323–11334.
- Pallant, J. (2020). *SPSS Survival Manual: A step by step guide to data analysis using IBM SPSS* (7th ed.). Routledge.
- Partanen, J., Kauppi, O., Sepulveda, F., & Gabrielsson, M. (2020). Turning strategic network resources into performance: The mediating role of network identity of small-and medium-sized enterprises. *Strategic Entrepreneurship Journal*, 14(2), 178–197. <https://doi.org/10.1002/sej.1296>
- Peverelli, P. J., Song, L. J., Sun, Z., & Yu, J. (2011). Extending network analysis with social inclusions: a Chinese entrepreneur building social capital. *Frontiers of Business Research in China*, 5(1), 121–143. <https://doi.org/10.1007/s11782-011-0124-5>
- Pfeffer, J., & Salancik, G. (2015). External control of organizations—Resource dependence perspective. In *Organizational behavior 2* (pp. 355–370). Routledge.
- Pomegbe, W. W. K., Li, W., Dogbe, C. S. K., & Otoo, C. O. A. (2020). Enhancing the innovation performance of small and medium-sized enterprises through network embeddedness. *Journal of Competitiveness*, 12(3), 156–171. <https://doi.org/10.7441/joc.2020.03.09>
- Pratono, A. H. (2018). From social network to firm performance: The mediating effect of trust, selling capability and pricing capability. *Management Research Review*, 41(6), 680–700. <https://doi.org/10.1108/MRR-03-2017-0080>
- Premaratne, S. P. (2001). Networks, resources, and small business growth: The experience in Sri Lanka. *Journal of Small Business Management*, 39(4), 363–371. <https://doi.org/10.1111/0447-2778.00033>
- Premaratne, S. P. (2002). *Entrepreneurial networks and small business development*. Technische Universiteit Eindhoven.
- Pulka, B. M., Ramli, A., & Mohamad, A. (2021). Entrepreneurial competencies, entrepreneurial orientation, entrepreneurial network, government business support and SMEs performance. The moderating role of the external environment. *Journal of Small Business and Enterprise Development*, 28(4), 586–618. <https://doi.org/10.1108/JSBED-12-2018-0390>
- Salancik, G. R., & Pfeffer, J. (1978). A social information processing approach to job attitudes and task design. *Administrative Science Quarterly*, 23(2), 224–253.
- Shaw, E. (2006). Small firm networking: An insight into contents and motivating factors. *International Small Business Journal: Researching Entrepreneurship*, 24(1), 5–29. <https://doi.org/10.1177/0266242606059777>



- Sheng, S., Zhou, K. Z., & Li, J. J. (2011). The effects of business and political ties on firm performance: Evidence from China. *Journal of Marketing*, 75(1), 1–15. <https://doi.org/10.1509/jm.75.1.1>
- Širec, K., & Bradač, B. (2009). How does networking impact the SMEs growth. *Organizacija*, 42(2), 59–66. <https://doi.org/10.2478/v10051-009-0003-4>
- Sorenson, O. (2018). Social networks and the geography of entrepreneurship. *Small Business Economics*, 51(3), 527–537. <https://doi.org/10.1007/s11187-018-0076-7>
- Thoits, P. A. (2011). Mechanisms linking social ties and support to physical and mental health. *Journal of Health and Social Behavior*, 52(2), 145–161. <https://doi.org/10.1177/0022146510395592>
- Thrikawala, S. (2011). Impact of strategic networks for the success of SMEs in Sri Lanka. *World Journal of Social Sciences*, 1(2), 108–119.
- Tiwasing, P., Kim, Y. R., & Sawang, S. (2022). The interplay between digital social capital and family-owned SME performance: A study of social media business networks. *Journal of Family Business Management*, 13(4), 1026–1048. <https://doi.org/10.1108/JFBM-07-2022-0103>
- Vătămănescu, E.-M., Cegarra-Navarro, J.-G., Andrei, A. G., Dincă, V.-M., & Alexandru, V.-A. (2020). SMEs strategic networks and innovative performance: a relational design and methodology for knowledge sharing. *Journal of Knowledge Management*, 24(6), 1369–1392. <https://doi.org/10.1108/JKM-01-2020-0010>
- Vătămănescu, E.-M., Mitan, A., Cotîrleț, P. C., & Andrei, A. G. (2022). Exploring the mediating role of knowledge sharing between informal business networks and organizational performance: An insight into SMEs internationalization in CEE. *Sustainability*, 14(7), 3915. <https://doi.org/10.3390/su14073915>
- Watson, J. (2007). Modeling the relationship between networking and firm performance. *Journal of Business Venturing*, 22(6), 852–874. <https://doi.org/10.1016/j.jbusvent.2006.08.001>