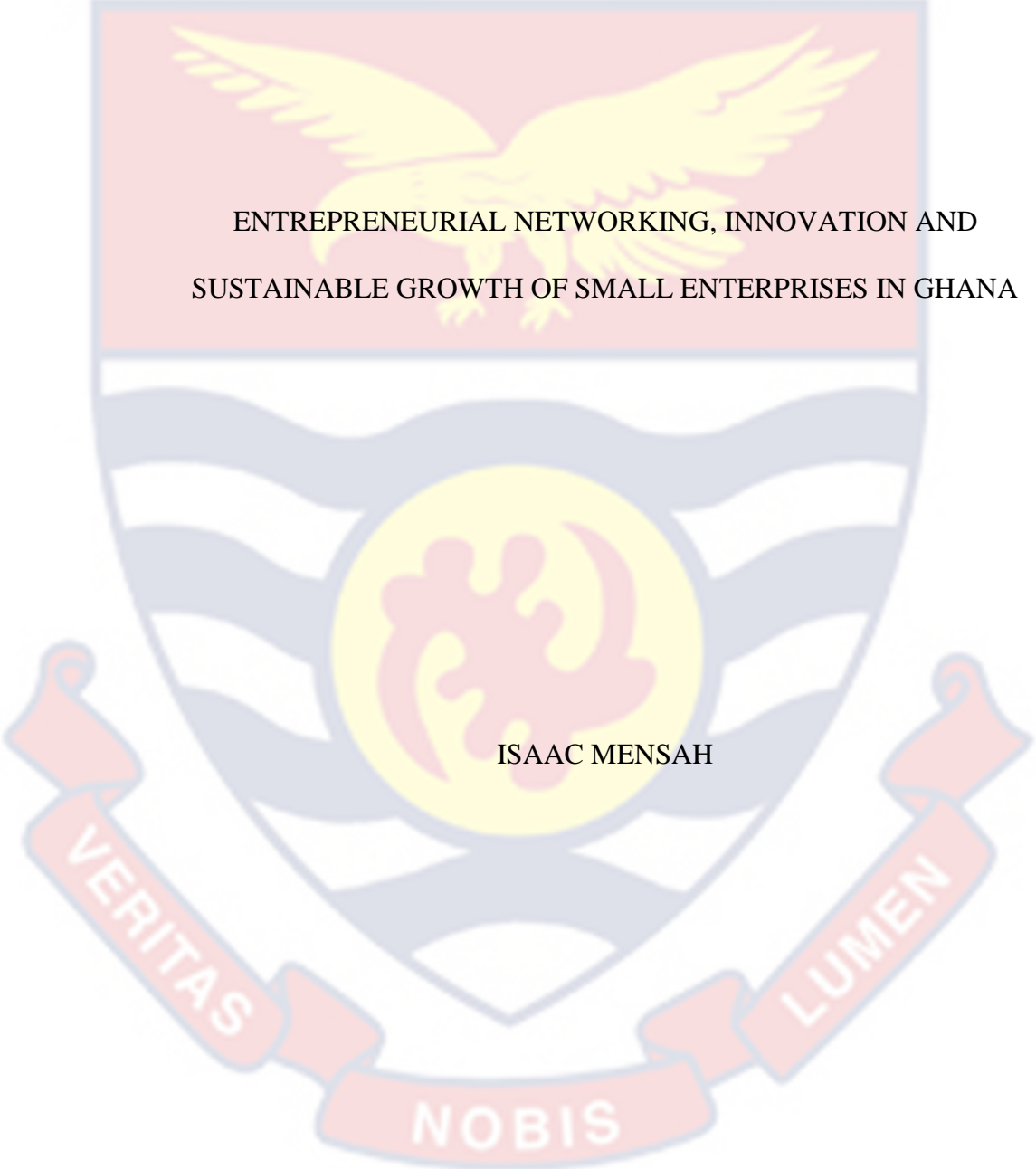


UNIVERSITY OF CAPE COAST



ENTREPRENEURIAL NETWORKING, INNOVATION AND
SUSTAINABLE GROWTH OF SMALL ENTERPRISES IN GHANA

ISAAC MENSAH

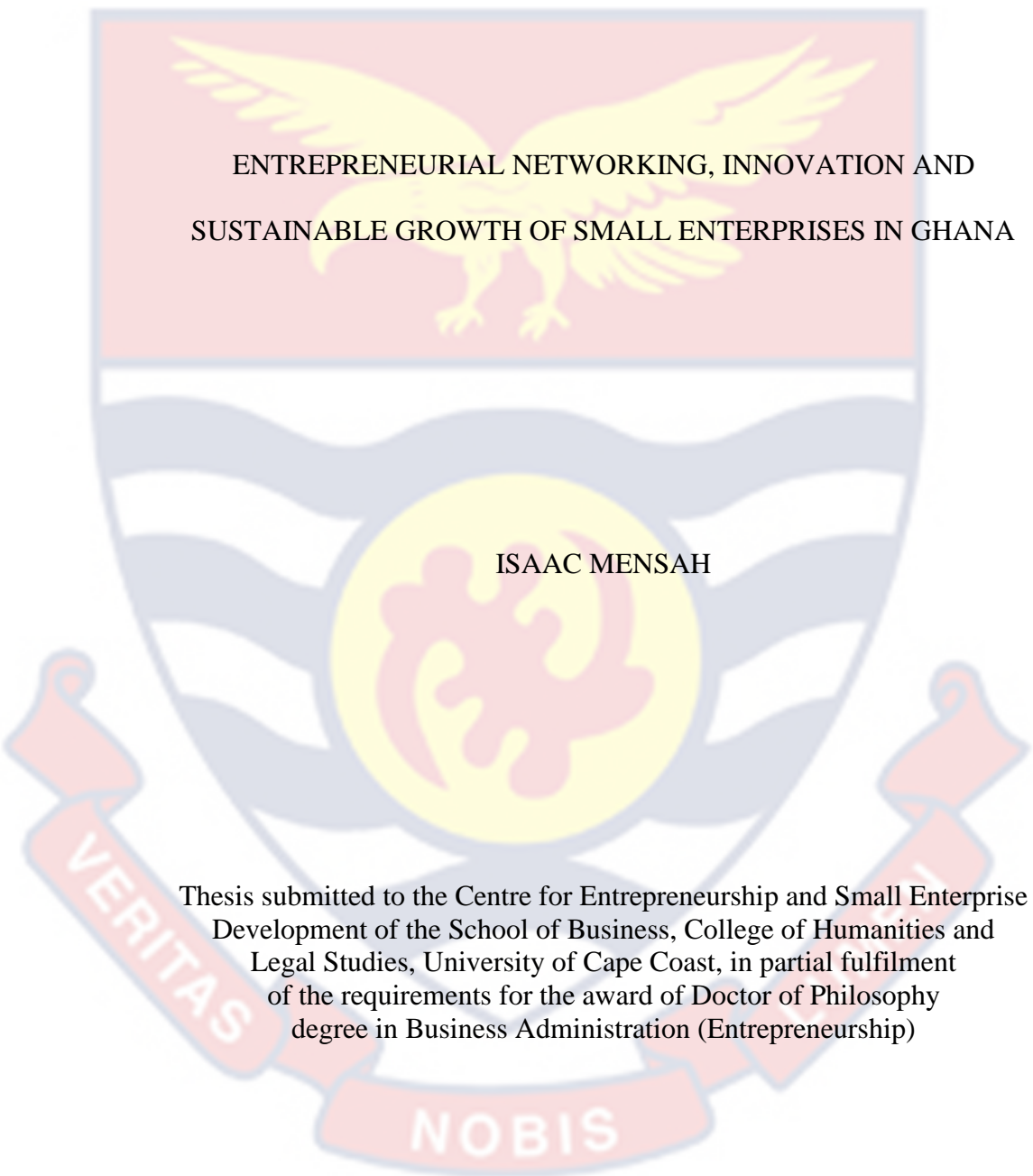
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ENTREPRENEURIAL NETWORKING, INNOVATION AND
SUSTAINABLE GROWTH OF SMALL ENTERPRISES IN GHANA

ISAAC MENSAH

Thesis submitted to the Centre for Entrepreneurship and Small Enterprise
Development of the School of Business, College of Humanities and
Legal Studies, University of Cape Coast, in partial fulfilment
of the requirements for the award of Doctor of Philosophy
degree in Business Administration (Entrepreneurship)

NOVEMBER 2022

DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature: Date:

Name:

Supervisors' Declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature: Date:

Name:

Co-Supervisor's Signature: Date:

Name:

ABSTRACT

This study examined the effect of entrepreneurial networking on innovation and sustainable growth of small enterprises in Ghana. The researcher relied on the philosophical foundation of critical realist ontology and the pragmatist paradigm to inform a mixed approach and a cross-sectional survey design for the study. Questionnaires were used to collect data from 319 small enterprises which were proportionally sampled from the Association of Ghana Industries and Ghana Enterprise Agency. Eight entrepreneurs were purposively sampled and interviewed to generate qualitative responses to triangulate the statistical results. The quantitative data were analysed using covariance-based structural equation modelling, while the qualitative data were analysed based on narrative techniques. The study found that small enterprises engage in networking and develop strands of innovations. The findings also established that entrepreneurial networking, manifesting in network isomorphism and network social capital, is a leverage mechanism for small firms to access, use and transform external resources into innovation, which is required for sustainable growth. Network relation and structure, and normative and mimetic isomorphisms constitute tacit assets that facilitate access to valuable external resources. Therefore, small enterprises must embrace high-quality network affiliation with an entrepreneurial orientation that reinforces trustworthiness, reciprocity, and integrity to enhance knowledge exchange and access to unique entrepreneurial opportunities. They must maintain close ties with heterogeneous firms, allowing partners to mimic and replicate successful technologies for sustainable growth. The value of this research is the new theoretical approach “entrepreneurial networking” aimed at resolving the problem of inadequate access to external resources affecting small enterprises.

KEY WORDS

Entrepreneurship

Entrepreneurial Networking

Innovation

Isomorphism

Social Capital

Small Enterprises

Sustainable Growth



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DEDICATION

To my dear son and wife, Isaac Ivan Mensah, Mrs. Mercy Mensah, and Late
father, Kofi Awortwe, for their forbearance and love



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LIST OF ABBREVIATIONS

AGI	Association of Ghana Industries
CESED	Centre for Entrepreneurship and Small Enterprise Development
DCT	Dynamic Capability Theory
DOT	Diffusion of Innovation
EU	European Union
GDP	Gross Domestic Product
GEA	Ghana Enterprise Agency
GSS	Ghana Statistical Service
IBES	Integrated Business Establishments Survey
IT	Institutional Theory
IMF	International Monetary Fund
MSMEs	Micro, Small and Medium Enterprises
MMDAs	Metropolitan, Municipal and District Assemblies
NEIP	National Entrepreneurship and Innovation Plan
NTSC	Network Theory of Social Capital
SNT	Social Network Theory
SCT	Social Capital Theory
OECD	Organisation for Economic Co-operation and Development
RBT	Resource-Based Theory
RPEDG	Regional Project on Enterprise Development Ghana
SDGs	Sustainable Development Goals
SE	Small Enterprises
SSA	Sub-Saharan Africa
SME	Small and Medium Enterprise

UCC	University of Cape Coast
UAC	United Africa Company
UK	United Kingdom
UNCTAD	United Nations Conference on Trade and Development
UNIDO	United Nations Industrial Development Organisation



CHAPTER ONE

INTRODUCTION

Small enterprises contribute to the social and economic transformation of many world economies. In Ghana, for instance, small enterprises contributed approximately GH¢ 230.3 billion (50.39%) of national revenue and 71.4% of employment in 2018 and as of 2016, accounted for more than 98.27% of all establishments in the country [Ghana Statistical Service, Integrated Business Enterprise Survey, IBES GSS, 2018b Phase II]. However, small enterprises face persistent challenges, particularly lack of access to external resources, which has been identified as a major cause of unsustainable growth (Schwab, Gold & Reiner, 2019). Despite policy institutional interventions to mitigate the challenges that small enterprises face, the problems persist, creating high uncertainty and failure (Quaye & Mensah, 2019). Networking has been identified as a tacit asset that facilitates easy access to valuable external resources (Boohene, 2018; Damoah, 2018). However, a closer scrutiny of the literature shows sparsity of research that defines the entrepreneurial mechanisms for leveraging networks to gain the required resources, moreover the role of innovation is understudied. This research reports an empirical investigation into the effect of entrepreneurial networking, manifesting network isomorphism and network social capital, on innovation and the sustainable growth of small enterprises in Ghana. This research advocates for networking as a portfolio of easily accessible entrepreneurial resources and provides policy support to overcome resource and growth constraints facing small enterprises, thereby advancing efforts toward achieving the Sustainable Development Goals (SDG Goals 1, 8 and 9).

Background to the Research

Networking is a strategic approach for entrepreneurs to access external resources, create value, and enhance enterprise growth (Kim & Shim, 2018). The economic network theory emphasises many advantages of networking through collaboration among partners who own and share resources (Boohene, Gyimah & Osei, 2019). The current thesis uses the resource-based theory (henceforth RBT), network theory of social capital (henceforth NTSC), institutional theory of network isomorphism and diffusion of innovation theory (henceforth DoIT) to examine the effect of entrepreneurial networking, manifesting network isomorphism and network social capital, on innovation and sustainable growth of small enterprises in Ghana. Besides, one of the indicators of a transforming economy is the vibrant small enterprise sector (Mabenge, Ngorora & Makanyeza, 2020). Small enterprises spearhead economic transformation through employment, revenue, and social protection (Quaye & Mensah, 2019; D'Angelo & Baroncelli, 2020).

Globally, small enterprises are estimated to account for about 60 per cent of the employment portfolio and 50 per cent of the Gross Domestic Product (GDP) (Neneh & van Zyl, 2017; Sibanda Hove-Sibanda & Shava, 2018). In the European Union (EU), over 99 per cent of all firms are small enterprises and create over 85 per cent of new jobs, making the sector a significant contributor to the economy (Mabenge *et al.*, 2020). In Sub-Saharan Africa, small enterprises in Ghana, for instance, constitute about 98.27 per cent of over 638,234 establishments and contribute approximately 70 per cent of the country's GDP (Nyadu-Addo & Mensah, 2018). The sector contributed GH¢ 230.3 billion (50.39 per cent) of the GH¢457 billion revenue generated

and 71.4 per cent of employment in 2018 (IBES, GSS, 2018b, p. ii). The relevance of small enterprises in the global economy demonstrates the central role of the sector in social and economic growth and transformation.

The contribution of small enterprises and the potential of the sector to transform any economy is dependent on access to valuable resources (Quarley, Turkson, Abor & Iddrisu, 2017; Mabenge *et al.*, 2020). The RBT defines *resources* as all information, knowledge, technology, reputation, finance, capital, and opportunities controlled by a firm (Barney, 1991). The concept of resource access is widely acknowledged in theory and practice. On the one hand, the RBT assumes that firms are embedded resources that can be leveraged to gain a competitive market advantage (Alvarez & Barney, 2017). On the other hand, the institutional theory contends that an enterprise operates in an environment where institutions facilitate, regulate and promote access to resources (DiMaggio & Powell, 1983; Anthony Jnr., 2021).

The implication of the institutional theory and RBT is that access to resources is either embedded (in the case of RBT) or socially constructed (in the case of institutional theory), explaining why firms rely on either or both internal (inherent) and external resources including collaborations (Barney & Hesterly, 2012). The burgeoning literature has drawn attention to the fact that small enterprises in emerging economies face resource constraints and must collaborate with other firms to attenuate the problem through resource sharing (Acheampong & Hinson, 2019; Liu, Ko, Ngugi & Takeda, 2021). These scholars echoed that access to external resources requires a network with partners from which an enterprise can draw the resources required in undertake operations and routines (Anwar & Ali Shah, 2020; Liu *et al.*, 2021).

A *network*, according to Jeong, Jin and Jung (2019), refers to a group of independent enterprises or individuals linked by ties and relationships for purposive action. For them, networking can be seen as goal-directed behaviour that focusses on developing and utilising relationships (Assadinia, Kadile, Gölgeci & Boso, 2019). As pointed out by Expósito, Fernández-Serrano and Liñán (2019), the network which entrepreneurs create and participate in is critical to their business success. Networks often include formal and informal, vertical and horizontal, business, political, social, and managerial associations (Sefiani, Davies, Bown & Kite, 2018). However, differences may exist, and the decision to affiliate with a specific network may be influenced by the type of network, years of networking, and the resource needs of the enterprise.

More recently, scholars have opined that, entrepreneurial activities such as opportunity exploration, cross-fertilisation of ideas and value-creation are social practices that occur within a complex pattern of interactions (Jeong *et al.*, 2019). As a result, McKeever, Anderson and Jack (2014) defined the active participation of the entrepreneur in a network as entrepreneurial networking. Entrepreneurial networking is defined or can be seen as an active process involving an entrepreneur (a focal person) and other independent enterprises linked by ties and shared norms for the purpose of resource exchange and usage (Jeong *et al.*, 2019). An entrepreneurial network is formed whenever an entrepreneur collaborates with more than one partner or actor (Srećković, 2018). These actors often include investors, suppliers, distributors, competitors, financial institutions who own, control and have the power to share, receive and use others' resources (Boohene, Gyimah & Osei, 2019).

Scholars emphasise many advantages of networking (Sefiani *et al.*, 2018). The prevailing literature first asserts that network actors are linked by collaborative ties, shared norms and vision, which constitute tacit assets that facilitate technology transfer, knowledge exchange, access to valuable resources of network partners (Kim & Shim, 2018; D'Angelo & Baroncelli, 2020). Second, other scholars emphasise that a network is an institution that influences members to use, replicate and implement specific practices and technologies (Easmon, Kastner, Blankson & Mahmoud, 2019). These two theoretical insights highlight network social capital and network isomorphism as entrepreneurial mechanisms for leveraging advantages of network ties (Gibson, Hardy & Ronald Buckley, 2014).

First, *network isomorphism*, from the institutional theory perspective, is defined as the extent to which networked actors conform to standards by implementing institutionalised practices, knowledge and norms (DiMaggio & Powell, 1983; Washington & Patterson, 2011). According to the network isomorphism theory, firms operate in an environment that includes facilitatory, regulatory and promotion institutions (Ouyang, Cheng, Liu & Yang, 2020).

These institutions exert mimetic, coercive and normative pressures on the behaviour, actions and decisions of the firms within the environment (Scott, 1995, Ouyang *et al.*, 2020; Anthony Jnr., 2021). The pressure compels enterprises to emulate and replicate best practices and technologies of other firms (mimetic) (Joo Larkin, & Walker, 2017; Depoers & Jérôme, 2019); implement shared professional standards, practice and knowledge (normative) (Ahmed, Najmi & Khan, 2019; Jnr., 2020), and oblige to formal and informal regulations (coercive) of resource exchange (Munir & Baird, 2016).

Scholars opine that mimetic, coercive and normative pressures shape the nature, behaviour, and governance of network actors (Zhao & Peng, 2018; Cajaiba-Santana, Fauray & Ramadan, 2020). Over time, partners that hitherto exhibited significant heterogeneity in practices, structures and strategies become homogenous (DiMaggio & Powell, 1983). As a result, homogeneity provides opportunities for a network partner to gain legitimacy, reputation and prestige, making it easier to access valuable resources of other partners (Joo *et al.*, 2017; Zhao & Peng, 2018). Again, the pressures compel partners to share or adopt certain technologies, implement certain approved standards and use specific technology in their operations and processes (Anthony Jr., 2021).

In Ghana, for example, the Association of Ghana Industries (henceforth AGI) and Ghana Enterprise Agency (henceforth GEA), among other roles, facilitate the exchange and promote the use of valuable knowledge and experience, provide a network of contacts, host technology exhibitions, and encourage members to adopt specific best practices. A member of AGI and GEA experiences pressure from the association, and large and influential firms to implement certain standards, use approved technologies, suppliers and operating procedures. The pressure influence relationship among members.

Another entrepreneurial mechanism for leveraging networks is social capital. According to the network theory of social capital, networking facilitates access to other resources such as finance, markets, and knowledge (Boohene, 2018). A tacit asset, *social capital*, is defined as the “sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or a social unit” (Nahapiet & Ghoshal, 1998, p. 242). According to the literature,

social capital is a multidimensional concept comprising three dimensions, namely network structure (nodes-actors), relation (relationships) and cognition (Ganguly, Talukdar & Chatterjee, 2019) which facilitate, promote and regulate knowledge exchange, technology transfer, and sharing of market information.

Scholars opine that cognition, manifestation of shared values and norms, fostered trusting engagements, collaborations and cohesiveness facilitate the transfer and access to critical resources and market ideas (Daton, Banerjee & Roy, 2018; Han, Yoon & Chae, 2020). A trusting relationship, according to Nieman and Nieuwenhuizen (2009), facilitates the easy exchange of resources. Capitalising on this interest, Barney's (1991) point of view was found useful. According to Barney (1991), having access to the needed resources to operate can lead to improved performance due to the unique advantages over competitors who cannot access and replicate them elsewhere.

Literature further reports that relationships and cognitions are a source of value creation – an important resource advantage for networked enterprises (Suseno & Rowley, 2018; Sanchez-famoso, Maseda, Iturralde, Sharon & Aparicio, 2020). The ability of social capital to create opportunities for resource sharing and use is determined by the quality and depth of ties and interaction, linkage and connectedness, the heterogeneity or homogeneity, and the location of each enterprise within the network (Kim, 2019; Ganguly *et al.*, 2019). The efficacy of social capital is measured by the easiness to develop, compared with other forms and nature of resources (Fatoki, 2011).

The interest in social capital and network isomorphism is consistent with the notion that networking facilitates access to and usage of novel ideas, knowledge, and other valuable contacts, as well as markets opportunities that

an enterprise needs to optimise growth (Kim & Shim, 2018; Habersetzer *et al.*, 2019; Xie, Gao, Zang & Meng, 2020; D'Angelo & Baroncelli, 2020). Emerging studies have revealed that networking with reputable and successful partners improves the recognition and negotiation strength of start-ups and small enterprises (Damoah, 2018; Kim & Shim, 2018).

The literature also suggests that through networking, enterprises gain access to inflow of knowledge that can be used to develop innovations (Adomako, Danso, Boso, & Narteh, 2018; Anwar & Ali Shah, 2020). For instance, social capital fosters trusting exchanges, allowing partners to easily access the resources they require to operate (Acheampong, Narteh & Rand, 2017) and improve on productivity, sales margins, and profitability. Due to the limited inherent resources, the ultimate effect of networking is the external resource access advantages, which otherwise, are not available to enterprises outside the network (Divisekera & Nguyen, 2018).

The intensity of the ongoing globalisation and dynamic market competition emphasises the need of innovation for all enterprises, particularly small establishments (Mahmoud, Hinson & Anim, 2018). Besides, the Fourth Industrial Revolution has generated a surge in research interest in innovation (Shim, Kim, Minton, Nan, Kim, Lee & Kim, 2021). Innovation is seen as a systemic and networked phenomenon, and the exchange and cross-fertilisation of ideas underlie these interactions (Guercini & Runfola, 2015). It is an effort to create unique value in business processes, products, market and organic change that create assets for a firm (Wahyono, 2019). Literature highlights that social capital and isomorphism can be used to generate new ideas, hence potential sources of open innovation (Easmon *et al.*, 2019). The open

innovation theory explains that purposive inflow and outflow of novel ideas accelerate internal innovation (Chesbrought, Vanhaverbeke & West, 2006).

Network collaborations provide access to unique and valuable resources, resulting in networked-based open innovation. This is because enterprises which are under isomorphic pressure, for instance, share or mimic and replicate valuable and unique knowledge and technologies of other partners. The diffusion of Innovation Theory (DoIT) explains this phenomenon. According to the DoIT (Rogers, 2010), valuable knowledge must diffuse through a channel over time into business operations (Acheampong & Hinson, 2019). As a result, the knowledge that diffuses into operations has the potential for innovations in new products, markets, processes and procedures (Saridakis Idris, Hansen & Dana, 2019).

Mahmoud et al. (2018) identified innovation as an important determinant of growth and continuing existence of enterprises in a highly competitive environment. Thus, growth and sustainability or sustainable growth has become an ultimate aim of every enterprise (Obeng et al., 2014; Islam & Wahab, 2020). Sustainable growth is seen as the extent to which a firm is able to maintain stable growth in productivity, profitability, sales and employee size etc. (Acheampong et al., 2017). Sustainable growth is an important objective of every enterprise, micro, small, medium and large enterprises, and studies suggest that innovation is the main mechanism that support enterprises to maintain their growth (Anwar & Ali Shah, 2020).

The relevance of networking is gaining attention in the field of entrepreneurship (Thrassou, Vrontis, Crescimanno, Giacomarra & Galati, 2020). Scholars have opined that networking enhances knowledge capacity,

entrepreneurial opportunities, open innovation, and firm performance (Galati, Tinervia, Tulone & Crescimanno, 2019). It is not surprising that Dyer (1996) revealed that enterprises with specialised supplier networks (offering a strategic resource) outperformed competitors without similar networks. Other scholars opine that the isomorphic pressure to replicate and implement successful technologies of collaborators can enhance long-term success of a enterprise (Memon, Yong An. & Memon, 2020; Ouyang *et al.*, 2020).

The importance of small enterprises, networks, and access to resources cannot be overstated in economies where internally embedded resources of entrepreneurs are insufficient, and access to external resources is difficult, if not impossible. As a result, governments, practitioners, and scholars cannot discuss socio-economic growth without mentioning how small enterprises can easily access the required valuable external resources to support their growth. The leverage mechanisms of network isomorphism and network social capital allow small enterprises to access and use resources of other firms.

Globally, policies and interventions have been initiated and implemented by nations and organisations to optimise the growth and sustainability of small and micro enterprises. For instance, the USA and many other nations have established Special Economic Zone (SEZs) with the aim of spreading knowledge, innovation and technologies (Liu et al., 2019). Liu et al. mentioned that SEZs such as Silicon Valley and Boston are specialised network of entrepreneurs. The authors highlight that global network zones promote spread of knowledge, improve innovation and growth of firms. In emerging economies, the African Continental Free Trade Area (AfCFTA) is

the largest networks of economies that promote free transfer of technologies and movement of resources among economic actors (Abrego et al., 2020).

Therefore, this thesis examines the possibility of Ghanaian small enterprises using entrepreneurial networking, manifesting network isomorphism and network social capital, to develop innovations, leading to sustainable growth. Ghana offers a fertile ground to research these important issues. This is because successive governments have drawn significant insight from existing theories like the RBT and institutional theory to develop entrepreneurial policies and interventions for small enterprises. For instance, the Government of Ghana, through the Ministry for Trade (MoTI) and allied agencies such as National Entrepreneurship and Innovation Programme (NEIP), AGI and GEA, regulates, promotes and facilitates access to resources for small enterprises. Hence, the study of entrepreneurial networking in Ghana, an emerging economy is important to understand the entrepreneurial mechanisms that are relevant for small enterprises to enhance and leverage their collaborations to access resources required to develop innovations and achieve sustainable growth.

Statement of the Problem

Entrepreneurial networking fosters open innovation and optimises sustainable growth of small enterprises (Jack, Moulton, Anderson & Dodd, 2010; Habersetzer *et al.*, 2019; Xie *et al.*, 2020). However, small enterprises face many challenges which negatively affect daily operations and processes, growth and sustainability (Quartey *et al.*, 2017; Amarteifio & Agbeblewu, 2017). The literature notably identifies a lack of access to external resources, unstructured innovation processes, and imperfect institutional support systems,

as factors which negatively affect the growth and sustainability of small enterprises in resource constrained emerging markets (Liu, 2017).

Despite the assumptions of RBT which explains the resources embeddedness of the firm, resource constraints continue to increase, limiting the growth of small enterprises, especially in emerging economies (Damoah, 2018; Easmon *et al.*, 2019). As Thrassou *et al.* (2020) posited, the traditional resource embeddedness approach to business growth appears progressively powerless to defend small enterprises against strengthening challenges. Therefore, this study goes beyond the conventional RBT to inculcate network theory of social capital (NTSC) and institutional theory (IT). The NTSC and IT explain the potential of external resources to supplement internal resources, thus creating internal-external resource synergy for firm growth.

Governments, state agencies, and international institutions have drawn significant insight from the existing theories to develop entrepreneurial policies and interventions. In Ghana, for instance, the World Bank, International Monetary Fund (IMF), MoTI, AGI, GEA, NEIP and many institutions and programmes provide, facilitate, promote and regulate resource support for small enterprises. However, the pace of growth of small enterprises, particularly in emerging economies, is not encouraging, and it is mainly characterised by persistent failure (Acheampong *et al.*, 2017).

Anwar and Ali Shah (2020) reported that globally, more than half of newly established businesses fail at the initial stages. Again, it is estimated that, globally, only 30 per cent of first-generation businesses survive and grow into the second generation, and only half of those make it to the third generation (Le Breton-Miller *et al.*, 2004). Small enterprises in Ghana face

similar problems, and the available literature suggest that small enterprises in Ghana face the problem of limited resources. Acheampong *et al.* (2017) revealed that more small enterprises in Ghana die prematurely, and only 40 per cent grow beyond five years (Akpabli, 2019). Mention can be made of Astek Juice, Poku Transport, Mankoadze Fisheries, Boakye Mattress and Pomadzie Poultry as some enterprises in Ghana that have exited the Ghanaian business landscape (Acheampong *et al.*, 2017; Quaye & Mensah, 2019). Islam and Wahab (2020) opined that even without reliable supporting data, the failure rate of small enterprises is projected to be on the higher side, hence the need to detect suitable recovery outline.

Entrepreneurship literature has widely identified various reasons why small enterprises are unable to sustain growth (Khan, 2017; Easmon *et al.*, 2019; Anwar & Ali Shah, 2020). The literature shows both internal and external reasons why small enterprises are unable to grow and be sustained (Anwar & Ali Shah, 2020). Appiah-Gyimah and Boohene (2019) highlight those small firms in Ghana, for instance, are yet to realise their full potential due to resources constraints. Lundberg (2019) also emphasised the scarcity of internal embedded resources. Adomako *et al.* (2015) provided valuable insight into the resource constraints that stifle the growth of small enterprises.

According to Adomako *et al.* (2015), small enterprises lack resources because they operate independently. Supporting Adomako *et al.* (2015), Quartey *et al.* (2017) also pointed out that under-developed relationships make it difficult for small enterprises to access the external resources required to supplement limited internal resources and capacity and sustain business operations and growth. Besides, small enterprises individually appear to rely

on banks for financial and non-financial resources, which are mostly denied, delayed, or granted with strict conditions, preventing medium to long term business planning. In light of the resource challenges, the literature suggests that enterprises that want to sustain growth must network with partners who own and share their resources (Anwar & Ali Shah, 2020).

Networking enables firms to overcome resource constraints, deficiencies, and disadvantages by providing easy access to resources owned by partners (Easmon *et al.*, 2019; Jeong *et al.*, 2019). The network theory of social capital explains the potential of social embedded resources for partners to achieve individual and collective goals (Lin, 1999). Similarly, the institutional theory explains the role of institutions to regulate, promote and facilitate access to and use of external resources (DiMaggio & Powell, 1983).

Though theories and literature on networking are vast, with varied perspectives and depth of knowledge on the subject (Srećković, 2018; Boohene *et al.*, 2019; Lundberg, 2019), the entrepreneurial mechanisms to leverage networking for the required external resources to achieve sustainable growth have not received sufficient attention in the empirical literature (Obeng, 2018; Han *et al.*, 2020; Boohene *et al.*, 2019; Damoah, 2018). Cano-Kollmann, Awate, Hannigan and Mudambi (2018) argued that there is a need for small enterprises to exploit the innovativeness in networking to sustain performance. Therefore, it suffices to reason that leverage mechanisms of network isomorphism (from the institutional theory of network isomorphism) and network social capital (from the NTSC) have not been given sufficient attention in the entrepreneurship literature to inform recommendations aimed at addressing the resource challenges confronting small enterprises.

Network isomorphism and network social capital influence and facilitate exchange and use of external resources but appears to have escaped empirical lenses of scholars and practitioners alike. Besides, Appiah-Gyimah and Boohene (2019) stated that small enterprises in Ghana are either unaware or unable to capitalise on the potential of networks. The lack of empirical knowledge to inform practice appears to explain the persistence of resource constraints, even though network is a pool of resources, and the process of networking can be seen as an easy and efficient approach to access the needed external resources (Obeng, 2018). Indeed, networking is identified as a panacea to the resource constraints that small firms face (Easmon *et al.*, 2019).

Lack of access to external resources is a problem affecting small enterprises and remains a significant concern for scholars and policymakers alike (Adomako & Danso, 2018). In the given challenges elaborated above, this research is relevant. The research focusses on the effect of entrepreneurial networking and its leverage mechanisms of network isomorphism and network social capital on innovation and sustainable growth of small enterprises in Ghana. This study focusses on Ghanaian small enterprises because of the scanty research attention given to the topic, and granted that context is relevant in research, these enterprises are likely to produce different results and, thus, different implications and recommendations.

In this study small enterprise comprises an establishment that engages between five and 29 employees, has fixed assets (excluding land and building) not exceeding \$100,000 and is formally registered with the Registrar General's Department (RGD) of Ghana. The research provides a theoretically grounded framework and empirical knowledge showing the mechanisms that small

enterprises can use to leverage networks to gain access to the external resources they need to support their growth activities. The study makes modest academic and practical contributions to assist small enterprises in leveraging their network, overcoming resource constraints, and sustaining growth.

Purpose of the Research

The aim of this research is to investigate the effect of entrepreneurial networking on innovation and sustainable growth of formal small enterprises in Ghana.

Research Objectives

Pursuant to the research aim, the specific research objectives are to:

1. Describe the nature of networking among formal small enterprises in Ghana,
2. Assess the nature of innovation among formal small enterprises in Ghana,
3. Describe the nature of sustainable growth among formal small enterprises in Ghana,
4. Assess the effect of network isomorphism on sustainable growth of formal small enterprises in Ghana,
5. Examine the linkage between network social capital and sustainable growth of formal small enterprises in Ghana,
6. Examine the mediating effect of innovation in the relationship between entrepreneurial networking and sustainable growth of formal small enterprises in Ghana, and
7. Examine the effect of network affiliation on sustainable growth of formal small enterprises in Ghana.

Research Questions

The research sought to address the objectives by asking the following questions:

1. What is the nature of networking among formal small enterprises in Ghana?
2. What is the nature of innovation among formal small enterprises in Ghana?
3. What is the nature of sustainable growth among formal small enterprises in Ghana?
4. What is the effect of network isomorphism on sustainable growth of formal small enterprises in Ghana?
5. What is the linkage between network social capital and sustainable growth of formal small enterprises in Ghana?
6. What is the mediating effect of innovation in the relationship between entrepreneurial networking and sustainable growth of formal small enterprises in Ghana? and
7. To what extent does network affiliation affect sustainable growth of formal small enterprises?

Research Hypotheses

The following propositions are made to guide the responses to the research questions:

H₁: Network isomorphism has a direct positive and significant influence on sustainable growth of formal small enterprises in Ghana.

H_{1a}: Coercive isomorphism in entrepreneurial networks has a significant and positive influence on sustainable growth.

H_{1b}: Normative isomorphism in entrepreneurial networks has a significant and positive influence on sustainable growth.

H_{1c}: Mimetic isomorphism has a significant and positive influence on sustainable growth of small enterprises.

H₂: Network social capital has a direct positive and significant influence on sustainable growth of formal small enterprises in Ghana.

H_{2a}: Network relation among small enterprises has significant and positive influence on sustainable growth of small enterprises.

H_{2b}: Network cognition significantly influences sustainable growth of small enterprises.

H_{2c}: Network structure has significant and positive influence on sustainable growth of small enterprises.

H₃: Innovation mediates the relationship between entrepreneurial networking and sustainable growth of formal small enterprises in Ghana.

H_{3a}: Innovation mediates the relationship between network isomorphism and sustainable growth of small enterprises in Ghana.

H_{3b}: Innovation mediates the relationship between network social capital and sustainable growth of small enterprises in Ghana.

H₄: Network affiliation has a direct positive and significant influence on sustainable growth of small enterprises in Ghana.

Significance of the Research

This research stems from the literature that networking probably leads to many positive outcomes (Gibson *et al.*, 2014). The significance of this research is seen in three strands, namely, theory, practice, and policy.

This research validates the role of entrepreneurial networking within the Ghanaian context and thereby validates the theoretical underpinnings. First, this study enriches theory by applying NTSC, institutional theory, and DoIT to a research model which integrates the synergistic effects of resource access in entrepreneurial networks to innovate and sustainable growth. Second, the research extends the RBV, IT, NTSC and DoIT to validate the entrepreneurial networking and sustainable growth relationship. Besides, the assumptions of the theories employed do not explain “sustainability” of small enterprise growth, hence a theoretical contribution of this research.

Reviewing the literature in Ghana and to the best knowledge of the researcher, this research is the first of its kind in Ghana to link entrepreneurial networking and innovation to sustainable growth of small enterprises in one framework. The study by Obeng (2018) focused on strategic networking among small enterprises in Ghana. This study therefore goes beyond studies in Ghana to focus on the effect of entrepreneurial networking on innovation, leading to sustainable growth. In the current study, the framework, "Entrepreneurial networking, innovation and sustainable growth" explains the leverage mechanisms in networks responsible for sustainable growth of small enterprises. The validated model provides bases for future research on entrepreneurship, networking, external resource access and sustainable growth. The theoretical model indicates its likelihood to be applicable in other economies with similar contextual characteristics like Ghana.

This research uses narratives from a cross-section of small enterprises in Ghana to provide a statistical significance that entrepreneurial networking leads to sustainable growth. The findings serve as empirical evidence to

theories that network is a broader resource base and that small enterprises can deploy entrepreneurial mechanisms to efficiently develop innovations and sustain growth. This research explains network social capital and network isomorphism as mechanisms through which small enterprises in emerging economies can leverage their networks to gain external resources/knowledge.

At the global level, this research contributes to policy directions on SDGs: no poverty (Goal 1), decent work and economic growth (Goal 8) and industry, innovation and infrastructure (Goal 9). For instance, this research finding contributes to target 3 of Goal 8 which seeks to “Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourages the formalisation and growth of micro- and SMEs”.

At the national level, the ministry for trade and industry, and business development, NIEP, GEA, AGI and academic institutions will find this research useful in national entrepreneurship decisions. The research acknowledges the relevance of conferences, seminars and the strategic role of institutions in helping small enterprises to access funds to support their enterprises. The research offers suggestions that policy makers should include networking in training programmes for small enterprises. This strategy will help small enterprises to overcome the persistent resource limitations or what is known in literature as “lack of access to finance or resources.”

The researcher anticipates that policymakers in the entrepreneurial development sector will consider adopting the entrepreneurial networking model to guide firm-level productive-policy formulation on small enterprise development and minimise the likelihood of enterprise stagnancy and demise.

Thus, the research advocates entrepreneurial network to provide an alternative focus for decisions among entrepreneurship development policymakers.

At the firm level, the research attempts to create agenda to ensure the sustainability of small enterprises in Ghana. The theoretical model provides a framework to assist small enterprises to understand the entrepreneurial mechanisms to leverage network to access and implement novel ideas, information and use others' critical resources to improve growth and sustainability. This knowledge is vital for small enterprises to shift from the individual resource access approach to a network perspective which is broader, less costly, strategic, and easy to access.

Delimitations

This research is limited to formal small enterprises in three regions (industrial hubs) of Ghana, namely, Ashanti Region, Greater Accra Region and Western Region. These three regions are critical cases for the Ghanaian economy and are often described as economic hubs because they account for 57.1 per cent of all enterprises in Ghana. Second, the research focusses on formal small enterprises within the micro, small, medium and large enterprise portfolio. While the researcher acknowledges the strategic relevance of medium and large enterprises, emphasis on small enterprises (i.e., micro and small) is needed to ensure focus and context-specific recommendations to address a peculiar problem identified to be associated with small enterprises.

Third, the research acknowledges the scope of the issues under study. This research focusses on entrepreneurial networking, network isomorphism, network social capital, innovation, network affiliation and sustainable enterprise growth. While the researcher acknowledges that other issues could

affect sustainable growth of small enterprises, the decision on network isomorphism, network social capital, innovation and network affiliation is due to the problem, the envisaged solution and the time appropriated to complete the research.

Definition of Key Terms

Entrepreneurial Networking: Comprises the social, business, and managerial collaborations between an entrepreneur and other network enterprises for the purposes of regulating, promoting and facilitating knowledge exchange, technology transfer and access to others' valuable resources (Nieman & Nieuwenhuizen, 2009; Srećković, 2018).

Isomorphism: The mimetic, coercive and normative pressures on an enterprise to implement institutionalised standard, successful technologies and best practices of an environment (Scott, 1995; Ouyang *et al.*, 2020).

Small Enterprise: A venture that engages between five and 29 staff, have fixed assets not exceeding \$100,000 and is formally registered at the Registrar General's department (IBES, GSS 2016b; Abor, 2017).

Social Capital: The actual and potential tacit assets comprising relation, structure and cognition embedded within, available through and derived from the social environment (Nahapiet & Ghoshal, 1998).

Sustainable Growth: The extent of an enterprise continually and actively participates in the economic exchange to meet its needs, and customer needs; remain competitive; and maintain all financial and non-financial measures for five years or more (Jyothi & Kamalanabhan, 2010).

Organisation of Chapters

This research is organised in six Chapters. Chapter one provides the background understanding to the study. Additionally, the Chapter justifies the study through a problem statement, research purpose, objectives, questions, the significance of the research, and how the research is organised. Chapter two presents an analysis of the theories that underpin this study. Chapter three reviews the literature on entrepreneurial networking, network isomorphism, network social capital, innovation, network affiliation and sustainable growth.

Chapter four selects, explains and justifies the research philosophy and paradigm which informed choice of survey design, proportional stratified sampling, data collection, analysis, and reporting procedures. The chapter further justifies the techniques used to gather qualitative responses to triangulate the quantitative result. Chapter five presents, analyses, and discusses the research findings. Chapter six provides summary of findings, conclusions, implications to research, theory and policy, recommendations and suggestions for future research.

Chapter Summary

This Chapter focussed on the background of the research by introducing the concepts of small enterprises and their relevance, resources access, entrepreneurial networking, innovation and firm growth. The Chapter also justified the research by detailing the research problems to be resolved, leading to the research purpose, objectives, and questions, the significance of the research to policy, practice, and theory. It concludes with how the thesis is structured. This Chapter is relevant because it provides readers with an idea that the researcher wants to communicate.

CHAPTER TWO

THEORETICAL FOUNDATION OF THE RESEARCH

Introduction

This Chapter of the research discusses the theoretical foundations of the effect of entrepreneurial networking and the leverage mechanisms of network isomorphism and network social capital on innovation and sustainable growth. The aim of the Chapter is to provide a theoretical structure which comprises the resource-based theory, institutional theory, network theory of social capital and diffusion of innovation theory. These theories have been reviewed in a complementary manner to provide a unified theoretical structure to underpin the study. The Chapter concludes with a summary of the theories and the researcher's "voice" on the theories reviewed.

Theoretical Review

This research examines the effect of entrepreneurial networking on innovation and sustainable growth of small enterprises in Ghana. In similar studies, theories such as Moreno's (1937) social network theory, the resource dependency theory by Salancik and Pfeffer (1978), the resource-based theory (Wernerfelt, 1984) and the dynamic capability theory (Teece, Pisano & Shuen, 1997) have been used. The similarities and contrasts in existing theories show the level of complexities, making it theoretically inappropriate to use a single theory to underpin the current study. As argued in the literature, there is no theoretical model without weakness (Xie *et al.*, 2020). Therefore, theoretical integration reduces individual weaknesses and enhances proper theoretical structure (Misati, Walumbwa, Lahiri & Kundu, 2017). Thus, this current study embraces multiple theories to constitute a theoretical structure.

Resource Based-Theory (RBT)

The RBT is widely adopted to explain internally embedded nature of resources and competitive advantage of a firm (Penrose, 1959; Wernerfelt, 1984; Barney, 1991). The theory is often credited to Wernerfelt (1984), Rumelt (1984), and Penrose (1959), but Wernerfelt (1984) is cited to have first mentioned the theory. The RBT assumes that heterogeneous and immobile resources are precursors for non-substitutable and perfectly imitable value, leading to competitive advantage. Heterogeneity means the variations in the resources, capabilities and skills from one industry firm to the other, while the immobile refers to a condition where resources cannot be moved across firms within a short period. These conditions make it difficult for other firms to copy and implement the strategies of the resource owner.

The assumptions of the theory show that inelastic resources influence the opportunity and the ability of an enterprise to create value for competitive advantage (Wernerfelt, 1984). Again, the theory establishes that firms can compete on the quality and quantity of resources instead of the market conditions or positioning strategies (Alvarez & Barney, 2017; Beltramino, García-Perez-de-Lema & Valdez-Juárez, 2020). The logic in the theoretical tenets is that the differential effect of the quality and quantity and the efficiency of embedded resources that a firm possesses influence competitive advantage (Peteraf & Barney, 2003).

In the entrepreneurship literature, the RBT provides a theoretical view of how entrepreneurs accumulate and utilise resources to achieve competitive advantages (Barney, 1991). Despite the seminal assumption of the theory, proponents have asserted that resources that are owned by the entrepreneur

must possess or meet identifiable thresholds of being Valuable=V, Rare=R, Inimitable=I, and Non-substitutable=N VRIN to generate a competitive advantage (Barney, 1991). The VRIN framework offers a conceptual understanding of the theory, and the advancement of the framework has resulted in the VRIO thresholds, which explain that resources ought to be Valuable=V, Rare=R, Inimitable=I, and Organisationally exploitable=O to sustain competitive advantage. The VRIO framework is consistent with the assumptions of the RBT, i.e., heterogeneity and immobility of resources across the firm, which must fully account for how firms achieve competitive advantage from embedded resources (Baia, Ferreira & Rodrigues, 2020).

The assumptions of the theory explain that resource heterogeneity is a consequence of why some firms in the same industry can perform better than others (Peteraf & Barney, 2003; Baia *et al.*, 2020). The assumptions of the theory are fundamental to the creation of competitive advantage (Barney & Hesterly, 2012; Beltramino *et al.*, 2020). Furthermore, the theory assumes rationality in the decisions of the firm to choose or accumulate specific resources. However, the decision to choose a particular resource depends on the information available and the potential of preferred resources to support the activities of the firm (Barney, 2018).

Generally, small enterprises require a blend of resources to meet short to long-term growth objectives (Kozlenkova, Samaha & Palmatier, 2014). In accordance with Barney's classification, resources can be categorised into physical, human and organisational or intangible and intangible resources (Barney, 2001). Barney and Hesterly (2012), drawing insight from the RBV, described resources as financial, physical, human, and organisational.

The description of resources by RBT explains Penrose's (1959) view that firms comprise tangible or intangible resources, which the entrepreneur utilises to develop strategies and tactics to achieve competitive advantage (Barney & Arian, 2001). Similarly, other scholars like Day (2011) also categorised resources as tangible and intangible, including fixed assets, facilities, networks, brands, and human capital. Scholars have argued that intangible resources favour small enterprises than the tangible resources (Fernández-Olmos & Díez-Vial, 2013). According to Fernandez Olmos and Díez-Vial (2013), small enterprises use intangible resources to establish themselves in the market because large firms can easily afford tangible resources. Tables 1 and 2 show tangible and intangible resources that are available to enterprises.

Table 1: Tangible Resources

Resources	Examples
Financial	Internal and external financial capital
Physical	Geographical locations of plants, machinery, and offices, raw materials, and distribution channels
Technological	Copyrights, patents, trademarks, and trade secrets
Organisational	Planning, control systems, information systems

Source: Madhani (2010, p. 9)

Table 2: Intangible Resources

Resources	Examples
Innovation	Research and Development (R & D), new production processes and procedures, organisational innovation, and change management
Human	Managerial competence and organisational culture
Reputation	Perceived product quality, reliability and durability among consumers, customer loyalty, employee job satisfaction, and corporate social responsibility

Source: Madhani (2010, p. 9)

According to Warnier, Weppe and Lecocq (2013), enterprises compare and evaluate the value potential and nature of the resource they choose vis-a-vis their competitors. This view explains the logic that differences in the resources that firms possess in an industry have the potential to improve the market advantage for the firm controlling such valuable and non-imitate resources (Barney & Hesterly, 2012; Alvarez & Barney, 2017). The VRIO framework by Barney (1995) provides important theoretical thresholds for firms to analyse, evaluate and competently organise resources that have the potential to yield superior value and competitive advantage.

Entrepreneurship is a multi-disciplinary and multi-faceted discipline and has multiple associations with the RBT (Foss, 2013). According to Fosu and Boateng (2013), one of the drivers of entrepreneurship is to generate economic value that offers superior growth. Similar to the RBT, differences in innovations employed to exploit combinations of embedded resources are a potential source of value for those who own and control the resources. To generate maximum value from entrepreneurial activities, the entrepreneur must accumulate tangible and intangible resources and effectively utilise them.

Prashantham, Kumar, Bhagavatula and Sarasvathy (2019) emphasised this logic in their investigation on effectuation, which explains that the beginning of the entrepreneur is resources, central to all entrepreneurial activities. Fosu and Boateng (2013) asserted that central to entrepreneurship are tangible and intangible resources, reinforcing the categorisation in the RBT (Barney, 2001).

One of the earliest studies that links the RBT to entrepreneurship is Mosakowski (1998). Mosakowski noted that an entrepreneur's resources are embedded in the entrepreneur alone or distributed across the entrepreneurial team members. Hence, the entrepreneur requires only available resources, without which it cannot achieve competitive advantage (Beltramino *et al.*, 2020). Corroborating Beltramino *et al.* (2020), Papa, Dezi, Gregori, Mueller and Miglietta (2018) also acknowledged the crucial role of intangible human resources and suggested policies to develop a trustful organisational climate, where employees can feel free to innovate and share ideas and visions to help the business grow. The logic here is that though resources are potential sources for competitive advantages, they are only embedded in a person or the team; this brought to fore the criticisms of the RBT.

The RBT is insufficient to explain the importance of external resources in achieving innovation and sustainable growth, especially in a developing nation. The assumption of the theory implies that firms rely solely on the internal embedded set of valuable, rare, inimitable resources to achieve competitiveness. Thus, achieving a sustainable growth is the sole responsibility and resources inherent of the firm/entrepreneur/employees, without which it cannot achieve a competitive advantage (Beltramino *et al.*, 2020). Other studies highlight that the assumption of the RBT ignores the

potential of resources embedded in and derived from the external environment (Kraaijenbrink, Spender & Groen, 2010).

Internal embedded resources are often limited and insufficient to support the long-term growth objectives of the firm (Kim & Shim, 2018). This means that the theory is suitable but insufficient to explain the potential and appropriateness of external resources such as social capital to complement internal resource limitations (Foley & O'Connor, 2013). As Jeong *et al.* (2019) posited, the RBT falls short of a facilitative role of relational resources to complement internal resources. Hence, the current study leans on the NTSC to address the limitations of the RBT and provide a theoretical structure which underpins the nexus between network social capital and sustainable growth.

Network-based Theory of Social Capital (NTSC)

The NTSC has been used to underpin this current research on entrepreneurial networking and sustainable growth. The theory is used in this study to explain network social capital, as a dimension of entrepreneurial networking that creates access to and use of external resources to achieve sustainable growth. Regarding this theory, scholars have advanced knowledge on the seminal work by Granovetter (1973) on network which led to the development of the theory (Burt, 1997; Portes, 1998). Often credited to Lin (1999), the theory explains that an investment in socially embedded resources and social capital make up resources that a firm or group of firms in a network can collectively harness to achieve individual and collective goals. The tenants of the theory imply that the potential stock of social capital for a firm comprises patterned relationships that firms participate in, the location and associations in larger social space (Sandefur & Laumann, 1998).

The NTSC proposes that social relations are either binding/belonging or bonding, consisting of either stronger or weaker ties, respectively (Lin, 1999). Gratton (2005) explained that the ties between networked actors are bonding, while those between groups of networks are bridging ties. The proposition by Lin (1999) suggests that social capital was perceived to be shrouded in the structural hole and network closure theoretical arguments (Portes, 1998; Kwon & Alder, 2002). On the one hand, the structural hole argument assumes that networked actors create social capital by brokering connections between otherwise disconnected actors (Burt, 2001).

Proponents of the structural hole argument maintain that networked firms dwell on weaker social ties, which offer the initiating firm an advantage over resources or information (Burt, 1997). On the other hand, the network closure argument proposes that networked actors who are strongly interconnected are able to create social capital (Claridge, 2004). Coleman (1988), arguing in favour of network closure argument, stressed that social norms and sanctioning mechanisms, which are common in closed networks, increase social capital due to trust. According to Coleman (1988), network closure is suitable on strong ties that bind actors into a single unit with shared norms, goals, and behaviour that require conformity.

According to Burt (2001), the structural hole argument offers full meaning and measure to the social capital metaphor, because social capital is primarily a brokerage function across structural holes and closure within the network (Burt, 2000). Other authors argued that the network closure argument is only relevant in conceptualising and measuring the impact of social capital on actors in a closed network. It also facilitates sanctions that make it less

risky for networked actors to trust each other (Burt, 2000). However, Gratton (2005) made a neutral argument that the nature and quality of network ties among actors are significant to achieving collective goals (Gratton, 2005).

Literature has identified network ties as either direct or indirect (Wasserman & Faust, 1994). On the one hand, direct ties involve two networked actors who are connected directly without the help or medium of a third actor or person (Chang, 2016). Indirect ties occur when a third actor or person is involved in the direct connection between the actors (Chang, 2016), and the role of the third person is to create the relationship between the two actors. According to Granovetter (1973), the potency of direct or indirect ties depends on the “strength” of the ties, wherein strength is the time, velocity, frequency of interaction and the degree of reciprocity.

The strength of the ties can be a strong or weak tie (Chang, 2016). Strong ties exist between network actors who share and use similar resources (Ibarra, 1992). Scholars have cautioned that strong ties could lead to non-redundant resources, where actors receive and use similar resources from the same actor (Cheng, 2016). However, network actors with weaker ties can easily engage other actors who do not share similar views. Thus, weaker ties increase the chance for a networked actor to engage different resources owners from different networks (Burt, 1997).

The network structural hole argument conceptualises network as homophilic and network closure as heterophilic (Benneh-Mensah, 2016). The homophilic approach argues that there is an inner layer that binds networked actors, and also there is the possibility that actors could possess similar resources (Benneh-Mensah, 2016). The homophilic approach also states that

there is strong communication between the intensity of interactions, shared sentiments, and shared resources in the network (McPherson, Smith-Levin & Cook, 2001). The heterophilic view, however, argues differently that as an actor moves out of the inner circle, the actor is exposed to different and more diverse resources with better and unique characteristics (Fu *et al.*, 2012).

Accordingly, NTSC demonstrates the effect of the variations in network structure, position of the actor, shared resources, strength of ties and network density on the richness or poorness of various social structure and content (Benneh-Mensah, 2016). Network density, for instance, represents the ratio of the number of ties to the number of possible ties in a network (Rowley, 1997). The density of a network measures the degree of connection (Cheng, 2016). Therefore, the higher the network density, the more networked firms will engage in effective communication due to large number of direct ties. However, communication could be ineffective in less dense network because of the fewer bureaucracies and patterns (Benneh-Mensah, 2016).

The purpose of the present study is to examine the effect of entrepreneurial networking on sustainable growth of small enterprises. Recently, entrepreneurship development literature has recognised the potential for firms that collaborate to access knowledge and resources owned by partners to achieve competitive advantage (Anwar & Ali Shah, 2020; Liu *et al.*, 2021). Thus, relationships are seen as tacit assets that facilitate access to external resources but unassumed in the resource-based theory. The implication of the NTSC for the current research is that an entrepreneur may belong to networks of firms with similar or different resources which are important for achieving both individual and collective goals.

From Benneh-Mensah's (2016) argument, entrepreneurs with similar resources might be limited in relevance, richness, and diversity of resources required to achieve business goals. Therefore, the entrepreneur needs to move outside the dense network domain to access and use different and novel resources of other partners to support business operations. The structural holes and network closures arguments, and homophilic and heterophilic arguments explain this logic (Borgatti & Halgin, 2011).

The homophilic view (Benneh-Mensah, 2016), for instance, believes in "love of the same," which explains the friendly nature of relations among networked firms (Borgatti *et al.*, 2013). Therefore, in resource exchanging situations, it is reasonably expected that the homogeneity of characteristics of the firms could be a potential factor for networking (Witt, 2004). Entrepreneurs with similar resource will reasonably expect to share them with networked firms which have different and diverse resources.

A network member who operates a financial institution, for instance, would expect to form relations with companies in the production (manufacturing) industry chain to share their financial resources for mutual benefits. Highly dense network of financial institutions may not fully help the financial institutions, hence trustful relationships with manufacturers, suppliers, and wholesalers will promote exchange of resources for operations and growth due to resource variations. This resonates with the network success hypothesis which posits that socially embedded ties allow entrepreneurs to access resources from different firms, which has a positive impact on business success (Misati *et al.*, 2017; Adomako & Danso, 2018).

One of the criticisms which aligns with the argument of the current thesis is that, the NTSC does not explain the relevance institutional conditions in facilitating access to external resources (Borgatti & Halgin, 2011). The basis for the criticism is that social capital could produce negative consequences because institutions or human induced constrains may support access to external resource (Portes, 1998; Portes & Landolt, 2000). Levien (2014) also revealed that social capital is a barrier to inclusive development, because it creates inequality in social classes. These criticisms against the NTSC limit the application of the concept of social capital, hence scholars use other terms like trust to widen understanding, conceptualisation and application.

The argument of this study is that apart from the social capital comprising structure, relation and cognition, network as an institution also facilitate access to resources. However, the NTSC does not consider the relevance of institutions or human induced conditions which could facilitate access to external resources. Thus, the study aligned with the institutional theory in addition to the NTSC to explain the effect of network social capital (from NTSC) on innovation (from DoIT) leading to sustainable growth.

Institutional Theory (IT)

The institutional theory is credited to Scott (1995), who proposed that institutional conditions facilitate, promote and regulate social, and administrative routines, behaviours and actions of actors within an environment. According to Scott (1995), institutions comprise cognition, norms and regulatory conditions that create stability and give meaning to the behaviour of members of a society. The assumption of the theory has been

found useful in contemporary studies, which also aligns with North's (1990) view on the institutional theory. In North's (1990) views, institutions are humanly induced constraint that shape human interactions and relationships. The assumption of the theory offers a framework to evaluate formal and informal rules and standards of an institution that shape behaviours, decisions and actions of actors within the environment (Jan, Lu & Chou, 2012).

The theory's assumption further shows how the tenets directly relate to the governance that affects actions of networked firms (Gonzalez, Arquero Montano & Hassall, 2009). According to Cajaiba-Santana *et al.* (2020), the institutional theory assumes that the external environment exerts pressure on firms and their governance, which creates shared goal, purpose and action. Generally, the theory posits that the structural and behavioural changes in a particular environment are driven by an inherent need to gain acceptability, legitimacy, reputation, and prestige (Ouyang *et al.*, 2020). Specifically, the theory shows that isomorphisms within a network environment such as mimetic, normative and coercive explain the homogeneity of actions and behaviour of the firms within the environment (DiMaggio & Powell, 1983).

First, coercive isomorphism involves imitating, replicating and implementing specific practices, decisions and ideas by a network entrepreneur to avoid potential costs, sanctions and fines by the network association (DiMaggio & Powell, 1983). Second, the theory explains normative isomorphism as the pressure on the entrepreneur to integrate standard procedures based on guidelines approved by the institution, and in Ghana, mention can be made of AGI and GEA. Due to normative pressure, the entrepreneurs have limited options but to follow the values and norms of

networks in exchanging and implementing the best practices (Jan *et al.*, 2012). Third, mimetic isomorphism is the pressure that influences an actor to adopt structures, systems, and actions of peer firms (Cajaiba-Santana *et al.*, 2020).

The present research aligns with tenets of the institutional theory to understand the effect of network isomorphism on sustainable growth. The theory is employed in this study as a leverage mechanism and a tacit asset that allow entrepreneurs to share and or gain access to valuable external resources and implement knowledge, technologies and other critical resources owned by partners. The theory explains the critical role of institutional pressure on network members to be responsive in sharing and implementing valuable ideas, knowledge, technologies and other resources which intend affect their innovation capability and performance.

Diffusion of Innovation Theory (DoIT)

In this study the DoIT is used to examine the mediating role of innovation in the relationship between entrepreneurial networking and sustainable growth of small enterprises in Ghana. In 1962, Rogers popularised the DoIT in his book “diffusion of Innovation”. The theory assumes that in a social system, diffusion occurs as a process whereby innovations spread (communicated) overtime among actors in a system. In his book, Rogers defined innovation as “an idea, practice or object that is perceived as new by an individual or other unit of adoption as measured over time since its first use or discovery” (Rogers, 1995 p. 11). He added that innovation is best defined by the actor who perceives it as new, and “its newness may be expressed in terms of a decision to adopt, knowledge, or persuasion” (p. 11)

The assumption of the DoIT underscores the rate at which new knowledge spread, and the “how” and “when” the spread occurs. The theory is underlined by five dimensions that drives the spread of innovations which includes the innovation itself, adopters, communication channel, time and social system. First, Rogers suggested that the process by which innovation spread depends on social capital (Rogers, 1962). Also, innovation must be adopted by larger members of the system either innovators, early adopters, early majority, late majority and the laggards to ensure self-sustainability.

The current study argues that internal embedded resources are often limited. Given the limitation of the RBT, the study employs the institutional theory and NTSC, which explain the entrepreneurial mechanisms to access and the need to use the resource of network partners. Therefore, external resources complement the limited embedded resources to create resource synergy, enhancing business operations and performance. By implication, the RBT, NTSC and IT are interlinked and integrated to underpin this research.

Summary

This Chapter reviewed RBT, NTSC and the IT to underpin this current research. The Chapter has argued that from the RBT perspective, a firm require internal resources which is often limited to support medium to long term growth. Drawing on the NTSC and the IT, entrepreneurs require external resources to complement their limited internal resources. Hence, the three theories are used to underpin the proposed framework on the effect of entrepreneurial networking and its leverage mechanisms of network isomorphism and network social capital on innovation and sustainable growth of small enterprises in Ghana.

CHAPTER THREE

CONCEPTUAL AND EMPIRICAL REVIEW

Introduction

This chapter reviews literature on the key concepts in the research. The chapter comprises the conceptual review, empirical review, and conceptual framework. First, the chapter evaluates the key concepts of the study. Second, this chapter reviews the empirical literature on the relationship between the key concepts in the study. Corroborative and contrasting relationships and gaps are also discussed. Third, a framework is proposed, and the path relationships are explained to reinforce the research hypotheses. The Chapter concludes with a summary of the review.

Review of Key Concepts

This thesis examined the effect of entrepreneurial networking and its leverage mechanisms of network isomorphism and network social capital on innovation and sustainable growth of small enterprises. According to Kivunja (2018), literature review should consider the main or key conceptual ideas relevant to the research. The conceptual review must show whether the views expressed in the literature contrast or corroborate. Therefore, this section of the study reviews the literature on small enterprises, sustainable growth, entrepreneurial networking, network isomorphism, network social capital and innovation. The literature review rests on the RBT, institutional theory, NTSC and DoIT.

Small Enterprises

Small enterprises contribute to the growth of developed and emerging economies (D'Angelo & Baroncelli, 2020). However, the definition of a “small enterprise” varies across countries, institutions and scholarly orientations based on the specific criteria and indicators (Khan, 2017; Quaye & Mensah, 2019). The convergence of definitions of small enterprise emphasises indicators such as annual turnover, fixed assets, asset base, number of employees and legal status (Mabenge *et al.*, 2020). For instance, Mahembe (2011) described a small enterprise using sales turnover, number of employees, and capitalisation levels. The employment indicator by Mahembe (2011) corroborates Abor (2017), who emphasises that the number of employees and other indicators varies across institutions and countries.

At the institutional level, the United Nations Industrial Development Organisation (UNIDO, 2003) used the number of employees to define small enterprises across industrialised and developing economies. In industrialised economies, a small enterprise has 99 or fewer employees, whilst in developing nations, small enterprises engage between five and 19 employees. Like UNIDO, the World Bank (2013) report also indicates that a small enterprise employs up to 50 employees and makes about US\$3 million in sales turnover. Similar to the World Bank (2013), OECD (2017) uses employee size between 10 and 49 to describe a small enterprise. The European Union used the same basis as the World Bank (2013) but used different thresholds to describe a small enterprise as a firm with less than 50 employees and €10 million in sales turnover (Mabenge *et al.*, 2020). Table 3 presents some global definitions of small enterprise.

Table 3: Definitions of a Small Enterprise

Country/ Institution	Criteria	Threshold
World Bank	Size of turnover	≤50 ≤\$3 mil
EU	Size of turnover	<100 <€10mil
OECD	No. of employees	10 to 49
UNIDO	No. of employees	<5-19
China	No. of employees	<300
Australia	No. of employees	5 to 9

Sources: Abor (2017) and World Bank (2013).

The variations in definitions of small enterprises echo the lack of universality (Mabenge *et al.*, 2020); thus, applying a single indicator in a particular research context will be academically unsuitable. Hence, the decision to use a particular definition of a small enterprise should be based on context. In Ghana, the number of employees indicator is predominant in policy and research (Ackah & Vuvor, 2011). For instance, Osei, Baah-Nuakoh, Tutu, and Sowa (1993) classified a small enterprise as a firm that engages less than 29 employees, similar to Aryeetey, Baah-Nuakoh, Duggleby, Hettige and Steel (1994) who conducted a field survey of 133 enterprises in Ghana.

The Regional Project report on Enterprise Development Ghana (RPEDG) reported that small enterprises employ between five and 29 employees. According to the Ghana enterprise agency, a small firm employs between five and 29 employees and has fixed assets, excluding land and building, not exceeding \$100,000. Ghana Statistical Service (GSS, 2010) defines a small enterprise as a venture that employs less than 10 employees. Table 4 displays some definitions of a small enterprise in Ghana.

Table 4: Categorisation of Small Enterprises in Ghanaian Context

Country/ Institution	Criteria	Threshold
IBES (GSS, 2016b)	No. of employees	6 – 30
RPEDG (Abor, 2017)	No. of employees	5 –29
GEA	No. of staff Fixed assets	< 6 – 29 < \$100,000
GSS	No. of employees	<10
Osei at al. (1993)	No. of employees	Very Small 6 – 9 Small 5 -29
Aryeetey <i>et al.</i> (1994)	No. of employees	5 to 29

Source: Author's Conceptualisation (2021)

The operational definition of small enterprise for this research is based on the classification by GEA, the economic census of business by Ghana Statistical Service (IBES GSS 2016b) and Abor (2017). In this thesis, a formal small enterprise is seen an establishment that engages between five and 29 employees, has fixed assets (excluding land and building) not exceeding \$100,000 and is formally registered with the Registrar General's Department (RGD) of Ghana (Abor, 2017). This classification is consistent with Bolton Report (11971) that an enterprise that employs less than 99 employees can be classified as a small enterprise.

Besides, the number of employees and capital employed are the predominant indicators to conceptualise small enterprises, whilst registration status makes it easy to differentiate formal enterprises from informal enterprises - the focus of the study. The definition provides a context-relevant description of small enterprises.

Sustainable Growth of Small Enterprises

Theories on enterprise growth are expanding since growth is critical to assessing business success and long-term survival endeavours (Islam & Wahab, 2020). The blend of theories and models linked to growth emphasises a significant index or measure of a growing economy, business achievements (Falk & Hagsten, 2015), and a growing enterprise (Gupta *et al.*, 2013). In the present study, Gupta *et al.* (2013) view is found useful as the views support Heffes and Sinnet (2006), that the ultimate aim of an enterprise is to grow and be sustained (growth) over a longer period.

Growth is seen as a change in a particular parameter(s) of the business over time (Martin, 2016). It is an internal dynamic process that shows whether the firm is static or developing (Dobbs & Hamilton, 2007; Schwab *et al.*, 2019). The growth process provides options for a firm to increase production activities and market share, which would not have been possible without measure of the firm growth (Obeng, 2018). In other studies, growth is seen as an increase in profitability, sales or turnover, number of staff employed, physical output and total assets of a firm (Obeng *et al.*, 2014).

The contribution of small enterprises cannot be underrated hence, the integration of sustainability is critical for developing resilience in business growth (Agyapong & Arthur, 2018). Sustainability in growth has assumed significance in theory and practice, with varied definitions in the theory (Islam & Wahab, 2020). The sustainability view assumes that firms exist perpetually by maintaining stable long-term success (Memon *et al.*, 2020).

Recent studies have shown that the business environment is fast becoming uncertain, thus requiring stable business growth (Severo,

Guimarães, Dellarmelin & Ribeiro, 2019). Despite research expeditions on economic, social and environmental dimensions, the measure of sustainable growth is still underdeveloped, especially in the small enterprise literature (Martins, 2016; Liu & Yang, 2020). Some studies have argued from financial perspectives that sustainable growth involves the growth of an enterprise within the financial abilities and constraints (Huang & Liu, 2009).

Sustainable growth is also seen as the actual capability of a firm to intensely integrate economic, social and environmental priorities into strategy, goals, objectives and shareholder value (Harmon *et al.*, 2009). In their study, Stefanikova *et al.* (2015) defined sustainable growth as the long-term perspective of an enterprise's growth process. Thus, understanding sustainable growth involves continuous long-term growth consideration of two dimensions: first, time-related - by maximising present gains and allowing the future to grow, and second, the location or place and a concern for continuing safety of the society or environment (Meng, 2015).

The sustainable growth literature emphasises the continuous growth process. The work by Yusoff *et al.* (2018) indicates that sustainable growth of a small enterprise reflects the self-sufficiency growth by achieving financial performance objectives consistent over time and within the capacity or abilities of the firm while sustaining future gains without deteriorating long term-existence. Regarding time, Jyothi and Kamalanabhan (2010) posited that sustainable growth means achieving stability or increasing specific parameters of a firm for a longer period, preferably beyond five years of survival. Five years is a period that a firm can survive the initial phases and gain stability in different parameters (Jyothi & Kamalanabhan, 2010).

As stated earlier, there are several parameters of business, but until recently, profitability was prioritised based on the long-term existence of a firm and the rationale of sustainable growth (Stancu *et al.*, 2015). These scholars highlight that growth is highly linked with profitability which is hugely impacted by productivity (Kachlami & Yazdanfar, 2016; Islam & Wahab, 2020). In a similar financial perspective, Kambil (2007, p. 6) offered that “sustainable business growth reflects the maximum pace at which a company can grow its revenue”.

According to Nasr and Rostmom (2013), a sustainable business growth rationale may enable the firm to consistently employ more people from society. As Penrose (1959) indicated, sustainable growth should be seen as an increase in a growth indicator over time. Though financial indicators dominate the literature, the lack of sufficient information on financial indicators such as sales or profit makes it difficult to use only economic indicators to measure growth (Robson & Freel, 2008). Nguyen and Aoyama (2014) showed that for Japanese manufacturing subsidiaries in Vietnam, the exchange of technology has 40 per cent benefits on productivity.

The present research leans on the literature to develop a measurement index for the sustainable growth of small enterprises (Kachlami & Yazdanfar, 2016; Schwab *et al.*, 2019; Islam & Wahab, 2020). For this thesis, sustainable growth is seen as the extent to which a firm is able to maintain stable long-term (continuity) sales, number of employees, productivity and profitability (Ghamloush, 2021; Acheampong *et al.*, 2017). It is seen as a stable growth in sales, profit, number of employees, productivity and customer satisfaction.

While these indicators align with the literature, they (indicators) respond to Boohene's (2019) call for a multi-measure to firm performance. Empirical views which align with the argument made in this thesis suggest that an entrepreneur that wants to maintain or sustain growth must engage in networking (Liu et al., 2021; Anwar & Anwar & Ali Shah, 2020; Han et al., 2020; Xie et al., 2020). Entrepreneurial networking has assumed a significant attention in the entrepreneurship as a strategic collaboration with the possibility of optimising or sustaining growth of small enterprises.

Entrepreneurial Networking

Studies have revealed different empirical and theoretical knowledge about entrepreneurial networking (Nieman & Nieuwenhuizen, 2009; McKeever *et al.*, 2014). Though entrepreneurial networking has not received significant theoretical and conceptual support, Nieman and Nieuwenhuizen (2009) described entrepreneurial networking as a patterned association between entrepreneurs, which facilitates knowledge exchange, technology transfer, and access to critical resources and entrepreneurial opportunities and contacts. Scalera and Zazzaro (2009) agreed with Nieman and Nieuwenhuizen (2009) that entrepreneurial networking is about a web of stable associations among a group of entrepreneurs within an environment. Johannisson (2017) expanded earlier definitions by Nieman and Nieuwenhuizen (2009) to include the active process of creating and sustaining relationships by the focal actor (entrepreneur). Johannisson's (2017) emphasis on a focal actor in the definition of entrepreneurial networking is analogous to that of Srećković's (2018). Srećković (2018) explained that an entrepreneurial network is formed

when an entrepreneur has more than one relationship in an environment which facilitate access to and use of vital resources owned by others.

Based on the institutional theory and the NTSC, the present study views entrepreneurial networking as an active process that comprises an entrepreneur (a focal person) and other independent firms (e.g., suppliers, manufacturers, distributors, and finance institutions) who are connected by ties, relationships, and shared norms for exchanging, sharing and using resources owned or controlled by others (Jeong *et al.*, 2019).

In an entrepreneurial network, the actors (companies) possess, share and use resources and are (actors) linked by ties and relationships (Qi & Chau, 2018; Boohene *et al.*, 2019). Entrepreneurial networking relationships may be derived from membership in trade associations, business networks or friendships with business people (Lockett, Quesada-Pallarès, Williams-Middleton, Padilla-Meléndez & Jack, 2017). The authors added that entrepreneurial networking help the entrepreneur to access and use vital information and novel ideas and implement entrepreneurial opportunities gained from partners

Furthermore, the literature review emphasises that network comprises relationships between businesses, groups or individuals, while networking is the process of developing, participating in and leveraging a network (Habersetzer *et al.*, 2019; Lundberg, 2019). However, both network and networking aim to facilitate individual and mutual benefits for the actors. From the network theory of social capital (NTSC), entrepreneurial networking can be seen as a “web” of business activities that create a social capital mechanism. This tacit asset facilitates knowledge exchange and utilisation.

Additionally, the institutional theory explains how isomorphism (pressures) constitutes an entrepreneurial mechanism that influences actors to share or gain access to valuable resources and implement successful technologies, standard knowledge and practices.

Scholars echoes the role and potential of networking to facilitate entrepreneurial actions such as resource and knowledge sharing, and to transfer and alter the paradigm of a firm's strategy towards sustainable outcomes (Acheampong *et al.*, 2017). Based on the institutional theory and the NTSC, this study conceptualises network isomorphism and network social capital as entrepreneurial mechanisms that constitute a tacit asset available to network actors to gain access to and leverage a network. Besides, social capital and isomorphism are conceptualised as entrepreneurial mechanisms for leveraging the benefits of networks, associations, collaboration and alliances (Gibson *et al.*, 2014; Assadinia *et al.*, 2019).

Network Isomorphism

Early pioneers like DiMaggio and Powell (1983) refer to isomorphism as the constraining mechanisms that force one unit in a population to resemble other units that face the same set of environmental conditions. DiMaggio and Powell's (1983) theoretical assertion resonates with Hannan and Freeman (1986) which explains that the environment exerts power over the community, and when the biological communities face similar environmental pressure, for example, they adopt similar means to live, such that eventually they achieve the same form.

From institutional perspective, scholars like DiMaggio and Powell (1983) described institutional isomorphism as network isomorphism which involves pressures that institutions exert on networked firms to act in similar manner to achieve legitimacy. Similarly, network isomorphism has been defined as the extent to which networked firms conform to standard and institutionalised practices and norms within the network (Washington & Patterson, 2011). The basic assumption of network isomorphism is that networked firms explore their environment for signals on what the network considers as acceptable and proper practices and actions (Joo *et al.*, 2017).

As network actors identify appropriate practices and conform to the standards and practices, isomorphism makes it possible to describe them as homogeneous (Zhao & Peng, 2018; Aksom & Tymchenko, 2020). Moreover, the homogeneity allows firms to easily mimic, replicate and implement practices and ideas of other networked firms due to shared identity. Network isomorphism is characterised by conformity of members than their resistance, the best strategic responses for networked actors to access novel resources and also implement valuable technologies and knowledge that other networked firms have generated (Aksom & Tymchenko, 2020).

The institutional theory provides insight into the conceptualisation of network isomorphism and addresses network governance in terms of shared meaning, norms and rules (Cajaiba-Santana *et al.*, 2020). It answers why firms within an industry which hitherto exhibited considerable heterogeneity, over time become homogenous in structures and practices (DiMaggio & Powell, 1983; Barney, 2018). From the institutional theory, institutions exert mimetic, coercive, and normative pressures on firms to implement certain practices,

ideas, behaviour, actions, technologies and strategies (Ranabahu *et al.*, 2020; Ouyang *et al.*, 2020; Anthony Jr., 2021). In the context of this research, institutions imply “the rules of the game in society, or more formally . . . the humanly devised constraints that shape human interaction” (North, 1990, p. 3).

Relating the institutional theory framework to network isomorphism, literature reveals that network isomorphism comprises institutions that exert coercive network pressure, normative network pressure and mimetic network pressure which compel firms within the network to be homogenous (Torkkeli, Kuivalainen, Saarenketo & Puumalainen, 2019). Homogeneity arises when powerful network members or institutions use their power asymmetry to punish and/ or employ reward power systems to encourage other firms to adopt and implement certain practices, decisions, actions and strategies (DiMaggio & Powell, 1983; Munir & Baird, 2016; Depoers & Jérôme, 2019).

Overtime, as networked firms strive to achieve legitimacy within the network, they (networked firms) tend to become similar or isomorphic and adopt certain practices and behaviours that they consider acceptable and legitimate to respond to pressure from the network institution (Hambrick, Finkelstein, Cho & Jackson, 2004). Based on the tenants of the institutional theory, the next sub-sections discuss the normative, coercive and mimetic mechanisms within network isomorphism context.

Mimetic network isomorphism

Mimetic network isomorphism refers to the pressure that influences network firms to imitate, emulate, replicate or implement certain knowledge, technology, practices and actions of other network firms perceived to be similar to their establishment (Munir & Baird, 2016; Ouyang *et al.*, 2020), and

successful and legitimate with what they do (Joo *et al.*, 2017). Similarly, mimetic network pressure implies that a firm replicates the practices of other organisation with similar structure to gain legitimacy (Munir & Baird, 2016).

Current theoretical assertions argue that mimetic network isomorphism influences firms to imitate the practices and actions of other firms perceived to be similar to their establishment (Ouyang *et al.*, 2020). Like Ouyang *et al.* (2020), Cajaiba-Santana *et al.* (2020) explained that mimetic pressures are forces that influence a firm to adopt similar structure and behaviour of other similar or comparable firm within the same network. Mimetic pressure arises from a conscious effort of a firm to model itself after another firm perceived to be a higher achiever and successful (Bokolo Jr *et al.*, 2020).

Mimetic isomorphism is not a compulsion but a desirable requirement, a phenomenon that DiMaggio and Powell (1983) term mimetic pressures. The non-compulsion logic resonates with Depoers and Jérôme (2019) who observed that mimetic network isomorphism only pushes or influences firms within the network to emulate systems or structures of other firms that they perceive as performing well. In a network environment, the pressure on networked members to imitate and replicate other competitors is to provide a benchmark to support business operation. This logic is analogous to Zucker's (1987) observation that in a highly uncertain, competitive and homophilic network environment, there is the high tendency for institutional mimicry.

The intensity of the uncertainty becomes a powerful force that drives institutional imitation and mimicry and implementation of certain business practices and strategies, hence reducing the uncertainty (DiMaggio & Powell, 1983). In response to uncertainty regarding, for example, structures, actions or

processes, network members model themselves after other members that have already successfully experienced the actions or processes in question and therefore appear legitimate (Munir & Baird, 2016; Joo *et al.*, 2017).

Some firms want to be associated with the prestige and reputation of the successful member even when such organisations are not concerned about achieving specific goals and pursuing efficiency (Joo *et al.*, 2017), but rather merely “doing something” that has been practiced by other successful organisations (Galaskiewicz & Wasserman, 1989). Reputation and prestige are tacit resources that help firms to easily access resources they need, emulate, replicate and implement similar practices of the reputable firms.

Normative network isomorphism

Normative network isomorphism is the pressure exerted on entrepreneurs to comply with practices and norms based on shared professional standards within the network environment (Jnr *et al.*, 2020b). The pressure stems from the professional shared cultures and culture of the network (Munir & Baird, 2016; Ahmed *et al.*, 2019), which Munir and Baird (2016) identified as source of network isomorphism. The basic tenant of the normative isomorphism, according to Hofstede (2001), is culture- the collective programming of the mind (feeling, think, acting and its consequences for their beliefs and attitudes) of a group of people. Similar to Anthony Jnr. *et al.* (2021), Yang and Nowell (2021) also viewed normative network isomorphism as the shared effort of networks to define a boundary for their work, decision, and actions, and to seek to legitimise their activities in a form of culture.

Studies have argued that normative network isomorphism comprises stakeholders who are internally and externally related to an organisation (Munir & Baird, 2016). Munir and Baird (2016) further explained that, for instance, pressures of professional and occupational bodies who are external stakeholders guide the decision and behaviour of the network and each member, and also what is permissible. Thereby, all firms located within such a network are expected to conform to standards and take decisions which are considered legitimate by the institution (Munir & Baird, 2016). Internally, the normative isomorphism framework proposes that firms are more likely to copy and implement certain business decisions, practices and ideas if the decisions, ideas or strategies have been adopted by many other firms (Jnr *et al.*, 2020). Hence, normative isomorphism implies that there is no external pressure from external stakeholders or conscious effort to copy, imitate and implement the ideas or business practices. But the firm implements the ideas because other firms have adopted and implemented such practices for long, making it legitimate and the best way of doing business (Cajaiba-Santana *et al.*, 2020).

In a network environment, normative pressure has the tendency to influence or guide the nature of the resources that a firm can mobilise for purposive action (Cajaiba-Santana *et al.*, 2020). Consequently, the normative pressure influences the activities that firms can engage in given the restriction on accessible resources, business operations and what is acceptable. For instance, when the institution has professional standards of green practices and safety of the environment, all firms are required to adopt green practices in their value chain activities (Hoejmose *et al.*, 2014). Jan *et al.* (2012) found that in the educational environment, for instance, normative pressure compels

institutions to follow the professional norms of others educational members' (Anthony Jnr. *et al.*, 2019; Anthony Jnr., 2021).

Coercive network isomorphism

Coercive network isomorphism is the pressure exerted by formal and informal institutions on networked members (DiMaggio & Powell, 1983). DiMaggio and Powell (1983) described external stakeholder as political (power dynamics and political structures) and social institutions, upon which a firm depends for resources, business ideas, strategies and legitimacy. External stakeholders exert pressure that influences the dependent firm to comply by implementing what is considered the best practices, ideas or actions within the network to gain legitimacy. For instance, the government of a country plays a significant role by setting standards and regulations to reflect the expectations of the general population (Habersetzer *et al.*, 2019). Often, such standards and regulations are considered the best practices to promote social good and help businesses to grow. Firms that comply and implement the decisions and practices of the government often have access to (political) knowledge that might be relevant for their businesses and can lobby for their specific interests (Habersetzer *et al.*, 2019). However, the political institutions take the form of either formal or informal regulator of industry and firms (Ahmed *et al.*, 2019).

At the industry network, coercive network isomorphism arises from standards and procedures by the industry or power firms within the industry to regulate activities of other members (Anthony Jnr., 2021). The standards and procedures are direct and indirect, and all members in the industry must comply before they could benefit from the network (Sanchez-famoso *et al.*, 2020). Ahmed *et al.* (2019) further argued that government and state

institutions may also influence the industry standards and norms for firms within the network to comply and implement certain practices and innovative technologies. Again, political institutions and regulatory authorities in a specific sector of an economy may also exert coercive pressure to decisively drive firms to adopt certain practices which affect business operations and performance (Anthony Jr., 2019).

At the firm level, Scott (2001) viewed coercive network isomorphism as manifesting in contractual and legal agreement between dependents and independents networked firms. The contractual agreement places obligation on each firm to fulfil the agreement in the contract. Joo *et al.* (2017) argued that pressure in contractual agreement arises where the parties to the agreement belong to network, industry or country with institutions governing activities of members. According to Joo *et al.* (2017), SMEs involved in contractual agreement to share information must comply with contractual obligation. Failure to comply may result in potential cost or fines (Anthony Jnr., 2021).

Largely, while scholars (Zhao & Peng, 2018) acknowledge that coercive pressure obligates enterprises to implement certain practices, others have also argued that it reduces innovation diversity because of redundant ties which are not likely to produce novel ideas and knowledge (Suseno & Rowley, 2018). Again, powerful networked firms would control vital resources, flow of benefits and social exchange, while weak or low powerful firms may be negatively affected (Esmaeili & Zeephongsekul, 2010). Despite literature arguing against the potential of coercive network isomorphism, emerging empirical literature (Ranabahu *et al.*, 2020; Anthony Jnr., 2021) and the institutional theory provide insight into the concept of coercive network

isomorphism as a strategic tacit asset which has the potential to influence implementation of certain practices relevant to businesses.

Network Social Capital

In the last four decades since the work of Loury (1977), social capital research has focussed on relationships, network and network resources to support research into the concept (Liu *et al.*, 2018; Pratono, 2018). Social capital is a unidimensional construct with various components, as shown by Loury (1977), but has matured from just a concept into an independent field of research (Kwon & Alder, 2014). The 1990s saw the infusion of social capital into strategic management literature (Nahapiet & Ghoshal, 1998; Tsai & Ghoshal, 1998) and practice which has drawn on the idea of social capital as a source of value creation – an important resource for SMEs (Suseno & Rowley, 2018). The multifaceted nature of social capital with perspectives in different fields of study makes the concept a slippery one (Hanifah, Halim, Ahmad & Vafaei-Zadeh, 2019), affecting conceptualisation in research and practice.

Arising from the NTSC, scholars have also defined social capital as resources and ties embedded in social structure and relationship to facilitate access to beneficial outcomes for members within the group (Coleman, 1988; Suseno & Pinnington 2018). Similarly, Putnam (1993) explained social capital as resources inherent in social relations that facilitate collective action towards desired level of personal, entrepreneurial or business productivity. The concept is broadly defined as the “features of social organization, such as networks, norms, and social trust, that facilitate coordination and cooperation for mutual benefits” (Putnam, 1995, p. 67) but can be conceptualised a set of valuable resources embedded in social ties among individuals or collective

actors (Kwon & Adler, 2014). Nahapiet and Ghoshal (1998, p. 243) also highlight social relations to define social capital as “the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships, possessed by an individual or social unit”.

For Lin (1999, p. 31), social capital comprises “the resources embedded in a social structure which are accessed and/or mobilised in purposive action”. Lin (2001, p.25) reviewed the earlier definition as “the resources embedded in social networks accessed and used by actors for actions ... can also be envisioned as investment by individuals in interpersonal relationships useful in the markets”.

Sanchez-famoso *et al.* (2019), revealed that social capital is a collective resource that occurs from and is shaped by social relations between network actors. Further development on the construct by Ellison *et al.* (2014) also described social capital as the advantages that social actors in a network gain for participating in interactions. Like Ellison *et al.* the work by Ganguly *et al.* (2019) explained social capital as the stock of resource advantages that firms envisage to be available to them through structural and normative ties. Ganguly *et al.* (2019), quoting from Coleman’s seminal work (1988), indicated that the tacit assets were initially derived from the broad idea that social ties are valuable resources that assist firms to operate efficiently.

According to Coleman (1988), social capital is embedded in social structure and relationships aimed at facilitating access to beneficial outcomes for social actors. Coleman described social capital using the dimension of “information flow”, “trustworthiness” and “Norms and sanction”. Other seminal views use the strength of network ties (Granovetter 1973), structural

holes, and network structure (Burt, 1992) to discuss social capital from “Bridging” and “Bonding” perspectives. Krishna and Shrader (1999) developed an assessment tool that conceptualized social capital at micro and macro levels where the micro level focuses on cognitive and structural dimensions of social capital, while the macro level refers to the formal structure and ties such as rules and laws (Ganguly *et al.* 2019). Other studies view social capital from “information diversity”, “Information volume” and “Information richness” perspectives (Sagar *et al.*, 2019; Weerakoon, McMurray, Rametse & Arenius, 2020).

This research aligns with the definition of social capital proposed by Lin. (2001, p. 29) as “resources embedded in a social structure that are accessed and/or mobilised in purposive action”. Thus, social networks along with the embedded resources that actors can mobilise through the networks constitute social capital (Bourdieu, 1986; Nahapiet & Ghoshal, 1998). It is distinguishable from economic or human capital in that, social capital is jointly owned in a relationship, engenders social structure and facilitates the action of people within that structure (Sagar, Rose & Kajewski, 2019).

Putnam (1995), in his seminal article, observed that social capital is not unidimensional in nature, but rather comprises a plethora of facets. Nahapiet and Ghoshal (1998) expanded Putnam’s (1995) position, noting that social capital is an integrative framework. The most widely used view of social capital by Nahapiet and Ghoshal (1998) suggests that social capital comprises relational, structural and cognition dimensions through which the strength of social capital can be perceived. The current thesis reasons with Nahapiet and Ghoshal (1998) who clustered social capital into structural, relational, and

cognitive dimensions. The three dimensions of social capital are discussed in the context of networking among small enterprises.

Network structure

The structural social capital dimension is the embeddedness of social actors, systems, ties and interactions (Nahapiet & Ghoshal, 1998; Ganguly *et al.*, 2019; Weerakoon *et al.*, 2020). Network structure refers to the overall network configuration, links, connections or relationships (Ganguly *et al.*, 2019). According to Patulny and Svendsen (2007), network structure is the pattern of connections among networked firms. Similar to Patulny and Svendsen (2007), Abban, Omta, Aheto and Scholten (2013) highlighted the interaction component of network structure because it defines the nature of relations amongst the networked firms. Apart from Abban *et al.*'s (2013) emphasis on interaction, others like Foley and O'Connor (2013) noted network strength, density, diversity and centrality and connectivity as mechanisms of social capital that determine access and benefits of social capital among networked firms.

Strength of network is the mechanism which defines the quality and depth of interactions and relations among members (Granovetter, 1973). Network tie-strength is the time of interactions, the degree of reciprocity, and the strength of emotion (Granovetter, 1973). The efficacy of network structure is measured by strength of the interaction and relations i.e., network ties. According to Cheng (2017) and Boso, Story and Cadogan (2013), the strength of network ties can be strong or weak, which affect resource access, innovation, performance, quality of information and efficiency.

Strong ties are “combinations of the intimacy (mutual confiding), the emotional intensity, amount of time, and the reciprocal services” among networked firms (Granovetter, 1973, p.1361). Firms with strong ties maintain constant, trustful and mutual contact with each other and are motivated to reciprocate actions that lead to innovation and shared gains (García-Villaverde *et al.*, 2017). Pratono (2018) made a contrary argument that strong ties lead to redundant information and less exposure to new information, where members receive similar information over similar network relations.

Contrary to strong ties, weak ties are characterised by low intimacy, low emotional intensity, less amount of time, and the less reciprocal commitment among network members (Granovetter, 1973). Weak ties are important because these relationships provide the entrepreneur with diverse, new and novel information (Elfring & Hulsink, 2007), which may not be available from strong ties network. Other scholars argue similarly that weak ties lead to sharing and access to novel information by bridging other disconnected groups and individuals, which strong ties cannot because of the potentiality of knowledge redundancy (Rastrollo-Horrillo & Rivero Díaz, 2019). Firms within weak ties are more likely to benefit from resource differential effects, because of resource diversity from different industry firms, thus creating many resource opportunities. Again, network structure with a balanced mixture of strong and weak ties, i.e., heterogeneous firms, has been regarded as favourable to the success of networked firms.

Apart from the strength of network ties, Granovetter (1973) highlighted the importance of network structure. Network density is the ratio of the number of ties to the number of possible ties in a network (Cheng,

2017). Cheng noted that density measures the degree of connections among networked firms. Network density also considers the degree of heterogeneity of firms involved in a network (Witt, 2004). High density means networked firms have effective communication, and the number of direct ties within the network is large where members go through many paths to communicate and exchange ideas (Cheng, 2017).

Similarly, network structure formality like buyer-supplier relations and bank-manufacturer (Freeman, Edwards & Schroder, 2006) and informal network like social relations characterised by goodwill influence network success. Firms with diverse formal and informal network contact increase the scope of resource availability and facilitate quick and easy access to resources instead of spending time and other resources to search through indirect ties or communicate with same people without achieving any value addition (Weerakoon *et al.*, 2020; Ganguly *et al.*, 2019).

Another structural measure of social capital is network centrality which assumes that each firm in a network has different location to the centre of the network (Kim, 2019). Centrality strongly resonates with high position in the network status hierarchy, social power, structural influence and a high degree of access to and control over valued resources (Chiu *et al.*, 2006). For instance, firms that were more centrally located and embedded and had more connections with other firms were more likely to cooperate, and exchange information and resources easily (Ganguly *et al.*, 2019). Network centrality enhances trustful interactions among network firms, leading to easy access and exchange of valuable information, ideas and resources to support business

operations and growth. Firms require access to different ideas, strategies and resources at different stages of growth (Neumeyer & Santos, 2018).

This thesis aligns with the literature conceptualising network structure as the overall patterns of ties in a social system shaped by property, commercial and personal linkages in terms of connectivity, density, diversity, centrality, network configuration and hierarchy (Nahapiet & Ghoshal, 1998; Weerakoon *et al.*, 2020). According to Neumeyer and Santos (2018), a balance of network diversity, strength, density, diversity, centrality, informality and connectivity strategy match the stages of firm growth.

Network Relation

Another dimension of social capital is network relation. Network relation is defined as the quality and nature of network links and relationships among firms within a network (Easmon *et al.*, 2019). Following Granovetter's (1973) view on interconnections and relationship building, and "sanctions and norms" by Coleman (1988), Nahapiet and Ghoshal (1998) described relational social capital as relation embeddedness in actors' bonds underpinned by trustworthiness and trust. Others have conceptualised social capital relation based on trust, noting that relations focus on tacit assets such as trust that arises from consistent interactions among firms (Chow & Chang, 2008).

Similar to Chow and Chang (2008), Hughes, McCoy, Severe and Johnston (2018) also stated that relational dimension of social capital is "resource dependency". The authors explained resource dependency to mean the choice of a network partner to build trustworthy ties and value creation opportunity. Earlier, Nahapiet and Ghoshal (1998) drew insight from the SCT to define network relation with key facets including trust and trustworthiness,

norms and sanctions, and obligations and expectations. Literature however, appears to emphasise trust as a key component of the social capital (Easmon *et al.*, 2019). Coleman (1988) described social capital using “trustworthiness”, “Norms and Sanctions’ and Information-flow”. Expanding Coleman’s (1988) view, Nahapiet and Ghoshal (1998) emphasised trust, norms, obligations and identification as the key components of network relations.

Trust represents the positive expectations about the intent and behaviours of networked members in a given role, responsibilities, experiences and interdependencies (Akhavan & Hosseini, 2016). It is the belief that promises from another firm is reliable and that a firm will fulfil its obligations in the relationship (Inkpen & Tsang, 2005). Trust is also the expectations about motives of other networked members in vulnerability and risk endowed circumstances (Sagar *et al.*, 2019). Trust among firms plays a significant role in the willingness of a firm to share strategic knowledge and reduce harmful circumstances (Sanchez-Famoso, Maseda & Iturralde, 2017). Thus, trust motivates the resource owner to share with another person in the group which is the core component of social capital (Han *et al.*, 2020).

Norm is an important component of network relations. Norms constitute the statuses which define the acceptable practices in a network. Norms also shape the conduct, activities, and the behaviour of firms in a group (Putnam, 1993). In the social network theory, norms are associated with reciprocity, which encourages bargaining, compromise, and pluralistic politics within groups (Pratono, 2018). The literature thereby posits that a trusted relationship, which is the core component of social capital, is strongly related to tacit knowledge sharing (Han *et al.*, 2020; Kim & Shim, 2018).

This thesis aligned with the literature conceptualising relational dimension of social capital as the quality and nature of embedded assets formed and leveraged through network links and relationships based on trust, reciprocity, friendship, respect, norms and sanctions, obligations, expectations, and information flow among network members (Easmon *et al.*, 2019; Nahapiet & Ghoshal, 1998). Literature has suggested that firms create network relations assets through relationship and can also be assessed and utilised through relationship (Weerakoon *et al.*, 2020). The relationships are the source of approval and fulfilment for the networked firms, which lead to identification and trustful engagement (Sanchez-Famoso *et al.*, 2019; Akhavan & Hosseini, 2016). For instance, an entrepreneur shares information with members because of the expectation in reciprocal resources sharing behaviour. Hence, reciprocation strengthens trust in a relationship. Therefore, firms grow when there is a shared aim to exchange valuable information in a trustful and reciprocate manner (Qian, Yang & Xue, 2018).

Network Cognition

Network cognition is the degree of similarity in the setup of vision, culture, standard and norms among networked firms (Partanen, Kauppila, Sepulveda & Gabrielsson, 2020). Earlier scholars defined cognition to 'comprise more subjective and intangible elements such as generally accepted attitudes and norms' (Grootaert & Van-Bastelaer, 2002). Others like Akhavan and Hosseini (2016) described cognition as shared goals which give impetus to mutual perception and willingness to share ideas, collaborate and support each other. Network cognition is the shared understanding among firms

facilitated by common language codes, shared beliefs and narratives (Qian *et al.*, 2018; Kim & Shim, 2018).

Literature arguing in favour of network cognition suggests that it is a tacit asset which is embedded in network properties such as shared vision and common language, which support members to understand and behave according to the norms and work towards the goals (Ganguly *et al.*, 2019). Common goals avoid potential misunderstanding in communication and hence foster a binding force and also create trustful engagement (Akhavan & Hosseini, 2016). Nahapiet and Ghoshal (1998) referred to cognitive capital as the resources that aid shared interpretation, representation and systems of meaning among members. Similarly, Oparaocha (2016) explained cognitive capital as the outcome of frequent interaction of firms who share and undertake similar or same practices which lead to trustful exchange of ideas.

In defining network cognition, Silkoset (2013) observed that cognitive capital comprised common perspectives, shared narrative, shared language, and communal congruence, or generally agreed upon meanings to issues. In a network environment for instance, meaningful and high-quality interaction and communication is essential in the networking process, which requires sharing of common context between the networked firms (Oparaocha, 2016). According to Silkoset (2013), the sharing of common context occurs through common languages and implementation of common practices which facilitate understanding of shared strategies and practices.

This study focused on the extant literature conceptualising social capital cognition as the common understanding, representation, interpretation and systems among social actors which is facilitated by similarity in the setup

of vision, culture and norms (Partanen *et al.*, 2020). Common vision, beliefs, and language give impetus to mutual perception and willingness to collaborate and support each other (Nahapiet & Ghoshal, 1998; Qian *et al.*, 2018). Social capital cognition suggests shared vision, common language and cultural value and beliefs. Sharing goals, vision and interest across the network fosters positive intention to share valuable ideas and resources to support others who need them (Chiu, Hsu & Wang, 2006; Chow & Chan, 2008).

Again, common language ensures free flow of information, knowledge and understanding into how ideas and practices are implemented by networked firms (Tagliaventi, Bertolotti & Macri, 2010). Cultural values also ensure each member engages in network activities which are deemed acceptable by the network and all actors. Thus, common reference for all firms obligates each firm to make the time for interactions, be available, share knowledge and help members to implement the best practices (Liu *et al.*, 2018).

Innovation

Innovation has been defined by various scholars as a multi-dimensional concept (Lohe & Calabro, 2017). However, development of the concept of innovation is often credited to pioneers like Schumpeter (1934), Zaltman *et al.* (1973) and Rogers (1995). Schumpeter (1934, p. 68) defined innovation as “changes in the methods of supplying commodities, such as introducing new goods or new methods of production; opening new markets, conquering new sources of supply of raw materials or semi manufactured goods; or carrying out a new organisation of industry, such as creating a monopoly or breaking one up”.

Similarly, innovation is conceptualised in other literature to “constitute novel products or services, a new production process, technology, a new marketing technique or a new organisational method in business practices, workplace organisation or external relations” (Zaltman *et al.*, 1973, p. 59). The theoretical reasoning by Schumpeter (1934) and Zaltman *et al.* (1973) reflects the probability of a firm to engage in creative behaviour which leads to new product, service, market and production methods, reflecting key components of innovation (Rastrollo-Horrillo & Rivero Díaz, 2019). Like Zaltman *et al.* (1973), Drucker (1985) also characterised innovation as a basic activity of entrepreneurship that allows the firm to achieve its objective.

Emerging literature suggests that innovation involves implementing new ideas that improve the product, services, processes, and marketing potentials of the firm (Pachour & Sharma, 2016). The most commonly used process-based definition of innovation is the one provided by OECD (2005) as the implementation of a new or noticeably improved product, service, process, marketing and organisation methods. Similarly, other scholars have described innovation as an effort by the firm aimed at creating unique value in business processes, development of new products, and organic change that creates assets (Le & Lei, 2018; Wahyono, 2019). Carlile (2002, p. 443) looked at innovation as the “way through which knowledge is transferred and transformed across boundaries”. Similar to Carlile (2002), Trott (2008, p. 24) highlighted that the overall innovation process may be thought “of as a complex set of communication paths including external and internal linkages”. This current thesis adopted the view by Carlile (2002) and Trott (2008) that innovation is the continuous or instantaneous implementation of changes and

introduction of novel ideas and methods, which result in the development of new or modification of a product, process or business structure.

Xie *et al.* (2020) explained that a single firm may find difficulty in achieving market advantage, but through collaborative activities, individual firms can reach superior competitive advantage. Firms achieve innovations after novel ideas, knowledge and technologies from external sources are implemented. Literature highlights that small enterprises often adopt inbound open innovation activities like networking and collaboration as sources of ideas for innovation (Expósito *et al.*, 2019). However, mere existence of an idea may not guarantee innovation unless there are structures to support the flow of ideas into the operations of the firm (Ruiz-Torres *et al.*, 2018).

From the Diffusion Theory by Rogers (1995), novel ideas, information and knowledge within a system are communicated overtime through a diffusion mechanism (Rogers, 1995). Diffusion is the process by which new ideas are communicated through channels over time among members of a system, leading to radical or increment innovations (Expósito *et al.*, 2019). Innovation outcome includes products and processes (production technology) which lead to competitive advantage (Mabenge *et al.*, 2020). In the manufacturing industry in Harare, Zimbabwe, for instance, small enterprises innovate in product, process, marketing and organisation structures (Bodlaj *et al.*, 2018), similar to Mabenge *et al.* (2020), who emphasised product, marketing and organisational innovations. This thesis leans on Mabenge *et al.*'s (2020) view to consider product, process, marketing and organisational innovations as the outcomes of the diffusion and implementation of novel ideas, knowledge and resources arising from the entrepreneurial networking.

Empirical Review on Entrepreneurial Networking and Sustainable Growth

This study examines the relationship between entrepreneurial networking and the sustainable growth of small enterprises. According to Aichner and Jacob (2015), entrepreneurial networking involves relationships and interactions between an entrepreneur and networked partners. That being said, and given the increasing recognition of networking, researchers have begun to examine different perspectives to advance the empirical domain (Mayanja *et al.*, 2019; Depoers & Jérôme, 2019; Acheampong & Hinson, 2019). In the following sub-sections, this current research presents prevailing literature on network isomorphism, network social capital and entrepreneurial networking construct.

Empirical Review on Network Isomorphism

Previous studies have shown the association between isomorphism and business growth and performance (Torkkeli *et al.*, 2018). Torkkeli *et al.* (2018) studied the nexus between institutional pressures and performance of SMEs in Finland. The firm-level research developed an industrial model based on the institutional theory to examine the influence of institutions on the performance of 199 international SMEs operating in Finland. The cross-sectional quantitative survey revealed direct and indirect effects of institutional pressures on the international performance of SMEs, while network competence was validated as a mediator between institutional forces and international performance. The research revealed that institutional drivers directly and indirectly influence international performance.

Munir and Baird (2016) focussed on how institutional forces impact the performance of small and medium banks and other financial institutions in Australia. The authors used the institutional theory to investigate the dimensions and related factors that influence the performance of the sampled firms. The firm-level quantitative study used questionnaires to gather primary data from 266 CEOs and branch managers of financial institutions. While the researchers recommended future studies to focus on multi-sectoral SMEs, the paper revealed that corporate change (normative pressure), economic and political pressure (coercive pressure) and socio-economic-political pressures and banking regulations influenced the multi-dimensional performance of financial institutions. Other studies have also found that political institutions and rules of an economy exert coercive pressure to drive SMEs to adopt certain practices, standards and ideas, which affect business operations and performance (Anthony Jnr., 2019; Ranabahu *et al.*, 2020).

Depoers and Jérôme (2019) explored how institutional isomorphism compelled companies listed on the Stock Exchange in Paris, France, to disclose corporate tax. Their research modelled institutional factors, comprising coercive, normative, and mimetic institutional pressures of successful tax disclosures. The study sampled 120 highly institutionalised companies. An empirical archival approach was employed, where the level of disclosure was measured initially and then regressed with institutional pressures. Across all the 120 samples, the mimetic, normative and coercive pressures were related to tax disclosure.

Similar empirical research was conducted by Joo *et al.* (2017) to examine Corporate Social Responsibility (henceforth CSR) to address institutional

adoption issues as a strategy to guide Chief Executives of Sports leagues in South Korea to institutionalise CSR. The study presented a framework based on the information technology, which identified that managers of CSR initiatives had institutionalised CSR because of coercive, mimetic, and normative institutional pressures.

Anthony Jnr. (2021) investigated the influence of institutional factors on higher education institutions in Malaysia in implementing blended learning technology. The study developed a theoretical framework from the institutional theory and examined how coercive, normative and mimetic pressures influence the implementation of blended learning technology. The quantitative research purposively sampled 188 e-learning directors, managers and coordinators at the faculties of the educational institutions that have implemented blended learning. The authors used a 5-point Likert scale questionnaire to collect primary data from the respondents. Their findings showed that the adoption of blended learning technology is influenced by mimetic, normative and coercive pressures within the higher education system. Similarly, Ouyang *et al.* (2020) empirically argued that graduate students and instructors from a Midwestern research university in the US maintain mutual interactions to design and facilitate discussions, create and shape knowledge, and build a social learning environment.

In a qualitative study on network isomorphism, Nolan and Garavan (2019) examined the implication of internal and external networks on access to human resource in small professional networked service firms in the Republic of Ireland. The study employed in-depth multiple case study strategy. A semi-structured interview was conducted using owner-managers

(senior management) and employees of three case firms, and secondary data was also reviewed. The study was grounded in resource dependency and network theories. The study revealed that small firms are able to mobilise resources through advisory and coercive external networks. The research also revealed that access to human resources and other strategic and socio-political resources are significant and helped SMEs to meet performance needs.

Empirical Review on Social Capital

Social capital explains the performance of networked SMEs (Rastrollo-Horrillo & Rivero Díaz, 2019). Literature has empirically argued that the impact of social capital on firm performance depends on network characteristics (dense or disperse) and the type of relationships among the networked firms (Kim & Shim, 2018; Garcia-Villaverde, Elche, Martinez-Perez & Ruiz-Hortega, 2017). An empirical analysis by Boohene, Appiah-Gyimah and Osei (2019) examined social capital and performance of SMEs in Greater Accra, Ghana and the moderating role of emotional intelligence. The quantitative study employed a simple random sampling technique to sample 1532 SMEs that have operated for more than six months. The research was underpinned by social capital theory. Inferential statistical method through structural equation modelling (SEM) through Analysis of Moment Structures (AMOS) was used to analyse the data. The finding revealed that social capital is positively related to emotional intelligence, which has a significant positive effect on performance. The study further revealed that emotional intelligence enhances the impact of social capital on the performance of SMEs.

Another empirical investigation by Easmon *et al.* (2019) assessed the direct impact of social capital on export performance of SMEs and the

intervening role of market-based capabilities. The authors employed institutional theory and conducted a firm-level study using non-traditional export SMEs in Ghana. The quantitative survey used a seven-point Likert Scale to gather data from top executives and senior managers of exporting companies. The study revealed that social capital of exporting SMEs is has statistically significant effect to firm performance. The study further revealed that innovation significantly drive export performance.

A similar study was conducted by Carlos and Pinho (2013). The conceptual research synthesised the theoretical foundation of structural, cognition and relation dimensions of social capital. The study revealed that social capital dimensions could influence the international performance of SMEs. The study also showed that social capital could influence explorative and exploitative capabilities, affecting international performance. Stoian and Gilman (2017) revealed insignificant relationship between inter-organisational networks and export performance. Their study which focussed on exporting SMEs, revealed that social network is essential for exporting SMEs but not sufficient to achieve better performance. Stoian and Gilman (2017) showed contrary evidence to Easmon *et al.* (2019).

In another empirical study, Maina, Marwa, Waiguchu and Riro (2016) revealed that network structure, content, and governance significantly and positively affect firm performance. Their study examined the influence of network relationship on the performance of manufacturing SMEs in Kenya. The descriptive survey research conceptualised network relationship as network structure, content and governance. The authors sampled 132 SMEs and self-administered questionnaire to gather primary data. The evidence of

significant relationship network structure, content, and governance and firm performance is similar to the study by Lin and Lin (2016). Lin and Lin examined network relationship and performance of 77 Taiwanese manufacturing SMEs. The quantitative study reported that network content (structure) and network relationship (relation) affect firm performance.

Damoah (2018) reported positive nexus between social capital and growth of small firms in Ghana. The empirical study focussed on small firms and explored the sources and influence of social capital on growth of small firms in Ghana. The quantitative research employed structural equation modelling (SEM) and logistic regression to analyse data from 441 small firms in six regions of Ghana. The survey data was gathered using a self-administered questionnaire to manufacturing, service and agriculture SMEs. The findings revealed that small often use social capital from customers, which has a significant effect on firm employment growth.

Han *et al.* (2020) employed the theoretical framework of social network and social capital and examined how they influence the knowledge-sharing relationship. They drew perspective from the social capital theory and proposed a research model, which showed that knowledge-sharing networks play an integral role in building structural social capital. The study sampled 111 management students in an US business school. The authors used network logistic regression with quadric assignment procedure to analyse the data. The proposed research model showed that structural dimension of social capital (task interdependence) significantly predicted the knowledge-sharing relationship. The study also revealed that trust and friendship networks have a significant effect on knowledge sharing.

Another empirical study by Ganguly *et al.* (2019) investigated the effect of tacit knowledge sharing, knowledge reciprocity, social capital and knowledge quality on innovation capability of industrial automotive and fast-moving consumer goods in India. The survey sampled 190 managerial staff and conducted a firm-level study using neo-institutional theory. Structured questionnaires were used to collect data, and the variance-based approaches were used to analyse the data. The findings showed that knowledge reciprocity, relational and cognitive social capital were positively associated with innovation capacity. However, tacit knowledge-sharing and structural social capital did not significantly affect innovation capacity.

Similar to Ganguly *et al.* (2019), a study by Xu, Lin and Lin (2008) also revealed that business network characteristics (density, reciprocity and multiplicity) significantly drive the innovation capacity of packaging and printing SMEs in the Guangdong Province, China. While Xu *et al.* (2008) and Ganguly *et al.* (2019) focussed on the effect of social capital on innovation capacity, Lee *et al.* (2019) also focussed on social capital (structural, cognition and relational dimensions) on resource acquisition of 497 entrepreneurs residing in multiple deprived areas in England. Their study revealed that structural, relational and cognition social capital lead to resource acquisition.

Habersetzer *et al.* (2019) examined the nexus between social capital (production-related and environmental-related) and performance of industrial firms in Switzerland. The mixed-method study employed unique matched survey data and registers of firms. The firm-level analysis revealed that environmental-related social capital was significantly related to firm growth.

Nyuur, Brecic and Debrah (2018) examined the relationship between network structural attributes (network density, centrality and informality) and performance (strategic innovation and adaptiveness in the host country) of SMEs in Croatia. The firm-level quantitative study sampled 263 directors, owners, and sales managers of SMEs in the construction, manufacturing, wholesale, and miscellaneous industries. Social network theory was employed, and the data was analysed using the hierarchical regression analysis. The findings showed that network informality moderates the relationship between network centrality and innovation. The study did not find influence of domestic networks' structural attributes (density and centrality) on SMEs' international innovation and strategic adaptiveness.

The qualitative study by Liu *et al.* (2018) assessed the influence of social capital-structure and cognition on value creation in the entrepreneurial process. The firm-level study employed institutional theory and dynamic capability theory. The study gathered primary data through interviews and secondary data from archives of high-tech industrial firms in Taiwan. Case analysis was conducted on panel data from 1997 to 2008. The result showed that firms could create values by using social capital cognition (trust and the shared value of value co-creation). Again, the study's result revealed that network structure provides a strong basis for value creation through the reciprocal relational structure to secure trust-based social capital.

Empirical Review on Networking and Network Resources

Some empirical works have been done on networking and network resources. Acheampong and Hinson (2019) examined the usefulness of alter resources for the survival of SMEs in Ghana. The quantitative survey sampled

155 poultry farmers. The authors used STATA 13 to analyse the regression effect of the path relationship. The findings showed that direct and indirect ties among SMEs have a significant impact on survivability. The study observed that alter resources (resources distributed among networked firms through network ties) are generally helpful to the survival of SMEs. Survival was conceptualised as a firm's existence from 2014 into 2015. The paper found that SMEs generate benefits from external collaboration and networking to compensate for the internal resources and competencies.

Similar to Acheampong and Hinson (2019), focussing on firm survival, Acheampong *et al.* (2017) studied the relationship between network ties and survival chances of 155 small poultry farmers in Dormaa. Their study revealed that network ties are significant to firm survival. Acheampong, Odoom, Anning-Dorson and Anim (2018) similarly revealed that out-indirect ties and structural hole significantly influence survival of poultry SMEs in Ghana.

In another study on networking, Tendai (2013) revealed that small businesses in networks utilise network ties and connection to access resources, gain legitimacy and seek information and opportunity. The study examined the effect of network usage on the performance of small businesses at start-up and growth stages. The study employed a qualitative research approach through a single case study and in-depth interview and a literature review of small business, entrepreneurial networks and business life-cycle. The findings suggest a relationship between entrepreneurial networking and the performance of firms at both start-up and growth stages.

In an empirical literature that focusses on international performance of networked firms, Jeong *et al.* (2019) examined the effect of networks on the international performance of SMEs in South Korea. The study drew theoretical insight from the resource-based theory and focussed on network types of social and business networks. The quantitative study sampled 392 exporting manufacturers and gathered primary data from the managers of SMEs using a questionnaire. The study found, through a path analysis, that business networks enhance marketing capabilities and directly lead to the international performance of exporting SMEs. Social network only enhances marketing capabilities. The study found a mediating effect of marketing capabilities on business networks and international performance.

In a similar empirical literature, Jin and Jung (2016) also examined the implication of personal and business networks on the international performance of 105 small and medium enterprises. Census approach was used to sample respondents and SPSS used to analyse the result. Their research reported that business networks enhanced foreign market knowledge compared to personal networks, which significantly improved international performance. In a similar study of high-tech small and medium enterprises, Kenny and Fahy (2011) employed the resource-based theory, and the survey revealed a significant effect of network on international performance.

Liu and Yang (2020) investigated the benefits of exploiting inter-firm network ties to access external network resources and the implication on firm performance. The survey sampled 260 SMEs in Taiwan and used questionnaire to gather primary data. Structural equation modelling was used to analyse the data, and the result revealed that network resources and

organisational capabilities help organisations to achieve superior performance. Organisational agility mediates the relationship between network resources and organisational performance. Similarly, Partanen *et al.* (2020) examined the relationship between network resources and the performance of well-established SMEs in Finland. The study, which comprised 199 international SMEs, revealed that network is a strategic resource for the firm in enhancing business performance.

Empirical literature by Nguyen and Le (2019) examined the impact of different types of network ties on the export propensity of SMEs in Vietnam. The 2015 empirical study surveyed 2,600 manufacturing SMEs and found a significant impact of social network on the export propensity. While the size of the business network negatively related to export propensity, the study revealed insignificant relationship between political and bank networks on export propensity. Franco *et al.* (2016) investigated the effect of social networks on performance of SMEs in the Inland Region of Portugal. The quantitative study, involving 83 SMEs, showed that social network resources enhance firm performance. Eiriz's (2020) qualitative research into the role of spatial proximity of local networked SMEs in Portugal concluded that network structure (proximity) enhances SME strategy development.

In a study that focussed on firm growth, Lechner and Dowling (2003) examined inter-firm social networks on the growth of entrepreneurial firms. The qualitative case study identified that firms use a relational mix of networks that change with the firm's development. The study further revealed that both weak and strong social and reputational networks hold strategic relevance to the growth of entrepreneurial firms. Schoonjans, Cauwenberge

and Vander Bauwhede, (2013) similarly revealed that formal business networks are significantly and positively related to business growth.

Empirical Review on Innovation

Scholars have shown growing interest in innovation as a conduit for firm performance enhancement. While empirical lenses on innovation is growing, interest is diverse with various empirical directions. For instance, Mayanja *et al.* (2019) examined the mediating role of ecologies of innovation on the relationship between entrepreneurial networking and opportunity exploitation. Mayanja *et al.* sampled 228 SMEs in Uganda. The cross-sectional survey used SPSS through AMOS to test the structural path relationships in the mediated model. The study found that ecologies of innovation partially mediate entrepreneurial networking and opportunity exploration relationship from the social network theory perspective. The authors indicated that entrepreneurial networking facilitates opportunity exploitation by enhancing the means of firms to mobilise resources through social ties and relationships. Ecologies of innovation mean an enabling environment that allows new processes, products, business models and organisational procedures and forms.

In a study to resolve entrepreneurial venture failure, Anwar and Shah (2020) examined the usefulness of networking, external connection and collaboration on the success of SMEs in Pakistan. The quantitative study gathered data with a structured questionnaire from 311 young SMEs. Hypotheses were tested via SEM. The study, after the analysis, revealed that political, business, and financial networking were significantly related to

business model innovation. The study showed that networking is not enough to solve the resource challenges facing SMEs but via innovation.

An empirical study by Beltramino *et al.* (2020) examined the relationships among the structural dimension of social capital, process and product innovation performance. Structural equation modelling was used to analyse the data gathered from 259 SMEs in Cordoba, Argentina. It was possible to verify a positive and significant relationship between process innovation capacity and performance. Therefore, the study provided evidence that acquisition of information, knowledge management and structure, the systems and processes, which are the tangible components of structural capital, positively and significantly affect both products and processes innovation. As the only intangible components, capital and organisational culture significantly lead to process innovation. Communication and group cohesion had no effect on both products and processes of innovation.

Ganguly *et al.* (2019) revealed that relational and cognitive social capital were positively related to knowledge sharing, influencing innovation capacity. The study examined the role of social capital in determining the innovation capacity of a firm. The study focussed on the cognitive, relational and structural dimension of social capital as determiners of knowledge sharing leading to innovation. The primary survey report tested hypotheses. Structured questionnaires were used to collect data from 190 India's industrial firm and SEM was used to analyse the survey data.

In another study that focussed on innovation, Xie *et al.* (2020) empirically examined the effect of collaborative ties on ambidextrous innovation among firms in China. The quantitative survey gathered data from

323 manufacturing companies in 27 industrial sectors in China. The study revealed that collaborative ties among firms positively related to ambidextrous innovation. The result also showed that collaborative ties are essential to external knowledge acquisition than internal knowledge. A similar study by Dogbe, Tian, Pomegbe, Sarsah and Otoo (2020) found that a network embedded of social, relational and cognitive dimensions significantly affect the innovation performance of 338 service and manufacturing SMEs in Ghana.

Research Gaps

In effect, the empirical literature reveals some gaps. First, the literature review has revealed limited knowledge on social capital and network isomorphism in entrepreneurial networking context (Boohene *et al.*, 2019; Easmon *et al.*, 2019). Empirical literature (Jin & Jung, 2016; Boohene *et al.*, 2019; Partanen *et al.*, 2020) has unquestionably advanced theory on the types of networks (Nguyen & Le, 2019; Partanen *et al.*, 2020). While empirical evidence on network types and network resources remains inconclusive (Sanchez-famoso *et al.*, 2019), little is known empirically about social capital and network isomorphism in entrepreneurial network context.

Few studies on isomorphism (Ranabahu *et al.*, 2020; Anthony Jnr., 2019; Munir & Baird, 2016) and social capital (Han *et al.*, 2020; Easmon *et al.*, 2019; Boohene *et al.*, 2019; Damoah, 2018) were conducted among firms in a non-networked context. For instance, Easmon *et al.* (2019) focussed on performance of exporting SMEs, while Depoers and Jérôme (2019) also focussed on isomorphism among companies listed on Paris Stock Exchange.

While little knowledge exists on social capital and network isomorphism among small firms in a network environment, very little is

known about sustainable business growth in the network literature. Literature is replete on the impact of network ties and network resources on survival of SMEs (Acheampong & Hinson, 2019; Acheampong *et al.*, 2017; Jin & Jung, 2016; Tendai, 2013), performance (Partanen *et al.*, 2020; Jeong *et al.*, 2019; Easmon *et al.*, 2019; Boohene *et al.*, 2019; Nyuur *et al.*, 2018), innovation (Xie *et al.*, 2020; Ganguly *et al.*, 2019), value creation (Eiriz, 2020; Liu *et al.*, 2018), access to resources (Han *et al.*, 2020; Lee *et al.*, 2019) and business growth (Damoah, 2018; Schoonjans *et al.*, 2013; Lechner & Dowling, 2003).

In a Ghanaian study by Obeng (2018), examined the effect of strategic networking on growth of SMEs. Obeng however, did not focus on how small firms can achieve sustainable beyond growth “sustainable growth”. Every entrepreneur aims to sustain business growth, but the prevailing literature shows paucity of empirical evidence on sustainable growth.

Second, the literature review shows that the implication of innovation as a channel for achieving sustainable business growth in network environment has not been empirically validated in the literature (Xie *et al.*, 2020; Dogbe *et al.*, 2020). Evidence in the empirical literature (Beltramino *et al.*, 2020; Dogbe *et al.*, 2020) has theorised innovation as an outcome of networking activities. Xie *et al.* (2020) revealed that collaborative ties lead to innovation. Mayanja *et al.* (2019) examined the role of ecologies of innovation on networking and opportunity exploration. Anwar and Shah (2020) examined the success of networked SMEs via innovation. Though, Anwar and Shah (2020) examined the mediating role of innovation, a scour through literature showed limited empirically validated model grounded in theory.

Third, model and framework-based approaches have been the primary theoretical bases for conceptual and operational studies on networking and business growth (Tajeddini, Martin & Ali, 2020). Studies have employed resource-based and dynamic theories (Beltramino *et al.*, 2020; Jeong *et al.*, 2019), institutional theory (Anthony Jnr., 2021), and social network theory (Boohene *et al.*, 2019) to explain a firm's performance. Scouring through literature signals a dominant yet theoretical insufficiency in the application of RBT in explaining the sustainable growth of a firm.

Though relevant, the existing assumptions dim theoretical development and understanding of sustainable growth. From entrepreneurial networking perspective, the current research doubts the suitability and the applicability of prevailing theories. Given the limitation of the conventional theories to explain sustainable growth, this research extends the existing theoretical assumption and understanding by validating a proposed model which tests entrepreneurial networking and sustainable growth.

Fourth, there is limited contextual evidence on network in a Ghanaian context. Existing literature focussed mainly on data gathered from developed economies like the USA (Jin & Jung, 2016), Korea (Jeong *et al.*, 2019; Joo *et al.*, 2017), Finland (Partanen *et al.*, 2020) Austria (Munir & Baird, 2016) and Malaysia (Anthony Jnr., 2021). The validity of using research findings from advanced economies to inform policy in Ghana is yet to be confirmed because the ways of doing business in Africa are different (Boso *et al.*, 2013). Thus, these current studies, who called for studies to adopt Africa (Ghana) as a fertile research context to examine the extent to which such a geographic context will shape the understanding of existing theories.

Lastly, studies in Ghana focussed on SMEs in non-traditional export sector (Easmon *et al.*, 2019) and SME in agriculture sector (Acheampong & Hinson, 2019). Literature lacks a comprehensive framework that focusses on all the small businesses operating in manufacturing, service and agriculture. This current research responds to Damoah (2018) and Boohene *et al.* (2019), who called for multi sectoral context approach to network studies.

Lessons Learnt

This chapter focused on a synthesis of the empirical literature related to the current research. The literature review focussed on the main variables and relationships proposed in this current research. The empirical review identified gaps in knowledge, theoretical, contextual, and methodological limitations that require further research attention. Thus, the aim of this research is to fill the gaps. The argument advanced in this Chapter revealed that entrepreneurial network is a well-minded field that has received increasing research attention.

Unfortunately, the evidence so far in the prevailing body of knowledge indicates a lack of a comprehensive theoretically inspired model that provide theoretical and practical understanding into the essential dimension of network isomorphism and network social capital. Again, there is limited evidence linking entrepreneurial networking to innovation, which focusses on the sustainable growth in the entrepreneurial networking context. Accordingly, the hypotheses have been formulated to empirically validate the paths relationship and fill the gaps.

Conceptual Framework

This study builds on the RBT, institutional theory, NTSC and the diffusion of innovation theory to address the research gaps and to conceptualise a framework. There are five variables in this study, namely, network isomorphism, network social capital, sustainable growth, innovation and network affiliation. Network isomorphism and network social capital are the components (mechanisms) of entrepreneurial networking. The research anchors the network isomorphism variable on the institutional theory and network social capital on NTSC. Network isomorphism and network social capital are independent variables regressing sustainable growth, the outcome variable. Innovation is conceptualised as a mediator in the conceptual framework while network affiliation is viewed as a control variable affecting sustainable growth. Hence, the proposed framework in Figure 1 takes an integral view of the effect of entrepreneurial networking and its components of network isomorphism and network social capital on innovation, leading to sustainable growth. Based on the conceptualisation, hypotheses have been proposed.

First, the study hypothesises that network isomorphism, comprising mimetic, coercive and normative isomorphisms, has positive and significant effect on sustainable growth of small enterprises [H_{1a-c}]. Second, network social capital, manifesting network structure, relations and cognition, has direct influences on sustainable growth [H_{2a-c}]. Thirdly, the study proposes a significant and positive mediating effect of innovation in the relationship between entrepreneurial networking and sustainable growth [H₃], network isomorphism and sustainable growth [H_{3a}], and network social capital and

sustainable growth [H_{3b}]. Lastly, the study conceptualises that network affiliation affects the sustainable growth of small enterprises [H₄]. Figure 1 shows the conceptual model.

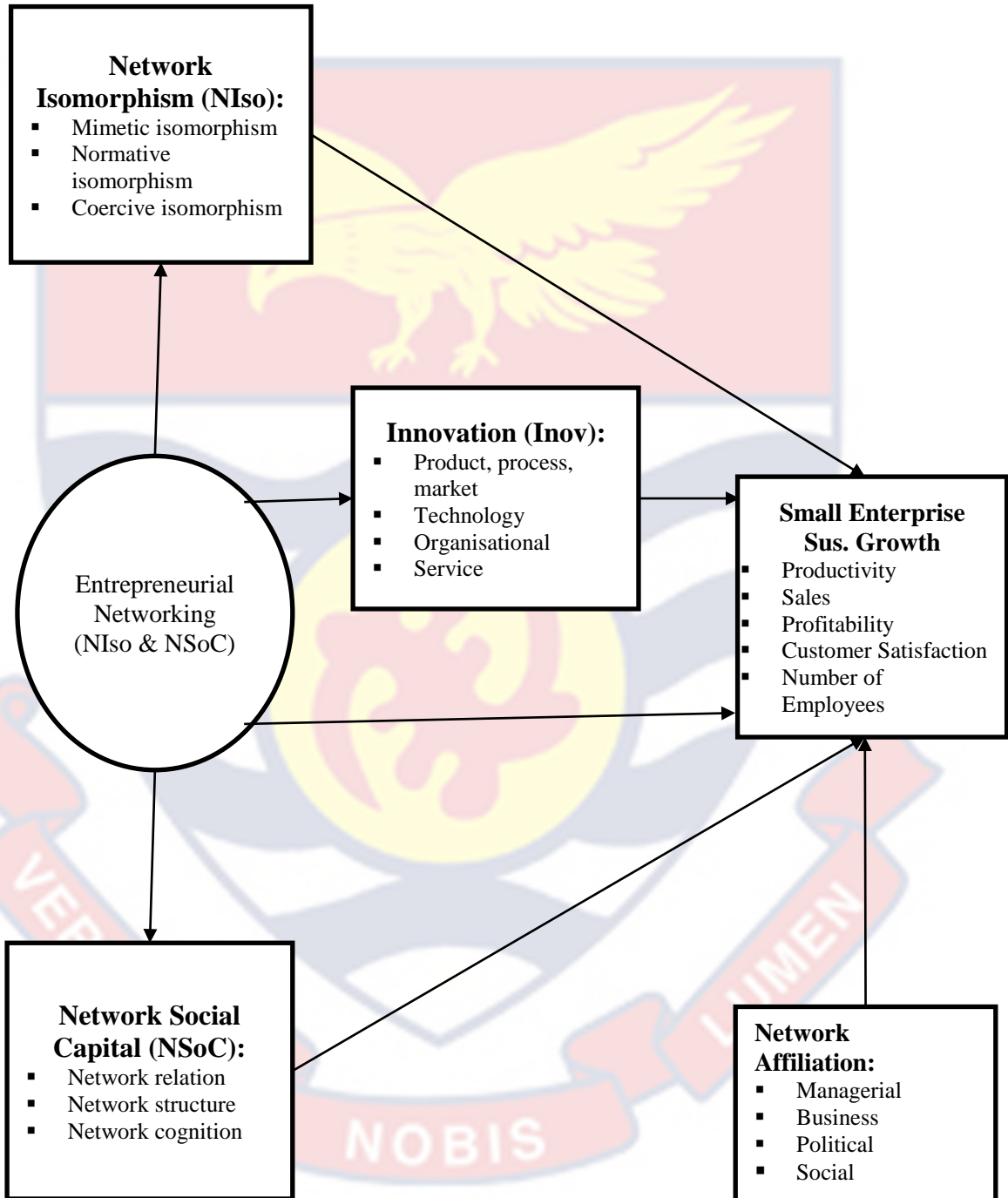


Figure 1: Conceptual Framework of Entrepreneurial networking, innovation and sustainable growth.

Source: Mensah (2022)

First, this study proposes that network isomorphism, comprising normative, coercive and mimetic isomorphisms, has a positive and significant effect on sustainable growth of small enterprises in Ghana. This conceptualisation is based on the institutional theory of isomorphism and the literature which viewed institutional isomorphism as a component of normative, coercive and mimetic isomorphisms (DiMaggio & Powell, 1983; Scott, 1995; Ouyang *et al.*, 2020; Anthony Jnr., 2021). Sustainable growth is the extent to which a firm is able to achieve stable continuity in the level of sales, number of employees, productivity, customer satisfaction and profitability (Ghamloush, 2021; Acheampong *et al.*, 2017). According to Munir and Baird (2016), who used the institutional theory, normative and coercive institutional forces compel firms to adopt standards and regulations which enhance business performance.

Other studies have indicated that networked firms face coercive pressures from the network and other influential members, compelling them to implement practices and technologies which positively relate to business performance (Jan *et al.*, 2012; Ranabahu *et al.*, 2020; Jnr., 2020). A study by Anthony Jnr. (2021), similar to Cajaiba-Santana *et al.* (2020), revealed that mimetic, normative and coercive pressures influence organisations to imitate, emulate and replicate practices and successful technologies from partners that have successfully implemented the technology and achieved significant benefits. Based on the institutional theory and the gaps in the literature, this current research proposes a significant and positive effect of network isomorphism (mimetic, coercive and normative) on sustainable growth.

H_{1a-c}: Network isomorphism has a direct positive and significant influence on sustainable growth of formal small enterprises in Ghana.

Second, the study proposes that network social capital has positive and significant effect on sustainable growth. Seminal theories on social capital and network explain social capital as facilitatory tacit assets, clustered into structural, relational and cognitive dimensions (Nahapiet & Ghoshal, 1998). The current study therefore leverages the NTSC to propose that social capital facilitates access and use of valuable assets for business operations, leading to sustainable growth. The literature explains that there is a relationship between social capital and performance of SMEs (Rastrollo-Horrillo & Rivero Díaz, 2019), and growth of industrial firms (Habersetzer *et al.*, 2019).

Boohene *et al.* (2019) and Damoah (2018) also revealed that social capital enhances performance of Ghanaian SMEs. Regarding the dimensions of social capital, Lee *et al.* (2019) revealed that structural, cognition and relational dimensions lead to the acquisition of knowledge and other resources. This is similar to the findings of Lin and Lin (2016), who revealed that a relationship significantly drives performance of SMEs through resource exchange and use. Ganguly *et al.* (2019) uncovered that knowledge reciprocity, relational and cognitive enhance innovation performance, while Han *et al.* (2018) also found a positive nexus between structural dimension of social capital and firm performance.

Other scholars have also revealed that trustful relations, a central component of social capital, enhance reciprocity in resource sharing and use among networked partners, which enhanced the potential for business growth (Kim & Shim, 2018; Han *et al.*, 2020; Qian *et al.*, 2018; Liu *et al.*, 2018).

Other studies posited that social capital cognition, involving shared values, norms, culture and mutually beneficial regulatory standards facilitate trustful interaction, collectiveness, cohesion, sharing and use of vital technologies and knowledge, which enhance business performance (Carlos & Pinho, 2013; Dato-on, Banerjee & Roy, 2018; Lee *et al.*, 2019; Ganguly *et al.*, 2019).

Based on the NTSC and empirical evidence, the present study hypothesises that social capital, manifesting network structure, cognition and relation, is tacit asset that helps small businesses to gain access to others' resources to undertake business operations, leading to sustainable business growth [H_{2a-c}].

H_{2a-c}: Network social capital has a direct positive and significant influence on sustainable growth of formal small enterprises in Ghana.

Theoretical insight shows that social capital and isomorphism constitute the mechanisms for leveraging entrepreneurial networks (Gibson *et al.*, 2014; Assadinia *et al.*, 2019). Literature has acknowledged that resources, information, novel ideas and technologies gained through trustful external collaboration can be used to improve a firm's performance (Adomako & Danso, 2018). This is because knowledge exchange can bring creativity and ideas to the firm (Sanchez-Famoso *et al.*, 2019). Other empirical evidence suggests that network resources created by collaboration help firms to gain access and use others' resource and information to enhance survival (Acheampong & Hinson, 2019; Acheampong *et al.*, 2017).

The qualitative study by Tendai (2013) also revealed that entrepreneurial networking has the potential to enhance the performance of start-up and existing businesses. Therefore, the current study hypothesises that entrepreneurial networking creates a pool of unique and valuable resources

and through network isomorphism and network social capital, firms are able to access and use the resources, implement the technologies and exploit the entrepreneurial opportunities, leading to sustainable growth.

The diffusion of innovation theory explain that collaboration supports businesses to spawn innovation (Xie *et al.*, 2020; Kim, 2019). Conceptual evidence by Cano-Kollmann *et al.* (2018) also revealed that networking and collaborative relationship create opportunities for networked firms to access knowledge and implement ideas that can lead to innovation. From the social network theory, the empirical study by Mayanja *et al.* (2019) revealed that innovation partially mediates entrepreneurial networking and opportunity exploitation. Mayanja *et al.* (2019) explained that entrepreneurial networking enhances resource mobilisation and use through social ties.

For instance, innovation occurs when entrepreneurial firms under isomorphic pressure exchange knowledge, probe new information, mimic, replicate and implement ideas of partners. Further studies revealed that firms under isomorphic pressure implement best practices, leading to innovations (Jr *et al.*, 2020; Ouyang *et al.*, 2020). The DoIT explains that novel ideas communicated through channels over time are diffused into the operations of the firm, thus leading to innovations in new products, markets, and processes (Saridakis *et al.*, 2019; Mabenge *et al.*, 2020). Other studies have revealed that networking and collaboration enhance firm success via innovation (Anwar and Shah 2020). Therefore, based on the DoIT, the researcher proposes that entrepreneurial networking, manifesting network isomorphism and network social capital, facilitates access to unique and novel knowledge, technology

and resources of other partners leading to market, process, product, organisation, service and technology innovations.

The social network theory explains that entrepreneur's network is significantly related to innovation, and innovation is a potential mediator of a firm's growth (Mayanja *et al.*, 2019). Other researchers have noted that innovation drives firm growth (Mabenge *et al.*, 2020; Jr *et al.*, 2020). For instance, social capital creates superior capacity for innovation through commitments in different relationships (D'Angelo & Baroncelli 2020; Dogbe *et al.*, 2020). Xie *et al.* (2020) also showed a significant effect of collaborative ties on ambidextrous innovation, which is similar to Dogbe *et al.* (2020), who showed that social capital drives the innovation performance of Ghanaian SMEs. Studies have revealed that collaboration in the destination industry led to product innovation, which drives firm performance (Camison *et al.*, 2017).

An empirical study by Beltramino *et al.* (2020) examined the relationships among the structural dimension of social capital, process and product innovation performance. This current research reasons differently that innovation, arising from entrepreneurial networking, could be a precursor for sustainable growth. Hence, the current study proposes that innovation mediates the relationship between entrepreneurial networking and sustainable growth. The research proposes that entrepreneurial networking, comprising network isomorphism and network social capital, directly influences innovation leading to sustainable growth

H_{3a-c}: Innovation mediates the relationship between entrepreneurial networking and sustainable growth of formal small enterprises in Ghana.

Network Affiliation

Network affiliation refers to the type of relationship that exist between a firm and other stakeholder such as customers, competitors, banks and creditors. Literature identifies networks to include formal and informal, vertical and horizontal, business, political, social, and managerial associations (Sefiani et al., 2018). However, differences may exist, and the decision to affiliate with a specific network may be influenced by the type of network, years of networking, and the resource needs of the firm (Anwar & Ali Shah, 2020). Horizontal networks focus on a firm's relationship with competitors, government and non-governmental organisation, and research institutions, while vertical networks include a firms' relations with trade associations, venture capitalist, financial institutions, creditors etc. Formal and informal networks have been identified by Littunen (2000).

The categorization by Leroy (2012) was also chosen because it is a more recent classification, made for the study of networks used by small enterprises. Social network is created on the basis of conformity to community ties or collective values among people of social life, friends, family, relatives and social clubs (Nieman & Nieuwenhuizen, 2009). Business emphases relationship with government and non-governmental organisations, while managerial network involves a manager's relationship with suppliers, customers and similar businesses (competitors) (Leroy, 2012).

The study by Franco et al. (2016) revealed that the type of network such as social network influence performance of SMEs. Schoonjans *et al.* (2013) revealed business network affect firm performance. Expósito *et al.*'s (2019) also found that growth and sustainability depend on the company's network affiliation. Acheampong *et al.* (2017) also offered that the network types that networked small enterprises require to develop innovation and achieve sustainable growth. The current study reason that network affiliation could have differential effect on the performance of the firm. Hence, the study hypothesizes that

H₄: Network affiliation has a direct positive and significant influence on sustainable growth of small enterprises in Ghana.

Summary of Hypotheses

H₁: Network isomorphism has a direct positive and significant influence on sustainable growth of formal small enterprises in Ghana.

H_{1a}: Coercive isomorphism in entrepreneurial networks has a significant and positive influence on sustainable growth.

H_{1b}: Normative isomorphism in entrepreneurial networks has a significant and positive influence on sustainable growth.

H_{1c}: Mimetic isomorphism has a significant and positive influence on sustainable growth of small enterprises.

H₂: Network social capital has a direct positive and significant influence on sustainable growth of formal small enterprises in Ghana.

H_{2a}: Network relation among small enterprises has significant and positive influence on sustainable growth of small enterprises.

H_{2b}: Network cognition significantly influences sustainable growth of small enterprises.

H_{2c}: Network structure has significant and positive influence on sustainable growth of small enterprises.

H₃: Innovation mediates the relationship between entrepreneurial networking and sustainable growth of formal small enterprises in Ghana.

H_{3a}: Innovation mediates the relationship between network isomorphism and sustainable growth of small enterprises in Ghana.

H_{3b}: Innovation mediates the relationship between network social capital and sustainable growth of small enterprises in Ghana.

H₄: Network affiliation has a direct positive and significant influence on sustainable growth of small enterprises in Ghana.

Summary

The present Chapter reviewed literature on the concepts of the study, drawing the contrasting and collaborating linkages. The conceptual review found support based on the RBT, institutional theory, network social capital and diffusion of innovation theory. The literature review revealed gaps relating to issue, theory, context and methods. Based on the theoretical foundation, empirical perspectives and research gaps, a framework was proposed to guide the development of the research hypotheses.

CHAPTER FOUR

RESEARCH METHODS

Introduction

This research examines the effect of entrepreneurial networking on innovation and sustainable growth of small enterprises in Ghana. The previous Chapter reviewed literature on the concepts in the study and the underlying theories. It also reviewed the relationships between the concepts in the conceptual model, supporting the formulation of the research hypotheses. The present Chapter discusses the research methodology, which provides direction to achieving the research objectives. The methodology is categorised into research philosophies and research methods.

The philosophical foundation of this study includes value-bound axiology, critical realist ontological, objective epistemology, deductive reasoning and pragmatist paradigm. The philosophical foundation informed the choice of the mixed research methods (Wong, Musa & Wong, 2011), including causal, survey, and cross-sectional designs, with proportional stratified random sampling technique and questionnaires as the data collection instrument. The convenience technique was used to sample participants and the interview schedule to gather qualitative data to triangulate the quantitative results. The Chapter further discusses the data collection procedures, analysis techniques and ethics and concludes with a Chapter summary.

Philosophical Foundation and Paradigm

A research philosophy refers to the assumptions and principles that shape knowledge development in a particular field (Saunders, Lewis, Thornhill & Bristow, 2015). It can be seen as conceptual roots or a framework

that governs the research process, shape assumptions, and provides a foundation underlining the quest for knowledge (Hoover, Strapp, Ito, Foster & Roth, 2018). Generally, a philosophical belief can be grouped into axiology, ontology, epistemology, methodology and reasoning (Antwi & Hamza, 2015).

According to Wahyuni (2012), a philosophical belief is underlined by a particular research paradigm. A research paradigm refers to the abstract principles that string the researcher's belief systems to guide the view of reality, how the view is interpreted, investigated, and the interpretation processes (Guba & Lincoln, 1994; Denzin & Lincoln, 2000). According to Denzin and Lincoln (2000), the choice of a specific research philosophy informs the other and the paradigm, including positivist, interpretivist, post-positivist, and pragmatist (Yilmaz, 2013). Table 5 shows the various philosophies and their underlying paradigms, while the subsequent sub-section discusses the choice of the philosophical foundation for the present study.

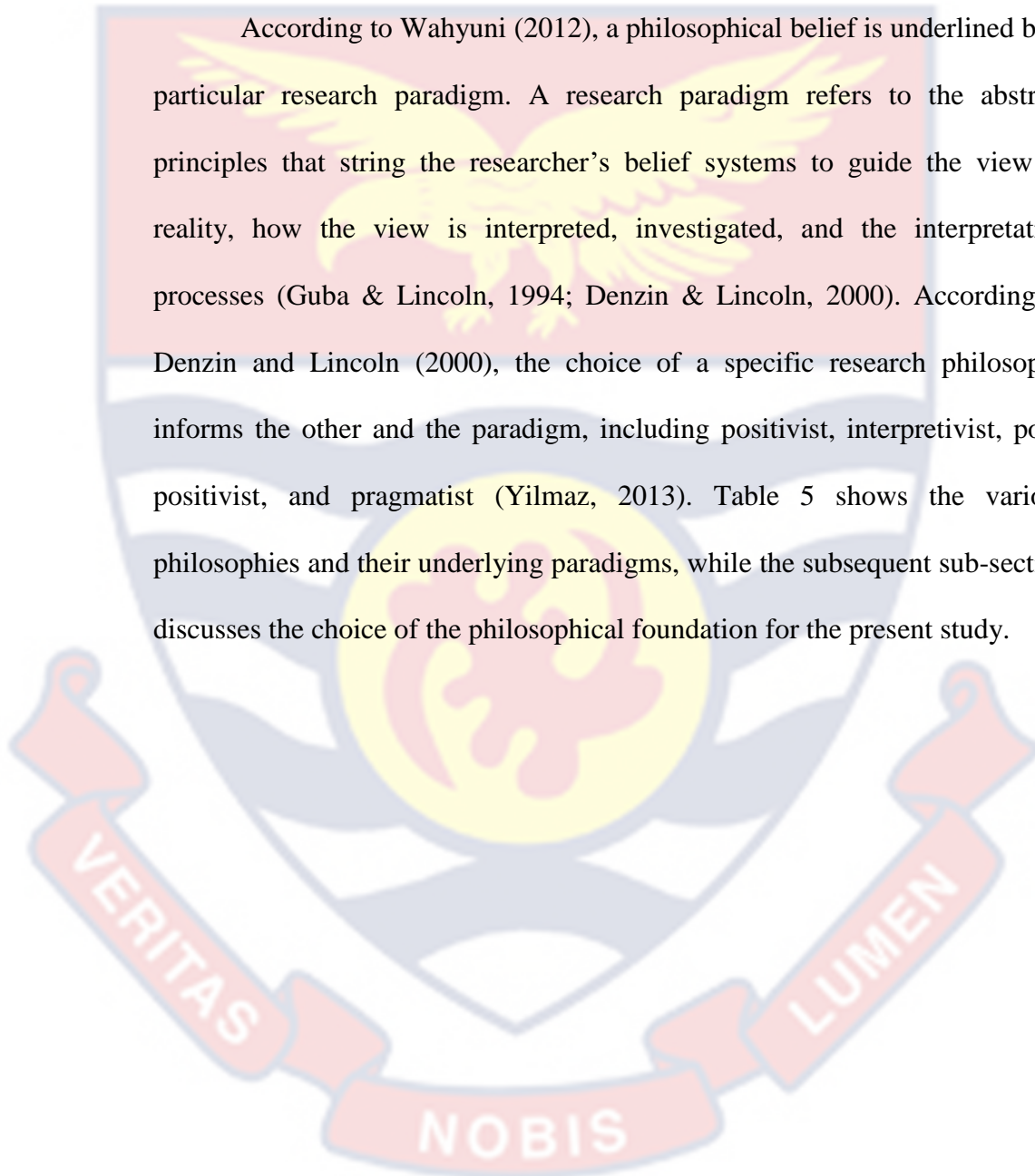


Table 5: Beliefs and Characteristics of Research Philosophies/Paradigms

Philosophy	Positivist	Postpositivist	Interpretivism	Pragmatism
Ontology: The position or nature of reality	External, objective and independent of social actors	Objective, exists independently of human thoughts and beliefs or knowledge of their existence, but is interpreted through social conditioning	Socially constructed, subjective, may change, reality is subjective and multiple	External, multiple views chosen to best achieve an answer to the research question
Epistemology: The view on what constitutes acceptable knowledge	Only observable phenomena can provide credible data, focus on causality and laws such as generalisation, reducing phenomena to simplest elements	Only observable phenomena can provide credible data and facts, focus on explaining within a context(s)	Subjective meanings and social phenomena, focus on the details of the situation, the reality behind these details, subjective meaning and motivation action	Either or both observable phenomena and subjective meanings can provide acceptable knowledge dependent upon the research question
Axiology: The role of values in research and the researcher's stance	Value-free and etic, research is undertaken in a value-free way, the researcher is independent of the data and maintains an objective stance	Value-laden and etic, research is value-laden, the researcher is biased by worldview, culture and experiences	Value-bound and emic, research is value bound, the researcher is part of what is being researched, cannot be separated and so will be subjective	Value-bound and etic-emic, value plays a large role in the interpretation of the results, the researcher adopting both objective and subjective points of view
Research methodology: The model behind the research procedures	Quantitative	Quantitative or qualitative	Qualitative	Quantitative and qualitative (Mixed or multi-method design)

Sources: Adapted from Yilmaz (2013); Wahyuni (2012)

Philosophical Choices and Justification for this Research

This study is anchored on specific philosophies: value bound-axiology, critical realist ontology, subjective epistemology, mixed methodology and deductive reasoning.

Axiology

The philosophical belief of axiology originates from the Greek word "Axios," meaning "value," which refers to the nature of ethical human behaviour (Killam, 2013; Merriam-Webster Dictionary, 2013). In scientific research, axiology constitutes the researcher's moral judgement, value, and belief that guide the research (Wahyuni, 2012; Killam, 2013). These axiological tenets shape the degree of fairness and balance between personal value and ethics (Kaushik & Walsh, 2019). Axiology assesses the role of the researcher's own value in all phases of the research process. It clarifies the objectives of the research and tries to clarify whether the researcher tries to explain or predict the world, or only seek to understand it (Wahyuni, 2012; Killam, 2013). These axiological tenets shape the degree of fairness and balance between personal values and ethics (Gunbayi, 2020).

The axiological stand of this thesis is anchored on value-bound, etic-emic and impartial research processes. Hence, the current research process was guided by intellectual integrity and honesty based on the axiological principles of informed consent, beneficence, and confidentiality. These objectives were achieved through careful data collection and management, accurate data reporting, non-biases, and admission of the limitations in the research process. The researcher observed the axiological principles to ensure higher research value and ethics.

Ontology

Ontology is a philosophical belief founded on the fundamental assumption about the nature of reality, being and existence (Kaushik & Walsh, 2019; Gunbayi, 2020). The ontological belief explains the researcher's position about what constitutes the nature of reality and whether it (reality) is constructed by social actors or independent of them (Ludwig & EI-Hani, 2019). The ontological assumption can be found within the realist, critical realist, and idealist schools of thought (Mkansi & Acheampong, 2012).

The ontological belief of the current study is that the effect of entrepreneurial networking on innovation leading to sustainable growth is an objective reality, exclusive of the researcher and can be measured objectively (realist). However, such a reality cannot be measured perfectly and carefully due to the nature of respondents and phenomenon of 'networking', research context, objectives and questions, and the iterative processes and procedures. For instance, the study measures the perception of owner-managers of small enterprises operating in a network environment. Hence, other unknown factors and conditions such as country of origin and culture within the environment may influence the perception and responses.

The influence of subjective beliefs within the objective phenomenon makes critical realist ontology suitable for the present research. Critical realists believe that reality exists but cannot be discovered and known in certainty due to the subjective nature of a social phenomenon (Lincoln, Lynham & Guba, 2011). To address the subjectivity in the current study, a methodological triangulation (mixed methods) involving interview was conducted to generate qualitative insights to interpretate and validate the

quantitative results. For instance, the research further identified key informants comprising owners and owner-managers of small enterprises who are members of AGI and GEA in Ghana to understand the reasons for networking, how they leveraged networks and the benefits they have gained from networking. As Kelle and Erzberger (2004) emphasised, interview results complement quantitative results to validate and describe a research topic more comprehensively.

I did not use realism ontology because the philosophy believes in absolute objectivity and assumes that the world is a well-organised and orderly system independent of humans and governed by natural laws (Neuman, 2014). Also, the relativist ontology was not considered because the philosophy believe in absolute subjectivity and that the world is an output of social construction through collective experiences of social actors in constructing and assigning meaning to what constitutes reality (Saunders *et al.*, 2009; Easterby-Smith, Thorpe & Jackson, 2015).

Epistemology

Epistemology is the philosophical stance about what constitutes an acceptable reality (knowledge), what can be known, and how it (reality or knowledge) will be known and understood (Mkansi & Acheampong, 2012; Killam, 2013; Gunbayi, 2020). According to Guba and Lincoln (1994), epistemology fundamentally explains the relationship between the researcher and the knowledge, whether the relationship is objective or subjective. Given the study aims to gather qualitative data (triangulation), the subjective epistemology was adopted.

Epistemology strands is subjective since the researcher's belief is grounded in the ontology of relativism, which affirms that reality cannot exist or be discovered independently of the social actors and context. Thus, the decision to select subjectivity over objectivity is based on the purpose/objective of the study to examine the effect of entrepreneurial networking on innovation and sustainable growth of small enterprises in Ghana. Thus, qualitative knowledge was needed which was acquired through the interview that was conducted using the key informants.

According to Gunbayi (2020), the methodology includes the foundation for choosing particular research methods: tools, procedures and techniques of research. Thus, methodology constitutes a set of rules, methods, or procedures relevant to an art or science (Merriam-Webster Dictionary, 2013; Braun & Clarke, 2022). The methodology is seen as a summary of how each reality, logic, and what constitutes knowledge inform the systematic processes for discovering knowledge and the theoretical analysis of the methods. The structure of a methodology comprises the research paradigm and the strategy and methods (quantitative, qualitative or mixed). To Denzin and Lincoln (2013), the axiology (research moral values), ontology, epistemology and methodology are guided by research paradigms.

Research Paradigm

Paradigm originated from the Greek word "Paradeigma," which means "pattern" (Killam, 2013). It refers to the philosophical beliefs and the abstract principles that string the philosophical belief systems to guide the researcher's view of reality, how the view is investigated, interpreted and the interpretation processes (Guba & Lincoln, 1994; Denzin & Lincoln, 2000). There are four

research paradigms: positivist, interpretivist, post-positivist, and pragmatist, to guide a researcher in understanding how philosophical beliefs influence the research process (Yilmaz, 2013; Neuman, 2014). The present study is underpinned by the post-positivism paradigm.

The post-positivism was used in this study because the belief of the researcher is that the effect of entrepreneurial networking on innovation, leading to sustainable growth is a subjective reality, exclusive of the researcher, and can be measured objectively. However, such a reality cannot be measured perfectly and carefully due to the nature of respondents and networking phenomenon, research objectives, and iterative research processes such as data collection, analyses and interpretation procedures.

However, the research assumes explanatory in the study phenomenon but cannot ignore the influence of the subjective conditions in the research process. For instance, the study measures the perception of networked small enterprises owners and owner-managers. Thus, other unknown factors and conditions such as culture within the network environment influence such perception and responses from the respondents. The influence of subjective beliefs within the objective phenomenon makes post-positivism paradigm suitable to examine and report on the effect of entrepreneurial networking on the sustainable growth of a cross-section of networked small firms in Ghana.

The epistemology of post-positivism leans on the belief that there is an objective reality that can be observed and measured objectively and carefully but not ideal due to imperfections in the discovery processes, the nature of the phenomenon and the rationality of social actors (Guba & Lincoln, 1994). A researcher can choose either a quantitative or qualitative method under post-

positivism, but the paradigm is often adopted to investigate causal phenomena requiring a more quantitative approach than qualitative (Creswell & Poth, 2016). Besides, the post-positivism paradigm has a theory foundation before data collection and analysis to support or refute the theory and revise it by conducting additional tests.

Post-positivism paradigm supports critical realist ontology (Thanh & Thanh, 2015; Ellaway, Kehoe & Illing, 2020), past studies (Odoom, 2016; Acheampong *et al.*, 2017) often use the paradigm for a quantitative survey and testing of hypotheses to arrive at a deductive confirmation. The current study used post-positivism to draw strength from objective and subjective perspectives. In the current research processes, interviews were conducted to gather qualitative responses to triangulate the quantitative results, thus offering a better interpretation of the research issue.

The study did not align with the interpretive view because the paradigm assumes that human actions, knowledge, and understanding are socially constructed, and there is neither universal truth nor worldview (Thanh & Thanh, 2015; Iyamu, 2020). The paradigm emphasises absolute subjective meaning to social events (Bryman, 2012; Kankam, 2019), making it unsuitable for the current study. Second, positivism was not considered because the paradigm assumes an approximate accuracy and objective description of reality, where probable causes determine the effect (Peng & Shiyu, 2019; Fordjour & Chan, 2020). The paradigm is anchored on realist ontology which assumes a constant and context-free reality to be discovered objectively, independent of the researcher (Maarouf, 2019).

The pragmatist paradigm assumes that there are different ways to investigate and interpret a phenomenon, and the researcher can choose the suitable and best method(s) and strategies that achieve the aim of the study. The paradigm takes a liberal view of scientific research by allowing the investigator to consider either or both positivist and interpretive points of view concurrently or quantitative, qualitative, or mixed methods/strategies (Abutabenjeh & Jaradat, 2018; Maarouf, 2019). Indeed, pragmatists believe in “what works”, focus on the problem at hand, elicit the best mix of methods to collect and analyse data, interpret and provide meaningful outcomes to advance knowledge and understanding of reality (Wahyuni, 2012; Maarouf, 2019). As Creswell and Poth (2016) posited, pragmatists emphasise value, allowing subjective and objective views to interpret, validate, and advance knowledge on the research issue.

Given the above reasons, the interpretive, positivist and post-positivist paradigms were seen as less suitable to address the aim of the present study to use mixed methods (quantitative and qualitative research strategies), hence the pragmatist paradigm which support the deductive research reasoning.

Reasoning in scientific research is when the researcher uses the existing knowledge to provide a constructive explanation and make projections, predictions, decisions, and conclusions (Withrow-Clark, 2020). Various approaches to research reasoning- inductive, abductive or deductive are common in the literature (Saunders *et al.*, 2007). Inductive reasoning is a “down-up” theory-building research process which starts with observations of specific series of instances to conclusions and generalisations about a known phenomenon (Withrow-Clark, 2020).

The inductive research reasoning is usually limited in scope. On the other hand, deductive reasoning is a “top-down” research approach whereby the researcher uses theories to formulate, test and confirm hypotheses to explain and make conclusions based on what has become known (O’Reilly, 2016; Withrow-Clark, 2020). The abductive reasoning begins with an incomplete set of observations and proceeds to possible explanations of what is most likely or what is known (O’Reilly, 2016; Withrow-Clark, 2020). The abductive reasoning approach closes the gaps in the inductive and deductive approaches. Figure 2 shows Trochim’s (2020) process of deductive reasoning.

Top-Down Deductive Reasoning Approach

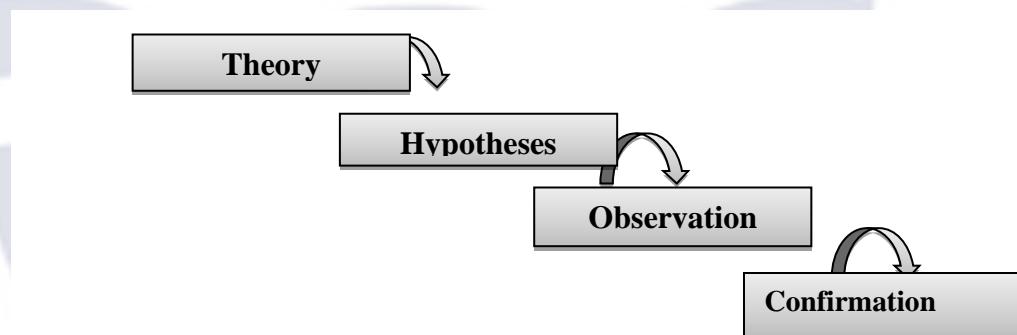


Figure 2: The Top-Down Approach to Research Reasoning

Source: Adapted from Trochim (2020)

Figure 2 explains the deductive research reasoning whereby the researcher begins with the available theories about the issue of concern. Afterwards, the researcher narrows down the broad tenets of the theories into specific testable hypotheses which can support the theories (Trochim, 2020). Next is for the researcher to collect data to test the hypotheses (Khatwani & Panhwar, 2019). The final stage is when the researcher tests the hypotheses based on the data collected and confirms what is known about the original theories and related literature (Trochim, 2020).

The current thesis is guided by deductive reasoning since the study seeks to test concepts in three theories namely, the institutional theory, network theory of social capital and diffusion of innovation theory. In a deductive study, the researcher uses existing theories to inform the hypotheses, the choice of variables, and the measurement statements to use (Trochim, 2020). Based on the study theories, the study proposed to examine the effect of entrepreneurial networking: network social capital, network isomorphism on innovation and sustainable growth. The theories also informed the research questions, data collection and analyses, deductive inferences and generalisation of the research knowledge.

Research Strategy

Research strategy refers to data collection and analysis procedures and the type of generalisations and representations derived from the data (Saunders *et al.*, 2012). Three research strategies - quantitative, qualitative and mixed - have been discussed in social science and management literature (Creswell, 2014; Bryman & Bell, 2015). This present study used a mixed research strategy to examine the effect of entrepreneurial networking on innovation and sustainable growth of small enterprises in Ghana.

Several reasons have been suggested based on the underlying assumptions to justify the choice of a mixed research strategy (Saunders *et al.*, 2015). The current study used a mixed research strategy because of the aim and the philosophy of critical realist ontology, pragmatist paradigm and deductive reasoning. The mixed research strategy is flexible and allows the researcher to collect, analyse, and interpret research data using qualitative and quantitative methods in a single study (Creswell, 2014).

In the current study, qualitative and quantitative strategies are employed in the process of triangulation to enhance the credibility (trustworthiness and believability) and validity (accurate reflection) of the research findings. As Campbell *et al.* (2018) posited, triangulation may include multiple methodologies. Multiple methods study that leads to the same result enrich the research by offering a variety of data sets to explain the study result, offering high confidence in the outcome (Nobel & Heale, 2019).

The study used quantitative research strategy combined with qualitative strategy because, according to Bryman and Bell (2015), the strategy relies mainly on objectivity whose methods allow the researcher to gather only numeric data from larger respondents to test the hypothesis and validate the suitability or otherwise of the underlying theory. Besides, the quantitative research strategy aligns with the positivist paradigm, which favours hypothesis formulation and testing (Creswell & Plano Clark, 2017).

Also, the present study favours both qualitative research since the qualitative research seeks to explore and discover social problems to understand people and the social and cultural settings in which they live (Myers & Newman, 2007). Besides, qualitative strategy aligns with relativist and subjective philosophies, interpretivism paradigm, and uses interviews to gather data (Bryman & Bell, 2015; Bryman, 2017).

The present study hinges on post-positivism paradigm and aims to gather quantitative and qualitative views to enhance the research outcome, hence the mixed strategy.

Research Design

Social science and management literature emphasises that the philosophy, paradigm and strategy of scientific research inform the choice of appropriate research design (Killam, 2013). A research design is a framework that contains the methods and procedures necessary to direct the researcher to achieve the study aim (Fordjour & Chan, 2020). A researcher follows the research design as a framework of assumptions to choose the appropriate sampling technique, data collection procedure and instrument, and data analysis tools and procedures (Abhijeet, 2019; Harris, 2020). Generally, a research design is categorised into exploratory, descriptive, and explanatory (Abhijeet, 2019; Ghauri, Grønhaug & Strange, 2020).

The present study employed explanatory design to examine the effect of entrepreneurial networking, network isomorphism and network social capital on innovation and sustainable growth of small enterprises. The explanatory research design, is a research design employed by researchers to test and explain effect and relationships (Dudovskiy, 2019). Based on the underlying philosophies, theories and literature, the researcher used explanatory design to formulate the research topic, identify the variables, formulate hypotheses and develop the conceptual framework. Again, the researcher used quantitative data analysis techniques, including inferential statistics through structural equation modelling, to analyse the data and establish the relationships.

Literature highlights that the strength of causal research design is identifying and assessing the extent of differences between phenomena or variables of research interest (Abhijeet, 2019). In other words, explanatory research design allows the researcher to determine the effect of an independent

variable(s) on the dependent variable. Again, explanatory research design helps the researcher to control experimental research procedures to achieve the study aim (Abhijeet, 2019; Ghauri *et al.*, 2020). Abhijeet (2019) stated that a causal research design helps the researcher to measure what is important to achieve the aim of the research. Hence, causal design supports the aim of the study to examine the mediating effect of innovation and the control effect of network affiliation on sustainable growth.

A descriptive research design aims to determine the nature of a situation as it exists by responding to research questions such as who, where, what, when, and how a situation occurred (Akhtar, 2016). Due to its accuracy, researchers employ descriptive designs to systematically describe the features of the population (Bhat, 2020), making the design appropriate for the present research to describe the profile of the respondents, measurement statements and research objectives one, two, and three..

Apart from the quantitative underpinnings of this study, the researcher considered exploratory research design appropriate due to the philosophy and the study aim to explore reasons why small enterprises engage in networking, how they leverage networks for resources and the benefits they derive from networking. According to Al-Ababneh (2020), an exploratory design allows the researcher to explore and understand new research issues. The present study triangulates the quantitative result with qualitative data, and the purpose is to interpretate the quantitative findings. In triangulation, the researcher uses interview data to validate the quantitative findings to understand the phenomenon of interest (Campbell *et al.*, 2018).

Study Design (Time Horizon)

A research process highlights two study designs in terms of time, namely cross-sectional and longitudinal. On the one hand, cross-section study design refers to the processes of gathering research data at a particular time from a representative sample of the population of interest (Creswell, 2014). Again, a cross-sectional research framework studies group(s) of individuals or institutions at only a single point in time (Saunders *et al.*, 2012). A cross-sectional design is appropriate when the study respondents are composed into one large sample, often due to the necessity of time (Saunders *et al.*, 2012). On the other hand, the longitudinal study design is a research framework that allows the researcher to observe individuals and institutions or a group of individuals over a period of time. The current research aims to collect data from small business entrepreneurs at a specified period of time and not over a period of time, thus making the research cross-sectional. The present study is a survey of small enterprises, requiring a cross-sectional research design (Easterby-Smith *et al.*, 2015).

Study Area

This research is conducted among small enterprises that are active members of the Ghana Enterprise Agency (GEA) and the Association of Ghana Industries (AGI) located in three regions of Ghana, namely, the Western Region, Greater Accra Region and Ashanti Region. Ghana has sixteen (16) regions, and for this study, the researcher focussed on only three regions as the study area. These regions cumulatively account for 364,235 (57.1%) of the 638,234 establishments in Ghana (IBES, GSS, 2016b), making the regions the main economic hubs of Ghana.

Also, the regions are cosmopolitan, have the largest number of formal enterprises in Ghana, engage in various entrepreneurial activities and contribute significantly to the country's GDP, revenue and employment (IBES, GSS, 2018b; Nyadu-Addo & Mensah, 2018). The focus on the three regions of Ghana as a study area could provide a blueprint to help small enterprises in other regions to leverage networking for sustainable business growth.

First, the Greater Accra Region is the administrative region of Ghana, occupying an area of 3,245 km² or 1.4 per cent of the country's total land area. The region has 5,457,267 population, constituting about 17.7 per cent of Ghana's total population (GSS, 2021), making it the most populated region in Ghana. The region is cosmopolitan, with sixteen Metropolitan, Municipal and District Assemblies (MMDAs). Ghana Statistical Service IBES (2016b) reports that out of 177,153 (27.8%) enterprises operating in the region, 83.3 per cent (147,568) are informal, whilst 16.7 per cent (29,584) are formal, confirming the informal nature of Ghana's economy.

Again, nearly half of all establishments in the region are in Accra, where the service sector (149,512) has the largest number of establishments, followed by industry (27,302) and agriculture (338) sectors. The region is dominated by service enterprises, particularly wholesale and retail trade, accommodation and food, profession, scientific and technical services, education, financial and insurance and other services. In terms of the size of establishments, 1,233 (0.69%) are large, 4,184 (2.4%) medium, 23,008 (12.9%) are small and 148,727(83.9%) are micro-enterprises (IBES, GSS, 2016b).

Ashanti Region has a total population of 5,426,435, representing the highest proportion (17.6%) of the total population of 30,832,019 in the country as of 2021. The region lies in the southern half of Ghana and occupies 24,389 sq. or 10.2 per cent of Ghana's total land area. The region has thirty (30) MMDAs. It has a total of 123,644 (19.37%) establishments in the three main economic sectors of Ghana: the service sector 82.7 per cent (102,219), followed by industry 16.8 per cent (20752), and agriculture 0.5 per cent (673). The majority of establishments in the agriculture sector is predominant in crops, followed by livestock and forestry activities. Out of 123,644 establishments in the region, 315 (0.25%) are large enterprises, 1,240(1.00%) are medium, 16,105 (13.02%) are small, whilst 105,984 (85.72%) are micro-enterprises. Hence, the total number of small enterprises in the Ashanti Region is 122,089, representing 98.74 per cent of all enterprises in the region. Out of the 122,089 establishments, 92.9 per cent (113,421) are informal enterprises, whilst 7.1 per cent (8,668) are formal enterprises (IBES, GSS, 2016b)

The Western Region is currently becoming the oil hub of Ghana and a significant contributor to the GDP of Ghana through the production of Cocoa. The region has 14 MMDAs covering an area of 23,921 square kilometres, representing about 10 per cent of Ghana's total land surface. The population of the region as enumerated in the 2021 PHC is 1,880,753. The region has 63,439 establishments, constituting one-tenth of the total establishments in Ghana. The majority of the establishments in the region are within the service sector, 84.1 per cent (53,322), followed by industry, 15.6 per cent (9,899) and Agriculture, 0.3 per cent (218).

Many service sector activities are within the wholesale and retail trade, education, accommodation, and food. Within the 22 MMDAs, there are 63,439 (9.94%) establishments. A total of 52,982 (83.5%) of the total establishments in the region are micro-enterprises, followed by small size establishments 9,407(14.8%), medium size 798(1.3%) and large-sized enterprises 252(0.4%). The total number of small enterprises sum up to 62,389. Only 7.6 per cent of small enterprises are formal, constituting 4,742, while 92.4 per cent, constituting 57,647 firms, operate informally. Table 6 shows the summary of formal small enterprises in the three regions of Ghana.

Table 6: Summary of Small Enterprises in Ghana

Region	Total Enterprises	Small Enterprises	Formal Small Enterprises
Western	63,439	62,389	4,741
Greater Accra	177,152	171,735	28,679
Ashanti	123,644	122,089	8,668
Sub-Total	364,235	356,213	42,088

Source: **Integrated Business Enterprise Survey (IBES, GSS 2016b)**

The table above describes the distribution of enterprises in the study area. It is also important to note that the study focusses on formal small enterprises that are active members of GEA and AGI. The two entrepreneurial associations are networks of businesses from all industries of the Ghanaian economy. The mandates of the two entrepreneurial associations include but are not limited to providing members with promotion, regulatory and facilitatory services, including access to business contacts, development information, technologies and resources. The functions of the entrepreneurial associations fit within the context and purpose of this study to examine the

effect of entrepreneurial networking on innovation and sustainable growth of small enterprises in Ghana.

Population and Sample Design

This section of the Chapter describes the target population of the research and clarifies how the research respondents are selected for quantitative and qualitative data.

Target Population

The population refers to the number of individuals and/or groups or their representatives that the researcher generates data or information from to conduct an investigation and generalise the conclusions. The target population for the current study includes small enterprises who operate service, agriculture, and manufacturing businesses, and are active members of AGI and GEA and are located in Greater Accra, Ashanti and Western regions of Ghana at the time of the data collection. As of 2021, GEA has active membership of 28,245 (<https://gea.gov.gh/about-us/>), while AGI has 689 enterprises (https://www.agighana.org/member_profile.php) in Ghana. Table 7 shows the population distribution for this research.

Table 7: Distribution of Target Population of Formal Small Enterprises

Region (Study Area)	Formal Small Enterprises	Association Membership		Target Population for this research
		AGI	GEA	
Western	4,741	7	279	286
Greater Accra	28,679	53	2,149	2,202
Ashanti	8,668	26	1,078	1,104
Total	42,088	86	3,506	3,592

Sources: IBES, GSS (2016b), AGI Report (2021), GEA Report (2021)

The Table 7 shows a population of 42,088 formal small enterprises in the three regions (study area) of Ghana. Given the population of this research, the researcher focusses on a target population of 3,592 formal small enterprises. Two steps were followed to arrive at the target population. For AGI, first, out of 689 formal establishments (members) in the country, 69 (9.94%) are in the Western region, 192 (27.8%) in the Greater Accra Region, and 134 (19.37%) in the Ashanti region. From the regional distribution, formal small enterprises are 7 (9.95% of 69) in the Western region, 53 (27.38% of 192) in the Greater Accra Region, and 26 (19.71% of 134) in the Ashanti region, totalling 86 formal small enterprises who are members of AGI. Here, the researcher used the regional distribution (percentages) of formal small enterprises by GSS Report to achieve a target population.

Regarding GEA, the network has 28,245 Micro, Small, and Medium Enterprises (MSMEs) in Ghana. A total of 57.1 per cent of the 28,245 enterprises are in Western region [2,808(9.94%)], Greater Accra region [7,852(27.8%)], and Ashanti region [5,471(19.37%)]. In terms of formal small enterprises, the Western region has 279 (9.95%), the Greater Accra region has 2,149 (27.38%), and the Ashanti region has 1,078 (19.71%), totalling 3,506 formal small enterprises that are active members of GEA in the three regions.

Accordingly, the 3,592 formal small enterprises that are active members of AGI and GEA in the Western, Greater Accra and Ashanti regions of Ghana constitute the target population for the study both quantitative (survey). Regarding the triangulation, the 3,592 formal small enterprises were used as the study population for the qualitative study. Thus, the study used key informants who were purposively identified from the same framework of

small enterprises engaged in the quantitative study. First, the research focusses on formal small enterprises of AGI and GEA due to the peculiarity of the research problem, the research objectives, the aim of the researcher, and logistical and financial constraints. Small enterprises often suffer limited resources, which affects growth and sustainability. Therefore, the current study offers empirical insights into the network mechanisms that small enterprises can use to leverage their networks and access resources for business operations, innovation, growth, and sustainability.

Second, the concentration of the target population in the three regions does not amount to contextual biases as the regions are characterised as the economic hubs of Ghana, accounting for 57.1% of all establishments in the country. Enterprises in the three regions are multi-sectoral firms operating in all the three main economic sectors of Ghana (Buame, 2012). Third, the three regions are classified as cosmopolitan and are believed to have the characteristics of other regions of Ghana (Buame, 2012). The migration of labour and economic activities from other regions like Northern, Upper East, Upper West, Brong Ahafo and Central regions into the three regions echoes the cosmopolitan nature of the three regions. The multi-sector population approach responds to the call of literature for a multi-sectoral approach to small enterprise studies (Munir & Baird, 2016; Damoah, 2018).

Sampling Procedure

Sampling refers to choosing or selecting a small part of a pre-determined target population to provide information for the research (Sharma, 2017; Oghenekevwe, Njideka & Sylvia, 2020). In a research procedure, the basis for selecting the sample influences how the researcher will generate the

required data to achieve the research objectives (Harris, 2020). Therefore, the researcher must determine the frame that constitutes the list of all the components of the larger population (Lehan, 2016; Leavy, 2017). Four steps were followed to select the sample size: identifying the prospect list, sample selection criteria, sample selection technique and sample size determination.

Step 1 – inclusion criteria: A small enterprise is the main criterion for an establishment to be included in this research sample. In this study, small enterprises employ between five and 29 staff and have fixed assets, excluding land and building not exceeding \$100,000, similar to the criteria by IBES GSS (2016b) report. Another criterion is that the small enterprise must be an active participant in the entrepreneurship and networking activities of AGI and GEA. Again, the enterprise must experience stable economic, social and environmental growth/development indexes such as sales, profit, number of employees, productivity and customer satisfaction (Jyothi & Kamalanabhan, 2010; Schwab *et al.*, 2019; Islam & Wahab, 2020).

Step 2 – Sampling technique: The present study used the probability (proportional stratified) technique to sample the respondents. In scientific research, probability and non-probability are two main sampling techniques (Taherdoost, 2016). On the one hand, the probability sampling technique is also termed representative or random sampling, in which every member of the population is known (non-zero) and has a fair, equal and independent chance of being selected and included in the research (Creswell, 2014; Taherdoost, 2016; Sharma, 2017; Kumar, 2019). Probability sampling is classified into simple random, stratified random, systematic and cluster sampling methods.

On the other hand, non-probability sampling, also called non-random sampling, allows the researcher to select a representative and appropriate element to generate the needed responses (Creswell, 2014; Taherdoost, 2016). Some examples of non-probability sampling include quota, purposive or judgmental, convenience or accidental, snowballing and expert sampling techniques. Given the assumptions, advantages and disadvantages, stratified technique was used to sample respondents for the quantitative data, while convenience technique was used to sample participants for qualitative data. Figure 3 shows the various sampling methods.

Types of Sampling Techniques

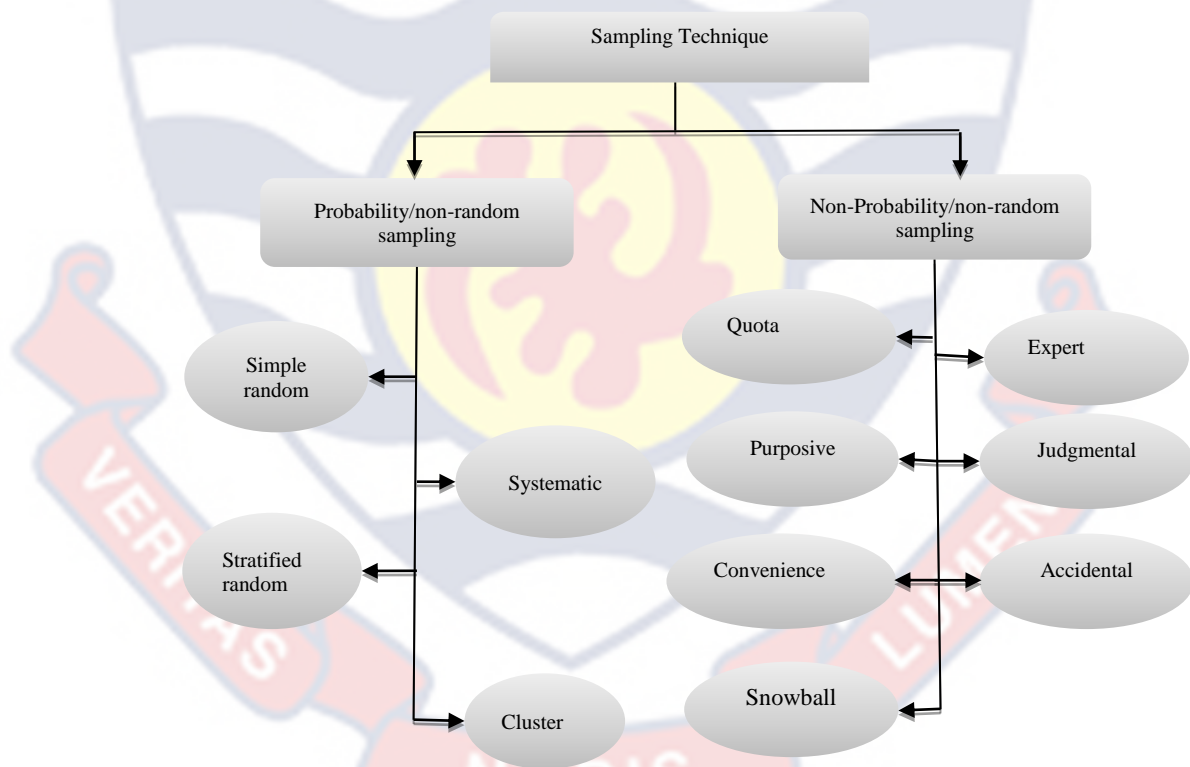


Figure 3: Showing the Probability and Non-probability Sampling Techniques

Source: Author's conceptualisation (2022)

The present study used probability sampling because the technique is more suitable and acceptable when the researcher wants to represent the target

population fairly and equally and independently (Smith & Dawber, 2019). Specifically, the proportional stratified (probability) sampling technique was used to select the target sample to provide the quantitative data using questionnaire. First, the stratified sampling technique was used because the process allows the researcher to first divide the target population into separate and smaller independent strata, division or subgroups such as regions (Martínez-Mesa, González-Chica, Duquia, Bonamigo & Bastos, 2016).

Based on the common characteristics of the sample, the researcher randomly selects elements from each stratum to constitute the target sample (Sharma, 2017). Accordingly, the present study divided the target population into sixteen regions (strata) and focused on three regions namely Ashanti Region, Greater Accra Region and Western Region. The respondents in the regions have similar characteristics, and the researcher also used similar criteria (number of employees and capital) to classify small enterprises. As Kumar (2019) indicated, in stratified sampling, the researcher attempts to classify or arrange the population to ensure that the sample selected in each stratum is homogenous, following the characteristics for which it was stratified. Besides, one major benefit of stratified sampling is the likelihood of a fair representation of all groups in the target population (Gray, 2019).

Stratified random sampling could be a proportional or disproportional method (Lynn, 2019; Martínez-Mesa *et al.*, 2016). Proportional stratified sampling was used in this thesis because the researcher used equal fractions of the number of small enterprises in each stratum (Region) to determine the sample. Thus, the respondents from each region were based on the percentage (proportion) of formal enterprises in the region. As Kumar (2019) indicated, in

stratified sampling, the researcher attempts to classify or arrange the population to ensure that the sample selected in each stratum is homogenous, following the characteristics for which it was stratified.

Besides, one major benefit of stratified sampling is the likelihood of a fair representation of all groups in the target population (Gray, 2019). Hence, the bases of the proportional stratified sampling were to ensure that, a fair representation of small enterprises from each of the three study Regions participated in the survey, and besides the respondents are located across three defined Regions of Ghana. The study did not favour a disproportional stratified sampling because the technique does not consider the size or percentage of the respondents in the stratum (Kumar, 2019).

Given the choice of probability, stratified and proportional sampling technique, the researcher needs to consider the underlying assumptions, including a comprehensive sample frame that is enough for the researcher to select a representative sample (Smith & Dawber, 2019). Each member of the population should have a non-zero presence chance to be randomly selected (Smith & Dawber, 2019). Lastly, the researcher needs to consider an accurate percentage or information about each stratum in the population and the stratifying list. For this study, the researcher met the basic assumptions by securing a sample frame (see https://www.agighana.org/member_profile.php) which constitutes a comprehensive list and information of firm in the three regions of Ghana that are active members of AGI and GEA at the time of the data collection exercise. Hence, all the respondents had an equal chance of being selected for the study.

Sampling for qualitative study

For the methodological triangulation in this study, the purposive (non-probability) sampling technique was used to identify key informants from each stratum to participate in the interview. In purposive sampling, the elements within the target population do not have an equal likelihood or chance of being selected to participate in the research (Etikan, Musa & Alkassim, 2016). Purposive sampling techniques also allow the researcher to set aside and use specific characteristics to select respondents for the study (Taherdoost, 2016). Hence, the present study sampled the participants for interview based on in-depth knowledge about the study issues, consistent with Etikan *et al.* (2016).

Though purposive sampling can be done easily and less costly, there is the likelihood of biases in selecting the respondents, thus limiting the extent of generalising the research conclusion (Jager, Putnick & Bornstein, 2017). However, the proportionality in the number of sampled firms from each of the three stratified regions of Ghana ensured that biases were reduced. Again, interview results are used to triangulate the quantitative findings and not necessarily generalise to the target population.

Sample Size

The sample size is fundamental in quantitative research that involves testing associations and hypotheses. Sample size refers to the number of elements selected from a target population and from which data are gathered (Aaker, Kumar, Leone & Day, 2013). Sample size can affect the accuracy of the result and the choice of appropriate statistical analysis techniques (Malhotra, 2007; Hair *et al.*, 2022). The present study employed statistical approaches to determine the sample size. The first approach is the Snedecor

and Cochran's (1967) conventional formula for determining the appropriate sample size at a confidence level of 95% ($z=1.965$). Assuming 0.5 variability and a precision level of 5 per cent, a sample of 385 is appropriate and deemed a fair representation of the large population. The formula is given as follows:

$$n = \frac{z^2 pq}{e^2}$$
 Where: n – sample size, z – confidence level, p – variability in population, $q = 1-p$; e – level of precision.

Second, Hair *et al.* (2016) indicated that sample size could be determined from a total number of variables in the structural model. For instance, a sample between 350 and 500 is appropriate in a research model with 5-7 variables. A sample of more than 500 is suitable for a research model with more than seven constructs. This research has five (5) constructs – network isomorphism, network social capital, innovation, sustainable growth, and network affiliation. Based on Hair *et al.* (2016), a sample size between 350 and 500 is appropriate for this research. Third, Gray *et al.* (2012) emphasised that where the researcher is uncertain about the target population, a sample of 400 is relatively safe however, 500 is more confident.

Similarly, Taherdoost (2016) and Bartlett, Kotrlik and Higgins (2001) recommend that an accurate sample size at 95% confidence with a population of 5,000 should use a sample of 357, while a population of 10,000 and above should use a sample size of 370. These figures represent the minimum threshold and therefore, a researcher should interrogate more respondents based on the research objectives and possibly increase the respondents to a more suitable size (Gray *et al.*, 2012). To Kumar (2019), a larger sample size improves the accuracy and precision of the research findings. However, too

large a sample size could also lead to inaccuracies and erroneous conclusions (Oribhabor & Anyanwu, 2019).

Given the above considerations for sample size determination, the study aims to collect five hundred (500) completed responses from formal small firms in Ghana. The sample size is considered accurate, presentative, and fair based on the target population of 3,592 formal small enterprises.

After the proportional technique was used to determine the number of numbers of small enterprises to be taken from each of the three regions, a fair and representative technique was required to actually identify the potential samples from the total sample in the zone. Consequently, the lottery technique was used to identify the actual firms to be taken from each region. In the lottery technique, each small firm in the region is assigned a number on separate slips of paper of the same size, colour and shape. The papers were then folded and mixed up in a box. Subsequently, a blindfold selection was made to randomly pick the required number, with each number corresponding to a vendor/sample. For example, a total of 286 small firms were assigned numbers (1 to 286) in Western region. The lottery technique was then used to randomly pick 40 numbers from the total of 286. The technique was repeated in other two regions, thus, a total of 500 small enterprises were identified in the three Regions for data collection.

Table 8 shows the target population, designated sample and the valid responses (response rate) received.

Table 8: Designated and Actual Sample Size

Region	Formal Small Ent.	Target Population	Designated Sample Size	Valid/Usable Response
estern	4,741	286	40	28
Greater Accra	28,679	2,202	306	167
Ashanti	8,668	1,104	154	124
Total	42,088	3,592	500	319

Sources: Extraction from IBES, GSS (2016b), AGI (2021), GEA (2021)

The key informants were purposively selected to participate in the interview. The informants were identified based on their years of operation, active participation and executive positions in associations. Out of the number, nine expressed a verbal agreement, whereas one later declined. Hence, eight, comprising six males and two female participants, were finally interviewed. The valid sample size of eight is consistent with Morse *et al.* (2002). They emphasised that the adequacy of sampled participants for qualitative research is not measured by the number of respondents but by the depth and the degree of data they can provide to address the research questions.

Data Needs

Given the objectives and the hypotheses of the study, the researcher used both primary and secondary data, with the former being the main source. There are two main data sources: the primary and the secondary (Ghauri *et al.*, 2020). According to Hair *et al.* (2019) and Agung and Darma (2019), researchers often begin with secondary data. There is no available data to examine the proposed direct and mediation relationships in the study. Therefore, the researcher sourced primary data from the formal small business entrepreneurs to test the proposed relationships (hypotheses) and answer the

study questions. The researcher used a questionnaire and interview schedule as the data collection instruments for the primary data. Primary data was sourced to answer all the research questions on the nature of networking, innovation and sustainable growth, the effect of network isomorphism and network social capital on innovation leading to sustainable growth. Responses to these research objectives were generated from formal small enterprises located in three regions of Ghana.

Data Collection Instrument

The current study used structured questionnaires to gather quantitative data and interview guide for qualitative data. First, a questionnaire is a data collection instrument developed by a researcher to be independently completed by a respondent. Questionnaires were used for this study due to the quantitative objectives, the post-positivist paradigm and the causal survey strategy. According to Creswell (2014), questionnaires are appropriate for studies that adopt the post-positivist paradigm and survey design, where respondents are drawn from a larger population (Sonne, Ingstrup & Hansen, 2018). A questionnaire has inherent confidentiality, encouraging candid and truthful responses (Creswell & Clark, 2007). It is more suitable for collecting data on validated measures with Likert scales, where respondents can complete a questionnaire in the absence of the researcher (Creswell, 2003b).

The questionnaire for this research was designed in English. The questions were categorised under three main sections – sections A, B, and C. Section A contained a Likert scale questionnaire-type questions that measure respondents' perceptions about entrepreneurial networking: network isomorphism and network social capital. Section B focussed on the effect of

entrepreneurial networking on innovation, while Section C focussed on sustainable growth. The questions in Sections A and B were measured on a Likert scale from 1, meaning "Lowest agreement/Very least agree", to 7 "Highest agreement/very strongly agree." Sustainable growth is measured on Likert scale questions ranging from 1 "Very Low Extent" to 7 "Very High Extent." Section C asked closed-ended and dichotomous questions about the profile of the respondents and their businesses, including gender, education qualification, business association, sector and region of business operation, type of network, and years of networking.

The Likert scale was used because it allows respondents to express their level of agreement with how they think or feel about a specific research question (Likert, 1932; Boone & Boone, 2012). It also helps the researcher to measure and organise the responses (Kumar, 2019). Likert scales are common in literature and have recently been used to measure social capital and SME performance (Boohene *et al.*, 2019; Ganguly *et al.*, 2019). Lastly, the Likert scale was chosen due to the feedback collected from other researchers, showing they are easy to code, calculate total scores, conclude, and interpret the result.

The researcher found some validated scales for measuring social capital, isomorphism, innovation, and business growth in the literature. When developing a questionnaire, there are three options: either adopt or adapt research questions from the existing validated studies or review the literature to develop new questions to construct a questionnaire (Saunders *et al.*, 2009; Al-Ababneh, 2020). For the present study, forty-three (43) measurement statements were adapted from the literature, and Table 9 provides the sources.

Table 9: Measurement Statements and their Sources

Variables	Dimensions	Source	Scale Validity/re liability	Number of adapted items
	Normative Isomorphism [Nor_Iso]	Porter and Graham (2016); Anthony <i>et al.</i> (2019; 2021)	[α =.945]	6
Network Isomorphism [NISO]	Coercive Isomorphism [Coe_Iso]	Porter <i>et al.</i> (2016); Anthony <i>et al.</i> (2021)	[α =.909]	5
	Mimetic Isomorphism [Mem_Iso]	Graham <i>et al.</i> (2013); Dakduk <i>et al.</i> (2018); Anthony <i>et al.</i> (2021)	[α =.909]	5
	Structure [SC_str]	Leana and Pil (2006); Ganguly <i>et al.</i> (2019)	[α =.828, CR=.827]	5
Network Social Capital [NSoC]	Relation [SC_rel]		[α =.90, CR=.923]	5
	Cognitive [SC_cog]		[α =.903, CR=.928]	5
Innovation [Inov]		Mabenge <i>et al.</i> (2020);		7
Sustainable Growth [SuG]		Almatari <i>et al.</i> (2014); Karabulut (2015)		5
Total Measurement Statements adapted				43

Source: Authors construct (2021)

The measurement statements in the questionnaire (see Annexure A) are reflective and express variables that are not linked. The questionnaire was also designed to provide respondents with a questioning sequence by using opening and transition statements to help the respondents to understand the questions and easily move from one section to the other. This technique reduces the incidence of non-response, leading to more accurate responses (Dillman, 2007). The next sub-sections discuss how the researcher ensured the validity and reliability of the data collection instrument.

Test for Validity of the Questionnaire

Validity in research refers to the degree to which an idea is correctly captured and measured (Heale & Twycross, 2015). Valid research has sound scientific procedures professionally followed and executed to produce acceptable research data and findings (Al-Ababneh, 2020). Again, valid research data means the research findings are effective and accurate enough to measure and achieve the research objectives (Yilmaz, 2013). Several scientific procedures are available to ensure valid research or data collection instrument, including construct, internal, external, content, face validity, concurrent, convergent and discriminant validity tests (Rezaei, 2015; Hair *et al.*, 2022). Table 10 shows how the researcher ensured the validity of the research and data collection instrument.

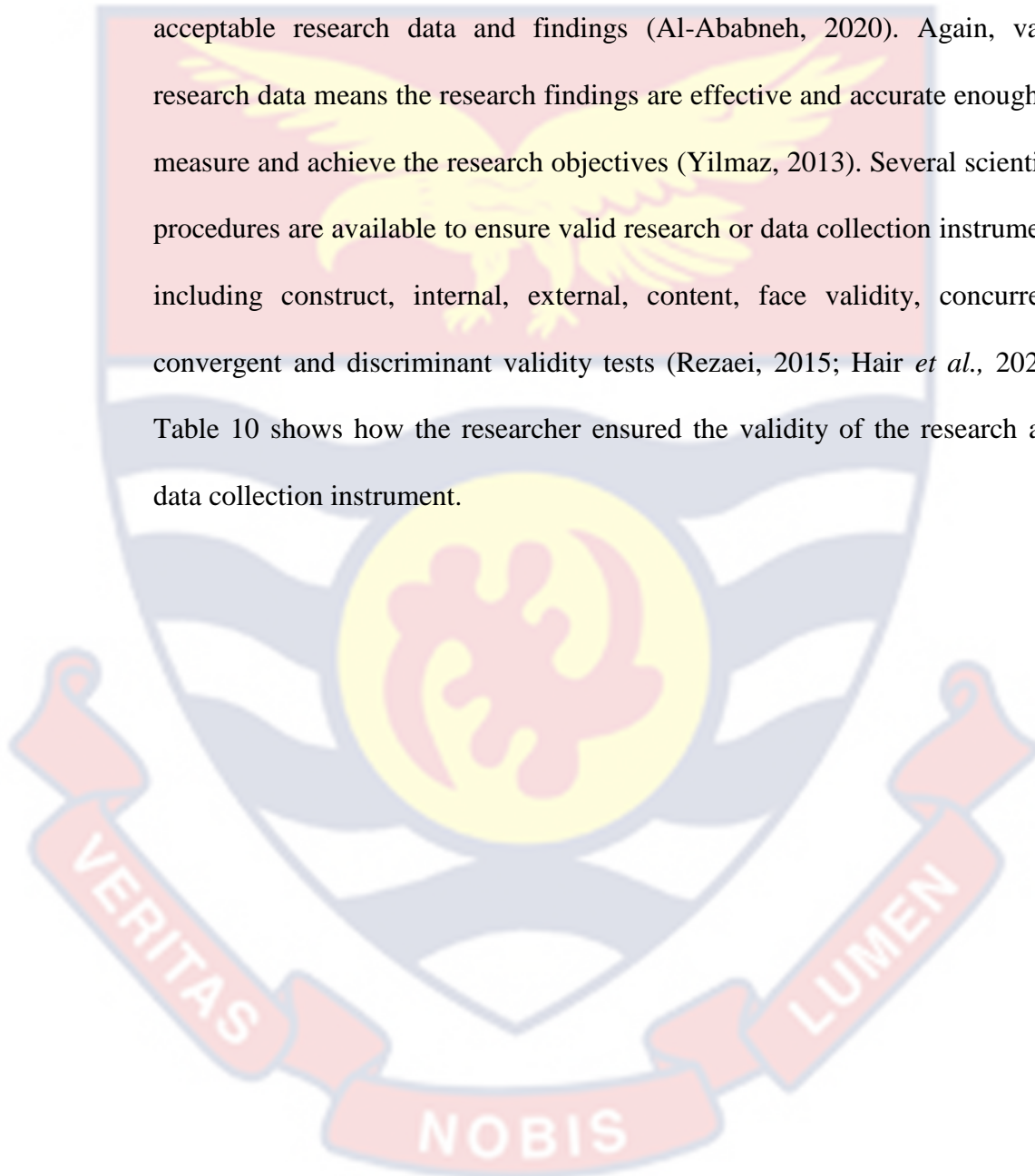


Table 10: Measures for Ensuring Validity

Validity Measure	Meaning	Action taken
Content/face validity	Measures the suitability of the instrument for the intended purposes and whether the concepts and the measurement items apply to the study population (Lechien <i>et al.</i> , 2019).	Academic professionals and industry experts were engaged to review and validate the suitability and relevance the content of the questionnaire.
Construct validity	Measure and compare the degree of quality and accuracy of the research instrument against what the researcher intended (Trochim, 2020; Kumar, 2019).	The CFA was used to measure the competencies of the hypothetical model, through the variance attributable to the construct (Kumar, 2019).
Discriminant validity	Examines how well and also ensure that the reflective variables have the strongest influence on its own indicator (Hair <i>et al.</i> , 2022)	At the CFA, Inter-variable correlation matrix, Heterotrait-Monotriat ratio test and factor loading were applied (Henseler <i>et al.</i> , 2015; Hair <i>et al.</i> , 2022)
Convergent validity	Measures the degree to which measurement statement of the same variable correlate or relate when measured by two separate instruments (Lechien <i>et al.</i> , 2019).	AVEs greater than the threshold of 0.50 was applied to assess the average variances explained by the measurement items of a particular variable.
External validity	Measures the extent to which the research findings can be generalised (Bryman & Bell, 2015; Jonas, 2018).	The proportional stratified sampling and a sample size of 319 is deemed large enough to generalise the findings to the target population of 3,592 formal small enterprises in Ghana.
Internal validity	Evaluates and verifies the degree to which the research can establish a causal relationship between an action and an outcome (Yilmaz, 2013).	The researcher compared the empirical result with the hypothesis (proposed relationships in the conceptual framework)
Concurrent validity	How well the empirical findings correspond with another previous findings of the same construct (Williams, 2015).	Compared the study findings with the literature to judge whether the findings conform to the literature or are entirely different.

Source: Authors Construction from Literature (2022)

Exploratory Factor Analysis (EFA)

Exploratory factor analysis is a pre-test analytical procedure of the data collection instrument to assess the minimum number of factors that underlie the observed variables and further ascertain the variables that satisfy the reliability requirements (Byrne, 2016). First, the researcher conducted the EFA procedure because the measurement statements in the questionnaire have neither been explored nor tested among formal small enterprises in network associations, particularly GEA and AGI as the present study, as Hair *et al.* (2017) suggested that EFA is required when the association between the observed and latent variables are not known. In this thesis, the researcher modified the measures to provide contextual relevance to the statements.

The measurement items were adapted from studies conducted in different economies since studies in the Ghanaian context focus on small firms that are not member of AGI and GEA. EFA was done for data reduction and to establish the reliability of the adapted measurement statements (Pallant, 2013). In addition, EFA was done as a pre-test of the data collection instrument to determine whether the questions asked were understood by the potential respondents and identify and correct any potential problems with the data collection instrument and the process (Hilton, 2017; Perneger, Courvoisier, Hudelson & Gayet-Ageron, 2015). In the implementation process, the study was guided by the following questions (Babonea & Voicu, 2011):

- Do the questions measure what they are supposed to measure?
- Do all the respondents understand all the items in the questionnaire?
- Did the close-ended questions provide at least one answer choice that would apply to every respondent?

- Does the questionnaire provide a positive impression and inspire people to answer?
- Does any section of the questionnaire introduce any bias from the researcher?
- Are the alternative answers provided correctly in terms of the questions asked?

Babonea and Voicu (2011) indicated that the researcher could use the same pre-test procedure for the main study if the exploratory test correctly answered the questions above. In the present study, the researcher conducted an exploratory test using 115 responses from small firms randomly sampled from the Central region in May 2022. The sample of 115, representing 23 per cent of the target sample of 500, is appropriate because the literature recommends that about 6 per cent or more of the final sample is appropriate to serve as a sample for a pre-test (Babonea & Voicu, 2011; Perneger *et al.*, 2015). The measurement statements were factor analysed through the Principal Components Analysis using SPSS. Factor loading and Cronbach alpha coefficient were used to check internal consistency and factor structure of the adapted statements.

First, the study used convergent validity Oblique (Oblimin) and Orthogonal (Varimax) rotation methods to assess the strength of the measurement statements. The rotation was done to identify the number of measurement statements with strong loadings and the exact measurement statements that could load significantly on the variables. Literature indicates that measurement statements item-to-total correlation values of the measurement statements must be assessed to establish further and confirm the

reliability of the statement. The cut-off threshold for item-to-total value is 0.3 and above (≤ 0.3) (Tabachnick & Fidell, 2007).

After the rotation, the component correlation matrix showed that the correlation of some items (statements) was less than 0.5, hence the need for Orthogonal (Varimax) rotation to determine if all the statement included in the final model 'hang together' and have achieved internal consistency. After the initial rotation, six measurement statements were dropped. Explaining why the nine statements were dropped; four statements (Coe_Iso5; Nor_Iso2, SC_rel4, SC_str 4) failed to load on any factor. Two statements (SuG4, SC_str5) were dropped because of cross loadings. Accordingly, the Orthogonal (Varimax) and Oblique (Direct Oblimin) factor loadings for the current research show excellent varimax loadings between 0.707 and 0.904, with an engine value of 1 and a threshold of 0.50 suppression.

Second, the study used Cronbach's alpha (CA), one of the most commonly used indicators to estimate, evaluate and verify the internal consistency of the questionnaire, stability of measures and dependability of instrument scores (Yilmaz, 2013). The value of the calculated Cronbach's coefficient varies between 0 and 1. A measurement statement with a load value of 0.5 and above is considered strong to be retained for further analysis (Cronbach, 1951; Hair *et al.*, 2012; Hair & Lukas, 2014). While a coefficient between 0.5 and 0.7 is acceptable, a value less than 0.5 is considered weak and must be dropped (Bagozzi & Yi, 2012; Hair & Lukas, 2014).

The Cronbach's alpha for the present study shows a coefficient range between 0.708 and 0.949, above the 0.70 acceptable thresholds suggested by Cronbach (1951) and a robust validity index (Hair *et al.*, 2016). In the process to achieve

the excellent coefficient, three (3) statements (Nor_Iso4; SC_cog2, Inov5) were deleted since the decision helped to improve Cronbach's alpha for Factor 2, Factor 5, and Factor 7.

There were no difficulties or concerns in the ability of respondents to read, understand and respond to the questions. However, minimal modifications (paraphrasing) were made to the final questionnaire based on experts' review comments. The researcher used the EFA to review the Covid-19 protocols and prepare for the main field survey. As Al-Ababneh (2020) suggested, a modification to the original research questionnaire depends on the possible feedback from the participants in the pre-test. The results displayed in table 11 show that after the data reduction analysis (e.g., factor extraction and rotation), nine (9) statements were weak and non-reliable, hence deleted to achieve a reliable and valid indicators, reducing the adapted statement from the 43 to 34.

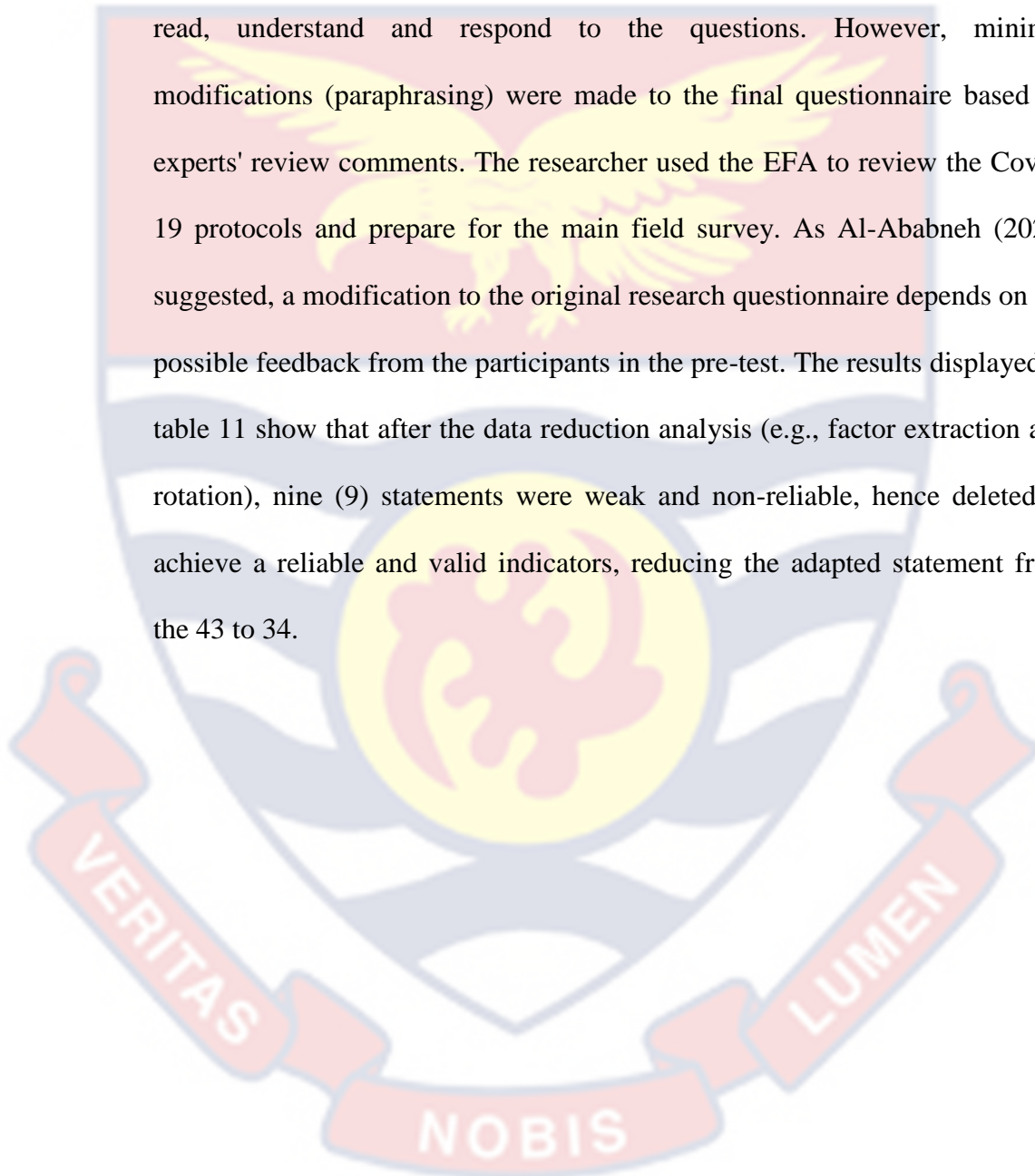


Table 11: Rotation Methods to Identify Retained Measurement Statements

Consistencies		Principal Component Loadings					Internal
Item Code	Variable and Measurement	Orthogonal (Varimax)	Oblique (Oblimin)	(Direct Exp.	Var. Cron. Alpha	Item-total Correlation	Alpha if item is deleted
Factor 1	Coercive Isomorphism				82.34 0.890		
Coe_Iso1	My company is obliged to share resources and business ideas with other partners within the network.	0.876	0.921			0.787	0.842
Coe_Iso2	Large and influential companies compel smaller firms to adopt and implement certain operational practices.	0.904	0.926			0.874	0.762
Coe_Iso3	My association provides technological support that every member must adopt and utilise in their business operations.	0.870	0.887			0.788	0.890
Coe_Iso4	My company is obliged to participate in business and professional development training.	0.760	0.760			0.700	0.917
Factor 2	Normative Isomorphism				87.12 0.949		
Nor_Iso1	Exchanging resources are in line with the mission of my network.	0.891	0.928			0.945	0.912
Nor_Iso3	My network promotes the exchange of valuable business contacts and trade/market information.	0.885	0.922			0.923	0.919

Table 11 continued

		Principal Component Loadings		Internal	
Consistencies					
Nor_Iso5	There are explicit policies that promote sharing of resources.	0.790	0.815	0.761	0.969
Nor_Iso6	My association comprises different partners (finance, manufacturers, competitors, etc.) with different resource portfolios.	0.867	0.906	0.889	0.931
Factor 3	Mimetic Isomorphism	85.72	0.908		
Mem_Iso1	My network provides incentives to members who share resource and implement certain idea and practices.	0.917	0.940	0.715	0.897
Mem_Iso2	Members who share ideas and information receive acceptance and legitimacy to obtain resources they need from others.	0.878	0.889	0.719	0.895

Table 11 continued

Item Code	Item Code	Variable and Measurement Statement (Items)	Orthogonal (Varimax)	Oblique (Direct Oblimin)	Var. Exp.	Cron. Alpha	Item-total Correlation	Alpha if item is deleted
Mem_Iso3		Members who share resources and technologies receive supports from the state.	0.707	0.664			0.768	0.888
Mem_Iso4		Idea sharing and adoption are criteria to receive support from other networked members.	0.919	0.966			0.762	0.890
Mem_Iso5		Network administrators and experienced members supervise transfer, exchange and adoption of technologies and information.	0.889	0.939			0.776	0.887
Factor 4		Network Relation			55.56	0.708		
SC_rel1		Networked partners are trustworthy in resource and idea-sharing.	0.639	0.674			0.628	0.849
SC_rel2		There is reciprocity between members within the network.	0.728	0.727			0.686	0.838
SC_rel3		Networked partners show great integrity in sharing and exchanging vital trade secrets, technologies and information.	0.752	0.753			0.672	0.840
SC_rel5		There is always a high "team spirit" among networked partners.	0.748	0.756			0.674	0.840
Factor 5		Network Cognition			82.18	0.927		
SC_cog1		Networked firms share the same ambitions and vision for the network.	0.877	0.914			0.804	0.914
SC_cog3		Our network members are committed to the goals of the network.	0.888	0.905			0.872	0.891
SC_cog4		Networked members enthusiastically pursue collective goals and mission.	0.898	0.928			0.860	0.896
SC_cog5		My network partners share compatible goals and objectives of business growth.	0.802	0.799			0.790	0.919
Factor 6		Network Structure			65.41	0.730		
SC_str1		I have very close ties with my networked members who have different resources.	0.711	0.702			0.475	0.742
SC_str2		I frequently interact with members in all my networks to access valuable resources and information for my business.	0.877	0.899			0.636	0.541
SC_str3		My company promotes frequent and intensive interaction on business ideas and information with other firms.	0.793	0.790			0.557	0.640

Table 11 continued

Item Code	Item Code	Variable and Measurement Statement (Items)	Orthogonal (Varimax)	Oblique (Direct Oblimin)	Var. Exp.	Cron. Alpha	Item-total Correlati on	Alpha if item is deleted
Factor 7		Sustainable Growth			57.58	0.740		
SuG1	Profitability		0.835	0.831			0.550	0.671
SuG2	Sales		0.829	0.834			0.532	0.683
SuG3	Number of employees		0.746	0.744			0.675	0.601
SuG5	Productivity		0.884	0.735			0.411	0.764
Factor 8		Innovation			68.69	0.907		
Inov1	My company has introduced a product that was new to the organisation and industry.		0.836	0.874			0.711	0.895
Inov2	I have discovered new market with customers to purchase my products.		0.874	0.881			0.829	0.877
Inov3	I have secured new equipment, machinery and technologies for the firm.		0.820	0.845			0.730	0.892
Inov4	My firm has discovered and removed non-value adding activities in production and delivery processes.		0.615	0.575			0.586	0.913
Inov6	My company has introduced unique techniques to promote and distribute my products.		0.815	0.787			0.811	0.880
Inov7	I now have new procedures, processes and routines to perform activities.		0.835	0.833			0.797	0.882

Source: Field Survey (2022)

Test for the Reliability of the Questionnaire

Reliability refers to the extent to which a research instrument is consistent with the variables measured every time such instrument is used for the same research within the same condition (Yilmaz, 2013). In other words, reliability indicators determine the degree to which a data collection instrument will achieve the same and or consistent result if replicated in another research procedure (Saunders, 2012). The reliability test essentially measures and verifies the consistency, accuracy and precision of the data collection instrument in measuring the variable (Hapsari, 2018). Reliability seeks to measure the similarity among measurement items intended to measure a particular variable/concept or hypothesis (Jonas, 2018).

The present study used two key measures, namely, Cronbach alpha (CA) and composite reliability (CR) estimates to evaluate the internal consistency of the data collection instrument. First, Cronbach alpha checks if the internal reliability is appropriate for quantitative research (Asadollahi-Kheirabadi & Mirzaei, 2019). In other words, Cronbach alpha determines whether the data collection instrument is reliable, using an estimate score between zero and one (Tavakol & Dennick, 2011). For this research, a Cronbach alpha (CA) between 0.70 and 0.90 was applied to determine the reliability of the data collection instrument (Cronbach, 1951). This researcher also considered the generally accepted rule of thumb of 0.60 and 0.70, but a higher score greater than 0.95 was considered not good, since it denotes redundancy (Ursachi, Horodnic & Zait, 2015).

According to Gliem and Gliem (2003), achieving internal consistency does not provide enough justification for the uni-dimensionality of the measurement statements. They suggest that researchers should carry out further tests to prove the uni-dimensionality of the measurement variables/construct. Thus, the study further checks for reliability using the construct reliability (CR), which does not assume an equal weight for all measurement statements (Henseler *et al.*, 2015). Accordingly, this research used a threshold of 0.70 to assess the adequacy of the reliability of the construct. The threshold $[CR \geq 0.70]$ meets the minimum criteria Vandenberg and Lance (2000) for a construct or variable to be declared reliable.

Interview guide

The interview guide (See Annexure B) was used to collect qualitative data to triangulate the qualitative results. The interview guide was used to gather data from eight (8) participants who are entrepreneurs and owner-managers of small enterprises in Ghana. According to Campbell *et al.* (2018), methodological triangulation, for instance, allows the researcher to use interview data to validate the study findings and offer a more balanced explanation(s) to the research issues. Interviews have been employed in the current study as an important data collection tool in qualitative research to seek qualitative explanations for quantitative results (Myers & Newman, 2007). An interview is flexible and useful to researchers who seek the meaning of issues and probe for further information to enhance understanding.

The interview guide for this study was designed in English. The schedule comprises nine (9) main questions and other sub-questions, which guided the researcher to elicit the right responses. The researcher discussed all

the questions with the industry experts and research supervisors, who vetted and approved all the questions after the corrections were done.

Ethical Considerations

The research process is governed by ethical conditions (Kumar, 2019).

As a key consideration in the research process, every research must be conducted within the strictest ethical framework if the research findings should be scientifically, technically and legally accepted. For these reasons, the present study observed and followed the ethical standards of the University of Cape Coast and the scientific procedures for research quality and efficiency. The ethical values, including informed consent, confidentiality and beneficence, were carefully observed at every stage of the research process as a necessary obligation. These values were detailed in an informed consent form and attached to each questionnaire.

First, the researcher obtained ethical clearance (ID **UCCIRB/CHLS/2022/24**) from the University of Cape Coast Institutional Review Board (UCCIRB), a unit responsible for reviewing and certifying ethical procedures and protocols of research in the University. The certificate (see appendix D) and the informed consent forms were submitted to AGI and GEA to seek approval to conduct the study and distribute the questionnaires to their members. The researcher explained the purpose of the research and the ethical protocols in the informed consent and sought permission before administering the questionnaire. For example, all participants were informed that the study is voluntary and that a respondent is allowed to opt-out at any stage of the process without giving reasons or consequences.

As part of the process, respondents were also informed that the research is being conducted for academic purposes - "obtain a PhD"- and does not create any responsibility for the respondents. To give effect to ethical considerations, respondents' consent was sought before answering the main questions in the questionnaire. Respondents were allowed to provide their contact addresses to request feedback on the research findings. Second, the confidentiality, anonymity and privacy of respondents were assured in both survey and interview. The research data and the findings have been aggregately reported in the final research report. Again, any clue (e.g., name) to show any of the respondents' identity or company has been removed from the report. Also, identifiable data has been encrypted and secured on a hard disk of the researcher's personal computer.

Third, the entire research process did not use a procedure that caused harm to the respondents or any person at their place of business. The researcher ensured that the entire research process was conducted with integrity. The research questions do not display tribal sensitive statements or anything that threatens the respondents' sensibility or causes emotional or psychological embarrassment. Also, the researcher ensured that the respondents' thoughts were not altered. Again, respondents were not exposed to physical, emotional, psychological, social, legal, or financial risks.

Lastly, the entire research process adhered to all Covid-19 protocols. The researcher provided sanitisers, disposable masks and face shields for all field assistants. Also, all the respondents were properly sanitised before and after administering the questionnaire. The social distancing rule was also observed during the data collection. The questionnaires were attached to a

clipboard and handed over to the respondents with a regularly sanitised pen. After, the completed questionnaire is dropped in a box. The researcher followed these ethical values to safeguard all stakeholders.

Data Collection Procedures

The main data collection was done between June 13th and July 30th, 2022. After the eight week (42 days excluding 7 Sundays), the data collection team retrieved 326 questionnaires from the 500 target respondents. The data collection procedures for this research comprised face-to-face administration of questionnaires and receipt of the completed responses from the respondents. First, the researcher trained four (4) Field Assistants (FAs) to engage the respondents in completing the questionnaire. All the FAs have a minimum qualification of First Degree in business fields. The FAs were trained to observe all procedures and ethical protocols associated with the research.

Due to the large size of respondents located across the three regions of Ghana (study area), the FAs, together with the researcher, administered the questionnaire. The researcher compiled the contact details of the respondents from the list of active members of AGI and GEA (https://www.agighana.org/member_profile.php). The clustering technique was used to map (locate) the respondents based on concentration (number) in each market area(s) of the regions. This technique ensured efficiency in location, access and the entire data collection process. After the clustering technique, the researcher and the FAs used the contact address to inform the GEA, AGI (members) and the potential respondents about the research and sought their consent.

Afterwards, respondents who consented to participate in the research were given the questionnaire and assigned a Respondent Identification Number (RIN). The RIN made it easy for the researcher and the FAs to collect the questionnaire from respondents who asked for a longer time to complete it. The researcher and the FAs used the drop-off and pick-up technique to administer the questionnaire. The four (4) FAs were assigned to Greater Accra and Ashanti regions, while the researcher administered the questionnaires in the Western region. The variation is based on the number of target respondents. The data collection team administered the questionnaire to the respondents at their place of business between 10:00 and 16:00 GMT from Monday to Saturday and, in a few cases, on specific days and times indicated by the respondents.

The questionnaires were delivered to only the owners (called entrepreneurs) and enterprise owners who also work as managers in the establishment (called owner-managers) of the enterprises and, in a few cases, official persons assigned to receive the questionnaire. All Covid-19 protocols (as seen in ethical statements) were observed during the administration of the questionnaire. Each respondent used approximately 15 minutes to complete and return the questionnaire. Thus, most of the respondents completed and returned the questionnaire the same day. The respondents who could not complete it on the same day used an average of nine days to complete and return the questionnaire.

The researcher retrieved 28 usable responses from the Western region within three weeks. In the Greater Accra region, the two FAs assigned used six weeks to retrieve 171 questionnaires (167 were usable). In Ashanti Region,

127 were retrieved within 36 days (124 were usable). The researcher gave one week to mop up the process, but no response was received within the week; thus, the total of 326 questionnaires were used (see table 8). A preliminary analysis was done on the responses, and a total of seven questionnaires were deemed unusable from the 326 due to various errors. Thus, the response rate for the study is 63.8% based on the target population of 500.

Subsequently, eight participants were interviewed between 1st August and 11th August 2022. The interview was conducted by the researcher using both the face-to-face data. The interview was conducted at the office of the participants (face-to-face) and whilst others via telephone. Before the interview, first, the researcher observed all the ethical protocols associated with qualitative data collection, including consent and assurance of confidentiality. After the participants have consented to participate in the study, the researcher agreed on the time and day for the interview. At the agreed time, the researcher sought the consent of participants to record the interview process using a tape recorder. A diary was used to record informal chats and other reflections. The interview was done at various times of the day (including 10:05am and 9:26 pm) due to busy schedules of the participants. The researcher used an average of one (1) hour to conduct an interview. The interviews were conducted in English, while intra-member checking was used to ensure that ambiguous responses from the participants were clarified. After each interview, the (audio) is stored on a personal hard drive of the researcher for analysis.

Field Challenges

The researcher encountered some challenges during the data collection process. Few respondents who indicated their willingness, time and day to participate in the survey were not present when the data collection team arrived to administer the questionnaire. The research team returned to collect the completed questionnaire, which resulted in extra transportation and logistical cost. The research team encouraged respondents to complete and return the questionnaire within the agreed day and time. Also, the team gave each respondent adequate waiting time at each place of visit. Generally, logistics, finance and time posed challenges to the response rate of the research. However, the researcher leveraged all the available logistics and experience to receive and process sufficient valid responses for analysis.

Data Processing and Analysis

Data analysis involves transforming, extracting and modelling raw data to identify useful information that is clear, comprehensive and provides academics with conclusions (Aaker *et al.*, 2013). Data analysis involves the application of one or more statistical procedures to evaluate the data collected, which allows the researcher to test hypotheses to answer the research questions (Quinlan *et al.*, 2015). Based on the research objectives and the philosophical foundation (Henseler, Ringle & Sarstedt, 2015), the quantitative data analysis for the present study involves data cleaning, coding and screening, descriptive analysis, and confirmatory factor analyses and structural equation modelling (SEM).

The questionnaires retrieved from the respondents were cleaned to guarantee the quality of the final data. According to Pallant's (2013) three-staged guidelines for data cleaning, there is the need to check for dimensions that are out of range or not within the range of possible scores, the need to find out from the data set where the error occurred, and the need to correct the error. Hence, for this study, the questionnaires were subjected to robust cleaning procedures to search for errors, including respondents who neglected to answer the questions, selected more than one answer and provided the same demographic information.

After the data editing exercise, 319 questionnaires out of the 326 were useful for analysis. The remaining seven (7) questionnaires were discarded due to problems relating to incomplete and non-responses and missing data. Subsequently, the usable data were coded (shortened name of a variable/question) and afterwards captured into International Business Machines (IBM) Statistical Package for Social Sciences (SPSS version 25) software for further processing and statistical analyses. As Bryman and Bell (2015) suggested, data cleaning makes transformation and preparation easy and simple, since inconsistencies, and redundant data, which could adversely affect data processing, are removed.

Descriptive Statistics

The final data was captured in IBM SPSS, and descriptive statistics were used to provide summaries, graphical features and analysis of the data collected and measures (Trochim, 2020). The descriptive statistics were also used to address research objective one (1) and two (2) which sought to examine the nature of networking and innovation among small enterprises.

The present study used descriptive measures, including mean, standard deviation, skewness, and frequencies to identify scores that were either not within the range of possible scores, missing or not correctly inputted. Mean or arithmetic average was used to measure the central tendency of the total number of observations (Shayib, 2018).

Standard deviation was used to measure dispersion to determine the spread of data (Shayib, 2018). Skewness tests were conducted to check the normality of the study data. The values for kurtosis between ± 2 was considered acceptable in order to prove normal univariate distribution (George, 2010), while between ± 5 was considered to be normal if skewness is between ± 2 (Hair *et al.*, 2022; Anthony Jnr., 2021). Lastly, frequencies and percentages were used to report the respondents' profile, including nominal variables (gender) and ordinal variables such as education. The descriptive profile of respondents is displayed in Chapter five (5).

Inferential Statistics

Inferential statistics is a comprehensive process of describing data collected (Guetterman, 2019). The statistical procedure enables the researcher to leverage the data and draw meaningful conclusions about the research population (Calin-Jageman & Cumming, 2019; Guetterman, 2019). The inferential statistical procedures of the present study include confirmatory factor analysis and structural equation modelling (SEM) to examine the relationships among the hypothesised variables. There are two approaches to SEM: single-stage and two-stage processes (Hair *et al.*, 2022). The present study used the two-stage process, which requires an analysis of the measurement model and the structural model differently (Hair *et al.*, 2022),

unlike the single-stage process, which requires analysing both measurement and structural models (SEM) concurrently (Hair *et al.*, 2022). In the two-stage process, the researcher analysed measurement models to confirm and authenticate the quality (reliability and validity) before the structural models (structural equation model) (Byrne, 2016).

Confirmatory Factor Analysis (CFA)

A CFA is a statistical procedure used to evaluate the competencies of proposed research models (Creswell & Creswell, 2017). The present study used the statistical procedure to measure the validity and reliability of retained variables and test the model fitness before the structural equation model. At the CFA stage, thirty-four (34) statements retained from the exploratory pre-test analysis were re-organised and administered to collect new data for confirmatory analysis. The valid responses of 319 received were used in the CFA to establish the quality of the final measurement and structural models.

Quality criteria in business research explain the extent to which particular research is valid, reliable and replicable (Bryman & Bell, 2015). The present study employed various reliability and validity criteria as quality litmus tests in social science research to check and ensure the credibility and rigour of the research process and the outcome (Creswell, 2014). According to Beltramino *et al.* (2020), credible, rigorous and robust research has acceptable to excellent validity and reliability indexes.

Structural Equation Modelling (SEM)

The final stage of the data analysis is the SEM, also known as covariance structures of explanatory analysis (Keith, 2019). SEM is an abridged version of linear modelling procedures (e.g., multiple regression)

used to measure if the theoretical model fits and is consistent with the data gathered (Astrachan *et al.*, 2014). The present study used SEM to assess the final measurement models. As Astrachan *et al.* (2014) indicated, SEM is used to test the effect of the mediating and moderating variables in the model. The present study examines the effect of entrepreneurial networking - network isomorphism and network social capital - on sustainable growth and the mediating effect of innovation in the relationship. The study also investigates the control effect of network affiliation on firm performance. SEM was used to achieve the research aim for the following reasons.

First, SEM allows the researcher to conduct a much more rigorous analysis to establish the relationship between dependent and independent variables and/or examine the effect of independent variables on one or more dependent variables (Aaker *et al.*, 2013; Bryman & Bell, 2015). This form of covariance is more rigorous and goes beyond the limits of the conventional multivariate statistical techniques such as regression and correlation. In addition, Pallant (2013) indicated that SEM integrates multiple dependent and independent constructs with a hypothetical latent variable which may be represented by groups of observed variables (Pallant, 2013).

Second, SEM represents an analytical method in which the proposed relationships among observed and latent variables can be tested (Aaker *et al.*, 2013). The present study is underpinned by objective epistemology and a post-positivist paradigm to test the relationship between dependent, mediating and independent variables hence, SEM was found to be appropriate and a preferred choice over the conventional multivariate techniques (e.g., regression and correlation).

Third, SEM has been a useful tool for testing theory and hypotheses in analytical procedures where experiments are not possible and not an option (Bowen & Guo, 2011). The current research examines the suitability of theories in a relatively new entrepreneurial networking field and tests hypotheses arising from the theories. Thus, SEM was deemed appropriate, since it offers the opportunity to test the suitability and or applicability of the theory in the field. Table 12 highlights other benefits of using SEM in quantitative data analysis.

Table 12: Advantages of Using Structural Equation Modelling (SEM)

Function	Explanation
Integrative	SEM performs an integrative function, allowing for integration and inclusion of multi-item scales. SEM uses multivariate approach which integrates many dependent and independent variables.
Accuracy	SEM ensures that researchers are precise in terms of hypotheses and operationalisation of measurement constructs.
Approximations	Unlike conventional multivariate techniques, SEM offers exact approximations.
Methods	SEM is useful when conducting survey research and/or hypothesis testing. SEM delivers a method in which the proposed relationships between the observed and latent variables can be tested.
Theory	SEM is useful in testing for theories when experiments are not possible.

Source: Compiled from Bagozzi and Yi (2012)

The SEM approach to data analysis is limited because it may be difficult for a researcher to establish whether the identified model stimulates reality or whether the constructs specified in the model have any explanatory

power or may be useful in future research (Werts *et al.*, 1974). In the present study, the researcher ensured that the sample size was representative enough by using proportional stratified sampling technique. Again, the study followed various statistical measurements, structural model thresholds, and applied fit indices such as the chi-square, comparative fit index (CFI), goodness-of-fit (GFI) and adjusted goodness-of-fit (AGFI), and root-mean-square error approximation (RMSEA) to determine whether the data either perfectly or closely fit the research model (Byrne, 2016). The subsequent sub-sections describe the SEM processes and the fit model fitness tests.

The SEM Process

The SEM process for this study involves five key steps: model specification, model identification, model estimation, testing/evaluation, and model modification (Thakkar, 2020). Figure 4 shows Thakkar's (2020) stages of SEM analysis.

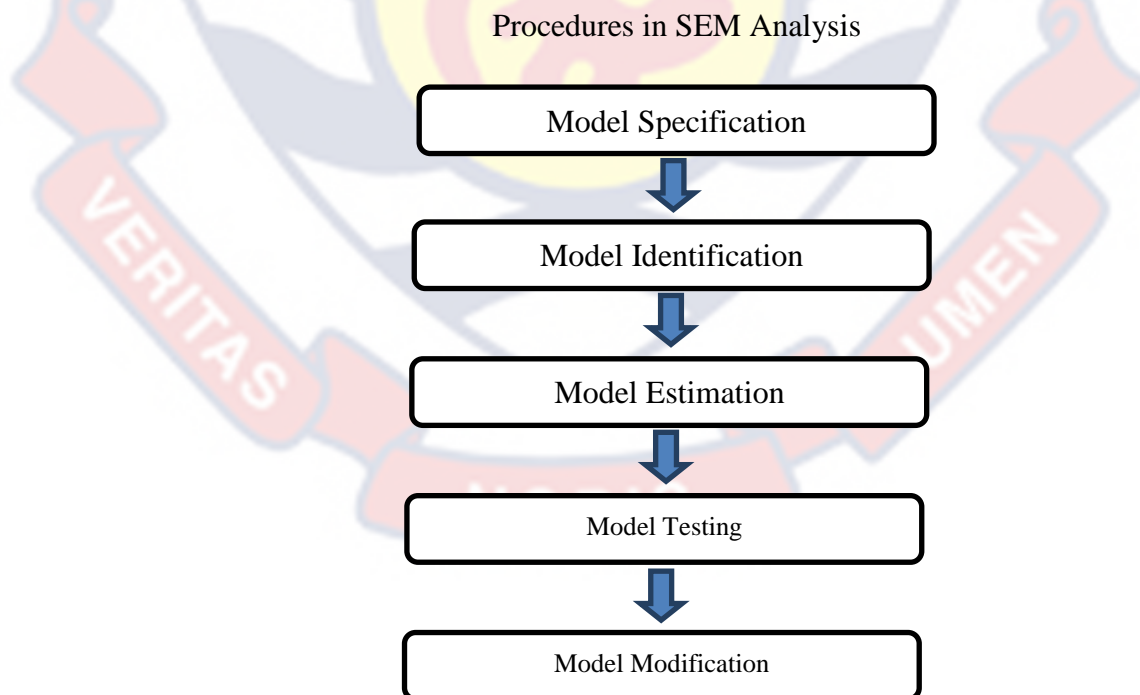


Figure 4: Procedures in SEM Analysis

Source: Adapted from Thakkar (2020)

Step 1: Model specification

This stage of the SEM involves activities before the actual data is collected (Thakkar, 2020). Here, the research uses the empirical findings and theories to specify the structural model that the study want to test through a grounded model (Thakkar, 2020; Wang & Wang, 2020). The hypothetical model or proposed framework shows the variables and relations based on the theory or empirical literature. According to Wang and Wang (2020), one of the common and effective ways to evaluate and specify a research model using SEM is through a path diagram. Path diagrams allow the researcher to construct a model for the study in a direct and appealing style.

Thakkar (2020) indicated that it is important that before the SEM analysis, the research must specify and establish a path diagram showing the relationship among the variables. In this study, the conceptual framework displays the path relationship between the study variables: entrepreneurial networking: network isomorphism and network social capital, innovation, network affiliation and sustainable growth. The model specification using a path diagram as described in this study as Figure is seen as Figure 1 in Chapter three of the research.

Step 2: Model identification

The second stage of the SEM analysis is to evaluate whether a unique value or solution for every unknown parameter can be formed for the model or not (Thakkar, 2020); Wang & Wang, 2020). In the model specification, there is the need to ensure that the variable estimated is uniquely and theoretically captured and can be identified by the model based on whether the parameter is constrained, free or fixed (Thakkar, 2020). Free parameters are usually

unidentified and therefore, must be estimated. Constrained parameters are unidentified, nevertheless constrained to one or more extra parameters, while fixed parameters are fixed with a certain value such as 0 or 1 (Thakkar, 2020).

In this study, the researcher used a strong theoretical foundation to formulate the hypothetical model which ensured that each parameter is uniquely captured based on the theoretical tenants. Again, direct relations were constrained to test for the full mediation effect of innovation.

Step 3: Model estimation

Model estimation is the third stage in the SEM analysis, which depends on a prescribed model requirement based on an empirical study to achieve the best data forecast (Avkiran & Ringle, 2018). The SEM analysis model estimation considers an evaluation of the parameters of the theoretical model in a manner in which the theoretical parameter values will give a covariance matrix close to the observed covariance matrix (Thakkar, 2020). Hence, the SEM analysis allowed the researcher to use iterative features called fitting function to reduce the differences between the observed covariance matrix and the assessed theoretical covariance matrix, which improves the main estimates of a parameter with an iterative calculation sequence (Thakkar, 2020). This approach reduced the discrepancies between the empirical and projected data matrix (Avkiran & Ringle, 2018).

Step 4: Model testing

The purpose of model testing or model evaluation is to regulate the goodness of fit between the hypothetical model and the sample data, and to ascertain how well the observed data fits into the structure (Marsh, Guo, Dicke, Parker & Craven, 2020; Alamer & Marsh, 2022). The present study

used SEM to simultaneously analyse both direct and indirect relations between the study variables (Thakkar, 2020). The present study used three model fit indices: absolute fit indices (AFI), incremental fit indices (IFI) and parsimony fit indices (PFI).

Absolute fitness indices measure the overall goodness of fit of the model measurement and the structure (Thakkar, 2020). The index also shows which model variables exhibit dominance and how well the model fits the research data (Thakkar, 2020). In this research, the researcher applies chi-square (χ^2), goodness-of-fit (GFI), adjusted goodness of fit (AGFI), root-mean-square error approximation (RMSEA), and standardised root mean square residual (SRMR) to check for absolute fitness of the research model. A chi-square represented as χ^2 is a commonly used tool to evaluate and determine the statical fitness of a structural model, thereby ascertaining the probability that the structural model is adequate (Keith, 2019). From Table 13, this research applies the recommended threshold of $\chi^2 < 3.00$ or < 5.00 for the normed chi-square degree of freedom (CMIN/df) to test for the accuracy of the structural model.

Incremental model indices known as comparative or relative fit indices (CFI) are utilised in this research to evaluate the fitness of the hypothetical model to the baseline model, otherwise referred to as the model with worst fit indices (Xia & Yang, 2019). In this study, the researcher applies the CFI fitness threshold (CFI ≥ 0.95 or 0.90) to demonstrate the adequacy of the model fitness for the study. It is generally argued that researchers find it challenging to specify a common procedure for a model fit to help to determine a good and a bad model. Thakkar (2020) and Hair *et al.* (2012)

recommended three criteria to determine a model fit, which this study also follows.

- A researcher should use more than three different types of indices to assess, estimate and verify the goodness of the model fit.
- A researcher is allowed to adjust the index threshold based on the grounds of the model features.
- Multiple indices should be utilised to check the goodness of the model fit to help the researcher to regulate which model is better when the set of acceptable models are equated with multiple indices.

Given the foregoing discussion, the general and most common indices to evaluate and test the fitness of a research model are minimum discrepancy per degree of freedom (CMIN/df), root-mean-square error approximation (RMSEA), goodness-of-fit (GFI), adjusted goodness of fit (AGFI), root mean square residual (RMR) and standardised root mean square residual (SRMR) (Thakkar, 2020). Therefore, the choice of a particular fitness indices should have substantial meaning and be interpretative to determine which of the indices is appropriate for the research.

Parsimony fit indices in SEM is an evaluation procedure that relies on the data when the model is complex and nearly saturated. To achieve this model fit index, a less rigorous hypothetical model that offers a paradoxically better fit index is required (Thakkar, 2020). This research did not consider the parsimony model fit index (PGFI) and parsimony normed fit index (PNFI), since the incremental and absolute fit indices are expected to confirm the research model adequately. Table 13 presents the various fit indices and their threshold as applied in the present study.

Table 13: Fit Indices and their Thresholds for SEM Analysis

Fit indices	Name	Threshold
Absolute fit indices		
Model chi-square (χ^2)	Chi-square (use only for sample $n < 200$ or $p > 0.05$)	Insignificant result ($p > 0.05$)
χ^2/df	Relative/normed chi-square (use only for sample $n > 200$ or if $p < 0.05$)	Value of < 2.0
CMIN/df	Minimum discrepancy per degree of freedom	< 0.05 or < 0.08
RMSEA	Root mean square error of approximation	Value between 0.08 and 0.10 (mediocre fit), < 0.08 (good fit)
GFI	The goodness of fit statistics exhibit bias towards samples	Value > 0.90 or > 0.95 (use 0.95 if factor loading and number of samples are low)
AGFI	Adjusted goodness of fit statistics needs to be accompanied by other indices	Value of > 0.80
Incremental fit indices		
CFI	Comparative fit index Revised version of NFI	Value of > 0.95 or > 0.90
Hoelter	Less affected by sample size Hoelter's critical N.	> 200
Parsimony fit indices		
PGFI	Parsimony goodness of fit index	Value of > 0.90
PNFI	Parsimony normed fit index	Value of > 0.90

Source: Adapted from Thakkar, (2020); Xia and Yang (2019)

The model fit indices were used to test both measurement and structural models, which are enough for the researcher to safeguard and ensure that the selected observed variables for the latent variable are an actual measure of variables or hypothesis (Thakkar, 2020). In the model testing and evaluation processes, p-value as well as the standard error are utilised to test the single path coefficient, and chi-square (χ^2) and root-mean-square error

approximation (RMSEA) for the overall model (Thakkar, 2020). The present study aligns with Thakkar (2020) and Wang and Wang (2020), who examined model fitness using indices such as goodness-of-fit (GFI), adjusted goodness-of-fit (AGFI), comparative fit index (CFI) and chi-square and root-mean-square error approximation (RMSEA).

Table 13 shows the categorisation of the three main fit indices and their thresholds. The threshold or cut-off for the model fit indices are not strictly bound rules but just a rule of thumb and therefore, the goodness of fit, for instance, should be close to the threshold (Hair, Black, Babin & Anderson, 2019). From the Table 13, Thakkar's (2020) model fitness indices for SEM analyses can be categorised into absolute fit indices, incremental fit indices and parsimony fit indices.

Step 5: Model modification

Model modification occurs in research studies where the researcher specifies the proposed hypothetical model or framework based on literature and existing empirical findings and then fits the proposed framework or model to the data available. However, the proposed model or framework developed often fails to fit into the precise data available to the researcher when the SEM application analysis is applied (Wang & Wang, 2020; Byrne, 2016). Hence, the likely causes of lack of model fitness must be investigated to ascertain which of the model's specifications are wrong. The researcher then eliminates the non-significant parameters from the hypothetical model, referred to as theory trimming, and further examines the standard residual matrix of the model, referred to as fitted residuals (Wang & Wang, 2020; Thakkar, 2020).

The researcher, therefore, amended the model to explore the best-fit model that precisely fits into the data (Thakkar, 2020). After this process, the model would be modified or amended and re-tested using the already existing data collected for the study (Wang & Wang, 2020). In this study, a model modification was done to ensure that the proposed hypothetical framework fits precisely into the data when the SEM application analysis is applied to confirm it as a good model.

Mediation Analysis

The literature explains the mediator and moderator as two important variables of process analysis that have been used interchangeably in literature (Hayes, 2013). According to Baron and Kenny (1986), moderation and mediation variables are different and cannot be used interchangeably, even though they are similar in terms of function. In terms of function, both mediator and moderator serve as third variables in a relationship between an independent variable (IV) and a dependent variable (DV) (Frazier *et al.*, 2004). In terms of differences, a mediator is a third-party variable that explains the relationship and the extent to which the IV indirectly influences the DV. A moderator, however, is a middle variable that can be used to influence and or modify the strength of the relationship between an IV and DV (Baron & Kenny, 1986).

In this research, one key gap that served as motivation was to examine the mediating effect of innovation in the relationship between entrepreneurial networking and sustainable growth, network isomorphism and sustainable growth and network social capital and sustainable growth. Based on the diffusion of innovation theory, the researcher hypothesises that access and use

of the knowledge, information, and ideas from networking impact innovation, leading to business growth and sustainability. One fundamental motivation for using a mediator variable in any research is understanding how an independent or a predictor variable influences or affects a dependent or outcome variable.

Based on this assertion, the objective of the research and the research gap identified, mediation analysis was preferred to moderation analysis.

The test for mediations in SEM involves two-staged paths: evaluating the paths from predictor variable to mediator variable and mediator variable to criterion variable. In the two-staged paths, the present study followed the work of Baron and Kenny (1986) to establish the relevance of the four-stage rule in mediation analysis. According to Baron and Kenny (1986), a researcher must satisfy the following four requirements in mediation analysis. First, according to Baron and Kenny (1986), the research model should indicate that there is a significant causal relationship between the independent variable (IV) and the dependent variable (DV). This step is required to establish whether there is a relationship that should be estimated and mediated.

Second, the research model should show that the IV significantly relates to the mediating variable (MV). Thus, the research model should estimate and test the relationship between the predictor and mediator variable using the mediator as an outcome variable. Third, the researcher must estimate and test the effect of the MV on DV. Finally, to check whether the MV fully mediates the relationship between the IV and DV and estimates the effect of the causal variable (IV) on the outcome variable (DV), the path from the causal variable to the outcome variable should be constrained to zero (0). The results of the mediation analysis are presented in Chapter five.

Analysis of the Qualitative Data

Three steps were followed to analyse the qualitative responses received from the interview participants. It is important to note that sequential explanatory approach was adopted where the qualitative data was collected and analysed after the quantitative result. In the first stages, the qualitative data (audio) was transcribed to into text format and read several times by the researcher to ensure total immersion into the participants' world or view. It took approximately, two hours to transcribe the audio of each participant into text. Subsequently, the transcript of each participants was proofread to ensure all typographical errors in the text were corrected. Here the researcher ensured the original meaning, any expressions and view of participants were not tempered with or altered.

In the second stage the researcher identified key narratives that related to issues under investigation in this study, specially the research objectives and key results from the quantitative analyses. It is recalled that the purpose of the qualitative data is to triangulate or explain and validate the quantitative findings. Therefore, the narrative technique was used to identify narrations “quotes” that relate to the significant and non-significant relationships in the study hypotheses. For instance, the researcher sought qualitative responses that is likely to offer explanations to why the relationship between coercieve isomorphism and sustainable growth was not significant. Again, the researcher sought explanations to the significant effect of network relation and structure on sustainable growth. Lastly, the researcher sought any new findings additional to the quantiative responses.

In the third stage, the narrations were then highlighted in the transcript and used to support the quantitative findings. In this process, the narrations “quotes” were used to provide brief explanations of the quantitative findings in the research. Each possible explanation was used in the works to explain the relationships and other major findings from the quantitative data.

Table 14 presents the profile of the participants interviewed in this study. The profile includes gender, years of industry experience, position in the organisation, and the reason(s) for selection. The profile of the respondents suggests a higher level of knowledge and understanding of networking and its influence on business growth and sustainability. For instance, the respondents have a minimum educational qualification of the first degree: Phar.1 and Forx. for instance, are PhD holders. Again, the respondents are active members of entrepreneurial associations drawn from various industries hence, they have diverse perspectives and the ability to understand and respond to the research questions. The summary of the responses is presented in Table 14.

Table 14: Profile of Interview Participants

Respondent (Pseudo name)	Gender	Industry of Operation	Years in Business	Reason for Selection
<i>Phar.1:</i> (Founder & CEO)	Male	Pharmaceutical (Accra)	36	Business success and long years of experience with entrepreneurial associations as former chair of the GIPC Board, member of Pharmacy council Ghana and AGI and founder of one of the largest pharmaceutical companies in Ghana.
<i>Forx.</i> (Founder & CEO)	Male	Forex Bureau & Insurance (Accra)	30	Years of experience in the financial and hospitality industry; serves in an executive position in Ghana Association of forex bureaus, member of AGI, firm success and the CEO/founder of a conglomerate of businesses in Accra-Ghana and the USA.
<i>Phar.2:</i> (CEO)	Male	Pharmaceutical: Local drugs (Accra)	19	Has long standing experience with local and international associations including GEA (former NBSSI) and success of the company.
<i>Events:</i> (Owner/Founder)	Male	Tourism (Events) (Kumasi)	23	The nature of the job involves collaborations with many companies; member of GEA and other industry associations; and firm success.
<i>Ret.1</i> (Founder)	Female	Food production (Tema)	24	Based on her long-time standing experience in the food processing and preservation industry; the success of her firm, having received several national and international awards.
<i>Prit.</i> (Admn.)	Female	Printing (Accra)	22	Her experience as administrator of one of the largest printing companies in Ghana.
<i>Farm.1</i> (Owner)	Male	Poultry farming (Kumasi)		Based on his dominance in the poultry production and supply industry.
<i>Poult.2</i> (Dir)	Male	Poultry farming (Western Region)	51	Dominance in the poultry farming industry. Perceived to have enough experience as a member of AGI.

Source: Interview Data (2022)

Summary

This Chapter describes the methodological procedures followed to achieve the research aim. The Chapter is discussed on two levels: research philosophy and research methods. The Chapter begins with a justification of the research philosophy, including value-bound axiological principles, critical realist ontology, objective epistemology and mixed methodology. Based on the research objective and ontology, the Chapter expanded the discussion to include the pragmatist paradigm and deductive reasoning for this research. The second section of the Chapter discussed the research methods as the framework of the fundamental research.

The discussion focussed on the causal survey research design, which detailed and justified small enterprises that are members of GEA and AGI as the research population. Given the spread of the respondents across the sixteen regions of Ghana, the proportional stratified random sampling technique was used to target 500 small enterprises in Greater Accra, Ashanti and Western regions of Ghana. These regions are cosmopolitan and account for 57 per cent of all enterprises in Ghana. The chapter also justified why convenience technique was used to sample eight (8) participants from the regions for the interview to triangulate the quantitative findings.

After that, the Chapter presented a discussion to justify the role of secondary data sources from GSS, GEA, and AGI and how primary data was obtained and utilised. Then, the section expanded to focus on and justify the sources of measurement statements, procedures to ensure reliability and validity, and integrity of the research instrument, data and findings. The Chapter justified why questionnaires and interview schedule were used as the

main data collection instrument. This discussion of the data collection instrument was proceeded by discussing the processes involved in collecting and analysing the data, specifically data cleaning, editing, coding, descriptive analysis, inferential statistics and SEM procedures. Procedure for qualitative data analysis was also provided. The next Chapter provides the empirical result.



CHAPTER FIVE

RESULTS AND DISCUSSION

Introduction

The previous Chapter discussed the philosophical foundations, paradigm and the research methods used in this study. For example, the previous Chapter justified why questionnaire and interview schedule were used to gather data from small enterprises in Ghana. The current chapter applies statistical techniques to present, describe and evaluate the data received from the respondents. The objective of the current chapter is to analyse, present and interpret the statistical results and discuss the research findings. Figure 5 shows the logical reasoning and flow of data presentation and analyses of the results aimed at solving the research problem.

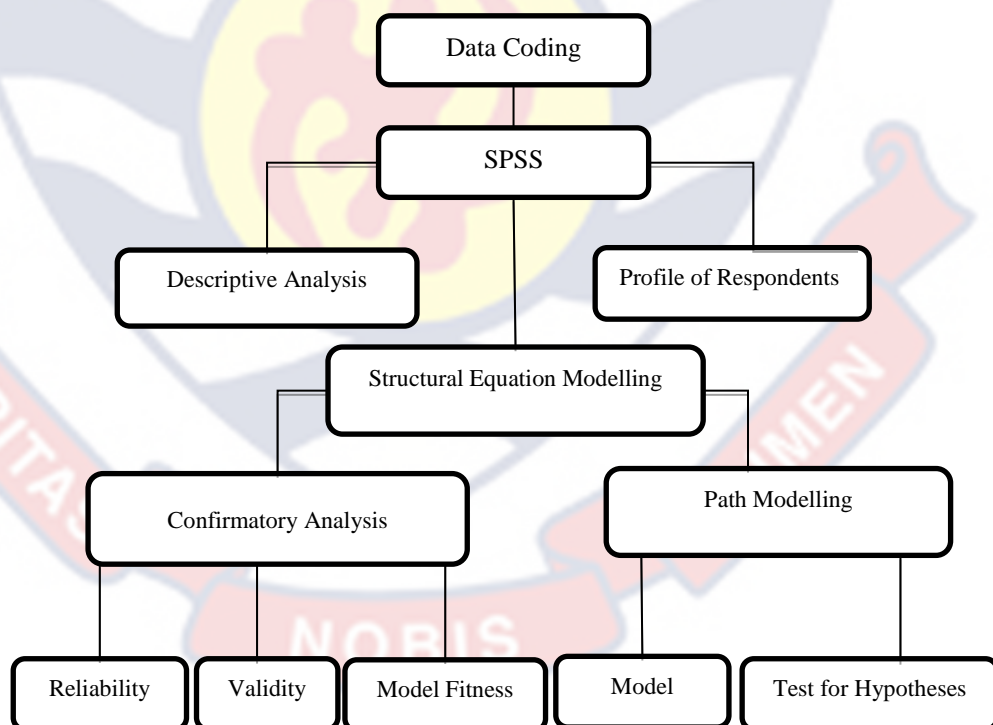


Figure 5: Data Analysis Procedure

Source: Author's construct (2022)

This Chapter is organised into four (4) sections: (1) the demographic and descriptive statistics of the survey respondents, their firms and measurement statements; (2) the confirmatory factor analysis of the survey data, multicollinearity and common method biases test results; (4) the path models (the direct and indirect path estimates), and a summary of hypotheses test results. The final section of the chapter discusses the research findings.

Profile of Survey Respondents

This sub-section analyses the respondents' profile, including gender (sex), education, sector of operation, years of existence, registered association and network affiliation. First, the descriptive estimate shows that most survey respondents were males, who constitute approximately 64.9 per cent, while females provided 35.1 per cent of the total responses. Approximately 75.9 per cent of the respondents hold different university degrees: 41.8 per cent have undergraduate qualifications, 31.8 per cent with master's degree, while the lowest group comprises doctorate holders, representing 2.3 per cent of the total respondents. In effect, most of the respondents have a university degree, suggesting their intellectual capacity to read, understand and respond to the research questions. Again, this information does not support the notion that owner-managers of small enterprises lack formal education.

The descriptive information also revealed that the majority (55.6%) of the survey firms operated in the service sector of the Ghanaian economy, followed by agriculture (23.5%) and manufacturing (20.9%). The information shows that the present study represents establishments in all the three sectors of the Ghanaian economy, thus reducing inter-industry variance associated with a single sector study. The information also responds to Damoah (2018)

and Boohene *et al.*'s (2019) recommendation for a multi-sectoral approach to network studies. Regarding membership associations of the companies, most of the respondents, representing 86.4 per cent, are members of GEA, while 41 respondents, representing 13.6 per cent, are members of AGI. This information is explicable as the targeted respondents from GEA were higher than AGI. Table 15 displays the summary of the profile of the respondents.

Table 15: Profile of Survey Respondents

Profile	Frequency	Percentage (%)
Gender/Sex:		
Male	207	64.9
Female	112	35.1
Total	319	100.0
Education (Highest level):		
Doctorate (PhD)	7	2.3
Masters	102	31.8
Undergraduate	133	41.8
HND	28	8.9
Others (SHS & Below)	49	15.2
Total	319	100.0
Association Membership:		
AGI	43	13.6
GEA	276	86.4
Not a member	0	0
Total	319	100.0
Sector of Operation:		
Manufacturing	67	20.9
Service	177	55.6
Agriculture	75	23.5
Total	319	100
Region of Operation		
Greater Accra	167	52.3
Ashanti Region	124	38.9
Western Region	28	8.8
Total	319	100.0

Source: Field Survey (2022)

Descriptive Statistics

This study examines the effect of entrepreneurial networking manifesting network isomorphism and network social capital on innovation and sustainable growth of small enterprises in Ghana. The study sets out to

achieve seven objectives, and out of the number, objective one, two and three assess the nature of networking, innovation and sustainable growth. Before addressing the three research objectives, normality tests were conducted on the thirty-four (34) statements measuring the study variables. The tests were conducted to check and ensure that the data set is normally distributed and without outliers, which are basic assumptions for parametric tests. The Mean (\bar{x}), standard deviation (SD), skewness (Skew.) and kurtosis (Kurt.) tests were used to check for normality of the field data.

The test results in Table 16 show that the field data is normally distributed because the skewness, SD, and kurtosis estimates are within the acceptable range. First, the skewness measure was within the threshold of ± 2 for the kurtosis range of ± 5 , indicating normally distributed data (Hair *et al.*, 2022; George, 2010; Anthony Jnr., 2021; Anthony Jr., 2021). Hence, the research data met the basic assumption of “normality”, allowing for a parametric test to be conducted. Second, on standard deviation, one (1) measurement statement (Mem_Iso1) was removed as an outlier ($\bar{x}=6.20$, $SD \rightarrow 2.122$, $Kurt \rightarrow 9.054$).

Consequently, the remaining estimates were ≤ 2 , meaning less dispersion in the data set and thus, the data points are spread (Anthony *et al.*, 2018; Anthony Jnr., 2021). Also, the remaining measurement values recorded a skewness value of ± 2 , indicating no further outliers, thus fulfilling the parametric test assumption of no outliers. Hence, out of the thirty-four (34) measurement statements, one (1) was deleted, and the remaining thirty-three (33) were used for the CFA. Summary of the normality test result is displayed in Table 16.

Table 16: Descriptive Statistics of Measurement Variables

Measurement Statements	N	Item Code	\bar{x}	S D	Skew	Kurt
Coercive Isomorphism:						
My company is obliged to share resources and business ideas with other partners within the network.	318	Coe_Iso Coe_Iso1	3.05 2.98	0.98 1.85	0.54 0.62	-0.87 -0.97
Large and influential companies compel smaller firms to adopt and implement certain operational practices.	319	Coe_Iso2	2.94	1.87	0.61	-1.02
My association provides technological support that every member must adopt and utilise in their business operations.	319	Coe_Iso3	6.32	0.83	-1.50	3.36
My company is obliged to participate in business and professional development training.	319	Coe_Iso4	2.87	1.87	0.69	-0.919
Normative Isomorphism:						
Exchanging resources are in line with the mission of my network.	314	Nor_Iso Nor_Iso1	6.10 6.06	0.84 0.82	-1.67 -1.16	4.26 3.05
My network promotes the exchange of valuable business contacts and trade/market information.	316	Nor_Iso3	5.97	1.17	1.81	3.94
There are explicit policies that promote sharing of resources.	319	Nor_Iso5	6.13	0.98	-1.51	2.98
My association comprises different partners (finance, manufacturers, competitors, etc.) with different resource portfolios.	319	Nor_Iso6	6.25	0.92	1.70	4.02
Memetic Isomorphism:						
Members who share ideas and information receive acceptance and legitimacy to obtain resources they need from others.	319	Mem_Iso Mem_Iso2	5.86 5.51	0.90 1.42	-1.15 -1.33	1.95 1.88
Members who share resources and technologies receive supports from the state.	318	Mem_Iso3	5.92	1.20	-1.94	5.08
Idea sharing and adoption are criteria to receive support from other networked members.	314	Mem_Iso4	6.16	0.90	1.60	4.72
Network administrators and experienced members supervise transfer, exchange and adoption of technologies and information.	319	Mem_Iso5	6.15	1.08	-1.82	4.78
Network Relation:						
Networked partners are trustworthy in resource and idea-sharing.	319	SC_rel SC_rel1	4.73 6.12	0.72 1.09	-1.88 -1.59	3.13 2.91
There is reciprocity between members within the network.	319	SC_rel2	6.07	1.13	-1.75	3.67
Networked partners show great integrity in sharing and exchanging vital trade secrets, technologies and information.	319	SC_rel3	6.09	1.10	1.64	3.28
There is always a high "team spirit" among networked partners.	319	SC_rel5	5.47	1.55	-1.62	1.98

Table 16 continued

Measurement Statements	N	Item Code	\bar{x}	S D	Skew	Kurt
Network Cognition:						
Networked firms share the same ambitions and vision for the network.	319	SC_cog1	6.35	0.79	1.55	4.22
Our network members are committed to the goals of the network.	319	SC_cog3	6.33	0.78	-1.64	5.46
Networked members enthusiastically pursue collective goals and mission.	318	SC_cog4	6.13	1.11	1.85	4.39
My network partners share compatible goals and objectives of business growth.	318	SC_cog5	6.36	0.83	1.67	4.39
Network Structure:						
I have very close ties with my networked members who have different resources.	316	SC_str1	5.64	1.06	-0.80	0.70
I frequently interact with members in all my networks to access valuable resources and information for my business.	319	SC_str2	5.62	1.08	-0.99	1.21
My company promotes frequent and intensive interaction on business ideas and information with other firms.	319	SC_str3	5.63	1.15	-1.17	1.74
Innovation:						
My company has introduced a product that was new to the organisation and industry.	319	Inov1	5.07	1.54	-1.20	0.87
I have discovered new market with customers to purchase my products.	318	Inov2	5.36	1.58	1.38	1.29
I have secured new equipment, machinery and technologies for the firm.	319	Inov3	6.26	0.83	1.55	5.67
My firm has discovered and removed non-value adding activities in production and delivery processes.	319	Inov4	6.33	0.84	-1.67	4.58
My company has introduced unique techniques to promote and distribute my products.	319	Inov6	5.49	1.67	1.43	1.21
I now have new procedures, processes and routines to perform activities.	317	Inov7	5.27	1.41	-0.55	-.231
Sustainable Growth:						
Profitability	319	SuG1	5.85	1.06	-1.52	4.42
Sales	316	SuG2	6.09	.962	-1.50	3.90
Number of employees	319	SuG3	6.08	.985	1.60	3.93
Productivity	319	SuG5	6.11	.955	-1.60	4.29

Source: Survey Data (2022)

- Network isomorphism (Niso), Network social capital (NSoC), Innovation (Inov), and Sustainable growth (SuG).
- Network isomorphism comprises three dimensions [denoted as Normative → Nor_Iso; Coercive → Coe_Iso; and Mimetic → Mem_Iso].
- Network social capital also comprises three dimensions [denoted as Structure → SoC_str; Relations → SoC_rel; and Cognition → SoC_cog].

This thesis has seven research objectives aimed at addressing the research problem. Descriptive statistics were used to address research objectives one, two and three, which seek to understand the nature of networking and innovation among the survey respondents. Mean, SD and charts were used to analyse and present the results.

Research Objective One

Nature of Networking among Small Enterprises

Research objective one describes the nature of networking among the survey respondents. The level, types, and years of networking were examined to address the objective.

First, the result displayed in Table 16 shows that small enterprises engage in networking. On the Scale of one to seven, the average mean value ($\bar{x}=5.29$, $SD=0.865$) strongly indicates that small enterprises engage in networking. The descriptive statistics further show that, compared to network isomorphism ($\bar{x}=5.00$, $SD=0.907$), small enterprises engage in networking to leverage more social capital ($\bar{x}=5.57$, $SD=0.907$). For instance, network social capital cognition has the highest mean estimate of 6.34 ($SD=0.72$), where the statement “Networked members enthusiastically pursue collective goals and mission.” ($\bar{x}=6.12$, $SD=1.11$) and “Network partners share compatible goals and objectives of business growth” has the mean value ($\bar{x}=5.50$, $SD=1.68$) scored mean closer to seven (7). The mean value suggest that formal small enterprises do not agree that there is high degree of compatibility in the goals and objectives among members in their network.

Second, the study sought the type(s) of networks that small enterprises create and participate in; the result is displayed in Figure 6. The figure shows

that most (142) of the respondents, representing 44.5 per cent, participate in business networks, followed by social networks (26.9%) and political networks (15.3%). The lowest number of 42 (13.1%) comprises small enterprises who are active participants in managerial networks, an admonition of dominance in business and social networks among small enterprises in Ghana. The result is displayed in Figure 6.

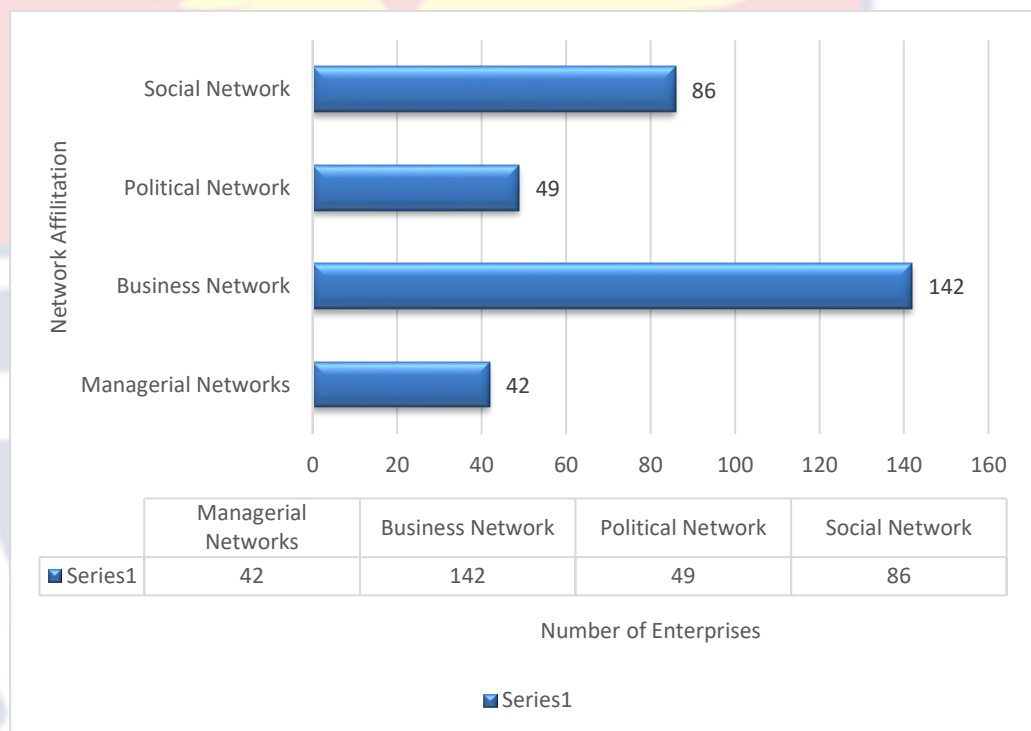


Figure 6: Network Affiliation of Formal Small Enterprises in Ghana
Source: Field Survey (2022)

Third, the study sought years of networking of small enterprises. The analysis in Figure 7 shows that most (39%) of respondents are between 11 and 15 years of participation in networking. Out of the total, 31 per cent (31%) of the respondents are within the 6- and 10-year category, while 16 per cent comprise respondents who have participated in networking for more than 21 years. The lowest responses of 14 per cent were gathered from respondents who have engaged in networking between 16 and 20 years. The result suggests

that respondents have engaged in networking activities for a fairly long time to know the dynamics of networking and the impact of their participation on business growth and sustainability (Obeng, 2018)

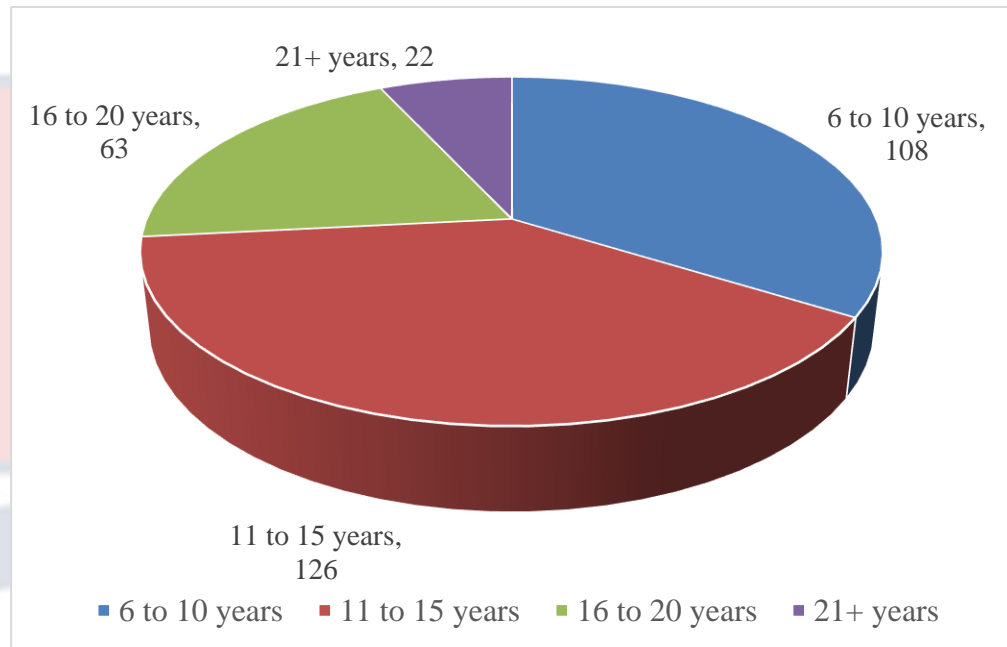


Figure 7: Years of Networking of Formal Small Enterprises

Source: Field Survey (2022)

Research Objective Two

Nature of Innovation among Small Enterprises

Research objective two examines small enterprises' innovation level.

The mean value ($\bar{x}=5.63$, $SD \rightarrow 0.87$) strongly shows that networked small enterprises innovate. Furthermore, Figure 8 shows that small enterprises develop different strands or types of innovations. The common type of innovation was found in value-adding activities in production and delivery processes ($\bar{x}=6.33$, $SD \rightarrow 0.84$). This strand of innovation is followed by technology, promotion and distribution, markets, and process innovations. Product innovation was found to be the least type of innovation among small enterprises ($\bar{x}=5.07$, $SD \rightarrow 1.54$). On the one hand, the highest mean indicates

that networked small enterprises innovate by discovering ways to remove non-value-adding activities in production and delivery processes. On the other hand, the least mean value indicates that networked small enterprises rarely undertake product innovations. The result is displayed in Figure 8.

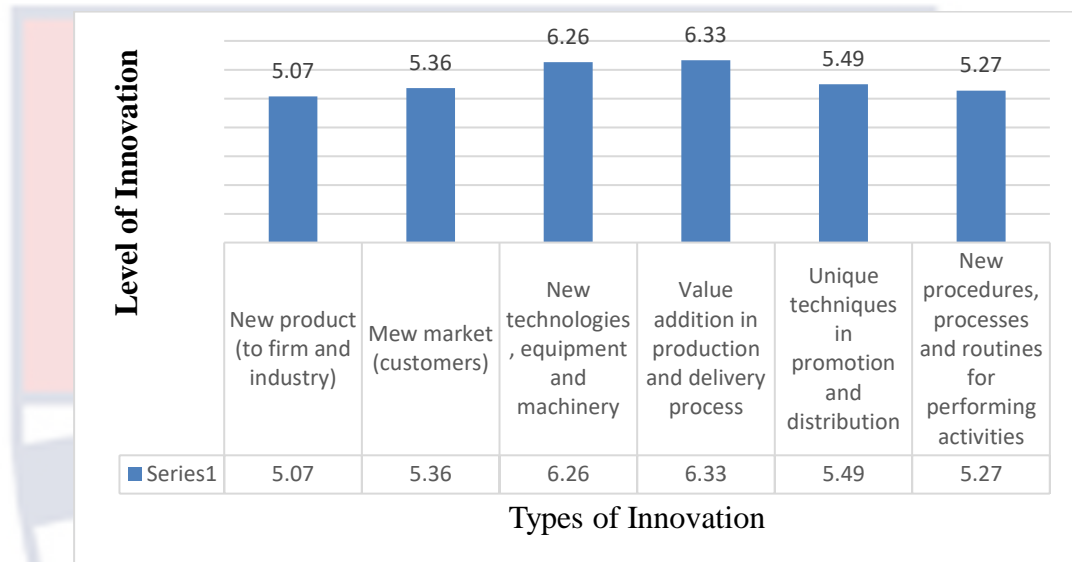


Figure 8: Types and Level of Innovation among Small Enterprises

Source: Field Survey (2022)

Research Objective Three

Nature of Sustainable Growth of Small Enterprises

Research objective three examined the nature of sustainable growth among formal small enterprises who participated in the study. Descriptive statistics were used to present the result which show that main dimensions or nature of sustainable growth among formal small enterprises in a network is productivity ($\bar{x}=6.11$, $SD \rightarrow 0.95$). This nature of sustainable growth dimension is followed by sustainable growth in sales ($\bar{x}=6.09$, $SD \rightarrow 0.96$) and the number of employees ($\bar{x}=6.08$, $SD \rightarrow 0.98$). The result also shows that the least nature of sustainable growth is profitability ($\bar{x}=5.84$, $SD \rightarrow 1.05$). Summary of the result is presented in Figure 9.

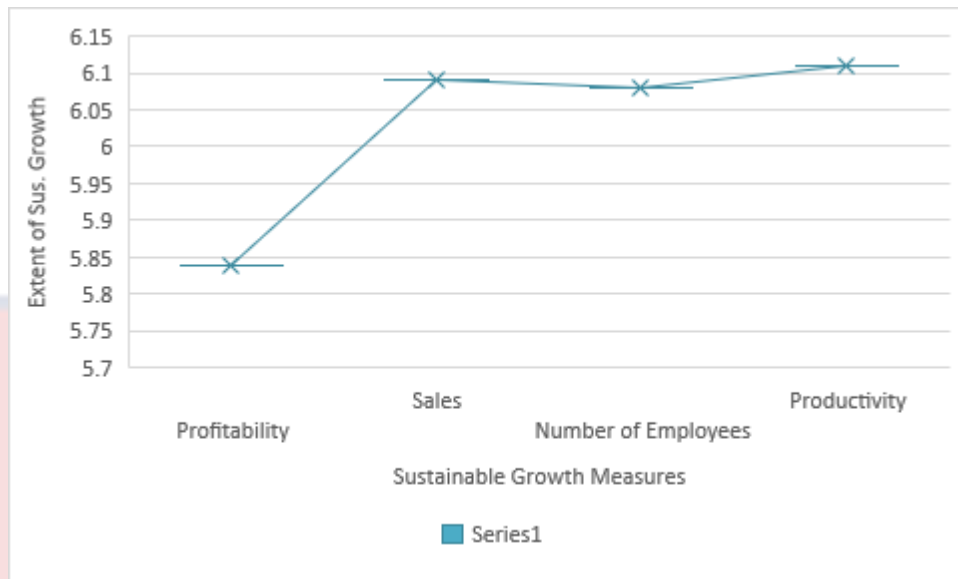


Figure 9: Nature of Sustainable Growth Among Formal Small Enterprises

Research Objectives Four, Five, Six and Seven

The next sub-section focusses on the steps the researcher followed to address the research problem, aim and the remaining research objectives (4, 5, 6 and 7): the effect of entrepreneurial networking: network isomorphism and network social capital on innovation and sustainable growth.

Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis was conducted to ascertain the dimensionality of research variables and also estimate multiple inter-related relationships (Bagozzi & Yi, 2012). In addition, the CFA was conducted using SEM (Amos 24) to determine and achieve model fitness, reliability and validity and to confirm the final measurement model before the structural equation model.

Testing the fitness of a model in social science research is to ensure that the model holds together and measures the variable (Bagozzi & Yi, 2012). The present study carried out a model fit assessment to determine the extent to

which the conceptual model (variables) is represented by the field data using the features of the measurement statements. The preliminary features of the measurement model for retained items are shown in Table 17.

Table 17: Preliminary Measurement Model for Retained Variables

Variable	Code	Loadings	t-Value	R ²
Coercive Isomorphism	Coe_Iso1	0.879***	Fixed	0.951
	Coe_Iso2	0.893***	42.340	0.980
	*Coe_Iso3	0.619***	6.880	0.367
	Coe_Iso4	0.872***	29.340	0.086
Normative Isomorphism	Nor_Iso1	0.716***	Fixed	0.768
	Nor_Iso3	0.747***	15.790	0.838
	Nor_Iso5	0.769***	16.793	0.885
	Nor_Iso6	0.799***	15.617	0.830
Mimetic Isomorphism	Mem_Iso2	0.782***	Fixed	0.826
	Mem_Iso3	0.814***	18.669	0.865
	*Mem_Iso4	0.802***	7.746	0.433
	Mem_Iso5	0.956***	17.946	0.841
Network Relation	SC_rel1	0.791***	Fixed	0.925
	SC_rel2	0.798***	32.970	0.954
	SC_rel3	0.755***	29.915	0.926
	*SC_rel5	0.862***	17.946	0.109
Network Cognition	SC_cog1	0.878***	Fixed	0.920
	SC_cog3	0.904***	32.026	0.961
	*SC_cog4	0.748***	1.508	0.068
	SC_cog5	0.921***	28.224	0.918
Network Structure	SC_str1	0.789***	Fixed	0.905
	SC_str2	0.838***	31.466	0.978
	SC_str3	0.824***	24.537	0.882
Innovation	Inov1	0.784***	Fixed	0.863
	Inov2	0.767***	22.373	0.908
	*Inov3	0.704***	18.773	0.824
	*Inov4	0.796***	5.965	0.344
	Inov6	0.682***	19.746	0.848
	*Inov7	0.000***	6.695	0.371
Sustainable Growth	SuG1	0.737***	Fixed	0.801
	SuG2	0.812***	19.331	0.902
	SuG3	0.801***	19.128	0.895
	SuG5	0.783***	18.234	0.866

Source: Field Survey (2022)

The statistical output shows that some measurement statements were unfit, suggesting the need to modify and purify the model. Hair *et al.* (2010) indicated that in model modifications, any measurement statements which show signs of weakness and fail to enhance model integrity, fitness and validity should be deleted. Hence, the model comprising thirty-three (33) measurement statements was modified. To ensure that the right measurement statements were deleted, the researcher went through a step-by-step process to ensure that each measurement statement deleted was necessary and could help to improve the model's fitness (Hair & Lukas, 2014).

Table 19 shows the various stages of modification, measurement statements deleted, and the fit indices achieved during and after the modification process. After the modification process, seven (7) measurement statements were dropped from coercive isomorphism (Coe_Iso 3), mimetic isomorphism (Mem_Iso 4), network relation (SC_rel 5) and network cognition (SC_cog 4), and innovation (Inov 3, 4, 7). The seven measurement statements were dropped because they failed to load while others were dropped to improve the goodness-of-fit between the data and measurement model (Yağcı, 2019). As Yağcı (2019) posited, the CFA technique helps a researcher to combine model fit measures to determine and achieve goodness-of-model fitness. Thus, out of the thirty-three (33) statements, seven (7) were dropped after the second modification. The modified model with the remaining twenty-six (26) statements achieved goodness-of-fit indices.

The values for the various model fit indices (as shown in Table 18) satisfy the acceptable threshold values. For instance, the Comparative Fit Index (CFI) value of 0.903 is acceptable (Xia & Yang, 2019), but the

modification improved the coefficient value to 0.974, above the 0.950 acceptable thresholds. Again, RMSEA improved from 0.085 to 0.046, while the improved CMIN/DF (Chi-Square) value of 1.680 indicated an “excellent model fitness” (Thakkar, 2020). The revised model fitness indices indicate that the final model has attained an excellent fitness level. Other indexes, such as the Incremental Fit Index (IFI) and Tucker-Lewis Index (TLI), showed statistic values of more than the acceptable threshold of 0.900 (Wang & Wang, 2020).

Table 18: Modification and Fit Indices Matrix

Stage	Modification: Items deleted	Fit Indices							
		RMS EA	PClos e	SRM R	IFI	TLI	CFI	GFI	CMI N/DF
Initial	Original MM	0.106	0.000	0.176	0.831	0.807	0.830	0.757	4.540
1	SC_rel (5) Mem_Iso (4) Inov (3,7)	0.085	0.000	0.159	0.904	0.888	0.903	0.833	3.279
2	Coe_Iso (3) SC_cog (4) Inov (4)	0.046	0.794	0.051	0.974	0.969	0.974	0.923	1.680

Source: Field Survey (2022)

The final result of the model fitness indices is shown in Table 19. Table 19 shows the extraction from the final measurement model, the fit indices and their interpretation. The table shows the thresholds that this present study achieved, suggesting that after the two-level modification, the final model was considered fit.

Table 19: Extraction of Model Fit Indices

Measure	Estimate	Threshold	Interpretation
CMIN	455.401	--	--
DF	271.000	--	--
CMIN/DF	1.680	Between 1 and 3	Excellent
CFI	0.974	>0.95	Excellent
SRMR	0.051	<0.08	Excellent
RMSEA	0.046	<0.06	Excellent
PClose	0.794	>0.05	Excellent

Source: Extraction from CFA

The present study conducted reliability and validity tests of the retained measurement statement/model to assess the relevance and credibility, consistency, accuracy, and precision of the final measures to produce consistent results if replicated in another research procedure (Saunders, 2012; Hapsari, 2018; Beltramino *et al.*, 2020). To achieve the reliability objective, the researcher used composite reliability (CR) and Cronbach alpha (CA) (Cronbach, 1951; Hair *et al.*, 2016; Asadollahi-Kheirabadi & Mirzaei, 2019).

The CR estimates in Table 20 shows a range between 0.771 → 0.956, more significant than the acceptable threshold of 0.70 recommended by Nunnally (1978) and Vandenberg and Lance (2000). Also, the CA estimates show a range between 0.878 → 0.955, above the acceptable thresholds of 0.70, indicating robust reliability (Cronbach, 1951; Ursachi *et al.*, 2015; Hair *et al.*, 2016). The CR and CA estimates indicate that the statements/variables have good internal consistencies (George 2010). Therefore, this research claims that the measurement statements/data collection instrument is reliable and internally consistent.

Table 20: Confirmatory Factor Analysis of the Final Model

Constructs/ Variables	Item Code	Varimax Loadings	t-value	R ²	CR	AVE	CA
Coercive Isomorphism					0.956	0.879	0.955
	Coe_Iso1	0.875	27.770	0.945			
	Coe_Iso2	0.895	30.059	0.980			
	Coe_Iso4	0.876	Fixed	0.885			
Normative Isomorphism					0.771	0.562	0.878
	Nor_Iso1	0.738	15.293	0.699			
	Nor_Iso3	0.789	17.644	0.809			
	Nor_Iso5	0.808	Fixed	0.770			
	Nor_Iso6	0.750	17.353	0.661			
Mimetic Isomorphism					0.851	0.657	0.841
	Mem_Iso 2	0.812	14.030	0.778			
	Mem_Iso 3	0.834	15.314	0.867			
	Mem_Iso 5	0.707	Fixed	0.784			
Network Relation					0.940	0.839	0.939
	SC_rel1	0.687	25.052	0.898			
	SC_rel2	0.742	28.088	0.943			
	SC_rel3	0.721	Fixed	0.906			
Network Cognition					0.951	0.867	0.950
	SC_cog1	0.911	27.787	0.918			
	SC_cog3	0.928	31.184	0.960			
	SC_cog5	0.919	Fixed	0.915			
Network Structure					0.938	0.835	0.934
	SC_str1	0.790	22.909	0.893			
	SC_str2	0.845	26.654	0.975			
	SC_str3	0.836	Fixed	0.869			
Innovation					0.771	0.562	0.886
	Inov1	0.771	17.368	0.861			
	Inov2	0.784	18.068	0.893			
	Inov6	0.780	Fixed	0.806			
Sustainable Growth					0.912	0.722	0.909
	SuG1	0.727	17.412	0.782			
	SuG2	0.824	21.707	0.887			
	SuG3	0.810	Fixed	0.879			
	SuG5	0.790	19.970	0.847			

Source: Field Survey (2022)

The researcher used several validity tests to ensure that the research ideas were correctly, accurately, and effectively captured and measured to achieve the research objectives (Yilmaz, 2013; Heale & Twycross, 2015; Hair *et al.*, 2022). In this study, the researcher used convergent and discriminant

validity measures (Rezaei, 2015; Hair *et al.*, 2022). First, the convergent validity test includes the factor loading and average variance extracted (AVE). The factor loading criterion achieved a good varimax loading statistic range between 0.687 → 0.928, with an eigen value of 1 and a threshold of 0.50 suppression (Hair *et al.*, 2012). Thus, the loadings obtained provided satisfactory support for convergent validity (Hair *et al.*, 2017). The AVE achieved a satisfactory statistic score between 0.562 → 0.879, more significant than the threshold of 0.50, thus confirming the convergent validity (Fornell & Larcker, 1981). Therefore, the retained statements (items that loaded well) actually measure what (variables) they are supposed to measure.

The second validity test is the discriminant test. The discriminant validity test aims to ensure that the reflective variables have a robust relationship with their indicators (e.g., when compared with other variables) (Hair *et al.*, 2022). In this thesis, the discriminant validity correlations criteria by Fornell and Larcker and the Heterotrait-Monotrait (HTMT) Ratio of Correlation were used to test, evaluate and ensure discriminant validity (Fornell & Larcker, 1981; Henseler *et al.*, 2015; Hair *et al.*, 2022).

Fornell and Larcker (1981) explained that for each pair of latent variables, the square root of AVE must exceed the correlations between the latent variables to confirm discriminant validity. As presented in Table 20, the square root of AVEs is greater than the correlation coefficients between the latent variables (i.e., the diagonal values in table 21). Thus, the AVEs of each variable are less than the squared correlation between the paired variables, supporting discriminant validity. The implication is that all the variables in

this research that are not supposed to be related are actually distinct from each other.

The final reliability and validity test results are summarised and displayed in Table 21, while the Fornell and Larcker and the Heterotrait-Monotrait (HTMT) Ratio of Correlation discriminant validity are shown in Tables 21 and 22 respectively.

Table 21 shows the Fornell and Larcker (1981) discriminant validity test result.

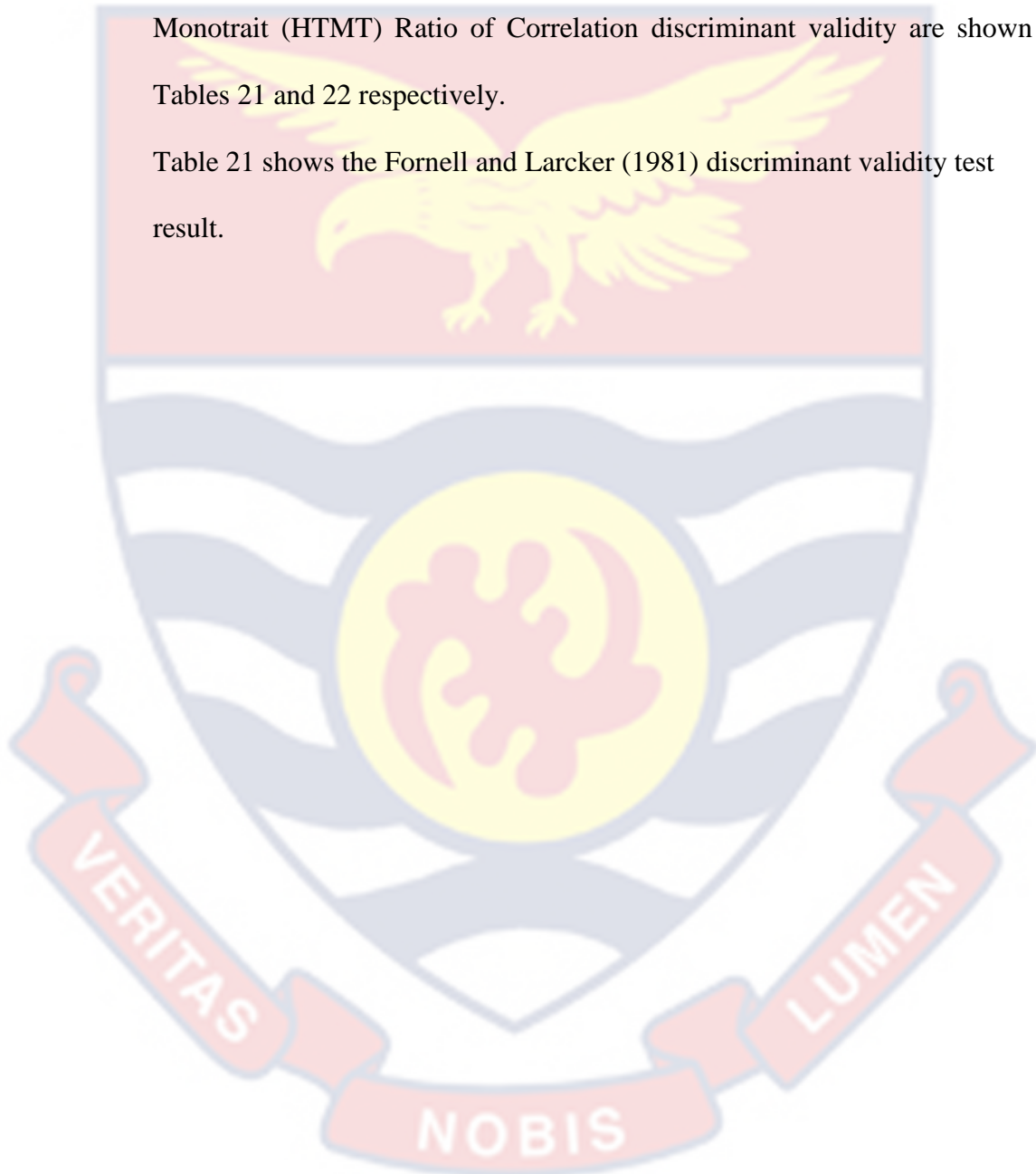


Table 21: Discriminant Validity: Fornell and Larcker

	MSV	MaxR(H)	Coe_Iso	Mem_Iso	SC_rel	SC_cog	SC_str	Inov	Nor_Iso	SuG
Coe_Iso	0.236	0.974	0.938							
Mem_Iso	0.288	0.860	0.486***	0.810						
SC_rel	0.446	0.944	0.288***	0.429***	0.916					
SC_cog	0.187	0.957	0.388***	0.432***	0.073	0.931				
SC_str	0.368	0.963	0.354***	0.379***	0.559***	0.183**	0.914			
Inov	0.446	0.898	0.419***	0.469***	0.668***	0.119†	0.502***	0.750		
Nor_Iso	0.419	0.891	0.389***	0.374***	0.647***	0.188**	0.533***	0.582***	0.810	
SuG	0.368	0.918	0.362***	0.537***	0.551***	0.328***	0.607***	0.498***	0.546***	0.850

Note: Variances extracted (VE) are on the diagonal. The VEs for each construct are far greater than the corresponding inter-construct square correlations, thereby supporting discriminant validity.

Source: Field Survey (2022)

It is recalled that the present research used both Fornell and Larcker (1981) and HTMT Ratio of Correlation to assess validity. Henseler *et al.* (2015) proposed HTMT based on the multitrait-multimethod matrix as a superior and liberal alternative approach to the Fornell-Larcker criterion for assessing discriminant validity. According to Henseler *et al.* (2015), if the HTMT value is below 0.90, discriminant validity has been established between two reflective variables. The HTMT result in Table 22 shows that the similarity between the latent variables was less than one (1.0), confirming discriminant validity (Malhotra & Dash, 2011; Henseler *et al.*, 2015). Both Fornell and Larcker (1981) and Henseler *et al.*'s (2015) test results support discriminant validity for the study's measures/variables. Table 22 shows the HTMT discriminant validity test result.

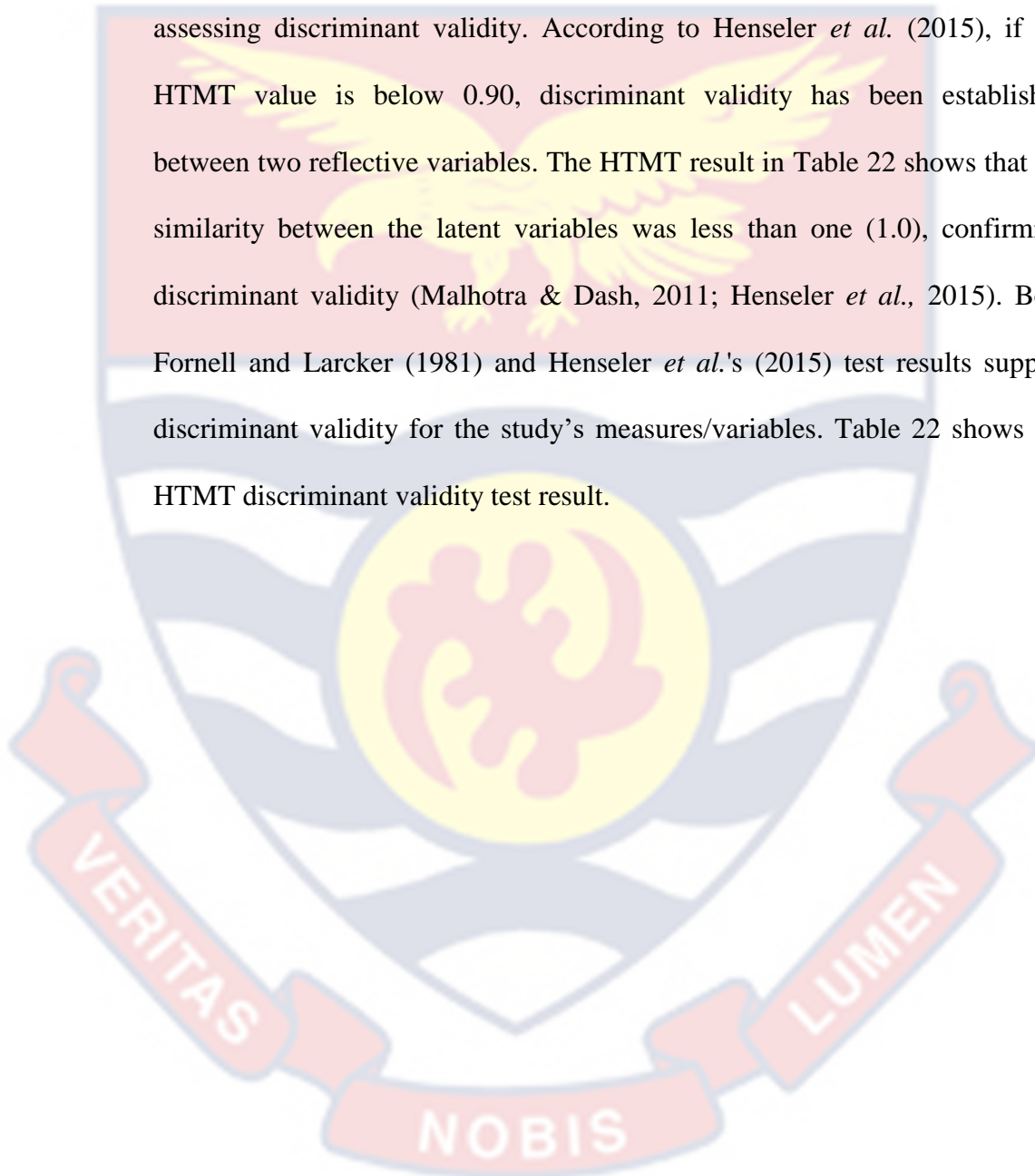


Table 22: Discriminant Validity: Heterotrait-Monotrait Criterion

	Coe_Iso	Mem_Iso	SC_rel	SC_cog	SC_str	Inov	Nor_Iso	SuG
Coe_Iso								
Mem_Iso	0.496							
SC_rel	0.281	0.452						
SC_cog	0.406	0.422	0.074					
SC_str	0.362	0.408	0.588	0.187				
Inov	0.433	0.525	0.730	0.018	0.575			
Nor_Iso	0.402	0.387	0.650	0.190	0.560	0.645		
SuG	0.366	0.555	0.563	0.331	0.629	0.522	0.558	

Source: Field Survey (2022)

In sum, the estimate scores for composite reliability and Cronbach alpha (> 0.70), AVE (> 0.50), varimax factor loading (> 0.70), and other convergent validity and discriminant tests achieved excellent estimates. Thus, the estimate meets the requirements to claim reliability and reliability in the final measurement model, research measures/variable and the measurement statements/data collection instrument (Fornell & Larcker, 1981). Hence, the study proceeded to assess the structural path relationships, their significance or otherwise, the direction and their strength. The assessment aims to confirm the hypotheses and establish knowledge claim(s) to address the research problem.

Test for Multicollinearity and Common Method Bias (CMB)

The researcher used three criteria to assess the level of collinearity between and among the variables. First, scholars explained that each predictor of an independent variable should produce a Variance Inflation Factor (VIF) value of not less than five (Creswell, 2003a), while 3.3 is considered a more robust benchmark (Hair *et al.*, 2017). The collinearity statistics in Table 23 confirmed that the VIF range between 1.498 and 2.300, below the threshold of three (3), which indicate that multicollinearity is not a problem in the study analysis (Kline, 2012). Second, the Table also shows high tolerance levels between 0.435 and 0.773, less than one (< 0.9) indicate that each of the variables in this research has a high degree of variance not explained by the other variables combined.

Lastly, the statistical outputs show that discriminant validity is achieved, indicating that there are no problems of multicollinearity. The non-presence of multicollinearity among the research variables implies that there is

no possibility of inflated Beta (β) estimates, thus a high degree of precision, accurate hypothesis test result and forecasting (Kutner *et al.*, 2004).

Table 23: Multicollinearity Statistics Result

Variable	Multicollinearity	
	Tolerance	VIF
Coercive Isomorphism	0.668	1.498
Normative Isomorphism	0.562	1.779
Mimetic Isomorphism	0.642	1.558
Network Relation	0.435	2.300
Network Cognition	0.773	1.294
Network Structure	0.609	1.643
Innovation	0.481	2.080

Source: Field Survey (2022)

The researcher also employed some methods to mitigate the potential of common method bias (CMB). First, the researcher informed the respondents that the study is anonymous and assured them of information confidentiality. Secondly, the measurement statements in the data collection instrument were made clear and easy to read and understand. The Harman's single-factor test revealed that the first factor, explaining 38.56 per cent, is less than 50 percent, thus there is no CMB concern in the study as explained by Xie *et al.* (2020).

After the analysis of the final measurement model using data adequacy, model fitness testing, reliability and validity test, test for multicollinearity and CMB, twenty-six (26) measurement statements were retained and computed into the study variables. Figure 10 shows the final CFA model which guided the final structural path model.

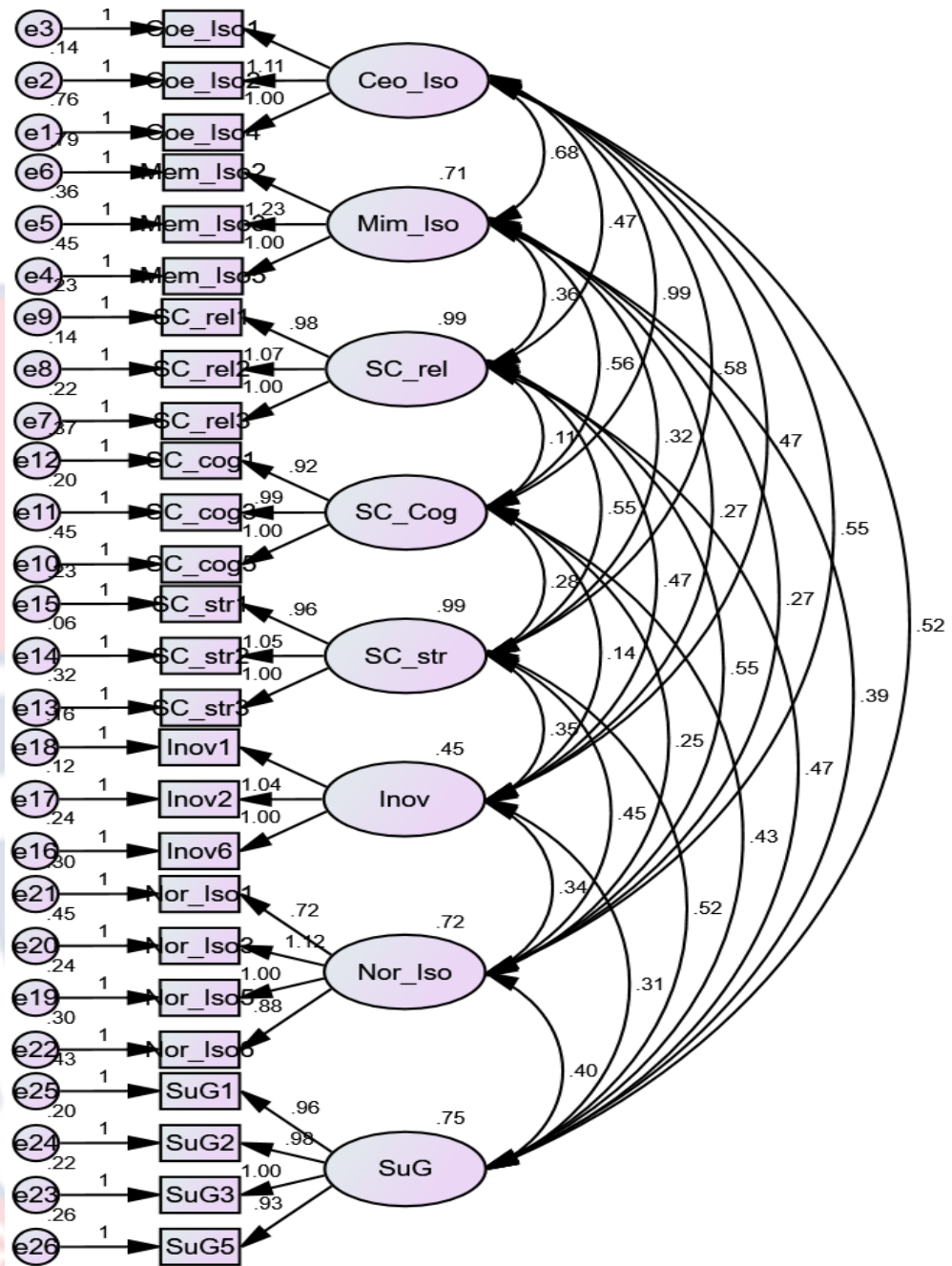


Figure 10: The Final Confirmation Factor Analysis (CFA) Model
 Source: Field Survey (2022)

Test for Structural Model

The study sets out to examine the effect of entrepreneurial networking on sustainable growth, and the mediating effect of innovation in the relationship. Based on the institutional theory, network theory of social capital, a framework was proposed. The framework has four categories of

variables in this research: independent (IV→ network isomorphism and network social capital), mediator (MV→ innovation), dependent (DV → sustainable growth) and control (CV→ network affiliation). An entrepreneurial network as a construct comprises the two independent variables (IVs). The study used SEM to run, test and assess the significance of the direct, indirect (partial and full mediation) and control relationships/hypotheses.

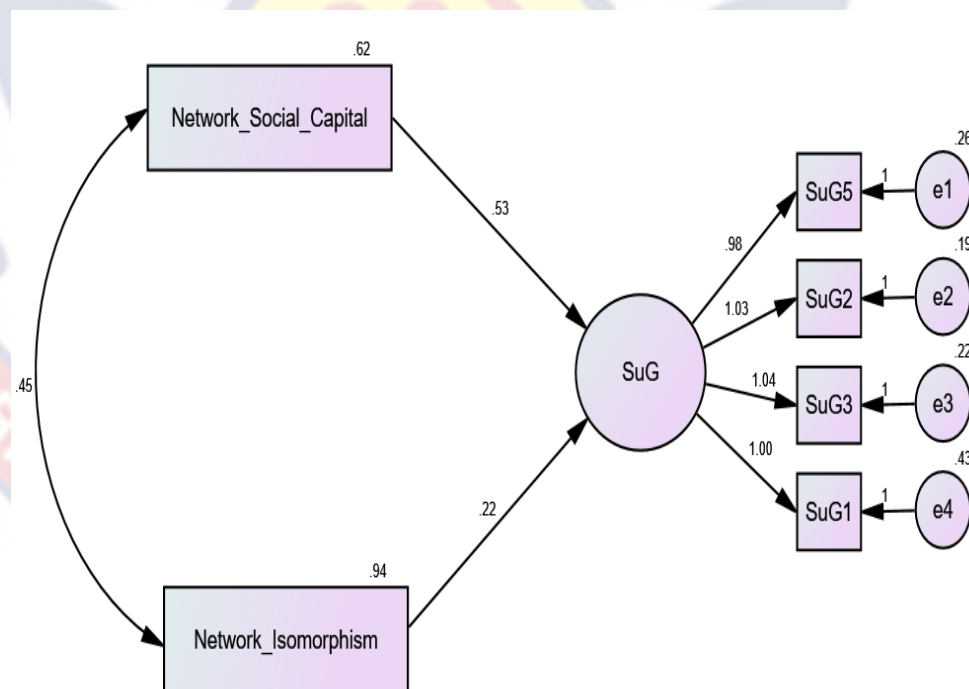
Path coefficients through the magnitude and signs were used to determine whether a hypothesis in the structural model is rejected or accepted. First, the study assessed whether or not the directions of the association between the variables/constructs are the same as hypothesised (by looking at the signs of the path coefficients). Second, the study used the p-value to assess the degree of significance, whereby $p \leq 0.05$ is considered significant and $p > 0.05$ insignificant (Wasserstein, Schirm, & Lazar, 2019). The beta (β) coefficient was used to estimate the path relationships.

Lastly, the researcher assessed the strength of the hypothesised paths, where the estimated parameters should be at least significant (i.e., the t-values are expected to be ≥ 1.96 at 0.05 or 2.575 at 0.01). The next sub-section presents the four levels of structural models/path analysis. The level of analysis includes the baseline relationships (direct); test for partial and full/complete mediation (indirect), and test for control effect.

Path Analysis of the Baseline Structural Model

The first direct path model analysis examined the effect of network isomorphism (NIso) and network social capital (NSoC) on sustainable growth (SuG). The analysis is based on the institutional theory and network social

capital theory. The baseline model shows the result for research objectives/hypotheses four and five, which proposed a significant direct effect of network isomorphism (H_1) and network social capital (H_2) on the sustainable growth of small enterprises in Ghana. Analysing the relationship between network isomorphism and sustainable growth proved positive and statistically significant ($\beta = 0.217^{***}$, $p < 0.01$). Secondly, the relationship between network social capital and sustainable growth proved positive, strong and statistically significant ($\beta = 0.526^{***}$, $p < 0.01$). The result suggests that social capital exerts a more positive and significant influence on sustainable growth than network isomorphism. Figure 10 shows the structural model of the direct effect of network isomorphism and network social capital on the sustainable growth of small enterprises in Ghana.



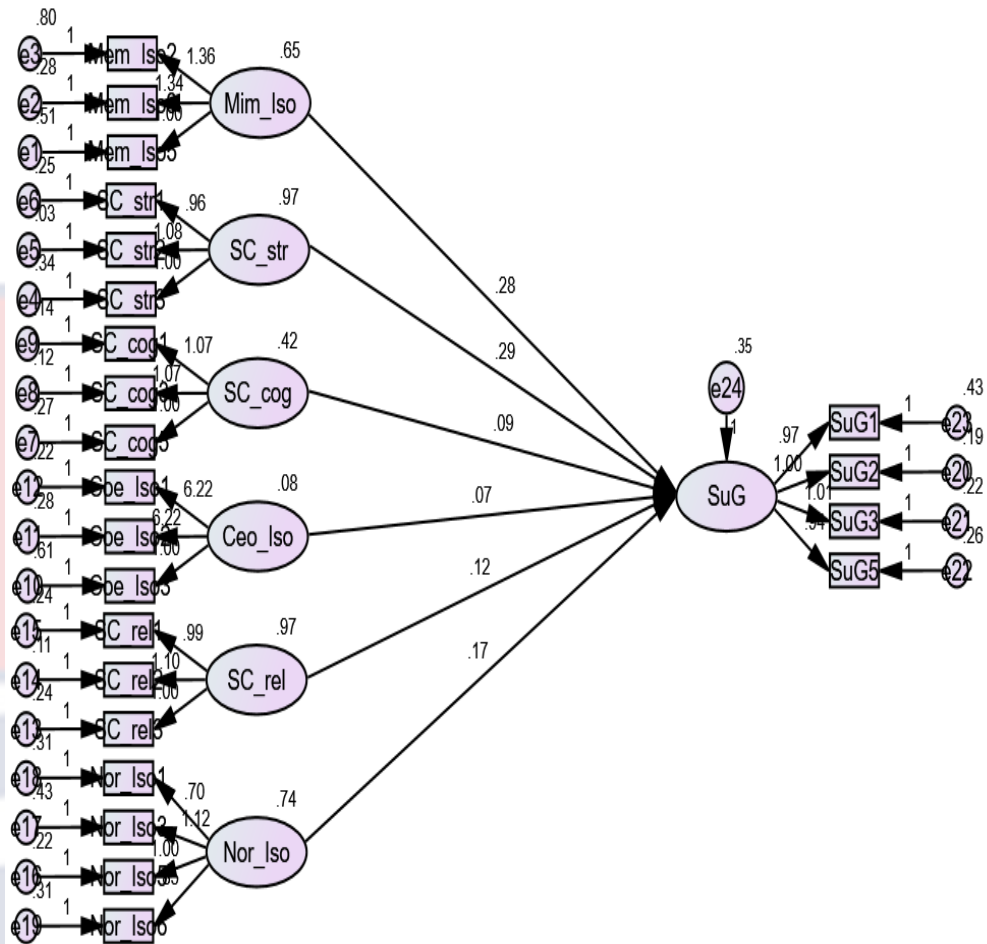
Chi-sq. → 20.926; df. → 8.00; X^2/df → 2.616; CFI → 0.989; SRMR → 0.025; PClose → 0.151; RMSEA → 0.071; p-Value (0.001)

Figure 11: The Effect of NISO and NSoC on SuG

Source: Field Survey (2022)

The second direct path model shows the multi-dimensional effect of entrepreneurial networking on sustainable growth. It is recalled from the research hypotheses (H_1) and (H_2) that network isomorphism and network social capital comprised three dimensions each. Network isomorphism comprises coercive, normative, and mimetic, while network social capital comprises network relation, cognition, and structure. Accordingly, this thesis assessed the effect of each of the six dimensions on sustainable growth. The result from the multi-dimensional structural modelling (see Figure 12) shows that four dimensions: normative ($\beta = 0.170^{***}$, $p \leq 0.01$) and mimetic ($\beta = 0.276^{***}$, $p < 0.01$) isomorphisms and network structure ($\beta = 0.287^{***}$, $p < 0.01$) and network relations ($\beta = 0.116^{***}$, $p < 0.01$) have positive and statistically significant effects on sustainable growth.

However, the estimate of coercive isomorphism ($\beta = 0.066$, $p > 0.05$) and network cognition ($\beta = 0.088$, $p > 0.05$) was insufficient to support a statistically significant relationship. Figure 12 shows the relationship between the six dimensions of entrepreneurial networking and sustainable growth of small companies.

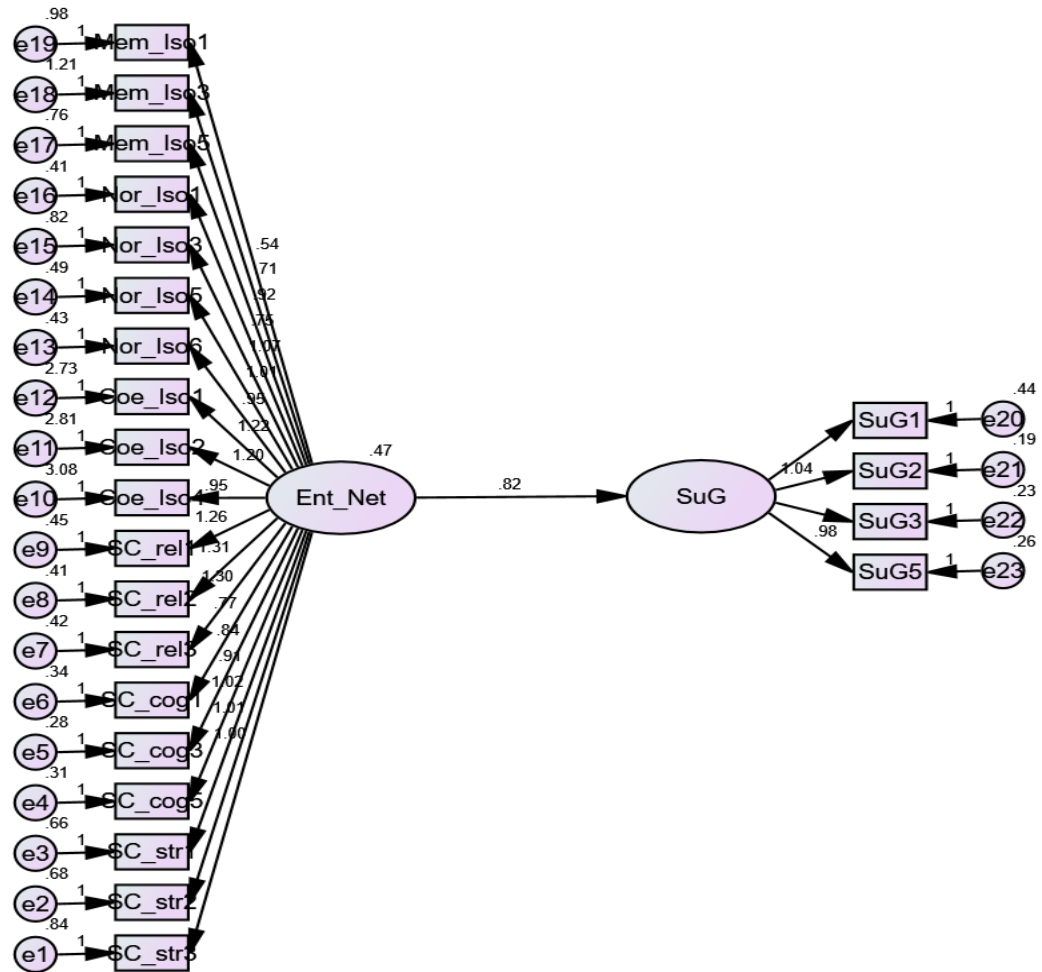


CMIN/DF→2.478; CFI→0.949; RMSEA→0.068; p-Value (0.001)

Figure 12: The Effect of the NSoC and Niso Dimensions on SuG

Source: Field Survey (2022)

The third direct path model shows the effect of entrepreneurial networking on sustainable growth. Entrepreneurial networking is reflected by network isomorphism and network social capital. The fitness test of the baseline model shows the following fit values: normed chi-square (CMIN/DF) =2.826; chi-square = 616.095; df = 218; p-Value = 0.001. The fitness values suggest that the baseline structural model is fit. The parameter estimate ($\beta=0.82^{***}$, $p<0.010$) shows a strong positive and significant relationship between entrepreneurial networking and sustainable growth. Figure 13 shows the structural model.



CMIN/DF→2.826; CFI→0.934; SRMR→0.071; RMSEA→0.076;
TLI→0.24; p-Value (0.001)

Figure 13: The Structural Model Showing Effect of ENet and SuG.

Source: Field Survey (2022).

First, the direct effect of network isomorphism (normative and mimetic network isomorphisms) and network social capital (network relation and structure) on sustainable growth were statistically supported as proposed in this thesis. The direct effect of coercive isomorphism and network cognition on sustainable growth was not supported and may not be relevant to establishing the nomological validity of the two variables (Echambadi et al., 2006). Second, the direct path analysis of the effect of entrepreneurial networking, a hybridised effect of network isomorphism and social capital on

sustainable growth, is statistically supported. Table 24 shows the summary result from the direct path analysis of the structural (baseline) models.

Table 24: The Path Analysis Results for Baseline Relationships

Path Relationship	β Est.	S.E.	C.R	p-value
Entrepreneurial Networking → Sustainable Growth	0.822	0.93	8.809	***
Network Isomorphism → Sustainable Growth	0.217	0.48	4.565	***
Coe_Iso → SuG	0.066	0.130	0.509	0.611
Nor_Iso → SuG	0.170	0.046	3.714	***
Mem_Iso → SuG	0.276	0.051	5.380	***
Network Social Capital → Sustainable Growth	0.526	0.06	8.514	***
SC_rel → SuG	0.116	0.039	3.714	0.003
SC_cog → SuG	0.088	0.060	1.472	0.141
SC_str → SuG	0.287	0.40	7.204	***

Source: Constructed from Field Survey (2022)

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Table 24 shows the result of the path analyses result of the baseline or direct relationships between the study variables. The next sub-sections discuss indirect effect of innovation on the direct path relationships. Thus, the path analysis examines whether innovation mediates the relationship between entrepreneurial networking: network isomorphism and network social capital, and sustainable growth.

The Mediation Effect of Innovation

Based on the diffusion of innovation theory, the study sought to examine the mediating effect of innovation in the relationship between entrepreneurial networking and sustainable growth of small enterprises. The second step in the SEM focussed on the research objective six, which examined the mediating effect of innovation in the relationship between entrepreneurial networking and sustainable growth. The research objective six

which address hypothesis three [H_3] of this study examines the mediating effect of innovation in the relationship between entrepreneurial networking and sustainable growth [H_3], network isomorphism and sustainable growth [H_{3a}] and network social capital and sustainable growth [H_{3b}]. Therefore, the result in this sub-section is presented as the mediating effect of innovation in the relationship between network isomorphism and sustainable growth, network social capital and sustainable growth, and entrepreneurial networking and sustainable growth.

Mediation Effect of Innovation in the Relationship between Network Isomorphism and Sustainable Growth

The first mediation test examined whether innovation (Inov) mediates the relationship between network isomorphism (NIso) and sustainable growth (SuG) of small enterprises. The analysis was done in three parts described as Path Model (1), showing the direct relationship (as path model 1A), partial mediation test (as path model 1B) and full mediation test (path model 1C).

The first path model (**Path Model 1A**) is the unmediated model that estimates the influence of network isomorphism on the sustainable growth of small enterprises in Ghana. The regression estimates ($\beta=0.198$, $p<0.01$) show that network isomorphism positively and significantly influences sustainable growth. The β estimates suggest the extent to which the NIso influences SuG. The result confirms the first rule of Baron and Kenny's (1986) four-stage rule on mediations. According to Baron and Kenny's (1986) four-stage rule on mediation, the relationship between network isomorphism and sustainable growth, measuring the total effect, must exist to guarantee that a relationship

exists and can be mediated. The significant baseline relationship permits the research to test for the mediating effect of innovation.

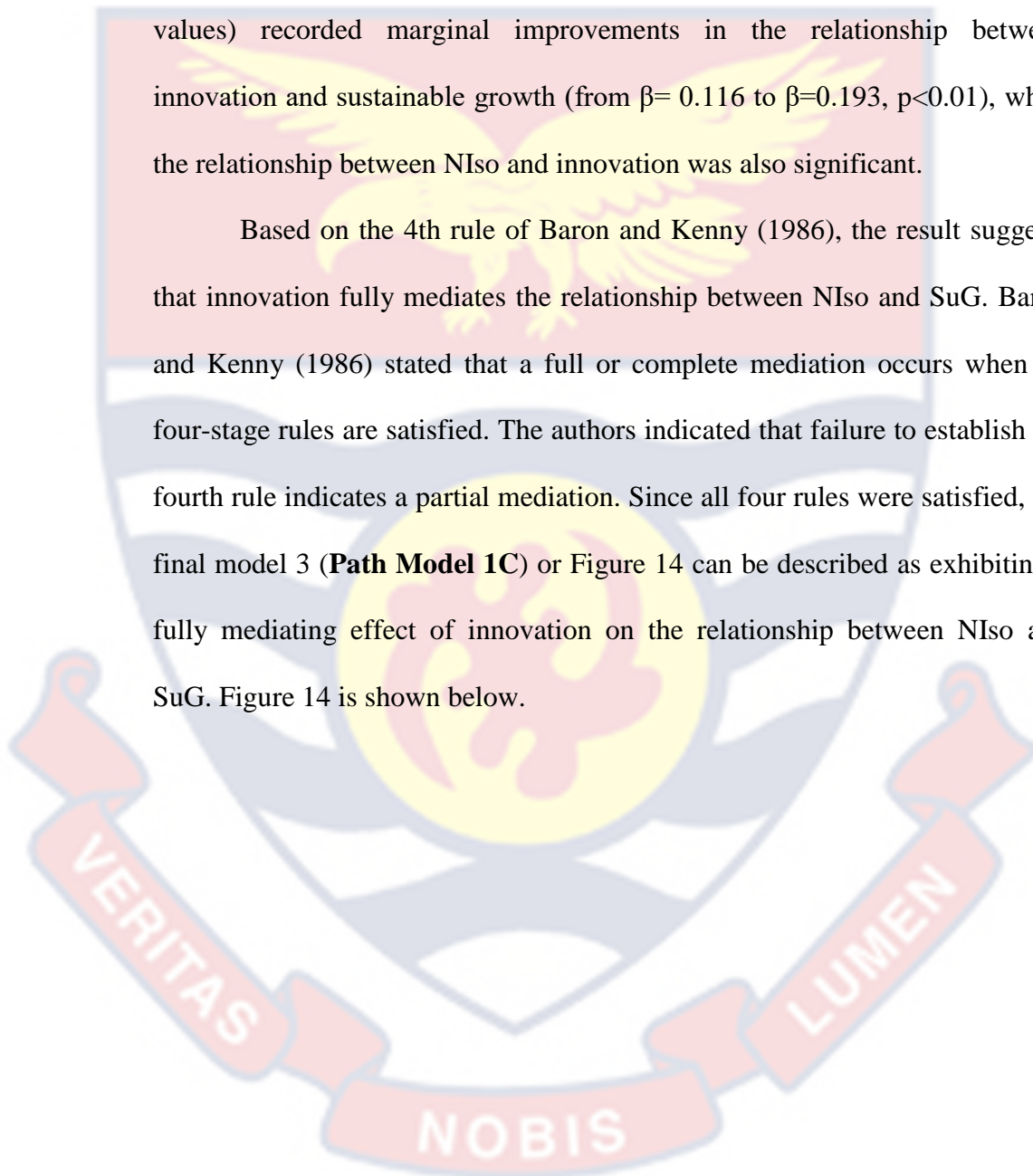
The second path model (**Path Model 1B**) analysis estimates the mediating effect of innovation in the relationship between network isomorphism and sustainable growth. The result shows that the standardised estimates from NIso to innovation ($\beta = 0.316^{***}$, $p < 0.01$) and innovation to SuG ($\beta = 0.116$, $p < 0.01$) were all significant. The results suggest partial mediation since the significant β -estimate in the baseline model (1A) reduced (from $\beta = 0.198$ to $\beta = 0.145$, $p < 0.01$) after innovation was introduced into the model. Baron and Kenny (1986) stated that partial mediation occurs when the causal/predictor variable influences the outcome variable after introducing the mediator variable.

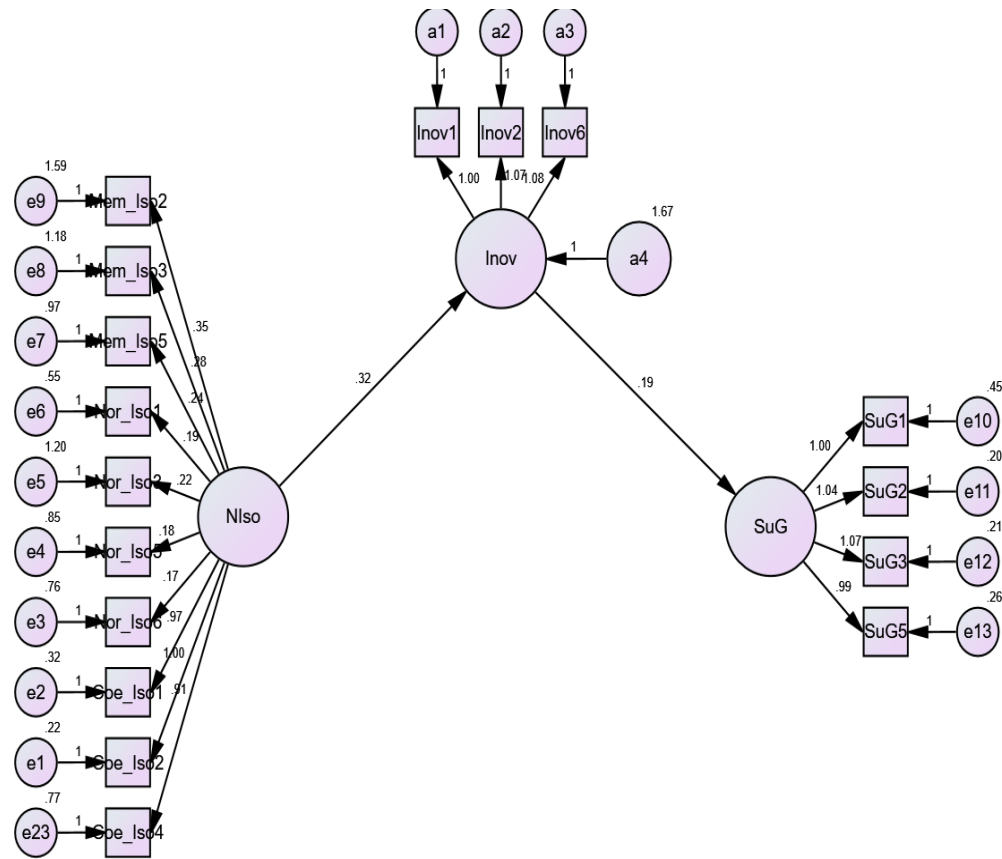
Since the path from NIso \rightarrow SuG did not reduce in significant size and was different from zero (0) after the introduction of the mediator, the path from NIso to SuG through innovation could be described as a partial model (VanderWeele, 2015; Baron & Kenny, 1986). However, importantly, the three paths in the mediated model achieved a significant relationship, satisfying Baron and Kenny's (1986) rules one, two, and three on mediation.

Following the result here, the path from NIso to SuG was controlled, which is consistent with the fourth step rule of Baron and Kenny (1986) to verify the existence of full complete mediation in second path model. According to Baron and Kenny (1986), to establish the existence of complete mediation, the effect of the predictor variable on the outcome variable should be controlled or constrained to zero (0). The third path Model (**Path Model 1c**) or Figure 13 showed the test for full mediation. Based on Baron and

Kenny's (1986) guidelines for a full mediation test, the effect of the independent variable (NISO) on the dependent variable (SuG) was controlled by putting a constraint of zero value on the path (NISO → SG). After constraining the baseline model, the standardised regression weights (beta values) recorded marginal improvements in the relationship between innovation and sustainable growth (from $\beta = 0.116$ to $\beta = 0.193$, $p < 0.01$), while the relationship between NISO and innovation was also significant.

Based on the 4th rule of Baron and Kenny (1986), the result suggests that innovation fully mediates the relationship between NISO and SuG. Baron and Kenny (1986) stated that a full or complete mediation occurs when all four-stage rules are satisfied. The authors indicated that failure to establish the fourth rule indicates a partial mediation. Since all four rules were satisfied, the final model 3 (**Path Model 1C**) or Figure 14 can be described as exhibiting a fully mediating effect of innovation on the relationship between NISO and SuG. Figure 14 is shown below.





*Network Isomorphism (NIso); *Innovation (Inov); and *Sustainable Growth (SuG)

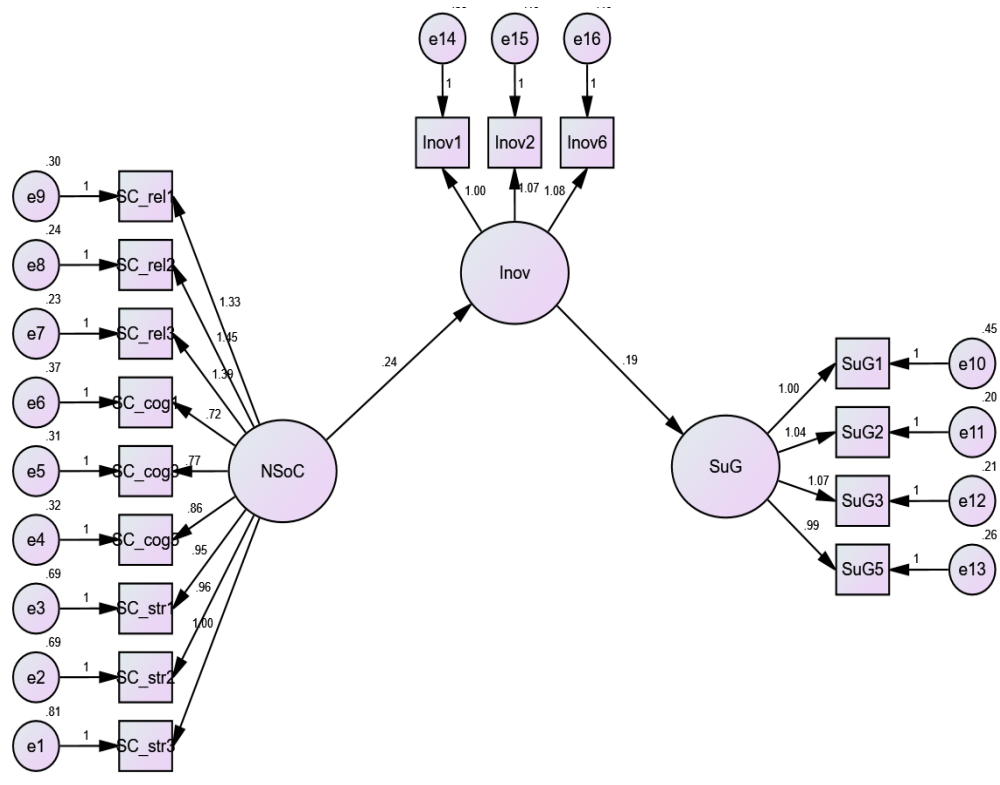
Figure 14: [Model 1 C] Full Mediation Effect of Inov in NIso and SuG
Source: Field Survey (2022)

Mediation Effect of Innovation in the Relationship between Network Social Capital and Sustainable Growth

The second mediation relationship sought to examine the mediating effect of innovation in the relationship between network social capital and sustainable growth. The first path model (**Path Model 2A**) shows the baseline relationship between network social capital and sustainable growth. Analysis of the path model and the estimate show a positive and significant relationship between network social capital and sustainable growth ($\beta=0.72***$, $p<0.01$). The significance suggests the extent of the relationship, supporting rule one of Baron and Kenny’s (1986) on mediation.

The second path model (**Path Model 2B**) examined the mediating effect of innovation in the relationship between network social capital and sustainable growth. The result suggests partial mediation since the β -estimate in the baseline model (**Path Model 2A**) reduced (from $\beta=0.72 \rightarrow \beta=0.682$, $p<0.01$). The relationships between NSoC \rightarrow Inov ($\beta=0.230$, $p<0.01$), and Inov \rightarrow SuG ($\beta=0.150$, $p<0.01$) were all significant. The first and second conditions of testing for mediations as specified by Baron and Kenny (1986) were satisfied in model **Path Model 2B**, thus, the third requirement necessary to establish a partial mediation was also met. Hence, the fourth rule was applied to verify the existence of full complete mediation in model 2 (B).

In the third path model (**Path Model 2C**) as shown in Figure 14, the Baron and Kenny's (1986) guidelines were used to test for full mediation between NSoC and SuG. The standardised regression weights showed marginal improvement in the path NSoC \rightarrow Inov (from $\beta=0.230 \rightarrow 0.244$, $p<0.01$) and Inov \rightarrow SuG (from $\beta=0.150 \rightarrow 0.192$, $p<0.01$). The improvement in NSoC \rightarrow Inov, Inov \rightarrow SuG and the significant relationship in NSoC \rightarrow SuG indicate a full mediation of effect of innovation in the relationship. The final SEM (Figure 15) indicates the full mediation effect of innovation in the relationship between network social capital and sustainable growth of small enterprises in Ghana.



Network Isomorphism (NISO); *Innovation (Inov); and *Sustainable Growth (SuG)

Figure 15: [Model 2 C] Full Mediation Effect of Innovation in NSoC and SuG

Source: Field Survey (2022)

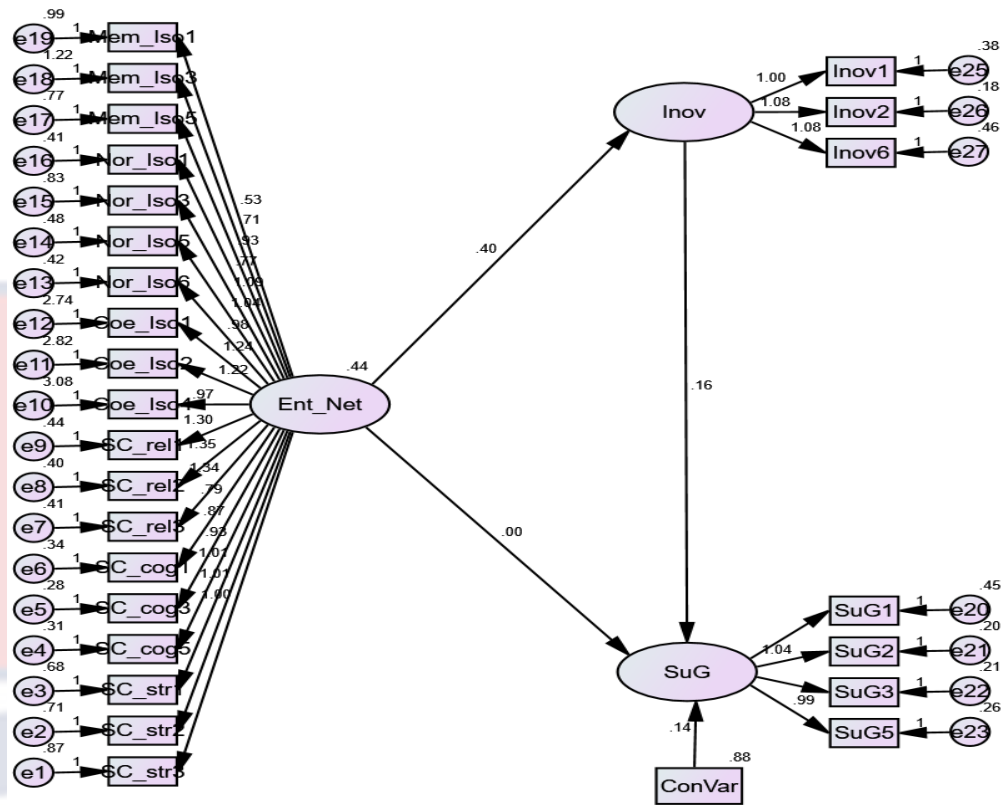
Mediation Effect of Innovation (Inov) in the Relationship between Entrepreneurial Networking (ENet) and Sustainable Growth (SuG)

The third mediation test examined the mediating role of innovation in the relationship between entrepreneurial networking and sustainable growth. Entrepreneurial networking is a hybrid of network isomorphism and network social capital. The β estimates ($\beta = 0.82^{***}$, $p < 0.01$) in baseline path model (**Path Model 3A**) shows a strong positive and significant effect of entrepreneurial networking on sustainable growth.

The second path model (**Path Model 3B**) was the mediated model of the relationship between ENet and SuG. The findings suggest that innovation partially mediates the relationship between ENet and SuG. First, the β

estimates (ENet→ SuG) show a reduction (from $\beta = 0.82^{***} \rightarrow \beta = 0.776^{***}$) after the introduction of innovation (mediator) into the direct relationship. This finding notwithstanding, all the path relationships in the mediated model remained significant. For instance, the path relationships: ENet→ SuG ($\beta = 0.776^{***}$); ENet→ Inov ($\beta = 0.385^{***}$), and Inov → SuG ($\beta = 0.121^{***}$) were all significant. The significant relationships satisfy the second and third propositions of Baron and Kenny's (1986) rules. Hence, Model 3(B) can be described as a mediational or explanatory model, indicating that, innovation plays a partial mediation effect in the relationship between ENet and SuG.

Path Model 3C tests whether the path ENet → SuG through innovation could be described as full/complete mediation. After the structural modelling, the standardised beta estimates of the path ENet → Inov showed marginal improvements (from $\beta = 0.385 \rightarrow 0.404$, $p < 0.01$), while Inov→ SuG also improved (from $\beta = 0.121 \rightarrow 0.161$, $p < 0.01$). Based on the 4th rule of Baron and Kenny (1986), the result suggests that innovation fully mediates the relationship between ENet and SuG. Since all four rules were satisfied, **Path Model 3C** or Figure 16 can be described as exhibiting a fully mediating effect of innovation on the relationship between ENet and SuG.



*Entrepreneurial Networking (ENet); *Innovation (Inov); *Sustainable Growth (SuG)

Figure 16: [Model 3 C] Test for Full Mediation Effect of Inov in ENet and SuG

Source: Field Survey (2022)

Test for Control Effect of Network Affiliation

As indicated in the previous Chapters, the network affiliation of the entrepreneur was conceptualised as a controlled variable in the analysis. The study assessed whether network affiliation predicts the dependent variable or the endogenous variable. First, the researcher examined the implication of network affiliation on sustainable growth using a one-way ANOVA. The statistical result shows a significant effect of network affiliation on sustainable growth ($\beta=0.107$, $p\text{-value}=0.011$). See Table 25 for the statistical result on the effect of network affiliation on sustainable growth.

The researcher further examined whether there is or are significance differences between network affiliations (groups) and which group has statistically significant difference. The ANOVA Table 25 confirms that there are differences among the network affiliations ($F=5.948$, sig. 000).

Table 25: ANOVA test of Differences in Network Affiliations

	Sum of				
Sustainable Growth	Squares	df	Mean Square	F	Sig.
Between Groups	17.283	4	4.321	5.948	.000
Within Groups	228.088	314	.726		
Total	245.371	318			

Source: Field Survey (2022): Dependent variable: Sustainable Growth

A Post Hoc Test was conducted to determine which network affiliations account for the differences. Assuming equal variance, Table 26, displaying the Turkey test, suggests two groups. The result show that, first, at 95 per cent statistical significance, there is no difference between social, political and business network affiliations of small enterprises in Ghana. However, the study found statistically significant differences between managerial network affiliation and other networks: business, political, and social networks.

The differences between groups (network affiliations) have implication on policy and practice hence, the research assumed non-equality of variance, and thus used Games-Howell test to check for multiple differences. The result confirmed the previous statistical output when the research assumed equal variance between the group.

Table 26: Post Hoc Test (Tukey B) of Differences in Network Affiliations

Subset for alpha = 0.05

Network Affiliation	N	1	2
Social Network	82	5.7134	
Political Network	55	6.0909	
Business Network	148	7.0777	
Managerial Network	34		6.5294

Means for groups in homogeneous subsets are displayed.

Uses Harmonic Mean Sample Size = 60.109.

Dependent variable: Sustainable Growth

Source: Field Survey (2022)

Table 27 shows the result of the multi comparisons of the groups indicating the differences and non-differences between network affiliations. The result means that statistically, social network, political network and business networks do not differ. However, managerial network differs from the other type network affiliations. Hence, the practices, approach and implication of managerial network is different from social, political and business networks.

Table 27: Games-Howell Multiple Comparisons of Differences in Network Affiliations

(I) Network Affi	(J) Network Affi	Mean Difference (I- J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
SoNet	BusNet	-.36429*	.12815	.026	-.6970	-.0315
	PolNet	-.37749*	.13675	.033	-.7332	-.0218
	ManNet	-.81600*	.15766	.000	-1.2292	-.4028
BusNet	SoNet	.36429*	.12815	.026	.0315	.6970
	PolNet	-.01321	.11396	.999	-.3097	.2833
	ManNet	-.45171*	.13836	.009	-.8171	-.0864
PolNet	SoNet	.37749*	.13675	.033	.0218	.7332
	BusNet	.01321	.11396	.999	-.2833	.3097
	ManNet	-.43850*	.14636	.020	-.8241	-.0529
ManNet	SoNet	.81600*	.15766	.000	.4028	1.2292
	BusNet	.45171*	.13836	.009	.0864	.8171
	PolNet	.43850*	.14636	.020	.0529	.8241

*. The mean difference is significant at the 0.05 level.

Source: Field Survey (2022): Dependent variable: Sustainable Growth

Figure 17 shows the final structural model for the study. The model shows the full mediation effect of innovation on the relationship between entrepreneurial networking manifesting network isomorphism and network social capital on sustainable growth. The figure also shows the control effect of network affiliation on sustainable growth. Hence, the final structural model of this study shows that entrepreneurial networking leads to innovation, a requirement for sustainable growth.

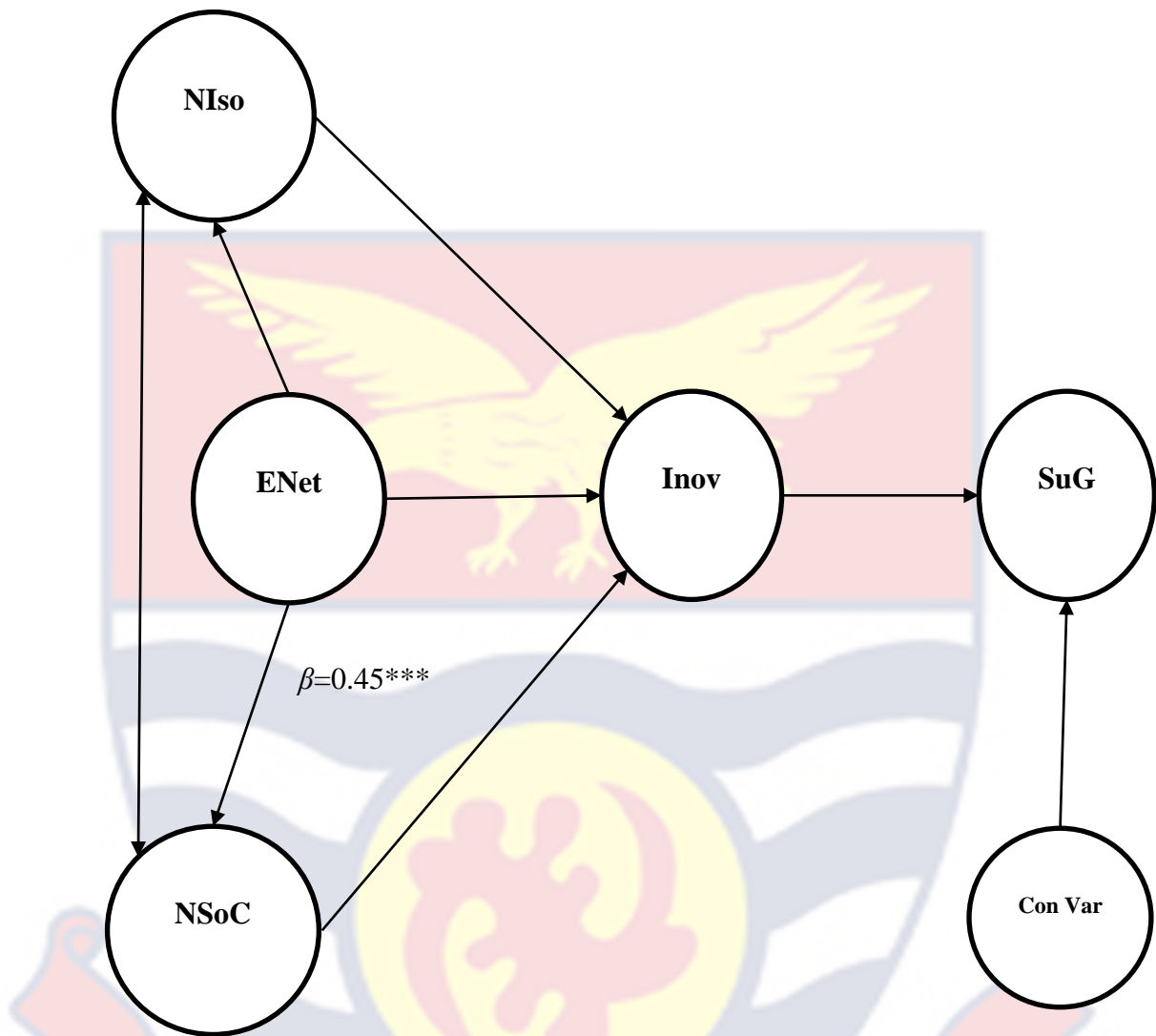


Figure 17: The Effect of Entrepreneurial Networking (ENet) on *Innovation (Inov) and *Sustainable Growth (SuG).

Source: Field Survey (2022)

Summary of Research Hypothesis Results

The next sub-section presents the summary of the statistical and qualitative results. It is important to note that the qualitative data is used to further explain and validate the quantitative results. The result is presented based on the research objectives and main hypotheses.

Research Objective One – Describe the nature of networking among formal small enterprises in Ghana

The descriptive analysis of the result ($\bar{x}=5.29$) shows that small enterprises engage in networking. The result also shows that compared with network isomorphism; small enterprises strongly leverage their entrepreneurial network for social capital. The results also show that majority of the small enterprises engage in business networks (44.5%), followed by social networks, political networks, and managerial networks. The result also shows that majority (39%) of the small enterprises have networked between 11 and 15 years, followed by 6 to 10 years, and more than 21 years.

Research Objective Two – Assess the nature of innovation among formal small enterprises in Ghana

The descriptive analysis, which sets out to address research objective two, strongly ($\bar{x}=5.63$) shows that small enterprises engage in entrepreneurial networking which leads to innovation. The respondents strongly agreed that they innovate. The study also revealed that small enterprises innovate in different strands. For instance, the result shows that small enterprises innovate by adding superior value to their production and delivery processes. The study findings also revealed that small enterprises in a network environment innovate in terms of new technologies, equipment and machinery, unique techniques in promotion and distribution, new markets, processes and products.

Research Objective Three – Assessing the nature of sustainable growth of small enterprises

The objective examined the nature of sustainable growth among the small enterprises who were engaged in the study. The descriptive statistics revealed that the main sustainable growth indicators of formal small enterprises include productivity, followed by sales, number of employees and profitability. Sustainable growth among the survey respondents is predominantly about maintaining stability in the level of productivity ($\bar{x}=6.11$, $SD=0.95$). However, small enterprises are unable to maintain stability in the profitability as shown by the descriptive statistics. ($\bar{x}=5.84$)

Research Objective Four: Assess the effect of network isomorphism on sustainable growth of formal small enterprises in Ghana

The research results in Table 28 show the standardised coefficient value (β estimate) of H_1 is 0.217 ($p<0.01$). The coefficient value implies that the relationship between network isomorphism and sustainable growth is 22 units. The result, therefore, signifies a significant and positive relationship between network isomorphism and the sustainable growth of small enterprises in Ghana. Thus, the hypothesis relationship (H_1) (there is a positive influence of network isomorphism and sustainable growth) is supported and accepted at a 95 per cent confidence level. Research objective three (H_1) examined three dimensions of network isomorphism, and the result shows that normative isomorphism (H_{1b} : $\beta= 0.170^{***}$) and mimetic isomorphism (H_{1c} : $\beta= 0.276$, $p<0.01$) significantly influence sustainable growth.

Hypothesis H_{1a} postulated that coercive isomorphism would positively and significantly relate to the sustainable growth of small enterprises however, the

findings did not support that notion (H_{1a} : $\beta = 0.066$, $p > 0.05$). The summary of the result is displayed in Table 28.

Table 28: The Effect of Network Isomorphism on Sustainable Growth

Hypothesis	Proposed Relationship	Stand. β Est.	P-value	Accepted or rejected
Hypothesis 1:	Effect of Network Isomorphism on Sustainable Growth			
H_1 : NIso \rightarrow SuG	Isomorphic pressures in ENet influence SuG	0.217	***	Accepted
H_{1a} : Coe_Iso \rightarrow SuG	Coercive isomorphism influence SuG	0.066	0.61	Rejected
H_{1b} : Nor_Iso \rightarrow SuG	Normative isomorphism influences SuG	0.170	***	Accepted
H_{1c} : Mem_Iso \rightarrow SuG	Mimetic isomorphism relates to SuG	0.280	***	Accepted

Source: Field Survey (2022):

N=319; β —standardised regression coefficient; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

First, the standardised β estimate for H_{1b} is 0.17. The coefficient value of 0.17 explains 65 units of the relationship between normative isomorphism and sustainable growth. The result also indicates a less strong impact of normative isomorphism on sustainable growth. Thus, hypothesis H_{1b} (Nor_Iso \rightarrow SuG) is supported and accepted at a 95 per cent confidence level. Second, hypothesis H_{1c} proposed a significant influence of mimetic isomorphism on sustainable growth. The recorded coefficient value of 0.28 and the p -value of 0.001 signify that hypothesis H_{1c} (Mem_Iso \rightarrow SuG) is supported and accepted. Thus, compared to mimetic isomorphism, normative isomorphism has a weak significant influence on sustainable growth ($\beta = 0.170$).

Third, the coefficient value of 0.066 and the p -value equal to 0.611 imply a non-significant relationship between coercive isomorphism and sustainable growth. Although not expected, the result indicates that hypothesis

H_{1a} (Coe_Iso → SuG) is not supported. The results for research objective three (H_{1a-c}) suggest that the significant influence of network isomorphism on sustainable growth is due to normative and mimetic isomorphisms within the entrepreneurial networks.

First, the qualitative findings support the quantitative findings that reveal that network isomorphism as normative, mimetic and coercive institutional mechanisms are important networks for small enterprises. In the interview, the four participants explained that their network associations constitute important tacit. Even though the associations are regulatory focussed in helping resource access, the participants suggested that the associations are critical assets that help members (firms) to secure other benefits and the resources they need to operate and grow; the reason they joined the association. For instance, respondents from the forex bureau and hospitality industry said that:

... yes, they [associations] are very important! [...] So, institutions are set to regulate, to promote and to facilitate access to important assets and information, ok. So, but then, because the association is too regulatory focussed. They are too regulatory focussed, in that they do not promote, they do not facilitate. They do but it is too little, Ok. And you know they must also promote and facilitate. They are purely, in terms of do this, and do that. They cage you in some kind of box. [Forx, 1.8.2022; 9.26pm]

The participant from the printing industry also confirmed her participation in network association and expressed her perception about her association. In her account, she said that:

...yes, I belong to the association, and I have companies [members] I engage. Because of the way the association is, I have not attended meetings [in recent times], even printers' association. [...] I am not so much into the association itself because they are rather taking taking from me. They are not ready to also help us unless you do that on your own with the members you know. So, my interest has gone down. For instance, I was even expecting them [the association] [errrm] to help me in the sales of my work; link me up to do that. I ended doing everything on my own. But yes, like for collaboration yes. You cannot do the work alone. You need to collaborate, and I have learnt a lot from the people that I collaborate with ... [Prit, 2.8.2022 10:34].

Another participant from the pharmaceutical industry echoed the facilitatory nature of network institutions. The participant explained that:

... I am part of many associations [GIPC and AGI] in Ghana. I tell you; associations are very important to every business in Ghana and abroad. The only thing is that, in Ghana here, they [associations] exist only as a pool of people but you have to use your technique to get what [resources/benefits] you want ... [Phar.1 14.8.2022].

In the quantitative findings, coercive isomorphism did not significantly relate to sustainable growth. This quantitative evidence finds bases or is supported by the qualitative responses shared by three participants. Three (3) participants' accounts suggest that associations are regulatory in nature which explains the insignificant relationship between coercive isomorphism and business growth and sustainability. Despite the earlier accounts, the

respondents explained that network as assets influence business growth because the resources gained through instituted mechanisms are used in activities that grow the business. The responses suggest that the associations create a resource sharing platform for network members to secure and use the resources they require to attenuate business challenges and enhance growth. For instance, the participants from the financial and hospitality industry said that:

... when you take the forex bureau, [you know] is a regulated institution, ok! And the forex bureaus are regulated institutions; they are regulated by BoG [Bank of Ghana]. So, some of the members, like my companies, for instance, is a member of these associations, but then all the forex bureaus form an association to seek the welfare of its members and also to [errm], as it were, to ensure that all the measures that BoG introduces, all the members comply with in their daily operations.

He added that:

... yes, because, you know, not necessary in daily operations but any time we have a meeting, association meetings, we discuss issues or challenges or benefits that accrue to the hotels. We discuss them and members seems to, you know, benefits from such discussions Ok! If for instance, when a member is having some difficulty and it [he or she] brings it across; it [becomes] a topic of discussion and sometimes I get an answer to my business problems. So yes! members tend to benefit from [you know], the association very much. [Forx, 1.8.2022]

In the quantitative result, the study found significant effect of mimetic isomorphism on sustainable growth. This finding is explained by the qualitative evidence. Regarding mimetic isomorphism as an institutional mechanism for resource access, one of the participant who is into Event planning and organising said that:

...if you take others' materials [light, flowers, chairs] and they help your work, then you also go and buy to help your business. It is not all the time that you have to go and take from others to do your business. You look at it and later go and get the same thing or better one to help your business.

He added that:

... when a friend need information or assistance from me and I don't have or know, I fall on others, that I need this and that for my job so that I can help that a partner who is in need. Through that, I also learn from whatever information or new design I see. So, these things [knowledge exchange] have been very useful to me. [Events, 1.8.2022]

Another participant said that:

... not like it [industry] used to be. [...]. Competition is tough these days because many companies [pharmaceuticals] have come into the system. [...]. I do not repeat [replicate] products that are already on the market. I ask my scientists to use it [existing] product as basis to come up with something different and better. [...]. So, information is key, but no one is willing to give you what they are using even though we are in the same association. So, you pick the pieces of information and research more to come up with what you want to do.

He added that:

... of course, most of the time is because of the association I get to meet people who will give you ideas about what you intend to do.

[Phar.1 14.8.2022]

Research Objective Five – Examine the linkage between network social capital and sustainable growth of formal small enterprises in Ghana

The result in Table 29 shows a positive and significant relationship between network social capital and sustainable growth ($H_2: \beta = 0.526, p \leq 0.01$), thus confirming the research hypothesis H_2 . The coefficient value (0.53***) signifies that the hypothesised association between network social capital and sustainable growth is substantial. Thus, hypothesis H_2 (NSoC \rightarrow SuG) is supported and accepted at a 95% per cent confidence level. It is worth noting that research objective two (H_{2a-c}) examined three dimensions of network social capital, and the results show that network relation and network structure significantly drive sustainable growth.

First, network relation ($H_{2a}: \text{SoC_rel} \rightarrow \text{SuG}$) recorded a positive coefficient value of 0.116 at a 0.003 significance level. The coefficient value implies that the network relation explains 12 units of sustainable growth of small enterprises. Thus, network relations and sustainable growth have a relatively weak positive but significant relationship. The results support hypothesis H_{2a} ($\text{SoC_rel} \rightarrow \text{SuG}$) at a 95 per cent confidence level. Table 29 shows the uni-dimensional and multi-dimensional effect of network social capital on the sustainable growth of small enterprises who participated in the survey.

Table 29: The Effect of Network Social Capital on Sustainable Growth

Hypothesis	Proposed Relationship	Stand β Est.	P- value	Accepted or rejected
Hypothesis 2: Effect of Network Social Capital on Sustainable Growth				
H ₂ : NSoC → SuG	Social capital arising from networking influence SuG.	0.526	***	Accepted
H _{2a} : SoC_rel → SuG	Network relation influence SuG.	0.116	0.003	Accepted
H _{2b} : SoC_cog → SuG	Network cognition influence SuG	0.088	0.147	Rejected
H _{2c} : SoC_str → SuG	Network structure relates to SuG	0.287	***	Accepted

Source: Field Survey (2022)

Secondly, the H_{1c} (SoC_str → SuG) recorded a standardised β estimate of 0.289, implying a strong, significant, and positive effect of network structure on sustainable growth. The β estimate of 0.289 suggests that the strength of the relationship between network structure and sustainable growth is 29 units. The p-value of 0.001 also signals that H_{2c} (SoC_str → SuG) is supported and accepted at a 95 per cent significance level. Thirdly, H_{2b} recorded a β estimate of 0.088 and a p-value of 0.147. The result shows an insignificant relationship between network cognition and the sustainable growth of small enterprises. Thus, hypothesis H_{2b} (SoC_cog → SuG) is rejected. Accordingly, the findings from research objective four (4) suggest that the network structure and network relations are social capital (tacit) assets that drive growth and sustainability of small enterprises in Ghana.

The qualitative responses show linkage regarding the significant effect of social capital on sustainable growth. For instance, in the qualitative interview, three (3) participants' accounts suggest that social capital is an asset which facilitates access to other important resources. Their account emphasised that trust and close relations are two interconnected tacit assets for networked companies to share or access the resources they require to operate, grow and sustain their businesses. For instance, a participant said that:

... yeah! Yeah! Trust is very important; it is! So, when we all come together, we all have a common intent, ok? So, people feel free to, [you know], speak their mind to issues that are brought for discussions. So, the question of trust is there ... [Forx, 1.8.2022]

Another participant in the printing industry explained that:

... yes, they are. [...]. So, when it comes to trust and business, it very difficult if the person is not a close partner and you're crediting to them. If you are not that harsh and that aggressive, it is difficult to use it (trust) to your [business] advantage. [...]. If it is hard for them to understand you and your mode of payment and other things. Is a rapport you have to build over time. I have worked with Indians, Malaysians and Ghanaians [...]. For instance, if I make purchases and need a top-up, they give it to me on credit. That is how I have built that rapport, or if I tell them I do not have the money now, they know within some shortest possible time I will be able to pay.

She added that:

... like I said ..., I am very close to them, and luckily for me, we even worship in the same congregation, and we do talk, sometimes

at length. [...]. When there is trust, it brings [errrm] repetition in business. It builds the company and the company's sustainability as well but [hmmm]. [Prit, 2.8.2022]

In the event planning and organising industry, the participant said that:

... in this job [event planning and organising], it is seasonal, you can get two, three or four jobs in a day. You alone cannot do it. So, if you get somebody that you trust and is a professional like me, then as a member close to me, I engage you to do the work that my time will not allow me.

He added that:

... we are very close. We call ourselves to chat on even personal problems if you feel that person can help solve the problem [yes, yes]. For the two companies that are very close to me, it is easy to exchange the things [resources] that we use for our job. But for the rest, it is not easy for me to give you my things to organise your events. Some of the companies, they will rent it because we are in the business, but for the companies that are close to me, I give those things [flower or light] for them to execute their jobs because they are very close to me, and I also take it easy when I need them to do my job.

..., Yes, the whole work is about trust and who is closer to you [...] it is about whom you trust and who also trusts you, and we are moving. Before you go and do the job, you meet the person and explain that this is what I need, so if the trust is not there, there will be a disappointment. [Events, 1.8.2022].

The participants' account suggests the importance of trust and relations as facilitatory tacit assets for companies within a network. The account further suggests that social capital is less costly to leverage to gain other resources.

For instance, a participant said that:

... When they [partners] come for my expertise or information on certain things, I do not charge them because I know them. I never charged anyone! [Prit, 2.8.2022].

The quantitative statistical results show an insignificant relationship between network cognition and sustainable growth. The qualitative account of the participants explains that there are differences between the values and expectations of members, which affect resource exchange, access, business growth and sustainability. For instance, a participant narrated that:

... my interest in ushering into it (association); their interest was different. Initially, what they (the association) talked about was not what they did for me [...]. Like I said, after my first interaction with some of the members, they were like you can be of help; people were always chasing me for help. So, this really dampened my spirit in associating with most of them. If you do not give, but you are always receiving, hmmm. [Prit, 2.8.2022]

Research Objective Six – Examine the mediating effect of innovation in the relationship between entrepreneurial networking and sustainable growth of formal small enterprises in Ghana

This sub-section is presented based on the three path analyses conducted for the purposes of assessing the mediating effect of innovation in the relationship between entrepreneurial networking and sustainable growth.

First, the result (see Table 30) shows a positive and significant relationship between entrepreneurial networking and sustainable growth of small enterprises. Entrepreneurial networking is reflected by network isomorphism and network social capital. The β estimate recorded in the path analysis is 0.82, indicating that the strength of the relationship between entrepreneurial networking and sustainable growth is 82 units, at a 95 per cent confidence level.

Furthermore, the two dimensions of entrepreneurial networking, including network isomorphism and network social capital, have direct and positive significant effect on sustainable growth. The p -value of 0.001 denotes the high significance level of the relationship between entrepreneurial networking (network isomorphism and network social capital) and sustainable growth. Thus, the result suggests a significant effect of a hybrid impact of network isomorphism and network social capital as tacit resources on the sustainable growth of small companies in Ghana.

The quantitative evidence on the relationship between networking and sustainable growth is confirmed by some qualitative responses from some participants during the interview. In the qualitative responses, three participants' responses were found to be highly related to the quantitative evidence. The responses suggest that the resources they gain from participation in the associations are not only tacit (e.g., knowledge and information) but include loans, machinery and materials that support business operations and growth activities. For instance, a respondent said that:

... not necessarily tacit, but yeah, it could be one of them when you talk about tacit. Sometimes there are benefits like facility (loans),

facilitating and taking loans, you know, and not necessarily knowledge [ahaaa]. [Forx, 1.8.2022]

In the event planning and organising industry, the participant explained that:

... yes! Yes! Even when something comes up that will help our job, sometimes a colleague will say that I have seen something like decoration style or design on the internet that will help our job so let go or buy I have bought you can also go and buy. Sometimes when I get specific colour designs and deco requests that I do not have items, I contact others and go for them to do my job. Anytime others also need my items; they come for them. [Event, 1.8.2022]

To further validate the quantitative result, the interview participants further explained that the resources arising from networking are used to enhance the growth and sustainability of their business. The participant said that:

... yes! not necessarily daily, but anytime ... [Forx, 1.8.2022]

He added that:

... absolutely, it is [errr], you see, when we come together [you know] and if a member has a limitation or challenge, we all try to find solutions to it. [errrm], sometimes, again, this regulatory thing I am talking about, we all come together; for instance, if you take the forex bureaus [errrm], there is a case in hand where we are being forced to verify the Ghana Card. Now a law has been passed that every transaction, you must use a Ghana Card, and it must be verified, which requires that you have to buy a verification device. And apart from that, in every transaction, there is going to be a fee or a charge.

So, we came together as an association, wracked our brains and discussed these issues very well and found out that, look, this is not going to

help us in our long-term business profit. We are working on it. So, this could not have been done by one person or company. However, when we all pulled our knowledge together and we said no. So, these are the kinds of benefits of that association. [Forx, 1.8.2022].

Another respondent added that:

... yes, I use them [the knowledge and other resources] in my work. I receive information and other tangible resources from business partners. Sometimes, when you are on the field working, and you need information, you can call your people. Even other members call to take flowers, lights and chairs to help them meet customers' style [decoration] [Event, 1.8.2022]

Another respondent added that:

Yes [networking is important], ... It got to a time that, really, they [members] were rather coming to me for a lot of like machinery, for instance, I had the contact there in Europe and UK that I was bringing in the machines and other things, and they (association members) will come pleading that we need to help them (members) and give them machines to work ... [Prit, 2.8.2022]

The respondents' account suggests that networking is relevant in facilitating access to a pool of resources that companies require to enhance their operation, growth and sustainability. The results also suggest that although networking is a tacit asset, it facilitates access to other tacit resources (knowledge, information and technology) and tangible resources such as machinery, material and loans (cash).

Second, the research examined the effect on entrepreneurial networking (network isomorphism and social capital) on innovation of small

enterprises. The result ($\beta=0.409$, $p\leq 0.01$) suggests a significant effect of entrepreneurial networking on innovation. Furthermore, the study revealed that the two components of entrepreneurial networking, namely, network isomorphism ($\beta=0.318^{***}$) and network social capital ($\beta=0.244$) have significant effect on innovation. Thus, network isomorphism and social capital influence the potential of innovations of small firms.

The quantitative result on the mediating effect of innovation in the relationship between entrepreneurial networking and sustainable growth was also validated by the qualitative responses. For instance, four (4) participants explained that resources from networking activities are unique, and have bearing on innovations in process, products, and operation, which lead to business growth and sustainability. The participants said that:

... yes! the designs and knowledge I receive are unique and important. They bring growth in my business. Especially, that particular job [decoration] you're going to do, if you don't get that particular colour or design that you don't have, you cannot do that job and the customers will go away with your sales. For instance, we went to do a job at Golden Bee, the way we did the backstage, if we had not called another deco [decoration] firm, we wouldn't have been able to do it. By God's grace we were able to execute the job nice nice.”
[Event, 1.8.2022]

Another participant explained that:

... I do not repeat [replicate] products that are already on the market. I ask my scientists to use it [existing] product as basis to come up with something different and better]. [...]. [Phar.1 14.8.2022]

In the print industry, the participants explained that:

... the innovation is internal, mostly, you have to create yourself. For my linkages and affiliations, fine, from other colleagues who are into it and sometimes you need to share what you know with others..., when you're up to the peak and you don't know where to turn up to. [Prit, 1.8.2022]

The participants from the forex bureau and hospitality industry added that:

..., ohh yes!! [Forx, 1.8.2022]

Third, the research further examined the subsequent effect of innovation on sustainable growth. The result indicates a significant effect of innovation on sustainable growth ($\beta = 0.161^{***}$). The result implies that innovation fully mediates the relationship between entrepreneurial networking and sustainable growth. The result revealed that entrepreneurial networking improves innovation ($\beta = 0.385 \rightarrow 0.404$), which (innovation) has a marginal improvement on the sustainable growth ($\beta = 0.121 \rightarrow 0.161$), suggesting a full mediation. Thus, hypothesis H_3 is accepted and supported, indicating a full mediating effect of innovation in the relationship between entrepreneurial networking and sustainable growth of small enterprises in entrepreneurial networks. Accordingly, innovation is required in entrepreneurial networking to achieve sustainable growth.

Regarding the components of entrepreneurial networking, first, the research results suggest that innovation fully mediates the relationship between network isomorphism and sustainable growth (H_{3a} : $N_{Iso} \rightarrow Innov \rightarrow SuG$). A test for full mediation showed that the relationship between innovation and sustainable growth improved (from $\beta = 0.116 \rightarrow \beta = 0.193$,

$p \leq 0.01$) after introducing the mediator (innovation), confirming a full mediation. The evidence supports hypothesis H_{3a} that innovation fully mediates NISO and SuG. Second, the result suggests that innovation fully mediates the relationship between network social capital and sustainable growth (H_{3b} : NSoC \rightarrow Innov \rightarrow SuG).

A test for full mediation showed that network social capital leads to higher innovation of small firms (from $\beta=0.23 \rightarrow 0.24$), which also improved SuG (from $\beta=0.15 \rightarrow 0.193$, $p \leq 0.01$), suggesting complete mediation. The evidence supports hypothesis H_{3b} that innovation fully mediates NSoC and SuG. The test result signifies the importance of innovation for small enterprises in entrepreneurial networks to leverage social capital to achieve sustainable growth. The quantitative result confirms the qualitative findings to the effect that networking is important for small enterprises to gain resources to undertake innovations which help in achieving sustainable growth.

In the qualitative interview, the respondents explained that the unique resources and innovations arising from networking influence business growth and sustainability. This suggestion validates the quantitative results on the significant effect of entrepreneurial networking on innovation, leading to sustainable growth. The respondents said that:

... yes! the designs and knowledge I receive are unique and important. They bring growth in my business. Especially, that particular job [decoration] you're going to do, if you don't get that particular colour or design that you don't have, you cannot do that job and your customers will go away with your sales. Sometimes if you don't share that information, you cannot do it. For instance, we went to

do a job at Golden Bee, the way we did the backstage, if we had not called another deco firm, we wouldn't have been able to do it. By God's grace we were able to execute the job nice. [Forx, 1.8.2022]

The participant further added that:

...if you take others' materials [light, flowers, chairs] and they help your work, then you also go and buy to help your business. It is not all the time that you have to go and take from others to do your business.

He added that:

..., when partners have a job and cannot do it, I go in to do it because of the unique designs that I have acquired. ... It brings in Cash. Even I negotiate with partners to bring in all the workers for me to executive my task which increasing my sales and profit to my business... for instance, a job that can take three days is executed in just a day or two ... [Event, 1.8.2022]

Research Objective Seven – Examine the effect of network affiliation on sustainable growth of formal small enterprises in Ghana

The study found a significant positive effect of network affiliations on the growth of small enterprises ($\beta=0.139$, $p\leq 0.001$), confirming research H₄. The result revealed that there are no differences in the implications of social, political and business networks. The study, however, found the implication of managerial networks distinct from business, political, and social networks. The result suggests how small enterprises perceive and leverage social, business, and political networks as one strategic network approach. Finally,

the result suggests that entrepreneurs decouple managerial networks leverage strategies from political, social and business networks.

In effect, this research examined the effect of entrepreneurial networking (NIso and NSC) on sustainable growth and the mediating effect of innovation in the relationship. Four main hypotheses (eight sub-hypotheses) were proposed, and the result confirms that network isomorphism (normative and mimetic) and network social capital (network structure and relation) have a significant and positive influence on the sustainable growth of small enterprises. Thus, hypotheses H1(b), H1(c), H2(a), H2(c) and H3 were supported and accepted, while H1(a) and H2(b) were rejected.

Regarding the mediation effect of innovation, the result shows that innovation fully mediates ENet and SuG; NIso and SuG; and NSoC and SuG. Accordingly, Hypothesis H3, H3(a) and 3(b) and H4 are supported and accepted. The result further shows that, compared to network isomorphism ($\beta=0.217^{***}$), network social Capital ($\beta= 0.526, p\leq 0.01$) has a more significant effect on sustainable growth. Again, compared to the individual effect, the β estimate of 0.822 (ENet \rightarrow SuG) indicates that the integration of NIso and NSoC has a more significant effect on sustainable growth.

The summary of the statistical result is displayed in Table 30. The table shows the result for the direct, partial and full mediation effect of innovation in the relationship between entrepreneurial networking: network isomorphism and social capital and sustainable growth. The table also show the effect of network affiliation on sustainable growth. The detail of the table shows result of each hypothesis, the standardised coefficients, the significant levels, and whether a proposed hypothesis is either accepted or rejected.

Table 30: The Mediating Effect of Innovation in Entrepreneurial Networking and Sustainable Growth

Hypothesis	Proposed Relationship	Stand. β estimate	P-value	Accepted or rejected
Hypothesis: H _{3a}	Mediation Effect of Innovation in Network Isomorphism on SuG			
Model 1A: Baseline Rel.	NIso \rightarrow SuG Isomorphism leads to SuG	0.198	***	
Model 1B: Partial Path Rel.	NIso \rightarrow Inov \rightarrow SuG ($\beta=0.316^{***}$) ($\beta=0.116^{***}$) Innovation mediates NIso and SuG	0.316; 0.116	***	
Model 1C: Full Path Rel.	NIso \rightarrow SuG ($\beta=0.145^{***}$) NIso influences SuG with Inov	0.145	***	Partial
	NIso \rightarrow Inov \rightarrow SuG ($\beta=0.318^{***}$) ($\beta=0.193^{***}$) NIso influences SuG after control	0.318; 0.193	***	Full
Hypothesis: H _{3b}	Mediation Effect of Innovation in Network Social Capital on SuG			
Model 2A: Baseline Rel.	NSoC \rightarrow SuG Social capital in ENet influences SuG	0.72	***	
Model 2B: Partial Path Rel.	NSoC \rightarrow Inov \rightarrow SuG ($\beta=0.23;0.04$) ($\beta=0.15^{***}$) Innovation mediates NSoC and SuG	0.23; 0.150	***	
Model 2C: Full Path Rel.	NSoC \rightarrow SuG ($\beta=0.68^{***}$) NSoC influences SuG with Inov	0.68	***	Partial
	NSoC \rightarrow Inov \rightarrow SuG ($\beta=0.24;0.05$) ($\beta=0.19^{***}$) NSoC's effect on SuG after control	0.24; 0.19	***	Full
Hypothesis H ₃				
Model 3A: Baseline Rel.	ENet \rightarrow SuG ENet influences SuG	0.82	***	
Model 3B: Partial Path Rel.	ENet \rightarrow Inov \rightarrow SuG ($\beta=0.385^{***}$) ($\beta=0.121^{***}$) Innovation mediates ENet and SuG	0.385; 0.121	***	
Model 3C: Full Path Rel.	ENet \rightarrow SuG ($\beta=0.78^{***}$) Influence of ENet on SuG after Inov	0.776	***	Partial
Control	ENet \rightarrow Inov \rightarrow SuG ($\beta=0.404^{***}$) ($\beta=0.161^{***}$) ENet influences SuG after control	0.404; 0.161	***	Full
	Control effect of	0.139	***	Accepted

N=319

 β —standardised regression coefficient Source: *p< 0.05; **p< 0.01; ***p< 0.001. Field Survey (2022)

Discussions

The study used the institutional theory, network theory of social capital and the diffusion of innovation theory to develop a framework. The conceptual framework proposed to examine the effect of entrepreneurial networking, network isomorphism and network social capital on innovation and sustainable growth. The discussion of the research findings is presented based on the objectives and the accompanying hypotheses proposed in the Chapter one of this research.

Research Objective One–Nature of Networking among Small Enterprises

There are several networks available to businesses. The current study found that business network is the common network among small enterprises. The findings align with literature arguing that small businesses create and participate in business network, followed by social and political networks. For instance, the finding is consistent with Jeong et al. (2019) that manufacturing small and medium enterprises in South Korea participate in business and social networks. The findings further clarify the view by Sanchez-famoso *et al.* (2019) that empirical evidence on the types of network business engages in is inconclusive and inconsistent.

The findings extend the work by Acheampong *et al.* (2017) on the network types among SMEs in Ghana. The current study found that managerial network is the least common network among small business. This finding partially supports the work by Sefiani *et al.* (2018) that businesses have options to choose either business, political, social, and managerial networks.

Research Objective Two–Level of Innovation among of Small Enterprises

Innovation is critical for survival, growth and sustainability of small establishments (Mahmoud *et al.*, 2018). This finding validates the open innovation theory that inflow and outflow of ideas facilitate innovation (Chesbrough *et al.*, 2006). The findings validate Saridakis Idris *et al.* (2019) who used the diffusion of innovation theory to establish that flow and diffusion of valuable knowledge into business activities has the potential for innovation. There are several types of innovations and the current study revealed that small enterprises innovate by adding value to production and delivery, new technologies, marketing, market, product and processes. Beltramino *et al.* (2020) revealed that small enterprises innovate in processes and products which are significant to firm performance. The study findings support evidence in the literature that small firms innovate in new processes, marketing, organisational structures and product (Mabenge *et al.*, 2020).

Research Objective Three – Nature of Sustainable Growth

Growth and sustainability are the ultimate aim of every organisation: small, medium or large (Islam & Wahab, 2020; Memon *et al.*, 2020). The RBT emphasise that firms achieve superior growth with resources which gives unique advantage (Barney, 1991). Findings from the study indicate that access to resources from entrepreneurial networks support small enterprises to achieve productivity, sales, increase number of employees and profitability. These findings support Memon *et al.* (2020). While the current study reveals profitability as the least dimension of sustainable growth, the findings does not support Stancu *et al.*, (2015) that profitability is prioritised in the literature as the growth indicators of a business.

Research Objective Four (H₁) – Effect of Network Isomorphism on Sustainable Growth

The research found a significant influence of network isomorphism on the sustainable growth of small enterprises in entrepreneurial networks. The finding demonstrates a high tendency that isomorphism, manifesting coercive, normative, and mimicking facilitate access to and transformation of external resources, ideas and practices into sustainable growth. Thus, the proposition put forward under research hypothesis one holds. Specifically, the findings revealed that normative and mimetic influences are the tacit assets in entrepreneurial networks that facilitate access to resources for small enterprises to achieve sustainable growth. The findings align with conceptual, theoretical, and empirical literature in entrepreneurship and networking.

Entrepreneurship and networks literature highlights that embedded resources are limited, thus entrepreneurs must leverage institutionalised mechanisms to access and transform external resources to support business operation and growth (Sefiani *et al.*, 2018; Mabenge *et al.*, 2020). For example, conceptual literature (Zhao & Peng, 2018) reviewed in the earlier chapters of this research proposes a linear relationship between institutional influence and enterprise performance. The conceptual evidence in the literature suggests that isomorphism exert pressures on partners to emulate, replicate and implement specific ideas and adopt approved technologies, practices, and standards which support business activities and growth (Easmon *et al.*, 2019; Habersetzer *et al.*, 2019; Ouyang *et al.*, 2020).

Thus, partners that oblige and conform to the institutionalised standards gain acceptance and legitimacy, facilitating access to resources owned by partners to support operations and performance (Munir & Baird, 2016). The findings also affirm conceptual evidence that firms that mimic best ideas and practices over time become homogenous in structure, practice, and strategy, making it easy to access resources and implement ideas to support enterprise operations (Joo *et al.*, 2017; Zhao & Peng, 2018; Aksom & Tymchenko, 2020; Cajaiba-Santana *et al.*, 2020).

The findings give credence to few empirical studies that found evidence that advisory services for institutional partners, partners' obligation to conform to standard practices, implement and mimic ideas in a long-term relationship enhance enterprise performance (Torkkeli *et al.*, 2018). The result validates literature, revealing that institutional pressure influences organisations in the same industry to adopt similar technologies to achieve organisational success (Anthony Jnr., 2021). Other scholars have revealed that institutional pressure plays a significant role in developing and sharing the knowledge of partners to achieve higher organisational performance (Ahmed *et al.*, 2019; Ouyang *et al.*, 2020). The thesis results validate, support, and extend these existing studies that focus on institutional influence or resource access, idea implementation, and firm success.

The hypothesised relationship finds a theoretical ground in the tenet of institutional theory, which assumes that enterprises operate in an environment where formal structures and norms facilitate, regulate and promote access to resources (DiMaggio & Powell, 1983; Scott, 1995; Anthony Jnr., 2021). Again, the find is consistent with the institutional theory, which averred that

institutions exert pressures that shape the nature, behaviour, and governance of partners in the environment (Ouyang *et al.*, 2020; Ranabahu *et al.*, 2020).

Scholars have applied the institutional theory and highlighted that institutional pressures compel, encourage, and allow industry partners to emulate, replicate and implement best technologies of others, and oblige to formal and informal standard practices to improve their business strategy, operations, and performance (Depoers & Jérôme, 2019; Habersetzer *et al.*, 2019).

Similarly, the institutional theory supports the research findings because GEA and AGI (current research context) are institutions with standard practices that share valuable contacts and information for members to improve resource access for company operations, thereby achieving higher performance. The institutions also encourage members to share resources and leverage opportunities within the association to grow. The strategic roles of the two associations align with the institutional theory premised on the assumption of social acceptability, where institutions are embedded with shared norms and obligations that influence the decisions of partners.

Despite the importance of institutional theory in the literature, very little is known about the theory in entrepreneurship research involving a network of small enterprises and how they could leverage institutions as entrepreneurial resources to sustain growth. Hence, this research has employed institutional theory to establish the importance of institutional influence as a leverage mechanism for small enterprises to achieve growth and sustainability.

Hypothesis 1(b) – Normative isomorphism in entrepreneurial networks has a positive influence on sustainable growth

The research result of hypothesis 1(b) shows a significant positive relationship between normative isomorphism and sustainable growth of small enterprises. The finding highlights that small enterprises which oblige to the mission, and explicit policies to exchange valuable resources, business contacts, and market information with network partners are likely to sustain growth. Besides, contacts and information are tacit resources, while policies ensure that members exchange (access) resources needed to complement limited internal resources for expansion and long-term growth operations.

Conceptual evidence in the literature shows that enterprises that oblige to the norms gain legitimacy and acceptance to access the needed resource, while implementing the standard practices, decisions and ideas could influence firm operations and performance (Anthony Jnr. *et al.*, 2019; Anthony Jnr., 2021). Other views in the literature suggest that firms in the same environment that want to grow are more likely to copy and implement specific ideas, technologies, and actions that have been legitimised as the norm, right and only way of practice (Cajaiba-Santana *et al.*, 2020; Ahmed *et al.*, 2019).

The empirical literature on isomorphism used the assumption of the Institutional Theory to show that firms that comply with standards, policies, and missions to implement best practices, actions, and novel ideas achieve growth (Torkkeli *et al.*, 2018; Xie *et al.*, 2020). The research corroborates the studies by Munir and Baird (2016), Torkkeli *et al.* (2018) and Zhao and Peng (2018), who revealed that normative influence facilitates resource sharing and adoption of certain practices which influence the performance of an enterprise.

Hypothesis 1(c) – Mimetic isomorphism positively influence sustainable growth of small enterprises

Research hypothesis (1c) confirmed that mimetic isomorphism has a positive and direct significant influence on the sustainable growth of small enterprises in entrepreneurial networks. The findings suggest that networked enterprises that emulate and replicate others' novel ideas, best practices, and technologies could achieve sustainable growth. The findings further suggest that networked enterprises that mimic others gain legitimacy and acceptance, which facilitate access to resources needed from partners to enhance operations, growth, and sustainability.

Additionally, the findings reveal that influential network partners and administrators who supervise and encourage enterprises to share valuable trade/market information and technologies enhance mutual growth and sustainability in the network. The finding is reasonably consistent with conceptual, empirical and theoretical perspectives in the entrepreneurship and networking literature (DiMaggio & Powell, 1983; Ouyang *et al.*, 2020; Cajaiba-Santana *et al.*, 2020; Anthony Jnr., 2021).

The findings give credence to conceptual views (Ouyang *et al.*, 2020) that highlight that mimicking pressures influence enterprises in the same environment to imitate, emulate and replicate best practices and ideas of other firms. The research findings validate Cajaiba-Santana *et al.* (2020), who assert that networked enterprises would mimic peers, such as the established companies, to gain legitimacy and acceptance to reduce risks of failure and resolve growth constraints. The research finding is not different from Anthony Jnr. (2021), who asserts that a company is likely to copy, implement ideas and

technologies that others have adopted, benchmarked, used and succeeded in (Jan *et al.*, 2012; Anthony Jnr, 2020).

The current findings also corroborate Hanson's (2001) and Bokolo Jnr *et al.*'s (2020) that mimicking behaviour promotes cross-fertilisation of ideas and resource exchange, creating stability in enterprise performance. Other studies (Joo *et al.*, 2017; Munir & Baird, 2016) offer an empirical basis for the current research findings. These studies revealed that mimicking successful enterprises, practices, standards, and technologies reduces the risk of demise and enhance performance. They also revealed that mimicking large and successful companies facilitates easy access to valuable resources because of the legitimacy, and prestige associated with large and successful enterprises.

The findings also support the finding of Anthony Jnr. (2021) that imitating and replicating established organisations that have successfully implemented certain technologies improves one's performance. Thus, the result by Anthony Jnr. (2021) and others (Ouyang *et al.*, 2020; Cajaiba-Santana *et al.*, 2020) give reasonably common empirical validity to the current research findings.

The institutional theory supports the research findings because institutions are humanly induced constraints that influence heterogeneous enterprises to become homogenous in practices, standards, and strategies (North, 1990; Barney, 2018). Thus, homogeneity, which breeds similarity and compliance among enterprises, leads to reward and influences firms to mimic, adapt, replicate and implement practices of others in the environment (Ranabahu *et al.*, 2020). Implementation of practices, which Zucker (1987) referred to as institutional mimicry, help enterprises in a highly competitive environment to resolve their resource constraint (DiMaggio & Powell, 1983).

Hypothesis 1(a) – Coercive isomorphism in entrepreneurial networks has a positive influence on sustainable growth

The current investigation revealed an insignificant relationship between coercive network isomorphism and sustainable growth of small enterprises in entrepreneurial networks. The finding highlights that the obligation of a networked enterprise to exchange resources or participate in business training programmes does not enhance growth. Also, the tendency of large and influential companies to compel or regulate smaller enterprises or partners to share or implement certain practices does not have any influence on enterprise growth.

Literature (Munir & Baird, 2016; Ranabahu *et al.*, 2020; Anthony Jnr., 2019) reports that larger and influential firms and industries regulate smaller and weaker enterprises to make certain decisions. Reasoning from the findings suggests that smaller firms in a network may oblige to share resources because they want to avoid sanctions, fines, or potential costs from the network institution. However, these smaller enterprises or even large companies with resource ownership authority may not exchange some specific resources to help others outcompete them (Esmaeili & Zeephongsekul, 2010). Given Cajaiba-Santana *et al.*'s (2020) view, it is worth noting that coercive influence does not constitute a leverage mechanism for small firms to enhance growth.

The finds from the research are empirically consistent with Suseno and Rowley (2018), who revealed that regulation and constant obligation reduce innovativeness. However, the finding does not support some empirical literature (Jnr, 2020; Jr *et al.*, 2020; Ouyang *et al.*, 2020; Anthony Jnr., 2021). For instance, Anthony Jnr (2021), Jnr *et al.* (2020), and Ouyang *et al.* (2020)

used the institutional theory in their research and found that coercive influence drives information technology adoption, leading to organisational success.

Thus, the findings do not support studies that show that pressure or regulation compels an enterprise to implement practices and technologies positively relate to enterprise performance (Jan *et al.*, 2012; Ranabahu *et al.*, 2020; Jnr., 2020). Theoretical studies show that coercive force exerts a dominant role on enterprises in an environment to implement institutional practices (Scott, 1995; Bruton *et al.*, 2010; Torkkeli *et al.*, 2018). Similarly, Habersetzer *et al.* (2019) and Munir and Baird (2016) confirmed that formal and informal regulatory forces drive networked enterprises to adopt operational practices and technologies, leading to business success. In a qualitative study, Nolan and Garavan (2019) found that coercive external networks help smaller enterprises to mobilise resources. While IT provides theoretical insights into the benefits of coercive influence, the current research, unfortunately, shows otherwise.

Research Objective Five (H₂) – Effect of Network Social Capital on Sustainable Growth

The thesis found a significant influence of network social capital on the sustainable growth of small enterprises in entrepreneurial networks. The findings show that social capital, manifesting relations, structure, and cognition, support small enterprises to achieve sustainable growth. Specifically, the findings establish that trustful linkage and reciprocate exchange constitute tacit assets that facilitate access to resources for sustainable enterprise growth. Thus, enterprises that create and participate in heterogeneous and close linkages underpinned by shared goals and trust have

a higher propensity to achieve sustainable growth through resource sharing and access. The research finding has conceptual, empirical, and theoretical basis in the literature.

Conceptual literature report that social capital is a tacit asset that has the potential to directly influence the performance of an enterprise (Rastrollo-Horrillo & Rivero Díaz, 2019). The literature highlights that social capital has gained prominence as a pool of facilitatory assets due to its efficacy in remedying a significant problem of limited access to resources which negatively affects enterprise performance (Lundberg, 2019). The study confirms scholarly views that social capital facilitates access to resources and information that enterprises need to undertake entrepreneurial activities and achieve success (Acheampong & Hinson, 2019; Ceptureanu *et al.*, 2020).

Furthermore, according to Lee *et al.* (2019), purposeful and trustful linkages among firms in an environment significantly support growth. The finding is not also different from other views that social capital increases performance depending on the quality and depth of ties and interaction (Thrassou *et al.*, 2020) and the linkage among partners (Quartey *et al.*, 2017).

The empirical literature has revealed a significant influence of social capital on enterprise performance (Maina *et al.*, 2016; Kim & Shim, 2018; Ganguly *et al.*, 2019; Boohene *et al.*, 2019). The study finding is within Damoah's (2018) empirical findings, which revealed a significant influence of social capital on small enterprise growth. The finding is also not different from other studies (Boso *et al.*, 2013; Camps & Marques, 2014; Maina *et al.*, 2016; Sefiani *et al.*, 2017). For instance, Camps and Marques (2014) and Han *et al.* (2020) confirmed that social capital, particularly the relationship strength, has

a direct and significant influence on knowledge exchange, which directly supports enterprises to improve operation and performance.

The current research also gives credence to Habersetzer *et al.* (2019) that industrial firms in Switzerland achieve significant growth from social capital as a strategic asset. The evidence in the empirical literature supports the current research that network structure, including the strength of ties and heterogeneity of members, enhances access to novel resources for the operations, growth, and sustainability of network members.

The network theory of social capital on which the research objective two is anchored supports the current finding in Hypothesis (H₂). As discussed in the theoretical review, the NTSC signifies that network is embedded resources that enterprises in the environment leverage to achieve competitive advantage. The frame of the theory highlights network structure, relation, and cognition as facilitating assets used to access and leverage networks.

Some studies (Nyuur *et al.*, 2018; Ganguly *et al.*, 2019; Kim, 2019; Weerakoon *et al.*, 2020) have used network theories to establish that networked enterprises are likely to leverage the embedded tacit assets to achieve positive business outcome due to desire to engage in trustful linkages of sharing resources with others in need. In essence, the current study's findings collaborate the literature to establish that the social capital embedded tacit assets present opportunities for enterprises in an entrepreneurial network to easily leverage the trustful linkages to access the needed resources to enhance business growth.

Hypothesis 2 (a) – Network relation among small enterprises has significant positive influence on sustainable growth of small enterprises

The research confirmed a significant influence of network relations on the sustainable growth of small enterprises in entrepreneurial networks. The finding establishes that trust, reciprocity, and integrity are quality relational tacit assets that facilitate access to resources, technologies, ideas, and trade information required to achieve growth and sustainability. Thus, trustful and reciprocate engagements underpinned by integrity constitute a pool of tacit resources that small enterprises in a network need to facilitate access to valuable resources and information required to enhance growth. These current research findings align with the assumption of the NTSC, which emphasises relations as an essential component of social capital for network actors to achieve collective goals (Lin, 1999; Nahapiet & Ghoshal, 1998).

The findings agree with some conceptual views in the literature. For instance, conceptual literature on social capital highlights that trustworthiness, which is built on constant engagement, encourages resources owners to share and access resources from others for mutual gains (Lohe & Calabro, 2017; Hughes *et al.*, 2018; Kim & Shim, 2018). According to Sanchez-Famoso (2017), trustful relations enhance the willingness of enterprises in the same environment to share strategic business information to support others. Furthermore, the current research findings agree with Pratono (2018) that reciprocity encourages enterprises' expectation, bargaining, and compromise to share and use resources owned by others in the same environment.

Qian *et al.* (2018) also highlight that the trustful and reciprocating act of sharing valuable information and knowledge helps partners to achieve significant gains. Indeed, trustful relations built on trust and reciprocity promote compliance standards, improving resource exchange, hence performance (Adomako & Danso, 2018; Hanifah *et al.*, 2019). The conceptual views expressed in the social capital literature suggest that trustful ties underpinned by integrity and reciprocity constitute tacit assets that influence business success due to easy access to critical resources needed.

The study findings also support empirical studies that trustful relationships and reciprocity are central components of social capital assets that directly influence enterprise growth (Han *et al.*, 2020; Kim & Shim, 2018). Other social capital studies show a direct and significant influence of trustful relations on enterprise performance (Lin & Lin, 2016; Jeong *et al.*, 2019). For instance, Liu *et al.* (2021) confirm a direct effect of trustful relation on firm performance. Other empirical studies give credence to the current research finding that trustful ties among different resources owners influence the extent of resource support that a member can acquire to expand and enhance business growth (Akhavan & Hosseini, 2016; Lee *et al.*, 2019).

The study findings extend literature that revealed that firms engage in a long-term relationship, share with and use market information of others who demonstrate trust and reciprocate behaviour (Cheng, 2014). Also, Xu *et al.* (2008) and Ganguly *et al.* (2019) found that knowledge reciprocity enhances innovation performance. Kim and Shim (2018) noted that trustworthy relations help enterprises to access financial resources and information to achieve

growth. Consequently, the research findings confirm and extend the literature on social capital, network relations, and firm performance.

Hypothesis 2(c) – Network structure has significant influence on sustainable growth of small enterprises

The study found that network structure significantly influences the sustainable growth of small enterprises in entrepreneurial networks. The finding confirms that close ties and frequent interaction among networked enterprises with heterogeneous resources lead to sustainable growth. Nevertheless, again, small enterprises achieve sustainable growth through intensive interaction on market information, ideas, and exchange of valuable resources. Thus, enterprises seeking resources, information, and ideas from networks should understand the role of network structure as a mechanism to access the quality and quantity of resources required to enhance growth.

The findings from the study corroborates prior studies that reveal that social capital structure leads to knowledge sharing, which directly influences the performance of enterprises in the same environment (Maina *et al.*, 2016; Sefiani *et al.*, 2017; Damoah, 2018; Habersetzer *et al.*, 2019; Kim, 2019). Also, the current findings align with empirical studies that revealed a direct influence of network strength and enterprise performance (Han *et al.*, 2020; Camps & Marques, 2014; Boso *et al.*, 2013). The research findings align with Nyuur *et al.* (2018), who employed the social network theory to confirm that network structure (informality) moderates the significant relationship between network centrality and innovation performance.

Maina *et al.* (2016) and Lin and Lin (2016) have offered similar corroborative evidence that network structure and content facilitate access to the required

resources for manufacturing companies to enhance performance. Liu *et al.* (2018) employed the DCT and revealed that network structure led to value creation. However, the finding is inconsistent with Nyuur *et al.* (2018), who found that network density does not enhance the innovation performance.

Conceptual literature on networking and social capital has established that social capital significantly influences business success (Foley & O'Connor, 2013; Weerakoon *et al.*, 2020). These scholars highlight that the overall configuration, including the strength of ties, diversity, connectivity, and centrality, constitute leverage mechanisms to achieve the benefits of networking. García-Villaverde *et al.* (2017) suggested that strong ties create mutual relations that motivate enterprises to exchange the resources that others need to enhance business gains. Furthermore, Boso *et al.* (2013) highlight that the closeness of network ties influences resource access, information quality, and performance. However, the evidence thus far contradicts Cheng and Pratono (2018) that close and strong ties create redundant information, thus retarding innovativeness of firms that solely depend on others.

Theoretically, the current research finding aligns with the weak ties theory and NTSC, which explain that the easy flow of diverse resources from industries lead to heterogeneous resource opportunities and growth among network partners (Granovetter, 1973; Rastrollo-Horrillo & Rivero Díaz, 2019). The current research results also find support in the resource-based theory (Wernerfelt, 1984), which assumes that heterogeneous enterprises in an industry can create value for superior performance because of access to various resources, skills, and capabilities (Peteraf & Barney, 2003; Barney & Hesterly, 2012; Baia *et al.*, 2020; Beltramino *et al.*, 2020). The theories

underpinning the current research offer reasonable research support for this current research and the findings.

Hypothesis 2(b) – Network cognition significantly influence sustainable growth of small enterprises

The current research proposed a positive relationship between network cognition and sustainable growth of small enterprises in entrepreneurial networks. However, the findings signify an insignificant relationship between network cognition and sustainable growth. The finding translates that cognition among small enterprises in entrepreneurial networks does not lead to enterprise growth and sustainability. The findings could mean that the degree of similarity in vision compatibility and commitment to network goals does not influence mutual growth and sustainability. Thus, the argument supporting hypothesis H2(c) that network cognition influences sustainable growth is not valid. Suggestively, the findings may be due to the differences in goal and vision among the different enterprises in the network. For instance, the goal and vision of an influential, and powerful enterprise may not be similar to smaller or weak small enterprises, thus networking based on mutual network goals and vision does not drive equal or mutual benefits and gains.

Conceptual literature suggests that networked enterprises with common goals, values, norms, and beliefs foster collective action and cohesion, creating a high possibility of easy access to resources, ideas, and technologies to support performance (Dato-on *et al.*, 2018). Other scholars, including Carlos and Pinho (2013), in their conceptual research, also revealed that the cognition dimension of social capital could influence the performance of SMEs. The conceptual evidence explains that enterprises seeking to access

needed resources and technologies during networking activities re-orient their values, norms, beliefs, and standard to align with the network and influential firms for easy access to the required resources.

The insignificance relationship between cognition and sustainable growth did not occur with previous literature (Suseno & Rowley, 2018; Liu *et al.*, 2018) that have corroborated a strong and positive influence of shared values, standards on value creation, and competitive advantage. Unlike network structure and relation, the cognition dimension of social capital is not consistent with empirical literature (Lee *et al.*, 2019; Jeong *et al.*, 2019; Ganguly *et al.*, 2019; Dogbe *et al.*, 2020) that found a significant direct relationship between the cognition dimension of social capital and firm innovation success. For instance, Miller *et al.* (2007) used the network theory and found that networked firms that have developed cognition (shared vision) can enhance resources access, leading to success. Some empirical findings do not support the literature that cognition influences the decision to exchange resources (Oparaocha, 2016; Kim & Shim, 2018; Pratono, 2018).

Research Objective Six (H₃) – Mediating Effect of Innovation in the Relationship Between Entrepreneurial Networking and Sustainable Growth

Research hypothesis H₃ which sought to establish the mediating effect of innovation in the relationship between entrepreneurial networking and sustainable growth. The study revealed that entrepreneurial networking has direct significant and positive effect on sustainable growth (H_{3x}) and innovation (H_{3y}) which (innovation) also leads to sustainable growth (H_{3z}). Hence, the study finding has established that innovation fully mediates the

effect of entrepreneurial networking on the sustainable growth of small enterprises. The findings suggest that innovation arising from entrepreneurial networking is relevant for small enterprises to achieve growth and sustainability. The findings thus indicate that entrepreneurial networking facilitates access to valuable and unique ideas and resources necessary to create innovations that help small enterprises to sustain themselves.

Consequently, the findings signify the need for networked firms to leverage networks as tacit assets that facilitate access to resources for innovations that generate sustainable growth. The findings extend the empirical studies which show that network ties directly influence the international performance of SMEs (Kenny & Fahy, 2011; Jin & Jung, 2016; Jeong *et al.*, 2019). Schoonjans *et al.* (2013) found a significant and direct relationship between networks and business growth. Building on this insight, the study's results deepen the understanding of the impact of knowledge and information sharing among network members.

The research also extends other studies that found that network resources significantly influence the survival of small and medium poultry enterprises in Ghana (Acheampong *et al.*, 2017; Acheampong & Hinson, 2019). Besides, the literature suggests that few studies have considered the role of innovation in network and performance relationships. The current research supports empirical studies by Adomako *et al.* (2018), who revealed that innovation mediates the relationship between networking and opportunity exploration of SMEs. The current research also extends networking literature that only reveals that network ties lead to innovation (D'Angelo & Baroncelli, 2020; Dogbe *et al.*, 2020; Hanifah *et al.*, 2019). Anwar and Shah (2020) and

Xie *et al.* (2020) found similar evidence that network ties - transfer of technologies - enables SMEs to upgrade, expand and utilise existing capabilities and technologies to innovate.

The findings align with theoretical comprehension, comprising three theories: NTSC, IT, and DoIT. These theories were employed due to the non-suitability of the RBT to fully explain the relationship between entrepreneurial networking, innovation, and sustainable growth. Accordingly, the research findings have validated the proposed theoretical comprehension. For instance, the finding confirms the DoIT (Rogers, 2010), on the basis that the flow of novel ideas, information, and resource in entrepreneurial networks, overtime diffuse into business activities, creating new products, markets, and processes for superior business performance (Mabenge *et al.*, 2020; Saridakis *et al.*, 2019). Also, the findings validate a theoretical study by Mayanja *et al.* (2019), who, based on the SNT, revealed that network produces innovations that have the potential for enterprise growth.

Other conceptual studies highlight that networking has the potential to enhance knowledge capacity, innovation, and firm performance (Galati *et al.*, 2019). Similar studies suggest networking as a pool of essential assets for value creation and firm growth (Kim & Shim, 2018; D'Angelo & Baroncelli, 2020). The study by Tendai (2013) suggests that networking could support enterprises at the start-up and growth stages. This literature supports the current study findings that networking leads to sustainable growth.

The current research findings confirm the view in the conceptual literature about the superior role of innovation in achieving enterprise growth (Mabenge *et al.*, 2020; Jnr. *et al.*, 2020). Hanifah *et al.* (2019) also suggested

that network capital creates innovation that could enhance SMEs' performance. As a tacit asset, Wahyono (2020) also revealed that innovation could create beneficial assets for an organisation to achieve growth. Thus, this research has established empirical findings that validate seminal and current literature that networking is a facilitatory tacit that helps networked firms to solve their problems and grow by drawing the needed resources from others (Anwar & Ali Shah, 2020; Liu *et al.*, 2021).

Hypothesis 3(a) – Mediating Effect of Innovation in the relationship between Network Isomorphism and Sustainable Growth

Research hypothesis H_{3a} which seeks to establish the mediating effect of innovation in the relationship between network isomorphism and sustainable growth. The study revealed that network isomorphism has direct significant and positive effect on innovation which (innovation) leads to sustainable growth. Thus, the reports that innovation fully mediates the significant relationship between network isomorphism and sustainable growth of small enterprises in entrepreneurial networks. The findings indicate that small enterprises could achieve sustainable growth by using network isomorphism to generate novel and unique resources, ideas, and information that lead to innovations. Effectively, the research confirms that network isomorphism supports innovation, which leads to sustainable growth.

The findings validate the conceptual literature that isomorphic pressure influences an actor to access and use specific ideas that have the potential for business success (Ouyang *et al.*, 2020; Jnr. *et al.*, 2020). Other studies highlight that isomorphic influence to implement and diffuse novel ideas arising from networking could lead to product, marketing, and organisational

innovations (Szlapka, Stachowiak, Batz & Fertsch, 2017; Bodlaj *et al.*, 2018). Primarily, the prevailing literature confirms network isomorphism as a potential source of innovation (West & Bogers, 2017; Easmon *et al.*, 2019).

Empirical literature reveals that networked firms that emulate, conform, and implement heterogeneous standards, technologies, and ideas achieve competitive advantage and performance due to innovation (Mabenge *et al.*, 2020; Jr. *et al.*, 2020). Furthermore, the current research validates literature that reveals that small enterprises achieve higher and sustainable growth when the network institution promotes, regulates, and facilitates entrepreneurial activities such as resource exchange (Ahmed *et al.*, 2019). Besides, the literature did not investigate the implication of innovation on the sustainability of growth and performance. Thus, this study has examined the effect of entrepreneurial networking on innovation leading to sustainable growth of small enterprises.

The findings also find reasonable validation in the assumption of the institutional theory, where North (1990), Scott (1995), highlights that, formal and informal institutions, rules, regulations, and administrative systems enable successful entrepreneurial activities. Studies on institutional theory have revealed that institutions influence enterprises in the same environment to comply with regulations, by emulating and replicating certain practices. Emulation and replication offer acceptance and legitimacy, enabling easy access to resources needed for innovation and higher performance (Zhao & Peng, 2018; Habersetzer *et al.*, 2019; Anthony Jnr., 2021).

In a similar perspective, the current research validates the diffusion of innovation theory (DoIT) by Rodgers (2010), that the flow of ideas, when shared and diffused into the business activities over time, produce innovations (Rastrollo-Horrillo & Rivero Díaz, 2019). Integrating DoIT and IT extends theoretical literature that diffusion of novel resources, ideas, and information from networking produces innovations (Saridakis *et al.*, 2019; Hanifah *et al.*, 2019; Expósito *et al.*, 2019) that create sustainable enterprise growth.

Hypothesis 3(b) – Mediating Effect of Innovation in the Relationship between Network Social Capital and Sustainable Growth

Research hypothesis H_{3b}, which sought to establish the mediating effect of innovation in the relationship between network social capital and sustainable growth. The study revealed that network social capital has direct significant and positive effect on innovation, which (innovation) leads to sustainable growth. This research suggests that innovation fully mediates the relationship between network social capital and sustainable growth of small enterprises in networks. It reveals that social capital constitutes tacit assets, facilitating access to other resources, ideas, and information in entrepreneurial networks. Therefore, small enterprises can achieve sustainability when tacit assets from social capital are used to generate innovations.

The research findings collaborate Easmon *et al.* (2019), who found that innovation mediates social capital and firm performance. The findings extend some empirical studies such as Hanifah *et al.* (2019) and Beltramina *et al.* (2020) who revealed that structural components of social capital significantly affect the process and product innovations of a firm. Other empirical works reveal that relational and cognition are social capital assets that positively lead

to a firm's knowledge sharing and innovation performance (Ganguly *et al.*, 2019; Dogbe *et al.*, 2020). According to Kim (2019), network centrality in terms of distance and connectivity among networked firms enhances sharing of valuable information, leading to innovation.

The literature also suggests that social capital creates easy access to novel information, innovative ideas, and valuable resources for business success (Mabenge *et al.*, 2020; Ceptureanu *et al.*, 2020; D'Angelo & Baroncelli, 2020). García-Villaverde *et al.* (2017) also reported that social capital as an asset, manifesting idea sharing leads to innovation and shared gains. Other studies report that social capital creates value that leads to a firm's success (Alder & Kwom, 2002; Sanchez-famoso *et al.*, 2019). Thus, the current research extends literature that social capital assets are strongly related to knowledge sharing (Lohe & Calabro, 2017; Kim & Shim, 2018).

The research aligns with the assumptions of NTSC and RBT. It extends the NTSC (Lin 1999) and RBT (Barney, 1991) to establish that social capital is embedded tacit assets that facilitate access to other resources for entrepreneurs to create value that offers a superior and unique competitive advantage and performance. Theoretical studies report that network theory underpins the significant relationship between social capital and firm performance (Kim & Shim, 2018; Boohene *et al.*, 2019). Thus, the current research has integrated the NTSC and DoIT to expand the assumption of RBT, thus explaining the implication of social capital as a resource on innovation, leading to the sustainable growth of small enterprises.

Research Objective Six (H4) – Effect of Network Affiliation on Sustainable Growth of Small Enterprises

The study reports that the network affiliation of an entrepreneur significantly influences the sustainable growth of networked firms. The study found differences in the network affiliation and their implication on business growth and sustainability. The findings resonate with Franco *et al.* (2016), that networks (social) enhance SMEs' performance. The current result further gives credence to Schoonjans *et al.* (2013) that business networks positively influence business growth. The current study also revealed that most surveyed entrepreneurs participate in business networks, followed by social, political, and managerial networks.

This finding aligns with Jin and Jung (2016) and Jeong *et al.* (2019), who found in their study of SMEs that business and personal (social) networks are a common network affiliation which has a positive influence on the international performance of businesses. Additionally, the study has confirmed Expósito *et al.*'s (2019) finding that growth and sustainability depend on the company's network affiliation. The current study's findings extend the work of Acheampong *et al.* (2017) by providing network types that networked small enterprises require to develop innovation and achieve sustainable growth.

Summary

This Chapter presented the study result and discussed the findings. The first sub-section focussed on the study results which showed that entrepreneurial networking, manifesting networking isomorphism (normative and mimetic), and network social capital (structure and relation) are tacit entrepreneurial assets for small enterprises to achieve growth and

sustainability. The result further showed that, compared to network social capital, network isomorphism has the highest influence on sustainable growth of small enterprises. Specifically, network structure exerts highest influence on sustainable growth, followed by mimetic isomorphism, normative isomorphism and network relations.

Furthermore, the results revealed that innovation fully mediates the relationship between entrepreneurial networking and sustainable growth of small enterprises which participated in the survey. Thus, innovation is a critical mechanism for small enterprises in entrepreneurial networks to transform tacit assets into sustainable growth. Lastly, the statistical analysis revealed that network affiliation of an entrepreneur significantly influences growth. There was also a significant difference in the network affiliations of small companies, influencing growth and sustainability.

The second sub-section discussed the findings. The discussion focussed on how the current research findings related to the conceptual, theoretical, and empirical literature on networking, social capital, network isomorphism, innovation, and firm growth. The discussion showed that the findings validate and also extend conceptual, empirical and theoretical literature. Also, the discussion confirmed a strong linkage between the research findings and the theories employed in the research. The subsequent Chapter provides the summary, conclusions, implications, and contributions of the research to practice, policy, and theory.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This study examined the effect of entrepreneurial networking on innovation and sustainable growth of small enterprises in Ghana. The objective was to determine whether small enterprises in Ghana could use networks as part of their entrepreneurial strategy to access and transform resources into innovation and sustainable growth. The previous Chapter presented and discussed the research findings. The current Chapter provides the summary, conclusions, and implications of the research findings to practice, policy, theory, and literature. The Chapter also highlights some recommendations, limitations and suggestions for future research.

Summary

This study sought to achieve seven main objectives. First, the study sought to examine the nature of networking, innovation and sustainable growth of formal small enterprises in entrepreneurial networks in Ghana. This thesis further empirically tested the effect of entrepreneurial networking - network isomorphism and network social capital - on the sustainable growth of small enterprises in Ghana. Lastly, the study also examined the mediating role of innovation in the relationship.

The research objectives and the conceptual framework are based on the institutional theory (IT), network theory of social capital (NTSC), diffusion of innovation theory (DoIT) and Resource-Based Theory (RBT). The three theories provided a theoretical foundation for the study's comprehensive framework, showing the relationship between entrepreneurial networking:

network isomorphism and network social capital, innovation, and sustainable growth. The premise of the framework is that the effect of entrepreneurial networking on sustainable growth is determined by the innovations that an enterprise develops using the knowledge, technology and other resources gained from other successful network actors.

Thus, while entrepreneurial networking (NTSC and IT) creates a pool of resources, a company will only be sustainable if the resources diffuse (DoIT) into core business activities to create innovations. Based on this insight, the researcher formulated objectives (and four main hypotheses) to investigate the proposed relationships in the study framework. Subsequently, a methodology was designed to test the hypothesised relationships.

A mixed research methodology was employed for this study. To overcome the limitations of quantitative or qualitative research methods, the researcher aligned with the post-positivism paradigm. The paradigm allowed the researcher to approach the study from both an objectivist perspective but collect qualitative responses to triangulate the quantitative findings. A Likert scale questionnaire was designed with forty-three (43) measurement statements to gather data from the respondents. The respondents include small enterprises (managers and owner-managers) that are active members of AGI and GEA and located in three selected regions of Ghana.

The measurement statements, reflected on the research variables, were adapted from the literature. After industry and academic expert evaluation of the data collection instrument, 115 copies (questionnaires) were administered to generate responses for Exploratory Factor Analysis (EFA). After the EFA, thirty-four (34) statements were considered fit, and the questionnaire was

redesigned and administered by the researcher and four FAs to a target of 500 respondents. Out of the number, 319, representing 63.8% per cent of the total target sample, were considered valid, hence included in the final analysis. Additionally, eight participants were conveniently sampled and interviewed to generate qualitative responses to triangulate the quantitative result.

Narrative technique was used to analyse and present the qualitative responses while the SPSS version 25 and CVB-SEM (Amos version 24.0) were used to analyse and present the descriptive data and coefficient results (estimates) from structural path modelling. The SEM was also used to perform EFA, CFA, and final structural model, including direct and indirect (mediation) path analyses. The output of the CFA tests found additional eight (8) measurement statements out of the thirty-four (34) unfit and subsequently deleted at various stages of reliability, validity and fitness tests.

The CFA achieved acceptable to excellent reliability (composite and cronbach alpha) and validity (convergent and discriminant) test results. Again, all study variables had VIFs of less than two and tolerance levels ranging from 0.810 to 0.963. The Harman's single-factor test also found the first factor explaining 38.56 per cent. As a result, there were no problems of multicollinearity and Common Method Bias. The twenty-six (26) remaining statements were retained and used for the final path modelling and hypotheses testing. The summary of the research findings reflects the output from the objectives and data analysis.

Key Findings

- The first objective addressed the nature of networking among formal small enterprises that were surveyed for the study. The study found that small

enterprises engage in networking. Most of the surveyed small enterprises engage in business, social and political networks. The study also found evidence that small enterprises participating in the research do not often create and participate in managerial networks. The objective further revealed that small enterprises engage in networking to leverage more social capital than network isomorphism.

- The second objective examined the nature of innovation among formal small enterprises. The study revealed that small enterprises innovate, mostly in terms of value addition to production and delivery activities, new technologies, promotion and distribution, and market. In the study, the findings reveal that value addition in production and delivery processes is the significant strand of innovation among small enterprises in entrepreneurial associations. The study also found evidence that small enterprises participating in the research do not often create innovate products unique to the firm or industry.
- The third objective focused on the nature of sustainable growth of formal small enterprises. Sustainable growth presents the extent to which a firm is able to maintain stability in growth indicators such as sales, profitability and number of employees. The key finding from this objective is that, first, small enterprises are able to maintain stable growth in their growth indicators. The predominant growth indicators that small enterprises are able to maintain productivity. This was followed by sales and number of employees. The last significant findings from this objective are that profitability is the least type of growth that small enterprises are able to sustain.

- The fourth research examined how work isomorphism as a tacit asset in networking supports small enterprises in entrepreneurial networks to achieve sustainable growth. The research found that network isomorphism or the institutional pressures are entrepreneurial mechanisms or tacit assets that create opportunities for small enterprises to achieve sustainable growth. A multi-dimensional analysis of the findings revealed that only normative and mimetic isomorphisms significantly influence sustainable growth. The results suggest that small enterprises could achieve sustainable growth when they accept the policies of the network institution to exchange and implement certain best standard practices and technologies in business operations. The mission of the network ensures that partners exchange vital information, entrepreneurial opportunities and other valuable resources.

Again, the study found that small enterprises could sustain growth by imitating and replicating the successful knowledge and practices of diverse industry and non-industry partners. The institutional policy to collaborate gives small companies the acceptance and legitimacy to mimic, emulate and use technologies and market information of successful and influential partners within the network. The degree of collaboration gives small firms the leverage to gain access to efficient operating procedures, exchange innovative market opportunities and ideas with successful firms. Cross-fertilisation of innovative ideas creates efficient business activities, leading to high productivity, sales and profitability. Unfortunately, the research found that coercive isomorphism did not relate to sustainable growth. As revealed in the qualitative study, association are too regulatory focused.

- The fifth research objective examined whether small enterprises in entrepreneurial networks could leverage social capital, a tacit asset, to achieve sustainable growth. Uni-dimensional analysis of the research findings revealed that social capital in entrepreneurial networks positively and significantly influences sustainable growth. A further multi-dimensional analysis of the results revealed that network relations and norms are the social capital tacit assets that create the leverage for small enterprises to achieve sustainable growth through knowledge exchange, technology transfer and access to market information and opportunities.

The findings demonstrate that trustful ties and linkages, coupled with reciprocating actions and integrity, constitute relational assets for small enterprises in entrepreneurial networks. These relational assets create the opportunity to easily share, access and use resources owned and controlled by network partners. Second, the findings show that heterogeneous network partners, close collaborations, and frequent interactions are tacit structural assets. These structural tacit mechanisms create an entrepreneurial environment for small enterprises to access the quantity and quality of resources required to undertake successful business operations. The significant relationship between network social capital and sustainable growth validates the network theory of social capital, which assumes social capital as a tacit asset for enterprises within an environment to achieve higher performance.

- The sixth research objective examined the mediating effect of innovation in the relationship between entrepreneurial networking and sustainable growth. The objective used three theories to better understand how small

businesses could achieve sustainable growth through innovation (DoIT) resulting from entrepreneurial networking. Entrepreneurial network reflects the integration of network social capital (NTSC) and institutional isomorphism (IT). The research found that innovation fully mediates the relationship between entrepreneurial networking and sustainable growth.

Further analyses showed that innovation fully mediates the effect of network isomorphism on sustainable growth. Similarly, innovation fully mediates the relationship between network social capital and sustainable growth. The research findings on the mediating effect of innovation demonstrate that entrepreneurial networking, manifesting network isomorphism and network social capital, has significant implications on innovation, which is required to achieve business growth and sustainability. Again, the qualitative findings reveal that firms/entrepreneur learn whenever to have access to assets of other firms.

Comparative analysis of the research findings shows that, compared to network social capital, network isomorphism, manifesting emulation, replication and implementation of valuable ideas creates opportunities for small enterprises to develop more innovations. While network social capital has less implication for innovation, the tacit asset (social capital) has more influence on sustainable growth. The variations in the impact of network isomorphism and network social capital have an influence on strategy and decisions of actors within a network.

- The seventh research objectives examined the effect of network affiliation on sustainable growth of formal small enterprises. The research found that majority of small enterprises participate in business networks, followed by

social and political networks. The findings also revealed that the network affiliations of small businesses in entrepreneurial networks significantly influence sustainable growth. The study revealed that most surveyed respondents participate in business networks, followed by social, political, and managerial networks.

However, a Post Hoc analysis of the network affiliations using Turkey's test (variance assumed) and Games-Howell's test (variance unassumed) confirmed some differences and similarities in network participation of entrepreneurs of small firms. First, the study found no difference between social, political, and business networks. The findings, however, demonstrate differences between managerial networks and business, social and political networks.

- The results further confirmed that there is a difference between managerial networks and other networks: business, political, and social networks. The similarities and differences in the network affiliation of small enterprises in entrepreneurial networks have implications for how small businesses should approach each type of network and strategies to gain the quality and quantity of resources required for innovations and sustainable growth.

Conclusions

The study examined seven objectives. Based on the research findings the following conclusions are drawn. First, regarding the nature of networking, formal small enterprises who are members of AGI and GEA engage in entrepreneurial networking, especially business, social, political and managerial networks. Business network is the common type of network

among small enterprises, while managerial network is the least that type of networks that small enterprise creates, maintain and participate in.

Second, formal small enterprises in entrepreneurial networks innovate in production and delivery value chain, new technologies, promotion and distribution, markets and processes. Among small enterprises value addition in production and delivery processes is the common type of innovation that small enterprises in entrepreneurial networks are able to develop.

Third, on sustainable growth, the formal small enterprises surveyed are able to achieve sustainability in their productivity, followed by sales and increase in number of employees. However, profitability is the growth indicator that small enterprises are unable to sustain. Sustainability is an important objective of every enterprise that desire to exist beyond just growth.

Fourth, regarding research objective four, the study concludes that network isomorphism helps small enterprises to achieve sustainable growth. Network isomorphism: normative and mimetic isomorphisms ensure that entrepreneurs are able to mimic, replicate and implement others' knowledge and technology, which has direct influence on growth and sustainability. Small enterprises achieve sustainable growth by associating, replicating, and implementing best practices and valuable market information from successful partners. Sustainable growth occurs when networked members support and enforce the explicit mission and policies of their networks to share and exchange successful technologies, valuable entrepreneurial ideas, experiences, expertise and knowledge. The advantage of network isomorphism stems from acceptance and legitimacy in a network, making it easy for a partner to access critical resources of partners.

The study concludes that network social capital is a leverage mechanism for small businesses to achieve sustainable growth. First, social capital assets, in the form of a network structure and relations, are significant tacit assets that facilitate access to resource which support entrepreneurs to achieve sustainable growth. Close and trusting collaborations among heterogeneous companies, in particular, facilitate easy access to the quality and quantity of external resources that entrepreneurs require to conduct business activities.

Regarding research objective six, the study has established that entrepreneurial networking, through the leverage mechanisms of network isomorphism and network social capital, led to innovation, indirectly affecting the sustainable growth of small enterprises. Thus, innovation fully mediates the relationship between entrepreneurial networking and sustainable growth. Therefore, small enterprises achieve sustainable growth when the technology gained from a network is used or diffused into business activities and value creation activities to produce innovations. Network isomorphism creates an ecosystem that supports entrepreneurs in developing more significant innovations due to mimicking, emulating and replicating successful ideas and processes flowing within the network. Unlike network isomorphism, network social capital has a more significant influence on sustainable growth because of trusting collaborations, reciprocating behaviour, and integrity, making knowledge exchange, technology transfer and resource sharing flexible.

Lastly, the research also discovered that the network affiliation(s) of small enterprises significantly influence business growth and sustainability. The study found no differences between social and political networks or

between business and political networks, but variations exist in business and social networks. The research finding shows a significant difference between managerial networks and other business, political, and social networks. Thus, while some networks have similarities, others differ, affecting approach, strategy, and sustainable growth.

In effect entrepreneurial networking and its leverage mechanisms of network social capital and network isomorphism lead to innovation and sustainable growth of small enterprises in entrepreneurial networks. Thus, entrepreneurial networking serves as a pool of external resources for small enterprises seeking to achieve sustainable growth. By these findings, the research has shown that entrepreneurial networking provides opportunities for small enterprises to access external resources in supplementing the limited embedded resources to enhance business growth and sustainability. Again, by these findings this study's conceptual framework has been confirmed that notably, integrating network isomorphism and network social capital into a comprehensive entrepreneurial networking strategy is more important for innovations that lead to sustainable growth.

Recommendations

Small businesses are unable to meet their resource requirements, putting them at a disadvantage in terms of competition and growth. The current study was motivated by the need to provide empirical findings for practitioners and policymakers to understand the role of entrepreneurial networking in resource access, business growth and sustainability through innovation. Empirical research of entrepreneurial networking is essential to inform practice and policy aimed at resolving the persistent problem of limited

resources that negatively affect small enterprises. The following recommendations present to readers what must be done, why and by who.

First, the current study has since identified the relevant determinants and mechanisms for leveraging networks to gain the required external resources. Regarding what must be done, this study recommend that small business owners and stakeholders of entrepreneurship development must be aware that resources of a firm do not only come from the firm itself (assumed in the RBT) but also from business collaborators or external partners and sources. This recommendation is necessary for the sustainability of entrepreneurial ventures, because interaction and collaboration accelerate access to timely market information, technological knowledge, learning and generating new processes for business efficiency, productivity and profit.

Second, this study has further demonstrated that the persistent "lack of access to external resources" can be resolved when entrepreneurs embrace their collaboration with an entrepreneurial orientation that reinforces firm-specific mechanisms. The study therefore suggests that, these mechanisms, fundamentally, require the entrepreneur to create and use the appropriate facilitatory tacit assets that will make it easier and more efficient to gain access to and use the required resources from network partners. This recommendation is essential for the entrepreneur because network relationships have the potential to assist small enterprises in overcoming the problem of lack of resources. However, networking is a multi-dimensional and complex web of collaborations. Hence, from a practical standpoint, small enterprises may be advised to establish and maintain trusting collaborations underpinned by reciprocity and integrity.

Third, small enterprises and entrepreneurship associations must embrace trustworthiness, reciprocity, and integrity in their collaborations. These mechanisms are relational tacit assets that require an entrepreneur to build and maintain close relationships with industry and non-industry partners such as government officials and financial institutions that own diverse resources. These network decisions and specific behaviours when implemented serve as tacit assets that facilitate the ease with which small businesses gain access to information, technology knowledge and other resources required to improve operational competencies, leading to effectiveness and efficiency and higher productivity. Besides, these tacit assets are not easily available to companies outside a network environment.

Fourth, it is often difficult to directly use a network partner's resources to achieve a sustainable competitive advantage in the same market or industry. Therefore, this study recommends that small enterprises within entrepreneurial networks must prioritise innovation. Entrepreneurs must be innovative in their networks to overcome the problem of resource limitations. This research, in particular, demonstrates that innovation must be seen as a critical transitional link between the flow of knowledge/resources and sustainable growth. Hence, for effective implementation and reaping of the benefits of the current research findings, small companies must ensure that resources, i.e., information and technologies obtained from network partners assimilate, absorb, diffuse or are used to upgrade existing capabilities and technologies to innovate, which is the only means to sustaining growth. This recommendation is vital for small firms because networking may not be enough to resolve the resource and growth challenges facing small enterprises but through innovation.

Fifth, the study recommend that the small enterprises owners/managers must deploy their network-based resources to produce novel and distinct products, improve efficiency in organisational procedures, and exploit new markets and marketing processes. This recommendation is important for small enterprises because, a network partner will not share resources that will provide superior value to another partner. As studies have shown, the resources that a firm obtains from a partner can be temporary, and the ownership does not transfer. As a result, the study suggests that resources gained from network partners should be transformed or used to provide innovations to the market, industry, and organisation.

Sixth, the current research has implications for network administration regarding the conditions necessary to influence behaviour, decisions, and actions in entrepreneurial networks. The research findings show that isomorphism influences network partners to replicate others' successful technology and implement certain standards, decisions and practices. The network as an institution can function as both enablers and constraints. Therefore, this research encourages small enterprises to consider and embrace network isomorphism as regulatory, promotional, and facilitatory mechanisms. This recommendation is essential for small firms and network development and growth because, these mechanisms, when properly integrated, create beneficial support systems that allow a firm to mimic, emulate and replicate the best technologies and production methods of successful partners.

Seventh, it is imperative that small enterprises actively participate in networks with an explicit mission and policy that ensure all partners, including large, influential and successful companies, share critical market information,

business contacts and opportunities. For small enterprises, this recommendation is important because adopting an entrepreneurial view to networking will help access new opportunities for value creation and performance. Strong network engagements create a flow of critical market information and valuable entrepreneurial opportunities among collaborating firms. Therefore, small, weaker and new companies are encouraged to create linkages and alliances with influential firms and network administrators who encourage, mentor, and offer legitimacy and acceptance to partners. This recommendation is essential for small enterprises because legitimacy which makes it easier to access resources and replicate the knowledge of others.

Eight, the current research acknowledges that it is a daunting task for small enterprises to develop and maintain networks, especially with large, influential and successful companies. Therefore, this study encourages small enterprises to seek quality collaborations and opportunities to secure the required quality and quantity of knowledge, contact, technologies and other resources they need. Furthermore, and perhaps most importantly, this research suggests that the depth of capability, a firm-specific asset, is crucial in network collaborations, leverage and access to the critical resources and opportunities. In addition, entrepreneurs must avoid the negative consequences of "over-embeddedness," whereby the entrepreneur depends solely on a network or other companies and partners for almost all the resources they need.

Ninth, the research also admonishes small enterprises to consider the type of network they create, maintain, and participate in and their strategic approach. Social, business, political, and managerial networks are strategic to business growth and sustainability. However, entrepreneurs could use an

integrated approach and strategy to leverage social and political networks to achieve superior results. Similarly, entrepreneurs could employ a single and similar strategy to leverage business and political networks. However, small enterprises are encouraged to adopt differentiated network strategies for business and social networks because their use and influence differ, necessitating different strategic approaches. Furthermore, small enterprises must ensure that their managerial network leverage strategies are distinct from other networks such as business, political and social networks. These distinctions and similarities suggest how small enterprises in entrepreneurial networks should approach each network affiliation to obtain the resources needed for business operations, innovations, growth and sustainability.

Aside from the entrepreneur, the research findings imply that network administrators and Chief Executive Officers (CEOs) of industry and business associations must develop institutional policies, conditions, and programmes that encourage, build and facilitate close and frequent interaction among partners. First, Chief Executive Officers of industry and business associations must encourage partners/members to frequently engage, communicate and collaborate. Consistent communication and engagement will create a high density of network ties, strengthening close bonds and cross-fertilising ideas for mutual benefits. By this recommendation, business associations and entrepreneurs seeking sustainable growth must develop institutional policies that transform their associations and relationships into entrepreneurial networks.

Second, the empirical findings offer critical suggestions for CEOs of industry and business associations to create institutional policies and systems to support entrepreneurial collaborations. For instance, during entrepreneurial seminars, fairs, and training, associations entities should emphasise network creation and encourage entrepreneurs to reinforce relational, structural, normative, and mimetic features of relationships in order to enhance trusting resource exchange and the chances of accessing the required resources. When implemented, small enterprises will develop the capacity to develop and growth their networks to access more valuable and critical resources.

Third, the study recommends that network administrators and CEOs of industry and business associations must develop regulatory, promotional and facilitatory systems. In Ghana, for example, the AGI and GEA are encouraged to establish systems to promote and facilitate trustworthy and reciprocal collaborations among and between smaller and successful large/influential firms. It is important to note that the institutional systems should not compel entrepreneurs to participate in network programmes but rather facilitate or promote the collaborating process. These human induced systems and policies are needed to assist small enterprises to create platforms for more significant and extensive collaborative links and bonding ties, reciprocity, mutual obligations, and trust with key companies and contacts. The business and industry association programmes, policies and interventions should equip entrepreneurs to improve the divergent bridging capabilities in different industry networks.

In effect, small enterprises are encouraged to consider empirical findings and implement the recommendations in this study to improve their chances of developing innovations and sustaining their growth parameters. This advocacy has become necessary because of the limited access to resources for small enterprises in developing economies such as Ghana. In view of the resource limitation, the study has offered insight to help small enterprises to employ focussed networking strategies to improve resource access and synergy, innovation and sustainable growth.

Small enterprise owner-managers and entrepreneurs who adapt the current empirical findings and implement the recommendations are more likely to be innovative and sustainable. The researcher hopes that the recommendations above, when effectively implemented, will help to keep small enterprises alive, especially in the environment of an economy where individual entrepreneurs have found it difficult, if not impossible, to access external resources to support long-term business operations and objectives.

The research findings apply to small enterprise owner-managers, entrepreneurs, and founders. In addition, managers, administrators, CEOs of industry and network associations and other business and non-commercial oriented groups may find the research findings helpful. However, the research findings should be implemented cautiously due to contextual and demographic variations. Companies affiliated to networks with similar characteristics like GEA and AGI may find greater benefits from the research findings when developing interventions and programmes related to resource access and synergy, innovation and sustainable growth. Stakeholders of the SDGs may find this research useful since small businesses contribute significantly to the

innovation, industrialisation, growth and economic development, critical to the achievement of the SDGs.

Theoretical Implications

The findings of this empirical study fill the research gaps and contribute to theory. The thesis positions the empirical findings in the theory in three ways: firm resources and leverage mechanisms in entrepreneurial networks, small enterprises innovation and sustainable growth in a developing economy, and network affiliation, impact, approach and strategy.

First, the literature has found little space for the sustainable growth of small enterprises; hence little is known about the relationship between network as a resource and sustainable growth. Consequently, the current study has confirmed that small enterprises engage in entrepreneurial networking. The current research has further affirmed the nexus between entrepreneurial network and sustainable growth. The finding extends the literature on network resources and firm survival, growth, and performance by confirming that network as a resource is not only beneficial to firm survival or growth but can also be used to achieve sustainable growth.

Second, the current study adds to the body of knowledge that entrepreneurial networking manifests both network isomorphism and network social capital for small enterprises to achieve sustainable growth. Thus, the research has confirmed the conceptual literature that network and its tacit asset of social capital have the potential to help small businesses to achieve sustainable growth. Furthermore, the study adds network isomorphism to the literature on network resources and demonstrates its implication for sustainable growth. As a result, the current research adds to the body of

knowledge on networking, important network leverage mechanisms of network isomorphism and network social capital. By this finding, this study has used the institutional theory and the network theory of social capital to propose network isomorphism and network social capital as measures of entrepreneurial networking. The measures also provide preliminary effort, empirical validity, and opportunity to develop the discourse and research on entrepreneurial networking among small enterprises.

Third, the current research adds to the literature on innovations of small enterprises in formal entrepreneurial networks. The current study has confirmed that small enterprises in entrepreneurial networks innovate, which helps them to achieve sustainable growth. By this contribution, new evidence has emerged that entrepreneurial networking: network isomorphism and network social capital are mechanisms for small enterprises to develop innovations for sustainable growth. This finding adds to the networking viewpoints by presenting a holistic model on entrepreneurial networking, innovation and sustainable growth of small companies in Ghana. A new theoretical approach is critical for understanding the description and constituents of entrepreneurial networking for small companies to develop innovations and achieve sustainable growth.

The finding is consistent with the integrated theoretical framework, comprising NTSC, IT and DoIT. Thus, innovations arising from networking have a significant effect on the sustainable growth. The theoretical integration highlights and advances the DoIT by indicating the mediating role of innovation as a mechanism that transforms the internal and external resources synergy arising from networking into sustainable growth. The integrated

theoretical approach validates a model that delineates the mechanisms for small enterprises to achieve innovations that lead to sustainable growth. By this theoretical model called “entrepreneurial networking-sustainable growth”, the research has offered a new entrepreneurial approach to resolving the persistent problem of “lack of access to external resources” among small enterprises in a developing economy. To the best of the researcher’s knowledge, this research is the first to integrate IT, NTSC and DoIT to address a limitation in the conventional RBT, thus validating an internal-external resource synergy model.

Fourth, the present research extends our understanding that network resources such as social capital can be derived from managerial, business, political, and social ties. The integration of IT, NTSC and DoIT into the networking literature advances theoretical argument that networks draw strength from SNT and SCT that network resources arise from social ties. The theoretical integration also advances knowledge on “sustainability” of small business. Sustainable growth is not assumed in the resource-based theory and has also received little attention in the empirical literature on networking and small businesses.

The current study adds new empirical knowledge from the SSA perspective to boost research and discourse on networking and sustainable growth of small enterprises. This research also responds to empirical calls for networking studies in the African context (Mol *et al.*, 2017). Furthermore, the current empirical research provides context-specific and cross-sectoral studies on networking in response to Boohene *et al.* (2019) and Damoah (2018). They

advocated for network studies on multiple economic sectors, including service, manufacturing, and industry.

Limitations of the Research

The study examined the effect on entrepreneurial networking on innovation and sustainable growth of small enterprises drawn from AGI and GEA members in Greater Accra, Ashanti, and Western regions of Ghana. This research, like any other, is associated with some limitations that have implications for future research directions in the networking domain. These limitations need to be discussed to stir future research interests in a particular area of study. The researcher sampled respondents from the Greater Accra region, Ashanti region, and Western region of Ghana.

The sampled regions mean that the respondents were drawn from a single country (i.e., Ghana). Again, the sampled respondents for this research were drawn from only two entrepreneurial associations: GEA and AGI, both in Ghana. The research context means that the findings only reflect the perspectives of small enterprises in Ghana and economies with similar contextual characteristics. Therefore, the question is whether the research findings would have been different with the inclusion of perspectives of respondents in other regions of Ghana, other entrepreneurial associations, and other developed and developing economies.

To a large extent, the contextual limitations of this research make it difficult to generalise the findings to other regions of Ghana, other entrepreneurial associations, and other developed and developing economies. Although the sampled respondents were qualified to respond to the data collection instrument, it would have been ideal and appropriate to increase the

number of regions in Ghana, if not all 16 regions in the country. Also, the research could have included respondents in informal associations and networks. These considerations would have meant additional insights to enhance the data robustness, representativeness, and generalisability of the research findings.

However, these limitations were minimised since the researcher focussed on the regions where most of the respondents are located. Also, the two entrepreneurial associations are formal and have databases of members, making representative sampling and data access easy. Additionally, the researcher was constrained by time to extend the study to include other developing and developed economies.

This research sought to identify and examine entrepreneurial networking and the leverage mechanisms that facilitate access to resources for innovation and sustainable growth. Subsequently, data was gathered from a sample of respondents (n=319) using research variables underpinned by three theories namely NTSC, IT, and DoIT. A limitation linked to this research relates to the variables included in the framework: network isomorphism, network social capital, innovation, network affiliation and sustainable growth. While the variables provide evidence to support the research objectives, the current study admits that other network theories and dimensions could have provided insights to conceptualise entrepreneurial networking in Ghana and further explain the relationships between the variables.

Nonetheless, the researcher ensured that the assumptions of the theories employed were the primary considerations that provided insights to help the research to decrease the limitations. Again, the research findings did

not account for the unobserved situations, conditions, and sub-cultures that influence small enterprises' social capital and network isomorphism in entrepreneurial networks. However, the choice of standardised beta (β) estimates and the adjusted R-Squared (R^2) ensured that the influence of unobserved conditions on the estimates and conclusion was reduced. Hence, the conclusions of the research findings represent a reasonable reflection of the outcome of the phenomenon the researcher sought to measure.

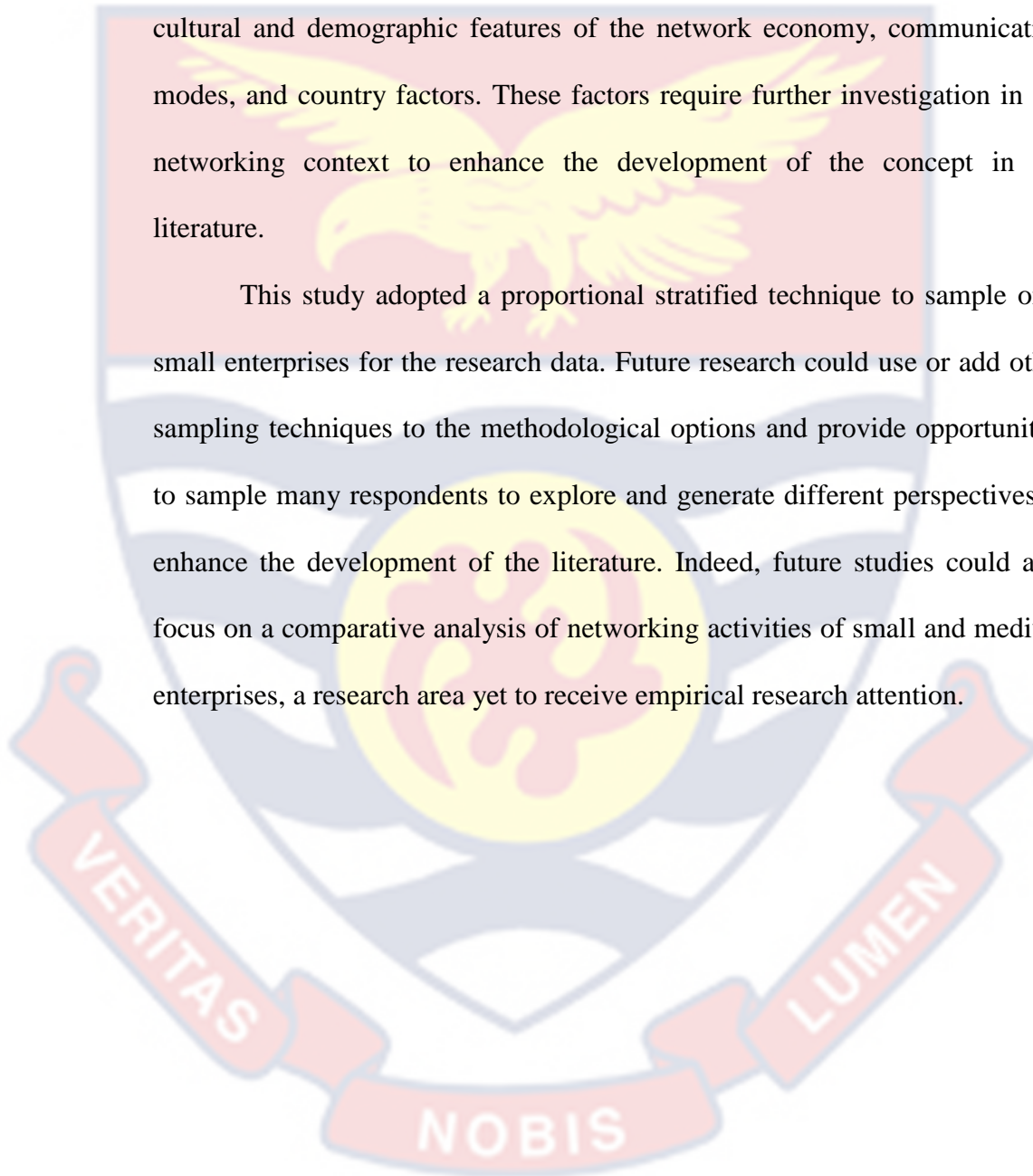
Suggestions for Future Research

The limitations of this research suggest the need for further studies to boost theoretical, empirical, and conceptual knowledge development in the field. First, given the contextual limitations of this research, further research on entrepreneurial networking is required in other regions of Ghana, other entrepreneurial associations, and other developed and developing economies to confirm or prove otherwise of the research findings. The new studies would also help to determine the generalisability of the current research findings. The researcher believes that future studies in developing economies of Africa and other regions of Ghana will provide significant contributions to the development of entrepreneurial networking discourse in Africa and, more precisely, SSA, where access to resources is challenging.

Furthermore, future entrepreneurial networking research should investigate other leverage mechanisms, benefits, and effects. The researcher admits that entrepreneurial networking is new in the entrepreneurship literature. Hence, this research used institutional theory and network theory of social capital to conceptualise entrepreneurial networking as network isomorphism and social capital. Therefore, future studies could explore other

variables or mechanisms of entrepreneurial networking. Future research could also explore moderating factors such as network alertness and network capabilities on the relationship between entrepreneurial networking and sustainable growth. Relatively, little is known about the influence of socio-cultural and demographic features of the network economy, communication modes, and country factors. These factors require further investigation in the networking context to enhance the development of the concept in the literature.

This study adopted a proportional stratified technique to sample only small enterprises for the research data. Future research could use or add other sampling techniques to the methodological options and provide opportunities to sample many respondents to explore and generate different perspectives to enhance the development of the literature. Indeed, future studies could also focus on a comparative analysis of networking activities of small and medium enterprises, a research area yet to receive empirical research attention.



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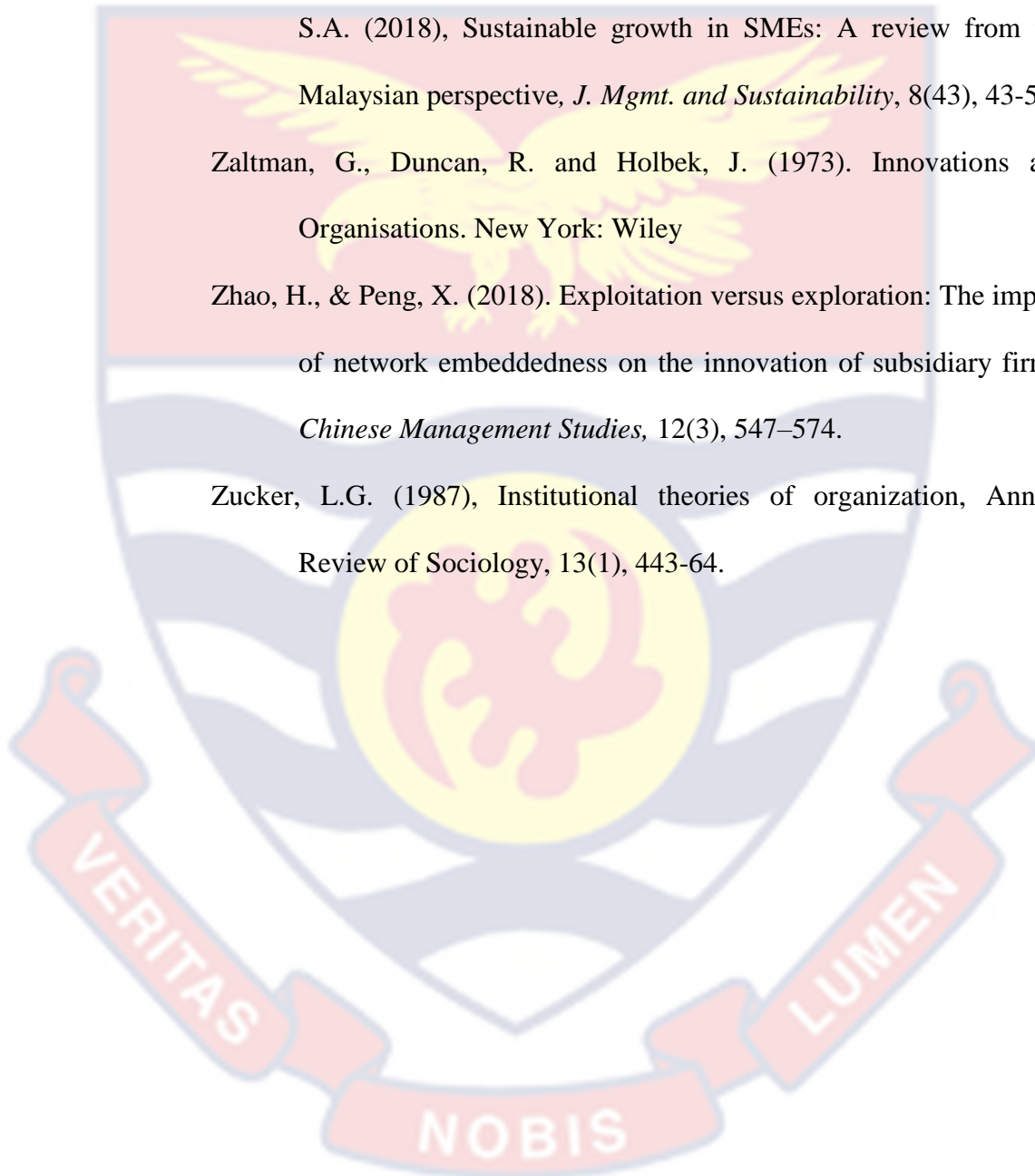
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APPENDICES**APPENDIX A****QUESTIONNAIRE**

Dear Sir/Madam,

This survey is conducted in fulfilment of a Doctor of Philosophy degree in Business Administration (Entrepreneurship option) for which I am currently enrolled at University of Cape Coast, Ghana. The purpose of the questionnaire is to determine the impact of entrepreneurial networking on innovation and sustainable growth of small enterprises in Ghana. One of the potential contributions of this research is that understanding networking from entrepreneurial perspective will assist small businesses in Ghana to develop proper strategies to leverage their networks for innovation and sustainable growth. Please complete all questions in this questionnaire. I assure you that the information you provide will be treated with the strictest confidentiality. Please note that you may withdraw from the study at any point without any consequences. The responses will be used for academic purposes only and a copy of the final results of the study can be forwarded to any participant on request by emailing ikebus2008@yahoo.com. Sections A and B of this questionnaire will take approximately 15 minutes to complete.

SECTION A: ENTREPRENEURIAL NETWORKING

Please **place a tick** (✓) on any one of the 7 boxes in front of each underlisted statements to indicate the extent to which you share, access and use resources with other companies in your associations

No.		Least Agreement \longleftrightarrow Highest Agreement						
NETWORK ISOMORPHISM								
Coercive Network Isomorphism								
Coe_Iso1	My company is obliged to exchange resources and ideas with networked partners.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
Coe_Iso2	Large and influential partners compel my company to adopt and implement certain operational practices and standards.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
Coe_Iso3	My association provides technological support that every member must adopt and utilise in their business operations.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
Coe_Iso4	My company is obliged to participate in business and professional development training.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
Coe_Iso5	Regulatory agencies compel members of my association to implement certain standards and practices.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
Normative Network Isomorphism								
Nor_Iso1	Exchanging resources are in line with the mission of my network.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
Nor_Iso2	Promoting exchange and access to valuable resources is in line with the values of my company.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
Nor_Iso3	My network promotes the exchange of valuable business contacts and trade/market information.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
Nor_Iso4	My network supports companies that share and	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>

	exchange unique ideas and resources.							
Nor_Iso5	There are explicit policies that promote sharing of resource.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
Nor_Iso6	My association allows me to exchange resources with different partners (finance, manufacturers, competitors, etc.) who own and control diverse resource.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
Mimetic Network Isomorphism								
Mem_Iso1	Networked partners share valuable resources, idea and practices with my company.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
Mem_Iso2	Exchanging resources with others gives me the legitimacy to obtain the resources needed for my company.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
Mem_Iso3	My company receives support from the state/country for sharing resources and technologies with other firms.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
Mem_Iso4	My company is allowed to emulate and implement ideas of members whom I share my resources with.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
Mem_Iso5	Experienced partners supervise reciprocal transfer, exchange and adoption of technologies, trade information and resources	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
NETWORK SOCIAL CAPITAL								
Network Social Capital-Relation								
SC_rel1	Networked partners are trustworthy in resource and idea-sharing.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
SC_rel2	There is reciprocity between members within the network.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
SC_rel3	Networked partners show great integrity in sharing valuable trade secrets, technologies and information.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>

SC_rel4	I can rely on a networked partner with whom I share valuable ideas and plan.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
SC_rel5	There is always a high "team spirit" among networked partners.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
Network Social Capital-Cognition								
SC_cog1	Members share the same ambitions and vision for the network.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
SC_cog2	Members view themselves as partners in charting business growth.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
SC_cog3	Our members are committed to the goals of the network.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
SC_cog4	Networked members enthusiastically pursue collective goals and mission.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
SC_cog5	Partners share compatible goals and objectives of business growth.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
Network Social Capital-Structure								
SC_str1	My company has very close ties with members whom I share and receive different valuable resources.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
SC_str2	I frequently interact with members in all my networks to access valuable resources, ideas and information for my business.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
SC_str3	My company promotes frequent and intensive interaction on business ideas and information with other firms.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
SC_str4	I interact with partners from different industries to access vital resources and ideas for my company.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
SC_str5	My company has strong ties with many firms within the network.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>

SECTION B: EFFECT OF ENTREPRENEURIAL NETWORKING ON INNOVATION

Please **place a tick** (✓) on any one of the 7 boxes in front of each underlisted statements to indicate the extent to which you use resources/knowledge from the associations to develop innovation.

INNOVATION		Very Least Agree \longleftrightarrow Very Strongly Agree						
Inov1	My company has introduced a product that was new to the organisation and industry.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
Inov2	I have discovered new market with customers to purchase my products.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
Inov3	I have secured new equipment, machinery and technologies for the firm.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
Inov4	My firm has discovered and removed non-value adding activities in production and delivery processes.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
Inov5	I have made novel changes to my product design and package.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
Inov6	My company has introduced unique techniques to promote and distribute my products.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
Inov7	I now have new procedures, processes and routines to perform activities.	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>

SECTION C: SUSTAINABLE GROWTH

Please **place a tick** (✓) on any one of the 7 boxes in front of each underlisted statements to indicate the extent to which your enterprise has been able to maintain continuous long-term increase in the following areas of the business.

SUSTAINABLE GROWTH		Very Low Extent				Very High Extent		
SuG1	Profitability	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
SuG2	Sales	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
SuG3	Customer satisfaction	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
SuG4	Number of employees	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>
SuG5	Productivity	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 <input type="checkbox"/>	7 <input type="checkbox"/>

SECTION D: BACKGROUND INFORMATION**1. Gender:**

(a) Male [] (b) Female []

2. Education Qualification:

(a) Doctorate (PhD) [] (b) Masters []

(c) First Degree []

(d) HND [] (d) Others []

3. Business Association Membership:

(a) AGI [] (b) GEA []

(c) Both [] (d) Not a member []

4. Sector of Business Operation:

(a) Manufacturing [] (b) Service []

(c) Agriculture []

5. Network [you may choose (x) more than one (1) network]

(a) Social [] (b) Business []

(c) Political [] (d) Managerial []

6. Years of Networking:

(a) 6-10 [] (b) 11-15 []

(c) 16-20 [] (d) 21+ []

7. Region:

(a) Greater Accra Region [] (b) Ashanti Region []

(c) Western Region []

Thank you for completing the questionnaire. Please provide any further comment(s) or suggestion.

---Thank you---

APPENDIX B**INTERVIEW GUIDE FOR SELECTED RESPONDENTS**

- A. Self-introduction (Interviewee's consent to record interview)
- B. Presentation of research theme and purpose to interview
This interview is conducted in fulfilment of a Doctor of Philosophy degree in Business Administration (Entrepreneurship option), for which I am currently enrolled at the University of Cape Coast, Ghana. The interview aims to determine the effect of entrepreneurial networking on innovation and the sustainable growth of SMEs in Ghana.
- C. Profile of participants: Gender and position in the company?
- D. Questions and prompts on networking and its impacts:
- i. How many years have you been a member of the Association of Ghana Industries (AGI), Ghana Enterprise Agency (GEA) or any other entrepreneurial association?
 - Please, what are some of the reasons for joining the association?
 - ii. Do you gain from other companies in your association the resources (knowledge, technology, contacts) you need to operate and grow your business?
 - How easy is it to gain resources from companies in your association?
 - iii. What are some of the major resources gained from companies in your association?
 - Were they unique, useful and relevant to your company?
 - How have the unique resources influenced your innovations?
 - iv. How does the association help you gain the necessary resources for your company's operations and growth?
 - Does the association facilitate, promote or regulate access to resources from companies in the network?
 - v. How do you evaluate the level of trust and the strength of relationships and values among companies in the association?
 - How important are these tacit assets in helping you gain the resources you need to grow your business?
 - vi. Do you use the resources gained from the association, and what has been the impact of using the resources on the long-term growth of your company?
 - vii. What do you think has been the reason some association members do not benefit from the association, especially from gaining valuable resources and other business support?
 - viii. How would you describe the impact of your membership in AGI on your company's long-term growth?
 - ix. Please, is there any other information you wish to share?

APPENDIX C

CURRICULUM VITAE

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EDUCATIONAL BACKGROUND**Aug 2019 – Date**

University of Cape Coast

PhD in Business Administration (Entrepreneurship)

Research Title: Entrepreneurial Networking for Sustainable Growth of Small Enterprises in Ghana.

Aug 2015 – Oct 2017

University of Ghana

Master of Philosophy (MPhil) in Marketing

Research Title: Marketing Innovation and Sustainable Competitive Advantage of Small and Medium Enterprises in Central Region of Ghana

Aug 2008 - Oct 2012

University of Cape Coast

Bachelor of Management Studies, Second Class Honours (Upper Division)

WORK EXPERIENCES**Assistant Lecturer, University of Education, Winneba**

Sept. 2021 – Date

- Supported weekly lectures
- Supervised and marked interim quizzes and semester examinations.

Assistant Lecturer, Cape Coast Technical University, Cape Coast

Feb.2021 - Aug. 2021

- Lectured in Entrepreneurship
- Supervised and marked interim quizzes and semester examinations

Teaching & Research Assistant, University of Ghana Business School

Aug 2017- Jul 2019

- Led research activities for research supervisor
- Conducted weekly tutorial sessions for entrepreneurship class
- Supervised and marked interim quizzes and semester examinations

**Research Assistant (Voluntary Service), University of Cape Coast
Sep 2013 - Aug 2015**

- Reinforced data ethics in research data collection
- Organised tutorials for Undergraduate students
- Supported faculty in supervising examinations

**National Service, University of Cape Coast
Sep 2012 - Aug 2013**

- Conducted weekly tutorial sessions in business ethics and international business
- Developed marking schemes for students' interim assessments
- Supervised examinations and quizzes

ACADEMIC CONFERENCES AND SEMINARS ATTENDED

- Certificate of Oral Presentation.
9th International Conference on Universities, Entrepreneurship and Enterprise Development in Africa, University of Cape Coast (Sept 2021).
Paper title: *Entrepreneurial Capabilities of Small Bus. in an Emerging Economy.*
- Certificate of Oral Presentation.
The 2nd International Conference on Advanced Research in Business, Management, and Economics, Munich-Germany (December 2019).
Paper title: *Digitisation, Customer Engagement, and Performance of Small and Medium Enterprises in Ghana.*

RESEARCH PAPERS

Quaye, D. & Mensah, I. (2019), Entrepreneurial leadership and performance of female-owned SMEs in Ghana”, *Int. Journal of Entrepreneurship and Small Businesses*, 38(½), 19-44: [10.1504/IJESB.2019.102512](https://doi.org/10.1504/IJESB.2019.102512)

Quaye, D. & Mensah, I. (2019) “Marketing innovation and sustainable competitive advantage of manufacturing SMEs in Ghana”, *Management Decision*, 57(7), 1535-1553

Mensah, I. Quaye, D. & Mensah, A.A. (2018) “Customer relationship management practices affecting customer loyalty supporting small airlines in Ghana” *Int. Journal of Electronic Customer Relationship Management*, 11(4), 411-435 DOI:[10.1504/IJECRM.2018.096249](https://doi.org/10.1504/IJECRM.2018.096249)

APPENDIX D

ETHICAL CLEARANCE

UNIVERSITY OF CAPE COAST

INSTITUTIONAL REVIEW BOARD SECRETARIAT

TEL: 0558093143 / 0508878309

E-MAIL: irb@ucc.edu.gh

OUR REF: UCC/IRB/A/2016/1409

YOUR REF:

OMB NO: 0990-0279

IORG #: IORG0009096

10TH JUNE, 2022

Mr. Isaac Mensah
Centre for Entrepreneurship and Small Enterprise Development (CESED)
University of Cape Coast

Dear Mr. Mensah,

ETHICAL CLEARANCE – ID (UCCIRB/CHLS/2022/24)

The University of Cape Coast Institutional Review Board (UCCIRB) has granted Provisional Approval for the implementation of your research **Entrepreneurial Networking for Sustainable Growth of Small Enterprises in Ghana**. This approval is valid from 10th June, 2022 to 9th June, 2023. You may apply for a renewal subject to submission of all the required documents that will be prescribed by the UCCIRB.

Please note that any modification to the project must be submitted to the UCCIRB for review and approval before its implementation. You are required to submit periodic review of the protocol to the Board and a final full review to the UCCIRB on completion of the research. The UCCIRB may observe or cause to be observed procedures and records of the research during and after implementation.

You are also required to report all serious adverse events related to this study to the UCCIRB within seven days verbally and fourteen days in writing.

Always quote the protocol identification number in all future correspondence with us in relation to this protocol.

Yours faithfully,

A handwritten signature in blue ink, appearing to read 'Samuel Asiedu Owusu'.

Samuel Asiedu Owusu, PhD

UCCIRB Administrator

ADMINISTRATOR
INSTITUTIONAL REVIEW BOARD
UNIVERSITY OF CAPE COAST

APPENDIX E

C1. INFORMED CONSENT FORM FOR ADULT

Title: Entrepreneurial Networking, Innovation and Sustainable Growth of Small Enterprises in Ghana

Principal Investigator: Isaac Mensah

Address: Centre for Entrepreneurship and Small Enterprise Development, School of Business, University of Cape Coast

General Information about Research

I am Isaac Mensah, a final year PhD student at the University of Cape Coast Business School. This survey is conducted in fulfilment of a Doctor of Philosophy degree in Business Administration (Entrepreneurship option) for which I am currently enrolled at the University of Cape Coast, Ghana. The purpose of this survey is to investigate how small enterprises in Ghana can use networking to achieve innovation, growth and sustainability. Please you are encouraged to complete this survey to help achieve the research purpose. Your responses will be used for academic purposes only. It will take approximately 15 minutes to complete the survey.

Procedures:

- To find answers to the effect of entrepreneurial networking on the sustainable growth of small enterprises, I invite you to take part in this research project. If you accept, you will be required to fill out a survey (questionnaire) which will be provided and collected by Mr. Isaac Mensah or any of the four (4) Field Assistants.
- You are being invited to take part in this discussion because the researcher feels that your experience as a small enterprise owner-manager and an active member of Association of Ghana Industries (AGI) or Ghana Enterprise Agency (GEA) can contribute much to this discussion.
- You are likely to be asked questions based on your perception of networking in AGI and GEA. Specifically, how your company uses social capital and institutions (policies and regulations) of AGI and GEA to access resources required to achieve innovation, growth, and sustainability. The questions are written in English and are under four areas: the extent to which you leverage network **social capital and network isomorphisms** as mechanisms to achieve **innovations**, leading to the **sustainable growth** of your enterprise.
- If you do not wish to answer any of the questions included in the survey, you may skip them and move on to the next question. Please note that you may

withdraw from the study at any time without any financial or non-financial consequences.

- Field Assistants will contact and deliver the questionnaire to you or the assigned receiver at your place of business. You may opt for a web-based (soft copy) questionnaire to be sent to you through email or any electronic means. Here, your responses will be automatically recorded and seen by the researcher only.
- If you are unable to complete the questionnaire delivered to you, the researcher or any of the Field Assistants will contact you and collect it within two weeks at your place of business.
- The information recorded is considered confidential, and no one else except the researcher [Isaac Mensah] and the four assigned Field Assistants [Yaw Brew, Tutu-Bernard Boahene, James Afadze and Mercy Anning] will have access to the survey. The research team will help you with an interpretation of any question.
- The expected duration of the survey is about 15 minutes.

Possible Risk and Discomfort

- There is no known discomfort, physical, social and psychological risks to any person who take part in this survey. The researcher only expects respondents to spend a maximum of 15 minutes of their busy schedules to complete this survey.

Possible Benefits

- One of the potential contributions of this research is that understanding networking from entrepreneurial perspectives will assist entrepreneurs in Ghana to develop strategies to leverage their networks for innovation, growth and sustainability. Small enterprises owner-manager will understand mechanisms to leverage networks, access the required resources to overcome growth constraints arising from increasing limited resources.

Confidentiality

- I assure you that the information you provide will be treated with the strictest confidentiality. The researcher and the Field Assistants will protect every information about you and the company to the best of our ability. The researcher will ensure that the name of every respondent does not appear anywhere in the final report. Additionally, the data collected from all the respondents are aggregately reported in the final research report. Any clue (e.g., name) to show your identity or company will be removed. Identifiable

data will be encrypted and secured on a hard disk of the personal computer of the researcher only.

- No other person will have access to any identifiable records of you or your company.

Compensation

- There is no financial compensation for participating in this survey. However, the researcher or any of the Field Assistants will express “Thank you” to appreciate your effort. Also, summarised copy of the research report could be given upon request.

Voluntary Participation and Right to Leave the Research

- Please note that you may withdraw from the study at any stage without bearing any consequences. You also reserve the right not to disclose the reason(s) for your withdrawal.
- A copy of the final results of the study can be forwarded to your request through email: ikebus2008@yahoo.com or telephone contact: +233 (0) 541-0541-53.

Contacts for Additional Information

- For any information, clarification and explanation about the survey, you may contact the researcher either by email ikebus2008@yahoo.com or telephone at +233(0)541-0541-43.

Your rights as a participant

This research has been reviewed and approved by the Institutional Review Board of University of Cape Coast (UCCIRB). If you have any questions about your rights as a research participant, you can contact the Administrator at the IRB Office between the hours of 8:00 am and 4:30 p.m. through the phone lines [0558093143](tel:0558093143)/[0508878309](tel:0508878309)/[0244207814](tel:0244207814) or email address: irb@ucc.edu.gh.