

A Holistic and Integrated Framework to Examine Formal Women Business Networks (FWBNs)

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Abstract: Research about women entrepreneurs is not new. In addition to the body of work on women entrepreneurship, networks and businesses, several resources, assistance, and support have been provided through various channels to assist women in their business and entrepreneurial pursuits. Although, research in these areas is popular, there is an aspect that has not gained as much attention – formal women business networks (FWBNs). FWBNs are networks that run like organisations and provide a way for women to network and pursue shared interests while gaining business benefits. These networks provide benefits such as funding, trainings, access to business resource, and are funded by various organisations as well as patronized by several women seeking the benefits they provide. Hence, there is a high expectation on these networks to not only deliver on the very much needed support for women entrepreneurs, but also, to deliver on the ROI to groups, organizations, bodies, and women that give to these networks. Furthermore, recent environmental/external influences like a pandemic have impacted the way entrepreneurs do business and increased the need for support and networks. Thus, it is important that FWBNs that serve to help women businesses be examined more closely and holistically. While literature provides some evidence of the importance of FWBNs, there is limited research about these FWBNs. This could be due to the limited number of frameworks, models or theories that holistically examines all the various possible elements in these networks, as well as the relationships between them. Therefore, a holistic and integrated framework that draws from existing frameworks and provides a lens to measure and explore all possible elements that impact a FWBN, can help provide better insights and understanding in several aspects. This paper is an attempt to provide a holistic and integrated framework that draws from different theories and literature concepts to examine the nature of FWBNs and how they contribute to the success of women entrepreneurs.

Keywords: women entrepreneurs, business networks, women networks, formal women networks, technology, network theory

1. Introduction

Research about women entrepreneurs or the number of initiatives, networks and groups that cater to their business and entrepreneurial needs is not new (Cardella et al. 2020). As years go by, research continues to illuminate areas that may have been misinterpreted, left out or limited in contextual perspectives regarding these areas. In addition to the body of work on in these areas, several resources, assistance, and support have been provided through various channels to assist women in their business and entrepreneurial pursuits (UNCTAD, 2014; Ogundana et al., 2021). Although, research in these areas is extensive and continually developed, there is an aspect that has not gained as much attention – formal women business networks (Ajumobi, 2018; Villesèche and Josserand, 2017). These networks provide benefits such as funding, trainings, access to business resource, and are funded by various organisations as well as patronized by several women seeking the benefits they provide (Delanoe, 2013; Huang et al., 2013; Moletta et al., 2021). Hence, there is a high expectation on these networks to not only deliver on the very much needed support for women entrepreneurs, but also, to deliver on the return on investment (ROI) to groups, organizations, bodies, and women that give to these networks. However, there is limited research about these FWBNs, and as such, there is the risk of proffering inadequate support or solutions to the networks that hold key value and influence on women entrepreneurs and their business endeavours. The shortage of research on FWBNs could be due to a paucity of frameworks, models or theories that entirely examines all the various possible elements in these networks and how they interact to produce outcomes for FWBNs.

Key traditional network theories such as social network theory (SNT) have been used to provide some insights into networks (Borgatti and Halgin, 2011), however, the focus of SNT is mostly on actors within a network, the relationship between the actors, and the flow of resources between them and within the network (Scott, 1991; Wasserman & Faust, 1994). Other entrepreneurship and network theories, also focus on core network elements like actors, relationships and flow of resources (Volkokari, 2015; Ajumobi, 2018; Mlotshwa and Msimango-Galawe, 2020). These theories are lacking when it comes to understanding other elements that can impact networks like FWBNs, especially in the society today. These elements include governance (Provan and Kenis, 2008), information and communication technologies (ICTs) (Crittenden, Crittenden and Ajjan, 2019), and

external support. These elements have been studied in isolation as factors that impact not just business networks, but also women entrepreneurs (Human and Provan, 2000; Lin, 2008). Isolated studies means the body of knowledge will lack sufficient details about how FWBNs operate and if they truly provide benefits and assistance to women entrepreneurs as past studies suggest. Furthermore, the interdependencies between humans, technology, social and economic environments, and governance are often complex, and their effects on the outcomes of an organization need to be understood and explored to fully assess how they impact women entrepreneurs and the business networks they seek for support and success. Therefore, it is important to have a holistic and integrated framework that considers these complexities and interdependences, by providing a lens to measure and explore all possible elements that impact a FWBN. Such a framework can help provide better insights about, (i) how they function, (ii) the elements that interplay within them, (iii) how they realize outcomes, and (iv) how they can improve or expand their reach. This paper suggests such a framework and from this framework, we present a testable and measurable model.

The rest of this paper is structured as follows. First, a review of literature and existing theories, frameworks and elements are presented. Second, the approach taken to develop a holistic and integrated framework is explained as well as the elements being considered. Third, the conceptual model from the integrated framework is discussed. Lastly, this paper concludes with suggestions for future research.

2. Literature review

2.1 Women entrepreneurship and Formal Women Business Networks

Several studies have examined women entrepreneurs in developing countries and provided insight into the nature of their businesses and the way they perform in the business world. For instance, Morris et al. (2006) and Aramand (2012) found that women are often motivated by family responsibilities, need for financial stability, employment and economic factors, as reasons to get into entrepreneurship. These factors are similar to what motivation theories posit as the need for achievement and success factors that influence entrepreneurs into starting their own business (McClelland, 1967). In addition, the contribution of women as individuals or within a group or network, to the development of communities and societies through entrepreneurship has also been documented (Cardella et al., 2020). However, due to personal, societal and economic factors, especially those women in developing countries are often disadvantaged when it comes to running or growing their businesses successfully (Witbooi and Ukpere, 2011; De Vita et al., 2014). These factors include business size, type of business, educational and knowledge level, access to resources, cultural and social influences, inequality, family responsibilities (De Vita et al., 2014; Gupta and Mirchandani, 2018). Past research holds evidence and suggestions that, for women to become successful at their business endeavours or as entrepreneurs, they need to join business networks, especially FWBNs. This is because FWBNs provide women with access to resources and opportunities that can help them overcome economic challenges and help them achieve their business and personal goals for success.

FWBNs are networks that are governed and run like organisations and provide a way for women to network and pursue shared interests while gaining business benefits (Spring, 2009; Davis, 2012; Moletta et al., 2021). These networks provide benefits such as funding, trainings, access to business resources, and are funded or supported by various external organisations, as well as patronized by several women seeking the benefits they provide (Delanoe, 2013; Huang et al., 2013; Ogundana et al., 2021). Traditionally, these networks have managed their operations offline or in-person, however with globalization, 4th industrial revolution and a global pandemic, many of these networks have had to either pivot to a complete online presence or a hybrid of both offline and online operations and presence. ICTs are known to play a vital role in helping organisations and entrepreneurs manage environmental uncertainties and economic challenges, and assist them with operations and decision making (Jamali, Voghouei and Nor, 2014; Engmann and Ngwakwe, 2021).

A typical network will have some core elements like actors, relationships between the actors, and flow of resources between them (Lin, 2008; Borgatti and Halgin, 2011; Kim and Sherraden, 2014). To support these core elements within a network, there will be some form of governance, external support that provided resources to networks as well as use of some technology to help with the operations and maintenance of actors and relationships within a network (Ajumobi, 2018; Engmann and Ngwakwe, 2021). Psychology theorists like Johannisson et al. (2002) suggest that networks have certain dynamics and complexities due to the context they exist in and entrepreneurial orientation and opportunities available to actors/members within networks. These

aspects as argued in dynamic network theory influence the nature of the actors within networks and the roles that they play within a network (Westaby et al., 2014). Similarly, the dynamics and complexities will influence the type of outcomes FWBNs experience. That is, while FWBNs may provide helpful benefits like better business performance, support and information, they may also lead to negative experiences like unhealthy conflicts, unmet expectations and unhelpful relationships (Westaby et al., 2014). For instance, some studies have found that some networks can encourage societal notions that pose as barriers to women (Bierema, 2005) and also fail to provide benefits that will help its actors achieve their business goals (Casserly, 2012).

The discussion above highlights that FWBNs have several elements that make it run and deliver on its outcomes, and together they influence the outcomes or interdependencies amongst the elements. Thus, it iterates the importance of studying FWBNs with a holistic approach that examines and understand these elements and their interactions or resulting outcomes.

The following section discusses the theories that have been used to study networks like formal women business networks (FWBNs).

2.2 Traditional theories and perspectives used to study networks

Social network theory (SNT) is the most widely used theory to examine networks (Borgatti & Halgin, 2011). SNT focuses on actors as nodes (the individuals within a network), the relationships between them (connectors) and the nature of resource exchange or flow between them (Scott, 1991; Wasserman & Faust, 1994). The SNT theory is based on the assumption that the relationships or the positioning of the actors within the network influences the nature of resources the actor receives and in turn, this affects the nature or structure of the network. For instance, SNT posits that an actor that is centrally positioned is more likely to access all the resources within a network, while actors that have loose connections or are excluded within the network will have less access to resources (Haythornthwaite, 1996). SNT is highly useful in understanding how relationships are formed and maintained, the nature of the relationships, and the structure and dynamics from this interplay. It also helps to examine the nature and flow of resources between actors based on the relationships between them. SNT is often conceptualized or operationalized using two perspectives – the structural approach perspective and the resource approach perspective (Kim and Sherraden, 2014).

The structural approach examines how relationships are formed and maintained, as well as the influence of structure and dynamics on these aspects (Lin, 1999). Thus, to examine networks using the structural approach, authors examine the size, range, diversity and the ties (relationships) in a network. Structural approach posits that there can be strong or weak ties, and the strength of a tie is influenced by the level or frequency of intimacy, interaction, and emotional connections between actors (Granovetter, 2005). However, in a network context, stronger ties can lead to redundancy. This is because such ties mostly provide emotional support as opposed to richer or more diverse pool of resources that weak ties can provide, since this links to actors that are not within the usual family-like networks. Women often lean toward networks with strong ties (Redd, 2014), but for them to survive, grow and perform well with their business and entrepreneurial pursuits, they need a balance of strong and weak ties (Greve and Salaff, 2003; Engmann and Ngwakwe, 2021) - the latter is provided by FWBNs.

The resource approach rests on the notion that it is the nature of resources present within a network, or shared between actors with weak ties, that determines the benefits derived from a network and not the strength of the tie (Lin, 2000). Thus, to understand a network, one needs to examine the types of resources that are shared amongst the actors to gain insight into the type of resources present within the network (Kim and Sherraden, 2014). Research shows that the factors that influence women entrepreneurs and their business, also impact the kinds of resources they have and, impacts the nature of resources embedded within a network. As such, the resource approach has been adopted by researchers as a way to unpack some of the inequalities or lack women face in society or within their networks (Loscocco et al., 2009; Kim and Sherraden, 2014).

On their own, both approaches provide good insight into networks. However, a combination of both approaches as argued by Kim and Sherraden (2014), provide a more balanced and improved understanding about networks. A combined framework can be used to examine the actors within a network, the nature of connections/ties, the resources and the flow of resources, as well as the structure and influence of positioning and tie strength on the benefits derived by an actor.

2.3 Limitations of existing theories on networks

As discussed in the previous section, SNT is very instrumental to understanding networks, the actors within them, the nature of relationships and the nature of resources or flow of resources. However, SNT focuses on nodal/human elements and neglects the non-human/non-nodal elements that impact FWBNs in society today (Mejias, 2006). These non-nodal elements are governance, external support and ICTs. While some studies have attempted to discuss these elements, there is still a scarcity of research that unpacks these elements in the context of networks such as FWBNs. For instance, the major attempt to study or theorise about governance in networks has been by Provan and Kenis (2008). They proposed that network governance can be based on three types of models: (i) participant governed model (where every actor gets a say in the governance), (ii) lead organization model (where there is one actor that makes decisions and governs all activities within the network), and (iii) network administrative organization (NAO) (where governance is established based on mandate or by members of the network). Other authors, while they have not being specific about the mode of governance, have alluded to NAO being the mode of governance in most formal women networks (Singh et al., 2006; Spring, 2009).

Getting support and resources from external bodies or organisations is something FWBNs are well known for. For instance, FWBNs will often seek and get professional development, grants, advisory programmes, initiatives and events geared at helping women (Spring, 2009; Delanoe, 2013; Villesèche and Josserand, 2017). Such support and resources are very crucial to the actors within the network and even the success, survival and sustainability of FWBNs. However, literature is lacking in providing understanding about how FWBNs garner and gather support and resources, as well as how these external support and resources impact FWBNs and their contribution to women entrepreneurs.

Similarly, studies that examine the role or use of ICTs in organisations such as FWBNs is scarce. Literature shows that ICTs are very valuable to women entrepreneurs and how they gain capital and form or maintain relationships (Crittenden, Crittenden and Ajjan, 2019). In addition, with globalization, the 4th industrial revolution and societal/environmental/economical issues, leveraging ICTs is no longer an optional strategy but a crucial one for both women entrepreneurs and the networks that serve them. Furthermore, there is a call for studies that proffer ways in which ICTs can better support women business networks, such that effective and helpful policies and initiatives can be created to assist women and FWBNs to leverage ICTs fully for growth, sustainability and performance (UNCTAD, 2014).

An extensive review of literature elsewhere (Ajumobi, 2018) shows that there are several studies and theories that have provided insight into the nature of seven key elements that can be found within a FWBN. A summary of these elements, their definitions and related theories are provided in the table below (see Figure 1).

While the theories highlighted in Figure 1 overlap in certain aspects, they also vary in other aspects. In addition, these theories are often discussed or used in isolation to discuss the elements within a network and not holistically. Consequently, literature and the discussion on existing network theories and entrepreneurship theories highlight a gap that exists regarding women business networks, especially those of a formal nature. In addition, traditional network theories have focused mostly on nodal elements to examine formal networks as well as the interplay between these elements, and the resulting outcomes. The consequence of these gaps is that the understanding provided in current literature shows a scarcity of insight into the way the different non-nodal elements in FWBNs interplay or the influence of these interplay between nodal and non-nodal elements. A lack of understanding in this regard means that there is no adequate knowledge of one of the key structures that influences women entrepreneurial journeys as well as their business. Furthermore, limited or lack of a holistic understanding means government, practitioners and other direct or indirect stakeholders have no way of adequately measuring the impact of FWBNs to women entrepreneurs or what the networks require to best deliver on their promises and expected outcomes. To address this gap in this study, a holistic and integrated framework has been developed by adapting from current literature and existing theories that provided some insight on networks, women entrepreneurship and ICT usage (see Figure 2).

Constructs/concepts/variables	Definition	Related Theories that explain the concept/construct	Sources that discuss the concept/construct
Core elements within the network			
Actors	These are represented as nodes within a network and serve as a core within a network. Through them, resources are exchanged and relationships are formed and maintained. They have varying characteristics, occupy varying positions and differ in their networking behaviour. In FWBNs, the core actors will be mostly women entrepreneurs.	Social Network Theory (SNT), Culture Theory, Disadvantage Theory, Motivation Theory, Entrepreneurship Theories, Social Capital Theory, Agency Theory, Relationship Theories, Capability Theory, Dynamic Theory, Social Position Theory	Haythornthwaite (1996); Borgatti & Halgin (2011)
Positions	Actors could be central, dependent, independent, excluded or included. This could be influenced by the agency of an actor		Bourdieu (1986); Hoang & Antoncic (2003); Lin (2005); Borgatti & Halgin (2011)
Demography Characteristics	This involves information on the age, educational qualification, age of business, type of business, technology use, and marital status. Studies show that these often influence the networking behaviour of women and also influence the way they run their businesses.		Ibarra (1993); Ahl (2006); Radhika & Sreekala (2011); Bogren et al. (2012); Sospeter et al. (2014)
Networking behaviour of women entrepreneurs in sub-Saharan Africa	This involves the networking approach/activity of women entrepreneurs, which informs the types of networks they belong to (formal/informal; homogenous/heterogeneous) and how they go about networking (that is, the relationships they form, how they maintain them and how they make use of the social contacts they make).		Greve & Salaff (2003); Oke (2013); Bogaards, Klerk & Mostert (2011); Omwenga et al. (2013); Sharafizad (2014)
Relationships/ Ties (Strong/weak)	When there is a connection between two or more people, a relationship is formed (Haythornthwaite, 1996). Actors are linked by a relationship when they maintain the relationship. A tie is formed from all the relationships maintained by pairs of actors. These ties can either be strong or weak. The strength of a tie is determined by the frequency of interaction, the level of intimacy and the emotional bonds that link the actors.	Entrepreneurship Theories, Social Capital Theory, Network Resource Theory, Agency Theory, Relationship Theories, Social Position Theory	Scott (1991); Haythornthwaite (1996); Granovetter (2005); Redd (2014)
Flow (Resources)	This involves the distribution of resources between actors which normally occurs along network paths created through relationships between actors. These resources can be in the form of information, social contacts, practical help, collaboration opportunities and cognitive resources, funding, etc.	Entrepreneurship Theories, Social Capital Theory, Network Resource Theory, Agency Theory, Relationship Theories, Social Position Theory, Capability Theory, Dynamic Theory, Network Governance Theory	Scott (1991); Borgatti (2005); Borgatti & Halgin (2011); Davis (2012)
Operating and support mechanisms			
Governance	This refers to the management and coordination of affairs of the network. This should include information about the formation and sustenance of the network. The power mechanisms usually lie with the management team. The governance also undergirds and coordinates exchanges within the network	Entrepreneurship Theories, Social Capital Theory, Network Governance Theory, Economic Theories, ICT Usage Theories, Social Position Theory, Capability Theory, Dynamic Theory, Social Position Theory, Transaction Theory, Governance Theories, Uncertainty Theory, Feminist Theories	Hoang & Antoncic (2003); Provan and Kenis (2008); Borgatti & Halgin (2011); Bonner & Spooner (2011)
ICT (Mobile Tech, Internet, Social media, PCs)	ICTs are technologies that are used to create, store, retrieve, transmit and manage information. These ICT tools assist in facilitating and enhancing the activities within the network and also from the network to other women entrepreneurs.		Jain, (2006); ICRW (2012); Ajjan et al. (2014); Masika (2014); UNCTAD (2014); Salvador et al. (2014); Jenner (2015)
External Support	This involves resources outside the network that are pulled into the network for actors to benefit from. These resources are provided by the governing and operating body or by external stakeholders. They are in the form of training programmes to enhance skills, financial assistance, emotional support and legitimisation.	Entrepreneurship Theories, Social Capital Theory, Network Resource Theory, Agency Theory, Relationship Theories, Social Position Theory, Capability Theory, Dynamic Theory, Network Governance Theory	Bierema (2005); Lin, 2008; Bonner & Sponner (2011); Spring (2009)
Outcomes from network			
Contribution (to W.E. Development)	This involves the contribution of the FWBNs to the development of women entrepreneurs in terms of their personal growth and business performance and can be visible through impact and growth of the network.	Entrepreneurship Theories, Social Capital Theory, Agency Theory, Dynamic Theory	Bonner & Sponner (2011); Spring (2009); Davis & Abdiyeva (2012); Kim (2014); UNCTAD (2014)
Personal Benefits (to W.E.)	This refers to the benefits derived by women network members. It could be in form of social capital and legitimisation.		Gabbay & Leenders (1991); Portes (1998); Dawson et al. (2011); Kim (2014)

Figure 1: Literature summary of elements within a FWBN and related theories (Sourced from Ajumobi (2018))

The following section discusses the steps and approach followed to develop the framework.

3. Research approach - developing a holistic and integrated framework and model to understand FWBNs

To develop the framework and model proposed to examine FWBNs, this study, adopted guidelines provided by Whetten (1989) and Gregor (2006). As noted by Sutton and Shaw (1995), theory is referred to with several terms, however, it should be noted that in this paper, a framework and a conceptual model are also referred to as theory (Gregor, 2006). Gregor (2006) and Whetten (1989) argue for principles and guidelines that should be considered and accounted for when developing or evaluating theories. The discussion by these authors are extensive and cannot be entirely outlined in this current article, however, Table 1 provides a summarised version of the guidelines proposed as well as how they have been accounted for in this study. The integrated framework in Figure 2 and the conceptual model in Figure 3 is the result of following these guidelines.

Table 1: Guidelines for developing theories by Whetten (1989) and Gregor (2006)

Guidelines for developing theories by Whetten (1989) and Gregor (2006)	How they have been accounted for in this study
First, express the what, how and why of the theory (Whetten, 1989)	These aspects have been accounted for in the following ways: 1. By outlining theories related to the phenomenon in the literature review as well as the development and presentation of the integrated framework which has drawn on the theories highlighted 2. By developing the conceptual model from the integrated framework created above 3. By discussing the theoretical perspective that can be used to assess, measure and explain the constructs and the relationships presented in the model
Explicate the scope (who, where, when) of the theory (Whetten, 1989; Gregor, 2006):	The scope of the theory is defined by the application of this model to the study of FWBNs with the adoption of the configuration theory and its principles. Propositions formulated to test the model also provide a scope for the theory
Third, articulate the purpose/goal of the theory (Gregor, 2006)	This framework and conceptual model have been created to analyse and explain phenomena (Gregor, 2006). In this context, the phenomena in focus is FWBNs, particularly regarding their structure and the nature of interplay and relationships between the elements highlighted for FWBNs

					Expected Outcomes
Base Theory (Social Network Theory – SNT)	Social Network Theory (SNT)				
Proposed Core/ Nodal elements/ concepts of a network	Actors [Position]	Relationships/Ties	Structure	Resources [Flow]	Contribution and Personal Benefits
Other Theories	<ul style="list-style-type: none"> • Culture Theory • Disadvantage Theory • Motivation Theory • Entrepreneurship Theories • Social Capital Theory • Agency Theory • Relationship Theories • Capability Theory • Dynamic Theory • Social Position Theory 	<ul style="list-style-type: none"> • Entrepreneurship Theories • Social Capital Theory • Network Resource Theory • Agency Theory • Relationship Theories • Social Position Theory 	<ul style="list-style-type: none"> • Entrepreneurship Theories • Social Capital Theory • Network Governance Theory • Economic Theories • ICT usage Theories • Capability Theory • Dynamic Theory • Social Position Theory • Transaction Theory • Governance Theories • Uncertainty Theory • Feminist theories 	<ul style="list-style-type: none"> • Entrepreneurship Theories • Social Capital Theory • Network Resource Theory • Network Governance Theory • Agency Theory • Relationship Theories • Capability Theory • Dynamic Theory • Social Position Theory 	<ul style="list-style-type: none"> • Entrepreneurship Theories • Social Capital Theory • Dynamic Theory • Agency Theory
Theorised Nodal and non-nodal elements/ concepts of a network	Actors [Position] [Demographic Attributes] [Networking Approach]	Relationships/Ties	Structure [Governance] [ICTs]	Resources [Flow] [External Support]	Contribution and Personal Benefits

Figure 2: Integrated theoretical framework to examine FWBNs (Sourced and Adopted from Ajumobi (2018))

3.1 Proposed conceptual model and theoretical lens to examine FWBNs

Following the discussion and presentation on the various theories that can increase understanding of and aid research enquiries involving formal women business networks, this paper presents a conceptual model of the key elements in FWBNs. This model as shown in Figure 3 serves as contribution to theory that explains the relationship and interplay between the key elements in FWBNs. The creation of this model/theory has been based on the guidelines provided by Whetten (1989) and Gregor (2006) for establishing or testing theories.

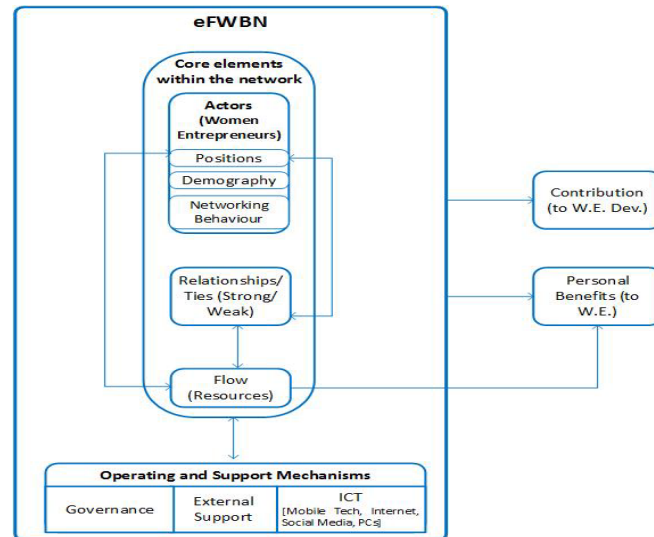


Figure 3: Proposed conceptual model to examine FWBNs (Sourced and Adopted from Ajumobi (2018))

We argue that within a FWBN, there will be core elements as proposed by SNT (Haythornthwaite, 1996; Borgatti & Halgin, 2011). These core elements are actors, relationships and ties between the actors, and flow of resources between the actors and within a network. Actors within a network will have various positions (Borgatti and Halgin, 2011), be of different demographics and networking behaviour (Ibarra, 1993; Sharafizad, 2014; Greguletz, Diehl, and Kreutzer, 2019). These different attributes of an actor will impact the ties/relationships the actors have and the flow of resources (Borgatti and Halgin, 2011). As shown in the model, this will be a bidirectional relationship. Furthermore, the relationships based on the nature of the ties will influence how resources flow within the network and vice versa (Lin, 2000; Semrau et al., 2014). Just as there are core elements within a network, there will be operating and support mechanisms (OSMs) like governance, ICTs and external support. These three elements will impact the core elements within the network and the overall structure of the network. For example, the use of ICTs can influence how relationships are formed or maintained and the flow of resources (UNCTAD, 2014; Crittenden, Crittenden and Ajjan, 2019). Also, the nature of external support and the resulting resources can determine how resources exist within the network and the resulting actors within the network (Turrini et al., 2010; Ajumobi and Kyobe, 2017). Governance is proposed to not only influence the core elements within the network, but also other OSMs like ICTs and external support (Human and Provan, 2000; Turrini et al., 2010). Lastly, the core elements and OSMs will ultimately influence the outcomes of FWBNs (Villesèche and Josserand, 2017; Ajumobi, 2018). The outcomes being - the nature of the contribution FWBNs make to the growth, performance and success of women entrepreneurs and their businesses; and the perceived benefits reported by the actors within the network.

To examine such interplay and unpack the dynamics that will be present within a FWBN, we propose adopting the configurational approach. The configurational approach holds the assumption that an organization will have certain elements such as leadership, structure, technology, and environment, that drive other elements within an organization and form a configuration that produces different outcomes (Miller, 1987; Meyer et al., 1993). Depending on the nature of the interplay between the elements and the configuration, different organisations will have different outcomes (Miller, 1987; Meyer et al., 1993). To fully understand or examine the configuration and resulting outcomes in an organization, it must be done in a holistic manner such that the patterns that have created the interplay and organization can better understood (Meyer et al., 1993; Fiss, 2007). Furthermore, to measure or understand this configuration, the interplays with the configuration and the resulting outcomes, a bidirectional view, as opposed to a linear view needs to be adopted (Fiss, 2007).

With FWBNs being a form of organization, we propose that to unpack them, understand the elements that interact within them, and the outcomes that result from this interaction, they need to be studied from a holistic, and configurational perspective. For example, the interplay between actors and the governing structures, or the use of ICTs and the nature or exchange of resources between actors within a network will not be linear and will not exist by itself - it will influence and be influenced by the configuration of the network. Hence, a holistic and bidirectional measurement of FWBNs and the elements within them can provide insights and understanding

that can help FWBNs support their networks, and actors/members better, as well as help stakeholders with relevant and better suited initiatives and support measures for FWBNs.

4. Conclusion

This study's goal was to highlight the limitations of existing frameworks and theories on women entrepreneurs and FWBNs. To this end, we developed a framework and model that can guide future research enquiries on FWBNs. The new holistic and integrated framework has adapted from theories such as SNT (as the core theoretical foundation), entrepreneurship theories, governance theories, to mention a few. With the new framework and model, research studies can explore and explain the relationship and interplay between elements such as actors, relationships, flow, governance, external support, ICT usage and network contribution and benefits within FWBNs. With insights from such studies, improved theoretical views and discussions can be added to the body of knowledge about networks and women entrepreneurs. Practically, with understanding about the nature of FWBNs and how this results in contribution to women, governments, organisations, funders, and women entrepreneurs can provide better support that will consequently lead to improved support and benefits to women entrepreneurs. We acknowledge that in the current paper, not all aspects have been duly discussed, thus, future studies can further explore the needs and experiences of women entrepreneurs and how they can be linked to professional networks. We also recommend that the model proposed in this study be tested within empirical settings to further our understanding about FWBNs.

References

- Ajumobi D.O., and Kyobe, M. (2017). Alignment of human competencies with mobile technology and business strategy by women-led SMEs in South Africa. *The Electronic Journal of Information Systems in Developing Countries*, 80(8), 1-25.
- Ajumobi, D.O. (2018). Exploring ICT-supported Formal Women Business Networks (eFWBNs) the case of Kenya and South Africa.
- Aramand, M., 2013. Women entrepreneurship in Mongolia: the role of culture on entrepreneurial motivation. *Equality, Diversity and Inclusion: An International Journal*.
- Bierema, L.L., 2005. Women's networks: a career development intervention or impediment?. *Human Resource Development International*, 8(2), pp.207-224.
- Borgatti, S.P. and Halgin, D.S., 2011. On network theory. *Organization science*, 22(5), pp.1168-1181.
- Cardella, G.M., Hernández-Sánchez, B.R. and Sánchez-García, J.C., 2020. Women entrepreneurship: A systematic review to outline the boundaries of scientific literature. *Frontiers in psychology*, 11.
- Casserly, M. (2012). Why Women's Networking Groups Fail. *Forbes*. Retrieved from <http://www.forbes.com/sites/meghancasserly/2012/07/02/why-womensnetworking-groups-fail/>
- Crittenden, V.L., Crittenden, W.F. and Ajjan, H., 2019. Empowering women micro-entrepreneurs in emerging economies: The role of information communications technology. *Journal of Business Research*, 98, pp.191-203.
- Davis, P.J., 2012. The global training deficit: the scarcity of formal and informal professional development opportunities for women entrepreneurs. *Industrial and Commercial Training*.44(1), pp.19-25.
- De Vita, L., Mari, M., and Poggesi, S. (2014). Women entrepreneurs in and from developing countries: Evidences from the literature. *European Management Journal*, 32(3), pp.451-460.
- Delanoë, S. (2013). From intention to start-up: the effect of professional support. *Journal of Small Business and Enterprise Development*, 20(2), pp.383-398.
- Engmann, A. and Ngwakwe, C.C., (2021). A moderation approach to online social interaction in entrepreneurship using the effectuation and causation theory. *Journal of Governance and Regulation*, 10(2), pp. 328-342
- Fiss, P. C. (2007). A set-theoretic approach to organizational configurations. *Academy of Management Review*, 32(4), 1180-1198.
- Granovetter, M. (2005). The impact of social structure on economic outcomes. *Journal of economic perspectives*, 33-50.
- Gregor, S. (2006). The nature of theory in information systems. *MIS quarterly*, 611-642.
- Greguletz, E., Diehl, M.R. and Kreutzer, K., 2019. Why women build less effective networks than men: The role of structural exclusion and personal hesitation. *Human Relations*, 72(7), pp.1234-1261.
- Greve, A., and Salaff, J. W. (2003). Social networks and entrepreneurship. *Entrepreneurship Theory and Practice*, 28(1), pp.1-22.
- Gupta, N., and Mirchandani, A. (2018). Investigating entrepreneurial success factors of women-owned SMEs in UAE. *Management Decision*, 56(1), pp. 219–232
- Haythornthwaite, C. (1996). Social network analysis: An approach and technique for the study of information exchange. *Library & Information Science Research*, 18(4), pp.323-342.
- Human, S.E. and K.G. Provan. (2000). Legitimacy Building in the Evolution of Small-firm Networks: A Comparative Study of Success and Demise. *Administrative Science Quarterly*, 45(2), pp.327–65.
- Ibarra, H. (1993). Personal networks of women and minorities in management: A conceptual framework. *Academy of Management Review*, 18(1), 56-87.

- Jamali, M. A., Voghouei, H., and Nor, N. G. M. (2014). Information technology and survival of firms. *NETNOMICS: Economic Research and Electronic Networking*, 15(2), pp.107-119.
- Johannisson, B., Ramírez-Pasillas, M., and Karlsson, G. (2002). The institutional embeddedness of local inter-firm networks: a leverage for business creation. *Entrepreneurship & Regional Development*, 14(4), pp.297-315.
- Kim, S. M., and Sherraden, M. (2014). The Impact of Gender and Social Networks on Microenterprise Business Performance. *Journal of Sociology & Social Welfare*, 41(3), pp.49.
- Lin, N. (1999). Building a network theory of social capital. *Connections*, 22(1), pp.28-51.
- Lin, N. (2000). Inequality in social capital. *Contemporary Sociology*, 29(6), pp.785-795.
- Lin, N. (2008). A network theory of social capital. In D. Castiglione, J. V. Deth, & G. Wolleb (Eds.), *Handbook of social capital* (pp. 50-69). London: Oxford University Press.
- Loscocco, K., Monnat, S. M., Moore, G., and Lauber, K. B. (2009). Enterprising Women. A Comparison of Women's and Men's Small Business Networks. *Gender & society*, 23(3), pp.388-411.
- McClelland, D. C. (1967). Money as a motivator: Some research insights. *The McKinsey Quarterly*, 4(2), pp.10-21.
- Mejias, U. (2006). *The tyranny of nodes: Towards a critique of social network theories*. Retrieved from <http://blog.ulisesmejias.com/2006/10/09/the-tyranny-of-nodes-towards-a-critique-of-social-network-theories/>
- Meyer, A. D., Tsui, A. S., and Hinings, C. R. (1993). Configurational approaches to organizational analysis. *Academy of Management Journal*, 36(6), pp.1175-1195.
- Miller, D. (1987). The genesis of configuration. *Academy of Management Review*, 12(4), pp.686-701.
- Mlotshwa, S.H. and Msimango-Galawe, J., 2020. The risk of overvaluing networking on small and medium enterprises performance in Gauteng province, South Africa. *The Southern African Journal of Entrepreneurship and Small Business Management*, 12(1).
- Moletta, J., de Carvalho, G.D.G., do Nascimento, R.F., Barboza, B.M.L., Resende, L.M. and Pontes, J., 2021. Business networks of women entrepreneurs: an analysis of the expectation and reality of factors that affect trust in a business network. *Journal of Intelligent Manufacturing*, pp.1-16.
- Morris, M. H., Miyasaki, N. N., Watters, C. E., and Coombes, S. M. (2006). The dilemma of growth: Understanding venture size choices of women entrepreneurs. *Journal of Small Business Management*, 44(2), pp.221.
- Ogundana, O.M., Simba, A., Dana, L.P. and Liguori, E., 2021. Women entrepreneurship in developing economies: A gender-based growth model. *Journal of Small Business Management*, 59(sup1), pp.S42-S72.
- Provan, K. G., and Kenis, P. (2008). Modes of Network Governance: Structure, Management, and Effectiveness. *Journal of Public Administration Research and Theory*, 18(2), pp.229-252.
- Scott, John. (1991). *Social network analysis: A handbook*. London: Sage Publications.
- Semrau, T., and Werner, A. (2014). How exactly do network relationships pay off? The effects of network size and relationship quality on access to start-up resources. *Entrepreneurship Theory and Practice*, 38(3), pp.501-525.
- Sharafizad, J. (2014). *The Networking Behaviour of Women Small Business Owners*. Retrieved from <http://ro.ecu.edu.au/cgi/viewcontent.cgi?article=2423&context=theses>
- Spring, A. (2009). African women in the entrepreneurial landscape: Reconsidering the formal and informal sectors. *Journal of African Business*, 10(1), pp.11-30.
- Sutton, R. I., and Staw, B. M. (1995). What theory is not. *Administrative Science Quarterly*, pp.371-384.
- Turrini, A., Cristofoli, D., Frosini, F., and Nasi, G. (2010) Networking Literature about Determinants of Network Effectiveness. *Public Administration*, Vol. 88, No. 2, pp 528-550.
- UNCTAD. (2014). *Empowering Women Entrepreneurs through Information and Communications Technologies: a practical guide* (pp. 1-76). Retrieved from http://unctad.org/en/PublicationsLibrary/dtlstict2013d2_en.pdf
- Wasserman, Stanley, and Faust, Katherine. (1994). *Social network analysis*. Cambridge, MA: Cambridge University Press.
- Valkokari, K., 2015. Describing network dynamics in three different business nets. *Scandinavian Journal of Management*, 31(2), pp.219-231.
- Villesèche, F. and Josserand, E., 2017. Formal women-only networks: Literature review and propositions. *Personnel Review*.
- Westaby, J. D., Pfaff, D. L., and Redding, N. (2014). Psychology and Social Networks: A Dynamic Network Theory Perspective. *American Psychologist*, 69, (3), pp.269
- Wharton, F., and Brunetto, Y. (2007). Women entrepreneurs, opportunity recognition and government-sponsored business networks. *Women in Management Review*, 22(3), pp.187-207.
- Whetten, D. A. (1989). What constitutes a theoretical contribution? *Academy of Management Review*, 14(4), pp.490-495.
- Witbooi, M., and Ukpere, W. (2011). Indigenous female entrepreneurship: Analytical study on access to finance for women entrepreneurs in South Africa. *African Journal of Business Management*, 5(14), pp.5646-5657
- Zengyu Huang, V., Nandialath, A., Kassim Alsayaghi, A., and Esra Karadeniz, E. (2013). Socio-demographic factors and network configuration among MENA entrepreneurs. *International Journal of Emerging Markets*, 8(3), pp.258-281