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Jalleh Sharafizad
Edith Cowan University

Kerry Brown
Edith Cowan University

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Regional small businesses' personal and inter-firm networks

Purpose:

The purpose of this paper is to examine the role of personal and inter-firm networks, and the elements that contribute to the formation and management of these networks for regional small businesses.

Design/methodology/approach

Semi-structured interviews were conducted with 20 small business owners located in regional areas.

Findings

The findings highlight key characteristics of regional small business owners' networks. Findings indicated that participants relied strongly on their personal networks for business purposes. This study shows that while personal networks adapted and changed into informal inter-firm networks, weak-tie relations within inter-firm networks were unlikely to develop into close personal networks. Novel findings also include a preference for 'regional interactions' and included regular collaboration with local business competitors. Although the participants used social media to manage their business through personal networks, results confirmed there was a lack of awareness of the benefits of inter-firm networks with businesses outside the local region.

Originality/value

While it is acknowledged small business owners use personal and inter-firm connections to maintain and grow their business, there is a lack of research examining both of these networks in the same study. This research addresses this gap and presents five propositions as a useful direction for future research. This paper adds to the evolution of existing knowledge by expanding understanding of the formation of business networks and conditions of business trust relations within a regional context.

Key words: Personal networks, Inter-firm networks, Small business, Regional businesses, Social network theory.

1. Introduction

Relationships are a core part of business activity and business owners are dependent on the resources available to them via their networks (Sullivan and Ford, 2014). Expanding business relationships can lead to dealing with a complex network of companies, government organisations and professional entities (Sharafizad and Coetzer, 2017). Within the small business context, the development of networks can play a significant role in business

sustainability and growth, as many small businesses have very few financial resources (Corredoira and McDermott, 2018; González-Masip et al., 2019), and lack contacts or pipelines to assist them with growth opportunities (Bratkovič Kregar and Antončič, 2019).

To remain competitive, Park et al., (2018) contend businesses need to develop and utilise both their personal and business relationships. In this way, businesses acquire limited and valuable resources, jointly develop new products or services and, exchange information and expertise (Breznitz, Clayton, Defazio, and Isett, 2018; Mora Cortez and Johnston, 2018, Shukla and Akbar, 2018).

While there is agreement that business networks can help improve business performance, there is a lack of clarity about how small business owners in regional areas identify, form and manage their network relations both at a personal and inter-firm level (Sharafizad and Coetzer, 2017). Furthermore, many small business researchers have called for additional qualitative network studies aimed at developing a more nuanced understanding of small business owners' networks (Hair and Sarstedt, 2014; Wilson, Wright, and Altanlar, 2013). This study addresses this gap and introduces an added business dimension by focussing on the regional specificity of small businesses and their networks. Using 20 semi-structured interviews with small businesses operating in regional Australia, this study addresses the following research questions:

RQ1: What is the role of personal and inter-firm networks for small businesses in regional areas?

RQ2: What are the opportunities and barriers relating to the creation and development of personal and inter-firm networks among these businesses?

RQ3: What elements contribute to the formation and management of personal and inter-firm networks among these businesses?

This paper proceeds by reviewing the literature on small business and putting forward theoretical presumptions. First, drawing on social network theory, this study seeks to explain the influences of regionality on small business owners' networks. Second, while belongingness theory argues that a need to belong is a fundamental to human interpersonal relationships (Baumeister and Leary, 1995), this study shows how being located within a region can heighten this need and influence how and with whom individuals network. This study contributes to the evolution of existing knowledge to gain a better understanding of business networks in regional areas. These findings can inform government agencies and small business associations in regional areas to assist local businesses survive and grow by helping business owners to create and develop effective networks.

2. Literature review

The small business sector is an important and well-documented source of gross domestic product, employment and revenue (Esposito et al., 2019; Steffens and Omarova, 2019). Beyond their economic contributions, small businesses form the fabric of regional communities (ABS, 2016). In Australia, regions are defined as geographic areas located outside capital cities. This aspect also implies "being located outside the country's centres of economic growth, administrative power, and political influence" (Eversole, 2017, 307). Regions have both geopolitical dimensions relating to local government jurisdiction and geospatial dimensions, relating to distance to major urban areas (Painter, 2008). In the Australian small business context, and in this research, our focus is on the geospatial aspect of business location. We propose that the concept of regionality is apposite to this research endeavour, as the condition of being regional establishes a unique dynamic to how small businesses operate within a regional context. The term regionality means the property of being regional (Gray, Gray, and Lawrence, 2001). We argue the notion of regionality within the Australian business context is core as it imposes additional limitations on small businesses located in regions, as these businesses are likely to be competitively disadvantaged compared to small businesses located

in metropolitan areas or peri-urban spaces defined by Allen (2003) as the transition zones between regional and urban areas.

The challenges faced by small businesses in regional areas may be exacerbated due to resource constraints, isolation from customers and suppliers and, lack of supportive government policies (Evans and Bosua, 2017; Lejpras, 2015). Due to geographical remoteness, many regional small businesses are unable to network effectively with key stakeholders (Perkins and Khoo-Lattimore, 2018). Business networks offer a basis for identifying critical stakeholders who can assist small businesses to gain competitive advantage through collaboration, sharing of resources, reducing risks and costs, and transfer of knowledge and skills (Leung, Xu, Wu, and Luthans, 2019, Perkins and Khoo-Lattimore, 2019). Small businesses can find difficulty in determining which stakeholders are critical to effectively activating their networks (Bratkovič Kregar and Antončič, 2019; Schoonjans et al., 2013; Stewart et al., 2014).

Earlier studies of networks focused on differences between strong and weak social ties (Granovetter, 1973). Strong ties, such as family and close friends, are typically more readily available than weak ties, and result in more frequent interactions. A study by Greve and Salaf (2003) found individuals are more likely to network with strong ties than with weak ties to gather information and support (Greve and Salaf, 2003). However, weak ties are more likely to have access to information different from that which already exists within the individual's network (Granovetter, 1973; Seibert, Kraimer, and Liden, 2001).

Later studies investigated social network concepts in the context of small business and entrepreneurship, to further demonstrate the use and value of network ties (Anderson and Jack, 2002; Cope et al., 2007; Jack, Dodd, and Anderson, 2004). These studies were followed by more detailed investigations of relationship ties (Jack 2010; Jack et al., 2008; Knoke and Yang 2008; Scott 2000). By separating networks based on ties or the strength of relationships

between contacts, Jack (2010) and Jack et al. (2008) challenged the liabilities of strong ties for businesses.

Despite the extensive research into networks within the business context, there is a lack of research examining small business owners' networks, within a regional context. Research suggests that unique characteristics of regions can be leveraged to support improved economic activities (Storper, 1997) and small business owners within regional areas can use their networks to promote internationalisation (Sedziniauskiene, Sekliuckiene, and Zucchella, 2019). However, these studies lack guidance on how regional small business owners can use their networks to identify and build opportunities for their businesses. Given the economic significance of small business to the Australian economy (Armstrong, and Yongqiang, 2017), the importance of regional businesses for local communities, and the importance of small business owners' networks, this study furnishes key insights into how these businesses utilise their personal and inter-firm networks.

2.1 Social network theory

This research is guided by social network theory (SNT) which explains the interpersonal mechanisms and social structures that exist among interacting entities of individuals, groups or organisations (Granovetter, 1973, Mitchell, 1969). SNT proposes networks are comprised of three key elements – network structure (actors within a network and the relationship between them); network interaction (the mechanism or mode of interaction used by the actors); and network content (the flow or exchange between actors within a network) (Granovetter, 1973, Mitchell, 1969). In order to understand how regionality affects small business owners' networks, all three network components need to be considered. Hence, this research focuses on network structure, interactions, and the content of small business owners' personal and inter-firm networks.

This study explores networks of regional small businesses both at an individual level through business owners' personal contacts and at the business level through inter-firm (business-to-business) networks. A personal network, also referred to as a social network or informal network, includes informal sources and personal contacts within the business owner's network such as family, friends, and previous colleagues/employers (Farr-Wharton and Brunetto, 2007). The relationships are based on informal, non-contractual agreements and code of conduct and provide business owners with both tangible support such as financial transactions and intangible support including advice, information, and friendship (Sharafizad and Coetzer, 2017; Farr-Wharton and Brunetto, 2007).

Inter-firm networks, also referred to as business networks, are often formal, contractual agreements between various independent organisations (Farr-Wharton and Brunetto, 2007). The Formal processes are used to interact with each other and these networks are based on economic, information or knowledge exchange. Inter-firm networks are business-to-business networks that provide connectivity between firms across industry clusters and supply chains (Chen, Tan and Jean, 2016). These networks are created purposefully to give small businesses the ability to be globally competitive through increased resources, greater bargaining power, transfer of technological know-how and market information (Chen et al., 2016; Schotter, Mudambi, Doz, and Gaur, 2017). An informal personal relationship can be transformed into a formal inter-firm relationship and vice versa (Chetty and Agndal, 2008).

It must be noted it is not always possible to differentiate between personal networks and inter-firm networks. It is reasonable to assume that some inter-firm network agreements can be informal, and inter-firm network activities are not completely independent of some form of personal relationship. To clearly distinguish between small business owners' different types of networks, this study defines personal networks as informal strong-tie relationships between the business owners and their personal connections outside the business, and use of informal

social relations in order to access tangible and intangible resources (Sharafizad and Coetzer, 2017). Inter-firm networks between independent firms maybe based on both formal legal contractual agreements, and informal arrangements including advice giving, training and product updates. Table 1 provides a brief summary of the characteristics of these different types of networks.

Insert Table 1 Here

Both personal and inter-firm networks have been found to be integral to the success of small businesses (Bohner and Seta, 2014), with studies (Park et al., 2018; Ryan et al., 2019) highlighting the positive link between business performance and personal or inter-firm networks. Nevertheless, interpersonal and inter-firm networks are rarely addressed in the same study. This research addresses this gap in the literature by examining the role of these two types of networks for regional small businesses.

2.2 Personal and inter-firm networks

Given that small business owners often lack the skills and know-how needed to develop their business, finding people to supply needed skills and persuading them to contribute are critical aspects of their networking (Schoonjans et al., 2013; Stewart et al., 2014). Small business owners' networks systematically change and vary over the business lifecycle (Greve and Salaff, 2003) and may be based on personal relationships with their contacts (Sharafizad and Coetzer, 2017). The inter-personal aspect of networking is key to most business relationships.

However, business competitiveness cannot only be improved through personal network relationships alone. In order to survive, many small businesses partner with other organisations (Gretzinger and Royer, 2014; Wang et al., 2018) or develop industrial symbiosis networks (Mileva-Boshkoska et al., 2018) to gain knowledge, achieve economies of scale, acquire new

technologies, and enter new markets (Beamish and Lupton, 2016). Symbiosis networks enable the flow of materials, capital, information, and create value in the form of energy growth through the symbiotic system. This business strategy gives small businesses the ability to be globally competitive, aiding them to create niche markets (Dana et al., 2008).

Another strategy for small businesses is to form collective or cooperative networks with their competitors (Geldes et al., 2017; Wang and Yang, 2013). Development of inter-firm networks among competing small businesses can help increase the quality and productivity levels of the small firms and create synergy of positive impacts for small businesses operating within the same production chain (Abdullahi, 2018). There are several factors that influence the stability and effectiveness of inter-firm networks, particularly among competing businesses, including differences in the economic interests of the businesses (Le Roy and Guillotreau, 2011) and business owners' entrepreneurial skills and capacities (Crick and Crick, 2019; Yousaf and Majid, 2017).

Collective strategies such as cooperation, alliance or partnership, either through personal contacts or inter-firm agreements, have been the subject of research endeavour in recent years (Blachetta and Kleinaltenkamp, 2018; Crick, 2019; Mora Cortez and Johnston, 2018, Waluszewski, Snehota, and La Rocca, 2019). The impact of globalisation and technological advancement over the past 50 years have tremendously encouraged scholarly research on the successful management of inter-firm collaboration (Beamish and Lupton, 2016). Businesses do not exist in isolation, and business owners need to use their network of personal and business contacts to acquire new and additional information and resources for their business (Jack, 2010). While well managed networks, both personal and inter-firm can positively impact the operations of a small business, it is acknowledged that networking requires time and resources to bear results (Abdullahi, 2018). Hence, such relationships need to

be formed and managed only if they are beneficial to the business and have the potential to improve business performance.

2.3 Networks and business performance

Networks can enable small businesses to access and utilise required resources often at minimum or no cost (Audretsch et al., 2014; Delić et al., 2018). However, some researchers such as Hitt, Ireland and Hoskisson (2009) and Kumar (2019) argue that networking can waste valuable resources on unproductive activities. Furthermore, some networks may lock-in collaborating firms and prevent them from forming new relationships with other businesses (Crespo et al., 2014; Mattsson and Cassel, 2019). These firms may lose potentially valuable new collaborative relationships and business opportunities (Williams and Vorley, 2014). Additionally, depending on the network bonds between firms, one member's mistake(s) may severely affect other partnering firms' effectiveness and reputation (McFarland et al., 2008). Hence, appropriate management and monitoring of these network relationships and activities is crucial.

In order to properly manage these networks, small business owners are required to have good relational skills and sound knowledge of the capabilities and trustworthiness of potential partners (González-Masip et al., 2019; Veflen et al., 2019). Effective management of these relationships can help eliminate conflicting activities and avoid potential lock-in effects (Lumineau and Malhotra, 2011; Yuan et al., 2019). However, limited resources, lack of training, knowledge and skills often restricts small business owners' ability to successfully manage these network relationships (Corredoira and McDermott, 2018).

Despite such arguments, there is a general consensus that networks benefit all businesses, in particular smaller firms. Businesses that have a diverse and strong network within and outside their local region, often have a higher chance of business survival (Stam, 2007). Regional small businesses, in particular, need to develop their networks beyond their

local regions, to provide them with greater access to knowledge and innovation (Huggins and Johnston, 2010). The ability of a business to position itself in the market in this era of increasing environmental challenges and international competition can be extremely difficult, and remains a fundamental concern for many business owners. These competitive pressures can be managed by forming ties or relationships with partners who possess capabilities and resources to help small firms recognise and seize opportunities, thus increasing their competitiveness and commercial performance (Fantin, 2019; Shukla and Akbar, 2018). Furthermore, networks can provide small business owners with a learning platform to help them overcome problems and minimise risks (Leung et al., 2019; Ryan et al., 2019).

In the regional context, strategic networking will not only benefit the business, but also further strengthen regional economic activity. Regional small businesses often struggle to establish and maintain any formal network with businesses outside their local areas when compared to their city counterparts (MacGregor, 2004). This study was undertaken to examine the role of personal and inter-firm networks for regional small businesses and to understand how regionality shapes these small business owners' network configuration and network management.

3. Method

As the research is based on the participants' personal experiences with the aim of determining how they manage their networks, there was a good fit between deploying an abductive qualitative approach and the desired outcome (Aguinis and Vandenberg, 2014; King et al., 2018). In this method, the researchers are aware that businesses use their networks for business purposes but want to discover new explanations and facts (Dubois and Gadde, 2002), so new knowledge regarding regional small business owners' personal and inter-firm networks can be derived. The following section explains the data collection and analysis processes.

3.1 Respondents

Using a mix of purposeful and snowball sampling to locate relevant participants (Biernacki and Waldorf, 1981), eligible participants forming part of the cohort of small business owners who were majority owner, managed their own business were contacted and interviewed. Franchises were not included in the research as it was anticipated that these business owners are likely to be more reliant on their relationship with the franchisor (Kaufmann and Stanworth, 1995), than other individuals within their network and these circumstances were beyond the scope of this study.

Data were collected through semi-structured interviews, with small business owners in the South West Region of Western Australia (Bunbury, Busselton and Margaret River). This method allowed each participant to share their personal experiences of their business and their networks (Creswell, 2012). Networks are categorised by the perceptions of those in the network and the meanings they attach to specific relationships and how they should behave with regard to these relationships (Mitchell, 1969). The data obtained from the interviews represented the participants' differing views of reality and allowed the researchers to examine processes and patterns about their relationships and socially constructed nature of reality (Guba and Lincoln, 1994).

Qualitative studies generally need to include between 20 and 30 interviews (Marshall et al., 2013; Sharafizad and Coetzer, 2017). This study falls within this range. Saturation of findings (Mariampolski, 2006) was reached after 20 interviews, at which point information began to re-inforce information already gathered. The researchers purposely targeted both females and males, people from different age groups and backgrounds and owning various types of businesses to gain a variety of viewpoints about the research topic. Table 2 provides the demographic data of the business owners and their businesses.

Insert Table 2 Here

3.2 Data analysis

During the interviews, participants were asked a series of questions about their personal and inter-firm networks. Questions included: the contacts within their networks, agreements and arrangements with these contacts, the quality of relationship with each contact, mode and frequency of interactions, perceived benefits of each network, level of cooperation, coordination and collaboration with each contact, and finally, challenges, concerns and limitations in setting up and forming on-going personal and inter-firm networks.

The interviews were conducted in person, audio-taped with the permission of the participants and transcribed verbatim. The transcript was checked for accuracy and examined by the researchers. Each transcript was then sent to the interviewee to check, and if needed, amended based on the interviewee's feedback as proposed by Uslu and Welch (2018). On average, the duration of each interview was 45 minutes.

The data was analysed in two stages. In the first stage, hand analysis was used to code the interview transcriptions. Creswell (2012) recommends hand analysis for qualitative researchers when the data base is less than 500 pages of transcripts, as it allows the researchers to gain a closer hands-on feel and for ease of coding of the data without making use of a computer software. Each research member coded the interviews independently, separating personal network references and inter-firm network references. The researchers then discussed their results, resolved disparities (Uslu and Welch, 2018), and jointly selected seven themes for each type of network (number and types of contacts; agreements and arrangements with contacts; quality of relationship with contacts; mode and frequency of interactions; perceived network benefits; level of cooperation, coordination and collaboration within the networks; and challenges, concerns and limitations), to obtain a final set of data.

In the second stage of the data analysis, the researchers conducted a more in-depth analysis of the data. We identified and matched participants' comments to the seven identified themes. A matrix was used to display the data as suggested by Miles and Huberman (1994).

Using a matrix enabled the ability to effectively organise the material. Rows were devoted to the numbers assigned to participants (1 to 20), and columns to each of the seven themes within both types of networks (e.g. actors within each network, relationships with each actor, strength of ties between the actors, frequency of communication, type of exchanges between the contacts, and perceived benefits and challenges associated with establishing and maintaining each relationship). Direct quotes from the interview transcripts were used to support each entry in the matrix. This process enabled the researchers to look for recurring themes and disparities in the data as suggested by King et al. (2018) and allowed investigation of the research topics in a structured way.

4. Findings

Results of this study supported by at least one participant quote are provided. This is followed by a discussion which compares the two types of networks and integrate the existing literature.

4.1 Network components

As this research is based on SNT, the researchers first examined the three components of the networks: structure, interaction and content. Network structure was examined according to the number of individuals within each type of network (Greve and Salaf, 2003). Overall, inter-firm networks tended to be smaller and less dense than business owners' personal networks, with the majority of participants (12 out of 20) having more contacts within their personal network that they referred to for business purposes.

Nine participants (9 out of 20) stated that some of their inter-firm networks had evolved from their personal networks. However, these participants were reluctant to use formal contracts as the relationships were based on trust. Contractual agreements were only used when the relationship between the participant and their contact was a weak tie within their inter-firm network.

As expected, there was a higher rate of network interactions between small business owners and their personal contacts. All the participants communicated with their contacts regularly and frequently (weekly basis). Eleven participants (11 out of 20) would only interact with their inter-firm contacts 'as needed'. These participants stated there were contractual agreements in place to ensure timely delivery, and most of the transactions would occur electronically (e.g. reordering of stocks or promotional/advertising activities).

Every month, my supplier emails me updates. If I need stock I email them an invoice and they ship them through, as per our contractual agreement (P1).

Similarly, there were differences in the network content between personal and inter-firm networks that had not developed from a personal relationship. All the personal networks contained both financial (e.g. direct sales and transactions, customer referrals) and non-financial contents (e.g. information, advice, friendship). For most of the participants (18 out of 20) their non-personal inter-firm networks were mainly formal and transactional (e.g. purchase/sales, formal training sessions and workshops).

Overall, compared to their personal networks, the inter-firm networks of these participants were smaller in size, mostly based on weak ties and minimum interactions, and mainly used for routine transactional purposes, signifying limited utilisation of inter-firm networks by the participants.

4.2 Personal and inter-firm networks

One of the major themes that emerged from the data analysis was the significance of personal contacts for the participants. The participants reported the use of personal contacts was necessary to overcome multiple challenges of the business environment in a regional area.

We are a bit isolated here, so we need to work together. It is easier to work with those who are local (P14).

Personal contacts gives us the flexibility the business needs without being locked in a contract, and are as reliable if not more (P3).

Personal contacts were individuals who were chosen by the business owners themselves, had long established relationship with, and were known to the participants.

With inter-firm agreements, you don't know the person you are dealing with and they keep changing (P4).

When asked what influenced the creation and development of personal and inter-firm networks, all the participants highlighted the importance of trust. Most of the participants knew their contacts personally, shared social networks and were connected by family, neighbourhood, or other ties. Participants acknowledged any of their networks were based on long term trusted relationships (seven years +).

I have known most of these my contacts for over 20 years, I trust them (P2).

The participants also shared knowledge and collaborated regularly with complementary and competitive businesses in their region. This strategy resulted in enormous advantage to the business and the ability to expand their local customer base.

We work with complementary businesses and our competitors to offer more value to our customers. They bring different skillsets and we complement each other (P8).

However, the participants only collaborated and worked with businesses within their local region and with those they knew and trusted. Furthermore, these relations were formed for both personal and business reasons.

I'm quite isolated here. It helps to have someone, even though she is my competitor, to bounce ideas and thoughts, gives me mental and emotional support (Participant 14).

These findings highlight the influence of geographical location (e.g. feeling of isolation, and a small community).

Business reputation and ethical behaviour also played an important part in the creation and development of personal and inter-firm networks for these participants.

Reputation is everything. I only do business with the people I trust, knowing they'll keep the standard we have here in town for people trusting us (Participant 11).

The networks one belongs to, where people have already gotten to know them. Once trusted, people are happy to work and collaborate together (Participant 13).

Not only these small business owners had the benefit of improved access to information within their own communities, there was also a stronger accountability through the need to act with honesty and integrity.

I have knowledge of what's going on in the town. I know the last three owners of almost all the business here and the problems they had....I have been invited to work on projects which is an indication that they know and trust you (P5).

By engaging in ethical business practices, these owners earned the trust and respect of the other members of the community, which in turn created a 'good status' for them and their business.

When the participants were asked if they looked for businesses to collaborate with outside their regional area, many (15 out of 20) responded they did not look outside their local community. The biggest barriers for collaboration with firms outside their regions were: lack of time, lack of awareness of outside businesses, and questioning the value of networking with businesses outside their local communities.

Awareness of what other businesses do, in particular those outside my local area, is definitely one reason why I wouldn't collaborate with them. Also takes time to get to know them (Participant 15).

These findings suggest that at the regional level, businesses are unwilling to forgo their reputation by either engaging in risky behaviour such as collaborating with a business they do not know or engaging in unethical behaviour for fear of losing the trust of the community.

Finally, the participants were asked if and how they used various social media tools such as Facebook or LinkedIn. All the small business owners in this research had access to the internet and had a business presence on social media but these were used primarily to support business activities such as sales and marketing. In regard to networking, the participants used technology in different ways, such as using Digital Dropbox to store information for collaboration, Skype or Zoom for communication, and LinkedIn to connect with their existing contacts.

We have a designer in India that I chat to almost every second day via Skype, keeps us connected, and creates close work relationship (Participant 20).

Hence, social media tools were used primarily to add/connect with new personal contacts (network structure), increase the frequency of interactions between existing contacts (network interaction), and facilitate exchange of information between these contacts (network content). However, the participants were reluctant to reach out and look for collaborative inter-firm opportunities via social media to unknown businesses for fear of financial losses, reputational damage or losing their competitive advantage.

5. Discussion

This study aimed to examine the role of personal and inter-firm networks for small businesses within a region and the opportunities and barriers relating to the creation and development of networks among these businesses. Table 3 presents a summary of the research findings.

Insert Table 3 Here

Contrary to prior research (Chetty and Agndal, 2008; Jack, Dodd, and Anderson, 2004), in this study there was little evidence of weak ties within inter-firm networks developing into stronger personal ties. This result was mainly due to the way the participants viewed each

contact, and their perception of the nature of their relationships with the individuals in their networks.

Social network theory emphasises the erratic nature of network ties which are not fixed and activated according to business needs (Granovetter, 1985). A consequence of this view is that networks are dynamic relationships that transform and change over time (Chell and Baines, 2000; Jack et al., 2004, Mitchell, 1969). Within entrepreneurial networks, strong ties are described as continuum of different sorts of ties distinguishable by the deep and thick nature of the link (Jack et al., 2004). While personal strong ties are unlikely to change for many small business owners, weak ties and latent ties (ones that exist technically but have not yet been activated) can change into strong ties if needed (Jack, 2005; Jack et al., 2008; Haythornthwaite, 2002). However, in this study, while the small business owners' personal networks expanded and changed according to small business owners' personal as well as business needs, their non-personal inter-firm networks remained relatively static. There was a persistence and long-term endurance of informal personal ties and connections within the inter-firm weak ties and were generally viewed as formal contractual agreements, unlikely to transfer to a closer and/or informal stronger tie. Drawing on the above finding, it is reasonable to propose:

Proposition 1: Regional small business owners rely mainly on their personal networks to initiate relationships and form collaborative networks with other firms.

This study confirms the significance of personal networks and participants' reliance on their personal contacts for business purposes as well as friendship and emotional support. Earlier studies of SNT support the contention that individuals are more likely to network with people with whom they have strong ties to gather information and support (Granovetter, 1973), particularly when a protected business environment is required, such as when operating in a high risk business environment (González-Masip et al., 2019; Islam et al., 2018). As found by Besser and Miller (2011) in their study of strategic factors associated with successful business

networks, business owners are less likely to develop trust with more diverse businesses outside their close networks and are reluctant to share business information, particularly with contacts they did not trust, for fear of losing their competitive advantage. However, given the economic uncertainty in regional areas, it was found there was a greater need for flexibility and trust in business dealings. The participants in this research preferred to rely on their trusted personal, informal networks even if they were competitors and were reluctant to lock themselves in a contractual agreement and build formal/contractual inter-firm networks across their industry sector. This finding reveals new understanding about the dynamic interplay between personal and inter-firm networks.

Many of the participants collaborated regularly with their competitors and complementary businesses. This finding aligns with the literature that suggests collaborating with other businesses, including competitors, is a performance driven business strategy (Crick, 2019; Mathias et al., 2018). While previous research suggests that business owners network primarily to address the needs of their business (Jack, 2010), this study found that collaboration was facilitated not only when the businesses had reasons to collaborate, but also when there were strong personal ties between the business owners of the firms involved. Furthermore, this strategy helped business owners address some of the limitations associated with being in a regional area such as isolation and skill shortage, while avoiding the many potential risks associated when collaborating with competing businesses, such as exploitation or illegal conduct that may severely affect their firm's effectiveness and reputation. This new finding highlights the impact of regionality on the strategies adopted by small businesses in regard to their networks, and a specific regional approach relating to how best to protect and sustain their business. From this finding, comes proposition 2:

Proposition 2: Regional small business owners' network and collaborate with other local businesses when there are strong personal ties between the business owners of the firms involved.

Many researchers (Gretzinger and Royer, 2014; Mileva-Boshkoska et al., 2018; Wang et al., 2018) have highlighted the benefits of inter-firm networks. However, our findings indicate a lack of time and awareness of potential partners, a mistrust of outside businesses, and a culture of 'regional interaction', set the conditions for the participants to collaborate with their personal contacts within their own local region, rather than establishing inter-firm networks with organisations across their industry clusters and supply chain. Prior research has shown that collaboration and cooperation at the firm level, can help diverse organisations that work together improve business viability and profitability and achieve common goals (Dana et al., 2008; Mileva-Boshkoska et al., 2018). While many studies argue the benefits of developing inter-firm networks, this research highlights some of the barriers to establishing inter-firm networks for regional small businesses. From this finding, comes proposition 3:

Proposition 3: Regional economic uncertainty and mistrust of businesses outside local regions can heighten small business owners' preference and reliance on regional interactions and act as a driver to establishing informal business-to-business agreements.

As shown in prior research (Deller et al., 2018; Gedajlovic et al., 2013; Anderson and Jack, 2002) businesses are embedded within the social and cultural norms of their community, and how business owners interact and network within that community is vital to the success of their entrepreneurial enterprise. For the participants in this study, belonging and being accepted in their local business community and networking with other proximal businesses had many operational advantages, such as the benefit of improved access to information and stronger accountability, which made it less risky to trust other members. Furthermore, interacting and collaborating within these closed networks not only reduced their risks but also protected their

personal and business reputation, saving the business owners from losing the trust of their community, where they have lived and worked for many years.

Belongingness theory contends that a need to belong is a fundamental human motivation and is central to human interpersonal relationships (Baumeister and Leary, 1995; Maslow, 1954). Hagerty et al. (1992) conceptualised a sense of belonging as “the experience of personal involvement in a system or environment so that persons feel themselves to be an integral part of that system or environment” (p.173). In this study elements associated with regionality, such as living in small remote towns, intensified the expected need for belonging and affiliation for these participants. This aspect in turn influenced their networking behaviour and participants’ preference for regional interactions. Hence,

Proposition 4: Regional small business owners’ strong sense of belonging and desire for personal acceptance and business reputation within their local region, can act as a barrier to establishing inter-firm networks.

Finally, similar to other studies examining the uptake of technology by small business owners (Li et al., 2019; Turan and Kara, 2018; Turunen et al., 2018), the participants in this research took advantage of new technology to promote their businesses. SNT supports that social media tools can extend the network reach of business owners such as finding new contacts or joining other networks (Kumar, 2019). In the context of regional small businesses in this study, social media tools were used to further develop their personal networks. This finding suggests there are opportunities for small business owners in regional areas to use social media to expand their networks and connect with businesses outside their local areas, thus building inter-firm networks. Fantin (2019) and Rohde et al. (2018) support the value of inter-firm networks and creating links with other businesses. The small business owners in this research failure to recognise the many benefits of setting up and developing inter-firm networks

with organisations across their industry clusters and beyond their local regions hindered their ability to form inter-firm networks. Hence,

Proposition 5: Regional small business owners lack of awareness of the benefits of inter-firm networks across industry clusters acts as a barrier to establishing inter-firm networks.

6. Conclusions and implications

This study highlights the influence of regionality on small business owners' networks, as findings indicate the importance of trust and reputation in a close community setting. Lack of awareness of the benefits of inter-firm networks and an overall mistrust of businesses outside their region encouraged these business owners to: rely heavily on their personal networks to address business needs rather than establishing formal and contractual agreements between businesses and engage in 'regional interaction'. While these risk limitation strategies were aimed at protecting the business owner and the business, it can be argued that they were also limiting business owners' capabilities and ability to remain competitive, which can ultimately lead to business failure. These regional small businesses could benefit from an altered collaboration strategy.

Similarly, aspects such as business owners feeling of isolation and limited resources due to their remote geographical location encouraged collaboration between trusted competitors. Therefore, the development and expansion of regional small business owners networks beyond their local communities not only will enhance these businesses' ability to reach a larger consumer market outside of their region and improve business resilience in the face of potential local economic disruption, but also help with reducing isolation of the business owners.

6.1 Theoretical implications

The above novel findings make several theoretical contributions in social network theory and belongingness theory. According to Corley and Gioia (2011), a theoretical contribution

needs to show both originality and utility (i.e. be relevant to practice). The findings from this study provide an integrated set of constructs and relationships that have not previously been the subject of theorising and offer practical implications for regional small businesses and supporting organisations. First, by drawing on social network theory, this study advances our understanding of this theory to show how regionality can impact the relationships within a network. Strong personal ties in regions can overcome some of the resource limitations of competitive behaviour among competing small businesses and importantly, add to the stock of relational resources of information, trust, and business sustainability. Chell and Bains (2000) found networks operated as a bundle of dynamic relationships that alter over time and according to business requirements. Similarly, Jack et al. (2004) stress the erratic nature of networks, acknowledging the fluctuation between strong and weak ties within a network. However, in this study, the small business owners' networks in these regions had specific and stable characteristics. Personal networks were based on strong ties that were unlikely to change to a weak tie. Inter-firm networks were either developed from personal networks or characterised by weak ties that rarely changed to a strong tie. This study showed that while personal networks adapted and changed, inter-firm networks were more likely to be stable and consistent over time. Second, while belongingness theory highlights individuals' need to belong (Baumeister and Leary, 1995; Maslow, 1954) in this study, this need is amplified due to the regional setting. This result is contended to result from a higher public exposure of business owners' personal life and their business activities due to living in smaller communities.

The study also contributes to the regional small business network literature by investigating personal and inter-firm networks from a small business owner's perspective and gaining a better understanding of the influence of regionality on small business owners' networks. This research advances our understanding of the impact of regionality on the

strategies adopted by small businesses in regard to their networks. Additionally, the study provides further insights into the underlying reasons why these business owners prefer their informal personal networks for business purposes, instead of establishing close ties within their inter-firm networks at a business level. Belongingness theory anticipates a sense of belonging predisposes individuals to actions that consolidate their ability be a significant part of a system. This aspect is borne out in the findings that personal ties are used to maintain relations within the regional system of businesses rather than form interactions with business in other regions or metropolitan areas where there is little sense of belonging. The sense of belongingness to a region or locality, then, appears to be stronger than belongingness to a like business sub-sector or profession.

Finally, the relational underpinnings as put forward in social network theory were found to provide new types of motivations for business connection in regional areas. Stronger relationships with like businesses and regional competitors rather than like businesses in other geographical areas, or preferences for using informal mechanisms of business associations to build connections were found. It is proposed that regional differences require further examination. These emergent issues indicate taking account of regionality may be a critical factor in an alternate business approach as a nuanced response to local conditions.

6.2 Practical implications

The study offers practical implications for those institutions and agencies that provide business support in regional areas. The findings presented here can be used by government and business support organisations to develop inter-firm networking programmes targeted specifically at regional small business owners. The efficacy of regional businesses can be improved through increased investment in training and mentorship programs to raise awareness of the benefits of inter-firm networks and creating opportunities that promote collaboration at the business level to encourage entrepreneurial activities.

Supporting organisations and institutions to actively set up formal and informal networking gatherings in which members can share information and interact with businesses outside their regional areas, especially to build trust and lead to joint activities, are key practical solutions. Such frequent interactions help relationships to form and enables the parties to build trust and acquire knowledge about one another and facilitate the formation of inter-firm networks.

Finally, given that all the businesses in this study utilised social media networks, there is a broader scope for business associations, training institutions and business support organisations to engage in developing and supporting e-learning for regional small business owners and creating e-market platforms that not only encourage collaboration between regional businesses but also with those outside local communities.

6.3 Limitations and future research

This study has limitations that tend to be commonly found in exploratory studies. These issues include the small sample size and the use of purposive sampling. Despite these limitations, this study has extended previous research by contributing new and valuable insights into the personal and inter-firm networks of small business owners located in regions.

Recommendations for future research include testing these preliminary findings, including further studies to test the five propositions, in cross-sectional and/or longitudinal quantitative studies and scrutinising the differences between small business owners' networks in different regions. The findings of the current study can also serve as a foundation for future studies to examine the potential influence of other factors, such as demographics, on how regional small business owners utilise their personal and business networks to gain knowledge and help them maintain and grow their business.

Disclosure statement

No potential conflict of interest was reported by the authors.

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Table 1: Summary of personal and inter-firm networks

Network Elements	Personal Networks	Inter-firm Networks
Network Structure	<ul style="list-style-type: none"> • Informal, non-contractual agreements within the business owner’s network such as family, friends, and previous, colleagues, or employers. 	<ul style="list-style-type: none"> • Formal, contractual/non-contractual agreements between various independent organisations (business-to-business), such as complementary and competing businesses.
Network Interaction	<ul style="list-style-type: none"> • Informal, non-contractual interactions and code of conduct. 	<ul style="list-style-type: none"> • Formal processes based on contractual agreements interactions and code of conduct. • Informal interactions based on existing relations, for example between buyers and suppliers.
Network Content	<ul style="list-style-type: none"> • Tangible such as customer referrals. • Intangible support such as advice, information and friendship. 	<ul style="list-style-type: none"> • Tangible such as sales transactions. • Intangible such as information or knowledge exchange.

Table 2: Demographic data of the business owners and their businesses.

Participant	Gender	Age (years)	Highest Education Level	Age of Business	Business Type
1	Female	41-50 years	Bachelor Degree	4 years	Tech Business – Mobile App specialist
2	Female	41-50 years	Bachelor Degree	10 years	Lifestyle Estate
3	Female	31-40 years	Diploma	2.5 years	Insurance Broker
4	Female	41-50 years	MBA	21 years	Lubrication & Hydraulics - service Mining sector
5	Female	Over 60 years	Doctorate	13 years	Business Consultancy
6	Male	41-50 years	Masters Degree	10 years	Professional Services – Tech Consultant
7	Female	51-60 years	Bachelor Degree + CPA	4.5 years	Prof Services - Accountant
8	Male	41-50 years	Postgraduate	9 years	Prof. Services - Marketing
9	Male	Over 60 years	Diploma	20 years	Prof. Services – Business Consultant
10	Female	51-60 years	High school (Yr 12) Uni short course	3.5 years	Services – Wedding packages
11	Female	51-60 years	High school (Yr10)	19 years	Retail
12	Male	51-60 years	High school (Yr10)	20 years	Landscaping & Irrigation
13	Female	Over 60 years	Diploma	8 years	Author – children’s books
14	Female	41-50 years	High school	1 year	Cafe
15	Female	41-50 years	Bachelor Degree	3 years	Prof. Services – Resume writer
16	Female	41-50 years	Doctorate	6 years	Health Services
17	Male	31-40years	High school (Yr12)	7.5 years	Prof. Services – Consulting/Training
18	Male	41-50 years	Bachelor Degree	19 years	Prof. Services – Chartered Accountant
19	Female	< 30 years	Cert IV College	0.5 year	Business Services - Graphic Design
20	Female	41-50 years	Bachelor Degree	35 years	Jewellery manufacture & retail

Table 3- Summary of the results.

	Results
Role of personal and inter-firm networks for regional small businesses	<ul style="list-style-type: none"> • For regional small business owners, personal networks are seen as more beneficial and valuable than inter-firm networks. • Regional small business owners rely mainly on their personal networks to initiate relationships and form collaborative networks with other firms. • Regional small business owners interact regularly and frequently with contacts within their personal networks for both personal and business reasons. • Regional business owners regularly collaborate with competitors and complementary businesses if they are part of their personal network.
Opportunities and barriers relating to the creation and development of personal and inter-firm networks among these businesses	<ul style="list-style-type: none"> • Long term endurance of informal personal strong ties and inter-firm weak ties as formal contractual relationship that are unlikely to transfer to a personal strong tie can act as a barrier. • There is a culture of inward networking and regional interactions among businesses, which can act as an opportunity/barrier. • Awareness and perception of businesses outside the local communities acts as a barrier to forming collaborative networks with other businesses. • Awareness of the benefits of forming inter-firm networks with businesses outside local
Factors that contribute to the formation and management of personal and inter-firm networks among these businesses	<ul style="list-style-type: none"> • Long term personal relationship between business owners • Knowledge of the business • Trust between the businesses • Shared personal beliefs and values between business partners • Reputation based on ethical behaviour • Embeddedness in the community