Exploratory Study of Multidimensionality Elements of Small Entrepreneurs' Network Change and Development in the Southern Region of Malaysia

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Abstract: The research aims to empirically explore the multidimensionality elements in small entrepreneurs' network change and development during periods when the entrepreneurs face tipping points. Prior scholars have examined the mix of strong and weak links in small businesses and linked them to business development stages. For small firms to continue experiencing business growth, current literature must emphasize the connection between network strengths and overcoming tipping points. This research explores the multidimensional elements of small entrepreneurs' network change and development that contribute to their survival during the era of tipping points in the Southern Region of Malaysia. This qualitative research uses a multiple case study approach involving eight small firms in the southern region of Malaysia. The data collection methods include analysis of secondary documentation and in-depth interviews with the entrepreneurs using the critical incident interview technique. The data has been analyzed using NVIVO software and has employed Miles and Huberman’s (1994) flows of analysis activity. Data triangulation was carried out by interviewing individuals who were seen as having strong or weak ties within the network and who were identified through interviews with the entrepreneurs. The findings enlighten two themes: the entrepreneur-level context and the dyadic-level context. The findings show that the multidimensionality of the individual entrepreneur is demonstrated through their demographic factors, personal values, experience, and capabilities. Therefore, they differ in responding to changes in their networks. Dyadic multidimensionality is found in the tie’s content, structure, governance, and the dyadic life cycle. Finally, this research provides theoretical and methodological contributions and offers implications for entrepreneurs, government agencies and policy-makers.

Keywords: Small business network ties, strong ties, weak ties, network change and development

1. Introduction

Network ties are the associations a firm, especially the business owner, has with other entities in the business world, be it with other individuals, organizations or groups (Oskam et al., 2018). Understanding how a firm is connected to other entities, both inside and outside, is vital to running a successful enterprise. By leveraging their network ties, firms can access critical resources, collaborate with other businesses, gain a competitive advantage, and manage risk. Connections in a network are said to be "strong" when they are close and frequent and "weak" when they are further apart and less frequent (Omar et al., 2020).

When a firm is at a critical juncture, the two types of network ties can each contribute in unique ways. Strong network ties may make a firm feel safe and secure, especially in a more stable economic situation. They could link the firm with potential partners, suppliers, and customers who could prove helpful in the firm’s operations (Kontinen & Ojala, 2011). However, when a firm is at a tipping point, such as when there has been a sudden shift in market conditions, it may be less beneficial to have strong network ties. This is because being overly dependent on network ties can hinder an organization’s responsiveness to changing conditions (Hu et al., 2019).

Hu et al. (2019) added that a firm with weak network ties might gain access to new and useful information and knowledge that could be vital in helping it avoid a potential crisis. The firm might be exposed to novel concepts, points of view, and opportunities that it would not have normally come across if its ties were stronger. Furthermore, weak ties may lead to the discovery of new resources, such as customers or suppliers, that can aid the firm in continuing operations through transition periods. Therefore, a firm may gain from strong and weak...
network ties at a given tipping point. The key is to establish a balance between the two to utilize both kinds of network ties to the fullest extent possible for the firm’s benefit (Hu et al., 2019).

This study examined the multiple facets of entrepreneurs’ network change and development that uphold their continued existence under challenging times. This study used eight small business case studies in Southern Malaysia to understand the multifaceted aspects that affect network transformation and how network strengths assist them in overcoming tipping points to promote business development through difficult times.

2. Literature Review

The value of network ties for small enterprises has been well recognized. According to published research, networks are vital to the success of small business enterprises. Small businesses can manage risk, stimulate innovation and growth, access essential resources, and build social capital through good partnerships (Singh & Subrahmanya, 2018). In other words, understanding the various kinds of network ties and creating plans for establishing and upholding them over time is crucial for small firms.

This study addressed the lack of focus on certain network change dimensions in small enterprises. Network change can affect the entrepreneur’s business and goals differently. Therefore, defining a single set of network change dimensions that applies to all scenarios is difficult. Thus, explain the necessity of focusing this study on small enterprises in a regulated population and a specific business sector. By identifying the important dimensions of small entrepreneurs, researchers can better understand network change motives and customize their network change strategies to overcome their tipping points.

2.1 Small Businesses Network ties

The term “small business network links” describes the personal and professional ties business owners maintain with others in their field. Suppliers, consumers, partners, competitors, industry groups, government agencies, and other stakeholders are all potential entities in this web of interdependence (Rawat, 2020).

Small entrepreneurs often build and maintain their networks through informal networks and personal ties where mutual respect, reciprocity, and shared interests underpin these relationships (Partanen et al., 2020). Most small businesses operate in a specific area; thus, their network of contacts is likely to be limited to local small businesses, consumers, and suppliers. For small businesses to have faith that their network partners will keep their word and operate in the company’s best interests, it is vital to establish trusting connections first (Schreier et al., 2020). Smaller enterprises usually have less networking money than larger companies. Thus, they may have joined business associations, attended networking events, and used online media to build and maintain their networks (Easmon et al., 2019).

There are a few examples of network ties for small businesses; (i) supply network - Small businesses buy goods from trusted suppliers who can negotiate price, delivery time, and quality (Kumar et al., 2020), (ii) consumer network – customers’ influence on the creative process by awareness to their requirements and a two-way feedback loop with businesses (Garas & Lapatinas, 2017), (iii) partner network – small enterprises collaborate to offer complementary goods and services to increase exposure and market access (Shevtshenko et al., 2019), (iv) industry associations network – small firms can join industry associations to connect, pool resources, and stay up to date on sector trends (Qiao et al., 2014), and (v) community network – small businesses may use local customers and resources by partnering with neighborhood organizations like schools and non-profits to raise business visibility and support (Micholia et al., 2018).

2.1.1 Strong ties

Small entrepreneurs can improve their prospects of success and expansion by devoting time and effort to establishing and maintaining strong network connections (Rademacher & Wang, 2014). It is not uncommon for business owners to feel isolated and under constant pressure. In trying times, having a strong peer network that can provide emotional support and encouragement can be a tremendous source of comfort, hope, and drive (Krämer et al., 2021). Moreover, a strong peer network could potentially influence business owners’ decision-making in a positive way (Liu et al., 2015). As such, it is highly recommended that owners of small businesses who want to expand their networks should engage in industry events, join professional organizations, and join online groups (Easmon et al., 2019). Additionally, they need to prioritize forming genuine connections predicated on trust and respect.
Strong business ties can help small businesses grow. A group of small entrepreneurs who meet frequently to share knowledge is an example of a strong group. These business owners usually have longstanding trust, respect, and familiarity (Tang et al., 2018). They may meet often to discuss industry trends, share advice, and provide moral support. Trust and support can be used to each party’s advantage through these network ties. As such, it provides small entrepreneurs confidence, stability, and access to resources and opportunities that might otherwise be out of reach (Tang et al., 2018).

2.1.2 Weak ties

The term "weak ties" describes relationships with persons who are not close friends or family members (Krämer et al., 2014). In the same way that strong network ties can benefit a small business, weak ones can also be useful. Even if a piece of information or an idea is not readily available within the immediate network, a weak network tie might be. This may include knowledge of potential new technology, markets, or trends (Aral, 2016). Incorportating people with different backgrounds and experiences into a company can spark new insights and ideas. Weak ties in a network might open the door to new and interesting relationships (Ryan, 2016). This is especially helpful for smaller companies serving certain niches. A valuable new customer or alliance may result, for instance, from a casual meeting at a networking event or a talk with a friend of a friend. Exposure and reach for a business might be increased even through weak ties to other networks (Nziku & Struthers, 2017). The exposure and reputation of a company can be boosted by establishing connections with people outside of its local network (Robinson & Stubberud, 2011).

To enhance their weak network ties, entrepreneurs should actively seek settings where they may interact with new people and do things outside their comfort zone (Mattie et al., 2018). This includes joining online groups, clubs, and non-speciality conferences. Entrepreneurs may meet someone with important information or connections at a convention unrelated to their field. As a result, the two parties may discuss new technologies or marketing tactics that the company owner had not considered. The encounter may lead to a reference to a possible client or collaborator. Without weak network ties, the business owner may have missed resources or opportunities. Fostering both strong and weak network links can help a small firm succeed and grow.

2.2 Network Change and Development

Small entrepreneurs’ networks change over time. The multidimensionality of these changes and development can reveal the factors that shape small firm owners’ networks throughout time. By considering the firm's structure, content, method, setting, and entrepreneur’s unique features, researchers and entrepreneurs can improve small business growth and success tactics.

Their initial connection arrangement may affect a small entrepreneur’s network change and development. The network’s size, diversity of ties, ties’ strengths, and degree of centralization are all factors to consider (Kontinen & Ojala, 2011). The relationships and exchanges inside a small company entrepreneur’s network are the “content” of the entrepreneur’s network (Aladejebi, 2020). Aladejebi added that factors such as relationship type (personal vs professional), resources shared (knowledge vs emotional support), and level of contact all have a role.

“Network change and development” describes how the network changes over time. This includes making new connections, strengthening existing ones, and cutting old ones (Bliemel et al., 2016). It also involves the influence of external events on the network and the formation of new network clusters or subgroups (e.g., changes in the market and shifts in the competitive landscape). Besides, change and development in a network can also be affected by the environment in which small entrepreneurs conduct their operations (Lama & Shrestha, 2011). This encompasses the larger socioeconomic environment, the institutional environment (e.g., regulations and policies), and the cultural and social norms that influence the interactions and conduct of network members (Lama & Shrestha, 2011). Above all, small entrepreneurs’ traits play a crucial role in changing their networks. This includes their unique goals, comfort with uncertainty, and openness to new experiences.

3. Methodology

This qualitative interpretive study used in-depth interviews to examine southern Malaysian small enterprises’ network ties’ governance. The interviews covered the entrepreneurs’ discussion network, a subset of their entire network that includes people with whom they often discuss business. The data collection process followed Miles and Huberman's (1994) and Morse's (1994) to pick sample respondents who fit the study’s criteria and were
willing to take part in intensive, even intrusive, research (Hill et al. 1999). Respondents in this study were selected based on several criteria. They were either the founders or current major owners and managers of small businesses with annual sales turnover of less than RM3 million and employed less than 30 full-time workers; their businesses operated in southern Malaysia the food and beverages (F&B) industry. The F&B industry was chosen because it has been reported that the F&B sector was the quickest to adapt to the new norms and thrived during the pandemic (Lai et al., 2020). This situation exemplified the relevance of this research, which focused on network change and development through overcoming their tipping points of eight case studies. Semi-structured interviews which lasted between 40-minutes to 2-hour interview. Multiple readings of the interview transcripts were performed to ensure that the interpretations were made justifiably and to eliminate any bias that may have resulted from the researcher’s good connection with the respondents.

The researchers examined trends and conducted case-by-case and comparative assessments. The data-gathering technique mirrors Eisenhardt’s (1989) case study analysis theory development strategy, which studies a carefully selected subset through time and varied contexts to gain insight into the phenomena of interest. To verify the data’s correctness and authenticity, the researchers employed a member-checking strategy, coding individually before comparing their data to ensure uniformity and precision (Birt et al., 2016). Following that, the researchers remarked on their research assumptions and perspectives, which reached a clear conclusion regarding the situation under consideration by being transparent about their role in affecting the research process and outcomes. Following the studies of Jack et al. (2008), interviews were transcribed verbatim and analyzed using thematic analysis techniques and NVIVO Software.

4. Research Results

Findings for each of the entrepreneurs are reported, where each business owner’s "narrative" is presented to explore their experience and the strength of network ties during the course of their business. According to Eisenhardt (1989), this approach allows the distinctive patterns of each case to emerge before the researchers strive to generalize patterns across cases, which speeds up case comparison.

4.1 Case Description

There are eight cases under study, each of which describes small-business entrepreneurs. Table 1 summarizes the entrepreneur’s gender, age, education, work experience, products they sell, business size (micro/small/medium), sales per year, full-time employees, and year of business initiation.

<table>
<thead>
<tr>
<th>Cases No.</th>
<th>Gender (M=Male; F=Female), Age, Education</th>
<th>Work Experience</th>
<th>Products</th>
<th>Full-Time Employees</th>
<th>Business Initiation (Year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.</td>
<td>F, 45, SPM</td>
<td>NIL</td>
<td>Cookies (seasonal) &amp; Bakery</td>
<td>4 and 60 (at peak)</td>
<td>1992</td>
</tr>
<tr>
<td>6.</td>
<td>F, 45, SPM</td>
<td>NIL</td>
<td>Cookies &amp; Frozen Food</td>
<td>30 and 60 (at peak)</td>
<td>1994</td>
</tr>
<tr>
<td>8.</td>
<td>F, 46, SPM</td>
<td>5 years as a factory worker</td>
<td>Spices</td>
<td>7</td>
<td>1997</td>
</tr>
</tbody>
</table>

4.2 The Multidimensional Elements in Network Change and Development

This study identified a multidimensional component in network tie change and growth. According to Hite (2008), the multidimensionality perspective helps explain tie changes’ intricacy. The results revealed two themes: the entrepreneur-level context and the dyadic-level context.
4.2.1 Theme 1: The entrepreneur-level context

The findings show that the multidimensionality of the individual entrepreneur is demonstrated through their demographic factors, personal values, experience and capabilities. The demographic factors include age, gender, previous working experiences and the family business background. Thus, network changes affect them differently.

**Age.** In Case 3, a 19-year-old entrepreneur, who started his business straight from school, did not know anyone in the business and relied heavily on his family, especially his parents. His lack of experience and seeing his parents doing business has inspired him to start a business that simultaneously became the source of financial and knowledge support. This contrasts with those who started their business venture later, such as in their late 30s. One example is Case 4, a banker turned entrepreneur who met numerous people and had vast business venture experience. However, in Case 3 above, as his firm grew and he aged, he met more individuals, giving him more options for strong ties.

**Gender.** Entrepreneurs’ gender affects their business tie intensity. Four women entrepreneurs picked their spouses as strong ties, but the males did not. Culture and religion may explain this. Muslim women are taught to obey their husbands. Thus, women entrepreneurs in this study often consult their husbands before making major decisions.

**Working experience.** Entrepreneurs’ network ties also depend on their past work experience. Case 4 has over five years of banking and entrepreneur loan funding experience. While working in the bank, he met several entrepreneurs who helped him start the business and find new prospects. Case 1’s past work in a meat and poultry factory also shaped his relationship between network management and the poultry industry. He knew how to handle industry difficulties and which agency to contact. This supports Yu et al. (2021)’s arguments that network scopes vary by entrepreneur experience.

**Family background.** Entrepreneurs who had family members who owned businesses usually consider their family and parents their strongest ties, especially in the startup phase, as they had informally joined in and/or observed or helped with the business influence their network links. However, being excessively immersed in the same network circle of the parents’ business network relationships limits network diversity, subsequently hurting business development.

**Knowledge/Education.** Knowledge is characterized as, firstly, academic qualification on knowledge of network ties acquired formally from a formal education system. Secondly, it involves tacit knowledge about network ties from their prior job, learning from others, and life experiences. In the former, entrepreneurs see their children with related academic credentials as their strong ties, while in the latter, they see their business partners as having all the skills they can gain from. This supports Kabir (2013), who suggested that tacit knowledge must be codified as an intellectual asset for an organisation to fully exploit its human capital knowledge.

To illustrate, in case 2, the father relies on the children’s academic knowledge of mechanical and machine operations (son) and financial and marketing (daughter). "My daughter... graduated from a Business Studies degree while my son [is] in robotic engineering. I was lucky having them in this field although I was not planning this initially when they finished high school. Their knowledge gives advantages to my business". Case 2 showed how his children's engagement improved business administration, financial management, and manufacturing efficiency. This has been supported by the claim made by his daughter: "Although the knowledge I learnt for the Business Studies degree was just theories in most of the management books, and they are so much different... [in a] real life situation... I... applied them in my father’s business, such as the SWOT marketing analysis" (Daughter of Case 2).

**Competencies and/or Skills.** For Cases 5, 6, and 8, their husbands took on marketing duties due to their business experience. In case 1, the wife, who is well-versed in the firm’s financial accounts and has an accounting degree, controls the business’s cash flows in the startup phase. The wife’s position increased to overseeing the purchasing and financial operation in the developing phase. The foregoing finding supports Alsos et al. (2014)’s notion that kin is important when their skills match the business’ needs.

The variance in entrepreneurs’ network ties is greatly influenced by their personal values. Case 2, an introverted businessman with a small network, provides evidence. Before his daughter took over the business, the father only had connections to his late father’s suppliers, clients, and employees. This supports Klapper’s (2008) claim that entrepreneurs’ personalities, networking, and business success are linked, suggesting that their family history, education, and professional experience affect how they configure their networks. Case 5 said, "My
strong relationship between me and my distribution agent is based on the sense of responsibility... and it is very simple actually, whenever each of us performs our responsibility with... devotion, the level of trust will increase”.

This optimistic attitude increases trust since the better values they can offer, the more trust they will have in their relationships.

Experiences. Case 6’s son-in-law is a land and building developer with a Business Diploma. Despite the differences between the food and construction industries, he leveraged his experience working with consumers, suppliers, and the firm’s external stakeholders, such as clubs and associations. This is also evident in Cases 1,3,5 and 8. For instance, Case 1’s friend’s appointment to the firm’s Board of Directors was linked to the necessity for business expansion. The findings suggested that Case 1 began to value his close friend’s skills and experience as the firm progressed. A friend with expertise, skills, qualifications, and experience helps entrepreneurs take on greater projects locally and internationally, defining the firm’s strategic vision and mission to achieve these goals. The dynamic network actor valued his network tie’s human resources at a later time, adding greatly to the firm’s growth.

4.2.2 Theme 2: Dyadic-level context

Dyadic multidimensionality is found in the tie’s content, structure and governance as well as in the dyadic life cycle.

Multidimensionality of dyadic content

The findings suggest that tie content is multifaceted, serving multiple purposes in a single tie. Multiplexity occurs when different content travels across the tie. Thus, ties can serve many roles, increasing their multidimensionality. Thus, a tie’s multidimensionality increases as it serves many roles. For example, a tie with a business partner provides advice, information, and emotional support during tipping periods. That is the case in Case 3, where the supplier supported and provided emotional assistance; meanwhile, Case 1’s wife supported the firm by becoming its accountant.

Multidimensionality of dyadic structure

In relation to the multidimensionality of the dyadic structure, it is evident that Case 1’s relationships with customers and suppliers are experiencing a two-way exchange. To illustrate, the reciprocal commitment between each other governs two-way business transactions, “Suppliers and customers are the most important network ties in my business... they are providing two-way business transactions from which reciprocal commitment has originated, they become the supplier to my business as well as the customer” (Case 1). This is consistent with Hite (2008), who argued that two-way ties indicate a reciprocal transfer of network content.

Multidimensionality of dyadic governance

Governance and network bases enable network exchange (Hoang and Antoncic, 2003). Entrepreneurs’ relationships with their network ties affect how the network exchange works. The multidimensionality of dyadic governance has allowed the integration of different network bases and governance that governs tie strengths.

This study is governed by three main bases of network governance that are strong intimacy and emotional attachment (Kozan & Akdeniz, 2014), trust (Martins et al., 2019) and reciprocal commitment (Jorgensen et al., 2020). This analysis concluded that these three elements form the network ties of the eight cases and uncovered two new themes: human capital and attitude/values. This study also found that one aspect must be merged with another to form a strong network tie with the entrepreneur. This supports the argument by Hite (2008) that relational governance adds to the multidimensionality element of dyadic governance. The findings revealed the theoretical study by Hite (2008) in explaining the change and development of network ties. The two themes of entrepreneur-level context and the dyadic-level context provide rich explanations about the complexity of tie changes.

4.3 Roundtable Discussion

The research has uncovered several advantages and disadvantages of business network ties. Businesses may result in improved access to resources such as information, skills, technology, and funding when they are part of a well-connected network (Tendai, 2013; Zhao & Burt, 2018). Zhao and Burt added that a strong network tie could boost a company’s competitive standing by attracting and retaining a broader customer base and opening doors to additional distribution channels and potential new markets. Firms can benefit from this by being associated with other well-respected businesses in the same network, which can help them grow their
operations and strengthen their competitive position (Mamédio et al., 2019). As a result, customers, investors, and other stakeholders may view the company with a higher degree of trust and confidence. The disadvantage of business network ties is that they can lead to a firm’s dependence on other enterprises and organizations in the network, limiting its independence and ability to make autonomous decisions (Wincent et al., 2016). This can be especially troublesome if the network partner fails or faces a drop in performance. Business network ties can also limit a firm’s network’s diversity, limiting its access to new ideas, viewpoints, and prospects (Neneh, 2018). This can cause creativity and progress to stall. Other than that, one partner may have more information than the other due to a partner’s position in a business network which can lead to opportunistic conduct and conflicts of interest, which can harm a partner’s relationship (Pressey & Vanharanta, 2016). The following table summarizes the principal journals reviewed that contributing to the development of this research.

Table 2: Literature Overview of Business Network Ties

<table>
<thead>
<tr>
<th>Business Network Ties</th>
<th>Remark</th>
<th>Source</th>
</tr>
</thead>
</table>
| **Advantages** | • Improve a business’s standing in the market  
• Attract and retain a more diverse range of customers. | Tendai, (2013); Mamédio et al. (2019) |
| | • Facilitating access to supplementary distribution channels and prospective untapped markets. | Zhao & Burt (2018) |
| | • Enhanced accessibility to various resources, including information, skills, technology, and funding. | Tendai (2013); Zhao & Burt (2018) |
| **Disadvantages** | • Result in a company's reliance on external entities and institutions within the network. | Wincent et al. (2016) |
| | • Limit the diversity of a firm’s network  
• Limiting access to fresh ideas, perspectives, and opportunities | Neneh (2018) |
| | • Creation of potential for conflict of interest and opportunistic behaviour | Pressey & Vanharanta (2016) |

While establishing and maintaining business connections can be beneficial, there are risks and challenges that must be controlled. By managing the drawbacks of network dependence, restricted diversity, and information asymmetry, a well-designed and well-managed network can aid businesses in achieving their strategic goals and boosting their performance.

5. Conclusion

Network change and development in small businesses can be analyzed along a number of different variables, including those related to structures, resources, processes, relationships, and the external environment. These variables can affect entrepreneurs’ ability to collaborate, the strength of their connections, and their prospects. By understanding network change variables, small entrepreneurs may prevent typical mistakes. Entrepreneurs must manage and sustain their entrepreneurial network contacts, in which they should understand the network members’ relationships and tie intensity. As such, entrepreneurs must invest in network-nurturing activities to maintain partnerships. The investment could be in the form of money, time, energy and knowledge.

This study shows that government must pay more attention to and understand networking’s advantages and disadvantages. Hosting entrepreneurs’ conferences, business-matching opportunities, and other activities to enable information and knowledge exchange are among government initiatives to boost networking among small entrepreneurs. However, considering the strong and weak network ties of these entrepreneurs, it involves a complex procedure that takes time, which may frustrate agencies that want immediate solutions. Trust, reciprocal commitment, network ties' attitudes and human capital are needed for networking. Thus, long-term thinking is needed to identify entrepreneurs’ strengths and weaknesses.

Future research could use the findings to investigate the correlation between network change dimensions and specific outcomes and explore which dimensions of network change are most effective in achieving desired outcomes. The scope of the study can be broadened in the future to include personal elements, such as the entrepreneurs’ personality traits or cognitive biases, and how they influence their behaviour and the outcomes they experience.

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