Entrepreneurial competencies and SMEs’ growth: the mediating role of network competence

Shehnaz Tehseen
Sunway University Business School, Sunway University, Bandar Sunway, Malaysia
Farhad Uddin Ahmed
International College of Technology, Cork, Ireland
Zuhaib Hassan Qureshi
Universiti Kuala Lumpur – Universiti Kuala Lumpur Business School, Kuala Lumpur, Malaysia
Mohammad Jasim Uddin
Sunway University Business School, Sunway University, Bandar Sunway, Malaysia, and
Ramayah T.
School of Management, Universiti Sains Malaysia, Penang, Malaysia

Abstract
Purpose – The purpose of this paper is twofold. First, to examine the influence of two dimensions of entrepreneurial competencies, namely, strategic competency and ethical competency on the growth of small and medium enterprises (SMEs); and second, to explore the role of network competence as a mediator among these understudied variables.
Design/methodology/approach – The data for this study were collected from wholesale and retail-based SMEs in Malaysia through a standard structured questionnaire. PLS-SEM approach was utilised to analyse the data.
Findings – Although the findings did not reveal a direct effect of strategic and ethical competencies of entrepreneurs on SMEs’ growth, these competences, however, were found to be influential in driving their growth when network competence was used as a mediator.
Originality/value – The existence of a mediation effect between strategic and ethical competencies and SMEs’ growth via network competence has provided insights which add new knowledge to the extant entrepreneurship and SMEs’ performance literature.
Keywords Network competence, Entrepreneurial competencies, Ethical competence, SMEs’ growth, Strategic competence
Paper type Research paper

Introduction
Over the past two decades or more, a voluminous literature has documented the significance of small and medium enterprises (SMEs) in the economic development of most countries across the world (see Kraja and Osmani, 2015; Soomro and Aziz, 2015). SMEs are argued to be critical in developing a culture of entrepreneurship, stimulating competition, producing huge employment opportunities, enhancing the quality of human resources and opening new opportunities for businesses (Karides, 2005; O’Regan and Ghobadian, 2004; Weerakkody, 2013). SMEs are also directly linked with the economic well-being of their entrepreneurs. Thus, firms’ growth and superior performance remain the priority of most entrepreneurs (Rosli and Abdullah, 2015). Since SMEs are the key sources for entrepreneurial ideas, which contribute to a nation’s competitiveness (Sidik, 2012; Suh and Kim, 2014) and generate revenue for entrepreneurs, it is essential to focus on their efficiencies, competitiveness and productivity (Rahman and Ramli, 2014; Rusconi, 2008;
Weerakkody, 2013). This study therefore seeks to contribute to entrepreneurship and firm performance literature by examining the determinants of SMEs' growth. In particular, we examined the influence of two dimensions of entrepreneurial competencies, namely, strategic competency and ethical competency on the growth of SMEs and the mediating roles of network competence in these understudied entrepreneurial competencies.

A number of studies have claimed that a lack of entrepreneurial competencies hinder SMEs' success (see Ahmad, 2007; Beaver and Jennings, 2005; Dulewicz and Higgs, 2000; Ibrahim and Goodwin, 1986; Kiggundu, 2002; Longenecker et al., 1999; Tehseen and Ramayah, 2015). This stream of literature has encouraged a small number of studies to examine the effectiveness of different dimensions of entrepreneurial competencies with a mixed conclusion (see Ahmad et al., 2011; Dubey and Ali, 2011; Mohammed et al., 2017). This divergence in the extant literature has resulted in tension. We argue that this tension is derived from a lack of exploration of the indirect effect of entrepreneurial competencies. In particular, prior studies predominantly have overlooked the mediating effect in the relationship between strategic and ethical competencies on the growth of SMEs. Therefore, our study also seeks to contribute to the literature by proposing a model where network competence is used as a mediator. We argue that entrepreneurial competencies, especially strategic and ethical competencies, influence more towards the business success when the firms build their network competence to get other critical business resources such as knowledge, technology and expertise. Thus, the role of network competence cannot be neglected in achieving business growth (BG) both in local and international markets.

To date, researchers have examined different types of entrepreneurial competencies, namely, conceptual competency, opportunity competency, personal competency, learning competency, networking, strategic competency and ethical competency (see Man et al., 2002; Nakhata, 2018; Osagie et al., 2016; Quagrainie, 2018; Stephen et al., 2017; Suhaimi et al., 2018; Yusuff et al., 2016). However, consistent with Colombo and Grilli (2005), we argue that all skills and expertise do not lead to a firm's growth. We also argue that strategic competency and ethical competency are the most critical competencies for entrepreneurs to ascertain their firms' growth. The strategic competencies enable an entrepreneur to better align with the external business environment to attain BG in the long term (Aquilani et al., 2017; Goldman and Scott, 2016; Hu et al., 2016; Sandada, 2015; Tafti et al., 2017). Likewise, ethical competency is the second important independent variable examined in this study. Ethical practices among entrepreneurs would pay off in the long run (Ahmad et al., 2010). Entrepreneurs who behave ethically strongly believe that good ethics is the key for achieving their BG (Spence and Rutherford, 2001). Thus, ethical behaviours assist in achieving the long-term BG (Barringer and Ireland, 2019). Since both the entrepreneurial competencies, namely, strategic competency and ethical competency significantly influence on the BG, therefore, these two competencies have been studied as independent variables to predict the growth of SMEs.

Our investigation on the effectiveness of entrepreneurial competencies is confined to the Malaysian context, particularly to its retail SMEs. Malaysia is striving towards achieving the goal of transforming its economic status from a middle-income country to a developed economy by 2020 (OECD, 2013). To achieve this goal, the country should encourage entrepreneurial activities (Mokhtar, 2017). A pool of competent individuals is central to the initiation of entrepreneurship (Mokhtar, 2017) and successful business operations. Similar to other emerging countries, SMEs have been the key focus of the industrial policy agenda in Malaysia owing to their strategic importance in the economic development (see Tajudin et al., 2014). According to Aris (2006), SMEs in Malaysia contribute to the economy because of their outputs and labour-intensive features. SMEs in Malaysia account for 99.2 per cent of total businesses and provide employment to 56.4 per cent of its total workforce (EPU, 2010). Since the early 1970s, Malaysian Governments have encouraged entrepreneurship through the provisions of various policy initiatives (Mokhtar, 2017) considering its manifold
contributions to the national economy. However, government supports were not found to affect firms’ performance in Malaysia (Zainol and Daud, 2011). This implies that the success and performance of Malaysian businesses depend on entrepreneurial resources. Malaysian entrepreneurs may capitalise their entrepreneurial competencies to compensate for the lack or ineffectiveness of institutional supports. To address the identified limitations in the extant literature, our study is guided by the following research questions:

RQ1. What is the impact of strategic competency and ethical competency on SMEs’ growth?

RQ2. To what extent does network competence mediate the relationship between strategic and ethical competencies and SMEs’ growth?

The rest of the paper is structured as follows. The next section provides a brief summary of the literature regarding firms’ growth and entrepreneurial competencies. The following section sets out and develops the conceptual framework of the study and hypotheses from a review of pertinent literature. Then, we explain our research methodology and methods. The study findings are reported afterwards in the subsequent section. The study concludes with a discussion and contributions of our findings.

Literature review

Study context

The Malaysian wholesale and retail SMEs were used as the population of this study. Evidence suggests that compared to other ASEAN members and more developed nations, Malaysian SMEs are characterised by relatively low productivity, low business formation rates, concentration of output and employment in a small number of firms and a high concentration SMEs in the informal sectors (OECD, 2013). Muhammad et al. (2010) identified that the main problems faced by SMEs are the lack of knowledge regarding branding, marketing techniques and customer loyalty as well as the lack of good contacts with the international and national enterprise. Alam (2010) observed social barriers as the main obstacles for SMEs in achieving the competitive advantage. The ineffectiveness of government supports in SMEs’ performance was also evident in the literature (Zainol and Daud, 2011). There is also inconsistency regarding the factors that are vital for the success of Malaysian SMEs (Ahmad, 2007). Given these idiosyncrasies, it is critical to know the determinants of SMEs’ growth for both theory and policy. However, little empirical research has been conducted in the context of Malaysian SMEs. Researchers thus called for studies to explore the effect of entrepreneurial competencies, particularly strategic and ethical dimensions on the success of Malaysian SMEs (Ahmad, 2007; Ahmad et al., 2012). To address this knowledge gap and respond to these research calls, the present study constitutes the sample of 80 respondents who were the entrepreneurs of SMEs in the wholesale and retail sector based in the two most urbanized states of West Malaysia, namely, Selangor and Kuala Lumpur.

Firms’ growth

Firms’ growth patterns and determinants are most emphasised topic in the management literature (Martins, 2016). Growth is critical for SMEs because growth decreases the possibility of their closures (Rauch and Rijksik, 2013) and increases the chances of survival. Firms’ growth typically result from an increased demand for products/services that lead to an increase in sales and investment in additional factors of production so that firms can respond to the new level of demand (Janssen, 2009). Growth is an internal process corresponding to the development of an enterprise and an increase in quality and/or expansion (Penrose, 2006), change in size during a time span (Dobbs and Hamilton, 2007). However, how SMEs grow, particularly what determines a typical SME growth remains an
under-researched topic in the literature (Lee, 2014; Wakkee et al., 2015). SMEs may grow using different trajectories including “entering in new markets in the domestic or foreign market, taking over another firm or achieving efficiency improvements” (Wakkee et al., 2015, p. 171). Capability or competency may play a key role in SMEs’ growth and successful pursuit of different growth paths. It is argued that a firm’s competitiveness results from its ability to use internal resources combined with accessible external resources productively (Barney, 1991; Prahalad and Hamel, 1990). In particular, capability or competency is of vital importance in the productive use of both resources required for firms’ growth and competitiveness. In practise, the terms “capability” and “competency” have been used interchangeably (Ritter, 2006; Zerbini et al., 2007).

Entrepreneurial competency

The term “competency” itself has long been used in the strategic management literature. Entrepreneurial competencies are defined as the underlying characteristics such as traits, motives, specific knowledge, social roles, skills and self-images that lead to the birth of a new venture, its survival and growth (Bird, 1995). The entrepreneurial competencies have been recognised as the underlying characteristics of entrepreneurs (Osman and Rahim, 2014) or individuals which help them to accomplish tasks in a most benefiting way (Lazar and Paul, 2015). Individuals who start a business and add value to it through opportunity identification and utilisation of resources usually possess entrepreneurial competencies (Bird, 1995). Highly effective entrepreneurs grow their businesses through their competencies. The entrepreneurial competencies are linked with growth and sustainability of enterprises (Baum et al., 2001; Bird, 1995; Colombo and Grilli, 2005; Sajilan et al., 2016; Sajilan and Tehseen, 2015; Owusu-Acheampong, 2014). This study thus aims to advance knowledge by considering entrepreneurial competencies as predictors of SMEs’ growth. Researchers have identified various aspects of entrepreneurial competencies across various sectors. These aspects include, but are not limited to the following: strategic competencies, conceptual competencies, opportunity competencies, personal competencies, learning competencies, ethical, familism, leadership, marketing, management and relationship competencies (Ahmad, 2007; Man, 2001). Several studies recommended to measure specific competencies across different industries and sizes for increasing the generalisability of competency model (Ahmad et al., 2011; Mitchelmore and Rowley, 2010; Salah et al., 2015). Given the limited research focusing on strategic and ethical competencies as well as network competence, the scope of the present study is confined to their assessment.

Network competence refers to a firm’s (or an individual) capability in developing a relationship with suppliers, customers and other relevant organisations and deal effectively among these stakeholders (Ritter, 1999; Ritter et al., 2002). The network capability of any firm is a key source of superior performance (Dyer and Singh 1998; Ziggers and Henseler 2009). There are many ways to define network competence. For instance, it has been considered as an ability of dyadic relationship between partners, while some others relate it with various stakeholders underlying networks. Additionally, it has been referred to as either capability or as a competence. This is because the firms are embedded in the networks of professional relationships (Granovetter, 1985; Håkansson and Snehota 1989), including customers, suppliers and strategic allies (Anderson et al., 1994; Walter et al., 2006). Salancik and Pfeffer (1978) argued that the organisations indeed have to manage their relationships with the external parties whom they depend directly or indirectly because the uncertain actions of such external parties can insecure the survival and success of the organisations. Firms strive to build the networks with other firms to have access to the required assets and resources (Kogut and Singh, 1988; Nohria and Garcia-Pont, 1991; Salancik and Pfeffer, 1978). It is difficult for a firm to achieve success alone, as success depends on the performances and quality of relationships with other parties (Wilkinson and Young, 2002).
Theoretical background and hypotheses

The theoretical framework of this study is developed based on the underlying principles of resource-based view (RBV) theory (Barney, 1991; Penrose, 1959). RBV maintains that organisational capabilities that are valuable, unique and difficult to imitate result in sustainable competitive advantage for firms (Barney, 1991). In particular, the proponents of RBV have argued that unique competencies may affect firm’s performance if they fulfil two conditions. First, the competencies should be valuable that allow the organisation to overcome risks and develop opportunities. Second, not many organisations in a particular competitive environment possess these competencies. This study claims that entrepreneurial competencies such as strategic competency, ethical competency, as well as network competence can be considered as valuable resources for SMEs. It is well documented that SMEs tend to be burdened by financial and/or human resources. SMEs in developing/emerging countries also need to deal with many institutional difficulties. However, the synergistic effect originates from these specific competencies of SMEs’ entrepreneurs may help them to compensate for financial, human resources and institutional weaknesses in identifying and exploiting business opportunities successfully, which in turn result in superior business performance. In addition, not all the business owners possess these competencies and network competence. Therefore, the success of many firms can be dependent on their entrepreneurial competencies and networking capabilities. Using RBV as an underpinning theory and in line with studies of Ahmad et al. (2018) and Mitchelmore et al. (2014), we thus argue that entrepreneurial competencies, namely, strategic and ethical competencies as well as network competence are the essential internal resources that lead to the growth of SMEs. A number of existing studies have also related entrepreneurial competencies to RBV (Ahmad et al., 2018; Tehseen and Ramayah, 2015; Tehseen et al., 2015).

Effect of strategic competency

Strategic competency refers to the ability of entrepreneurs to set, assess and execute strategies for attaining the success of firms (Rahman et al., 2014). It involves the strategic thinking of entrepreneurs which reflects their ability to develop strategic plans and future vision by taking strategic actions (Stonehouse and Pemberton, 2002). Similarly, strategic competency is related to the establishment, evaluation and execution of strategies for the firm (Man et al., 2002). Sandada (2015) found that the environmental scanning and formal strategic planning are important dimensions of strategic competency. The strategic competency helps entrepreneurs’ efficient allocation and exploitation of valuable but scarce resources. Moreover, this competency enables entrepreneurs to provide a pathway between where their businesses exist currently and where they intend to take their businesses in future (Hörisch et al., 2015). The strategic competency is instrumental in dealing with turbulent market characterised by unpredictable customers’ demands and expectations, which in turn may result in competitive advantage for firms (Hanson et al., 2014; Simon et al., 2017). SMEs in emerging economies are facing huge uncertainties stemming from their business environments (Luo and Child, 2015). Farooq and Abideen (2015) concluded that SMEs need a strong strategic preparedness to face the uncertain situations in the business environment. Thus, it is essential for SMEs to develop effective strategies and execute them on right time to achieve long-term BG (Barringer and Ireland, 2019; Luo and Bu, 2018). A number of studies related the strategic competency of entrepreneurs with the success and growth of businesses (Ahmad, 2007; Ahmad et al., 2010; Kaur and Bains, 2013; Man, 2001; Rahman et al., 2014; Tehseen and Ramayah, 2015; Wickramaratne et al., 2014). Thus, based on the above, the following hypothesis is developed:

H1a. Strategic competency has a direct positive effect on SMEs’ growth.
Effect of ethical competency

Ethical competency refers the ability of individuals to show transparency and honesty in all business dealings by telling truth and by admitting mistakes (Ahmad et al., 2011; Ahmad, 2007). According to Nguyen et al. (2015), an extensive research has acknowledged the impact of entrepreneur’s ethics on marketing practises. Ethical competencies of entrepreneurs are related to their honesty, transparency and truthfulness in all business affairs. Thus, the ethical dimension of entrepreneurial competencies may lead the BG by winning the trust of the customers. By applying the ethical values and practises, businesses offer good quality of products and services to their customers and retain them for the long term. This leads towards the growth of firms’ businesses in local and international markets (Nguyen et al., 2015). According to Orme and Ashton (2003), ethics is a major part of a competency framework and hence provides a foundation for successful business. An entrepreneur with this competency usually offers products and services at reasonable prices and takes accountability for his or her own actions. The people behave ethically when their actions ensure that these practises and rules are applied in all situations of business in a consistent way (Orme and Ashton, 2003). There is a growing awareness in the modern businesses that ethical practises provide the good return in the long run of business (Zairi and Peters, 2002). Moreover, ethical behaviour that a company portrays to public may affect its image and reputation (Jones, 2001).

Although ethical practices are critical for firms irrespective of their size, they are even more important in the case of SMEs in emerging economies. SMEs in emerging economies are facing the difficulty of retaining their customers (Sok et al., 2016). To attain the BG, it is essential for SMEs to retain their customers in the long term. Transparency in business activities and other ethical practices would enable them to achieve superior performances (Ahmad, 2007; Tehseen and Ramayah, 2015). A number of recent studies have established the positive impact of ethical competency on BG (Kaur and Bains, 2013; Korsakiene and Diskiene, 2015). Based on the above, we have formulated the following hypothesis:

H2a. Ethical competency has a direct positive impact on SMEs’ growth.

The mediating effect of network competence

Although most of the existing studies established positive impacts of entrepreneurial competencies, particularly strategic competency (Ahmad, 2007; Irene, 2017; Minimol, 2017; Stephen et al., 2017; Tamyez et al., 2017) and ethical competency (Ahmad, 2007; Irene, 2017; Tamyez et al., 2017) on the performance of SMEs, the findings are not yet conclusive. The inconclusive findings might be due to the existence of mediating effect in the relationships between these competencies and SMEs’ growth. Given the inconclusive findings, we examined the mediating effect of network competence in the relationship between strategic and ethical competencies and the growth of SMEs.

While previous studies have documented the relationship between strategic competency and BG, we seek to advance such prior scholarship by considering network competence as a mediator between strategic competency and BG. Numerous studies have assumed the relationship between the strategic and network competences (Barringer and Ireland, 2019; Ritter and Gemünden, 2004). The rationale of such assumption is that successful firms continuously engage in the environmental scanning and develop strategies to deal with the environmental uncertainties. Hence, entrepreneurial strategic competencies are crucial to formulate and execute long-term strategies (Hambrick, 1982). Since the growth of businesses depends on their networking with the external parties, we assume a positive relationship between the strategic competency and network competence. This is because strategic competencies of entrepreneurs depend on the resources such market information or knowledge that entrepreneurs may attain from their networks. In other words, an entrepreneur would be
able to get timely market information only when he or she has developed strong relationships with the customers, suppliers and competitors.

Likewise, we do assume that the ethical competency has a relationship with the network competence. This is because when ethical practices, e.g., fairness and transparency in business dealings become the norm of a firm, winning and maintaining the trust of key stakeholders, namely, financial institutions, customers, suppliers and distributors turn out to be an easy task. It is argued that when entrepreneurs establish close and deep relationships with customers, suppliers and other relevant parties then they may become more fair and transparent in their business dealings to win and maintain the trust of other people (Tehseen et al., 2018; Tehseen and Ramayah, 2015). Thus, they may able to maintain the long-term relationships with the key parties in future due to their ethical competency.

The development of network relationships with different actors has become an integral component of business strategy in the twenty-first century, particularly in the case of SMEs. Large firms can leverage available internal and external resources (which may not necessarily include network partners) in their disposal to compete, grow and survive. For SMEs, access to relevant stakeholders, namely, financial institutions for capital, suppliers, distributors and customers involve building and maintain relationships with these actors. Hence, SMEs’ business strategies tend to focus on building network relationships to ascertain growth and performance. Moreover, since the retail firms are mostly engaged in developing their strategic competencies to have effective planning, their success depend on networking with the external parties, including customers, suppliers and other relevant organisations. We thus assume a positive relationship between the strategic competency and network competence.

In particular, since prior studies have considered the positive impact of ethical competency and strategic competency of entrepreneurs on the growth of SMEs (Ahmad, 2007; Ahmad et al., 2010; Kaur and Bains, 2013; Man, 2001; Tehseen and Ramayah, 2015), we predict that network competence may act as a mediator in the relationship between the ethical competency and BG, as well as in the relationship between the strategic competency and BG. Some recent studies have shown the association between the strategic competencies with network competence (Forkmann et al., 2018; Mu et al., 2017; Zakrzewska-Bielawska, 2018). Networks support the small firms in gaining the valuable resources (Yli-Renko et al., 2001) and achieving the survivability and growth by entering in the new markets (Lee et al., 2001). Behyan (2016) revealed that external networks significantly contribute in enhancing the firm-level performance. Likewise, Kheng and Minai (2016) found that entrepreneurs develop and maintain long-term relationship with their suppliers, customers and friends. In addition, studies have highlighted the importance of network competence in achieving the business success by coordinating various activities and providing opportunities to learn about market and industry (Boso et al., 2013; Park and Luo, 2001). Thus, the abilities of the firms and entrepreneurs to develop strong network relationships with key stakeholders are critical for superior performance and sustainable competitive advantage (Ziggers and Henseler, 2009). Hence, we propose the following hypotheses:

H1b. Strategic competency has a direct positive effect on network competence.

H2b. Ethical competency has a direct positive effect on network competence.

H1c. Network competence mediates the relationship between strategic competency and SMEs’ growth.

H2c. Network competence mediates the relationship between ethical competency and SMEs’ growth.

H3. Network competence has a direct positive effect on SMEs’ growth.

The proposed conceptual framework of our study is shown in Figure 1. According to the framework, the strategic and ethical competencies have been treated as independent
variables and SMEs’ growth is treated as the dependent variable. The framework takes into account the mediating role of network competence in the relationship between strategic competency and BG as well as in the relationship between ethical competency and BG. Because Ziggers and Henseler (2009) and Dyer and Singh (1998) argued that the firm’s ability to develop networks is a key source for achieving success and competitive advantage, this study intends to explore whether network competence influences the success of businesses and thus it is drawn as a mechanism in the relationship between strategic and ethical competencies and BG.

**Methodology and methods**

**Data and sample**

The population of our study derived from the wholesale and retail SME sector in Malaysia. The literature around the Malaysian retail industry is abundant compared to its wholesale industry. The Malaysian retail industry plays the main role in the economic progress of the country. According to Bernama News (2013), in 2012, the Malaysian retail industry contributed 13 per cent to the country’s GDP. By 2020, this industry was expected to contribute RM156 bn to GDP and to create about half a million new jobs (Bernama News, 2013). The significance of the Malaysian retail industry is also evident in the Global Retail Data Index as it ranked Malaysia among the top 30 emerging nations because of its retail potential (Kearney, 2013). Therefore, we have drawn our population from the Malaysian wholesale and retail SMEs involved in the perfume business.

Perfume is considered as a luxurious product that belongs to the category of cosmetic products in Malaysia (Ministry of Health Malaysia, 2014). The Malaysian cosmetic industry experiences an annual growth rate of approximately 13 per cent, and has been one of the world’s leading industries (Eze et al., 2012). The compound annual growth rate of perfume in Malaysia is around 4 per cent regarding volume and constant value (Azeema et al., 2016). In Malaysia, the annual expenditure on cosmetic products is approximately $500 m (Azeema et al., 2016) of which expenditures on perfume and toiletries have been increasing over the past years. According to the US Department of Commerce (2016), there are two categories of cosmetic and toiletries manufacturers in Malaysia: multinational corporations and domestically owned entities. The local cosmetics and toiletries market is valued about $800 m (Eze et al., 2012). In 2015, Malaysian domestic manufacturers exported about $270 m worth of cosmetics and toiletries (US Department of Commerce, 2016). Given the strategic significance of the cosmetic and toiletries industry in Malaysia

---

**Figure 1. Research framework**

**Notes:** Exogenous constructs (SC, strategic competency; EC, ethical competency), mediator (NC, network competence), and endogenous construct (BG, business growth)
and world trade, it is vital to develop an understanding of the factors that influence the competitiveness and growth of local perfume businesses for theory, policy and practice. Since the competitiveness and growth of local perfume businesses in Malaysia yet to be explored, our study sample thus consists of indigenous perfume business.

The survey
The present study constitutes the sample of 80 respondents who were the entrepreneurs of sample firms from the two most urbanized states of West Malaysia, namely, Selangor and Kuala Lumpur. The survey was administered during the last quarter of 2017, which took more than two months to complete. Snowball sampling method was used to collect the data from target respondents from the area of Selangor (Taipan, USJ 9 and 10 Business Centres) and Kuala Lumpur (Majid Jamek, Petaling Street and PWTC). For the purpose of this study, only those entrepreneurs were targeted in survey who met the following criteria:

- individuals who started up their own businesses and were actively engaged in the management of their business;
- the business was of at least three years old with employees between 5 and 75; and
- individual that belonged to any of Malaysian ethnic groups (Malaysian Chinese, Malay or Indian).

Consistent with SME Corporation (2018) Malaysia, SMEs were operationalised based on the number of employees employed in our study. In Malaysia, 98.5 per cent of total business establishments constitute SMEs (Haya and Juhaini, 2018). Based on size, the Malaysian SMEs are divided into small, medium and microenterprises. Among 98.5 per cent of SMEs, 76.5 per cent are microenterprises, 21.2 per cent small and 2.3 per cent medium-sized enterprises, respectively (SME Corporation, 2018). Microenterprises are defined as those firms with a sales turnover of RM300,000 or employed less than five employees. A firm with a sales turnover of not exceeding RM50 m, or number of full-time employees not exceeding 200 are considered as SMEs in the Malaysian manufacturing sector. For the services and other sectors, firms with sales turnover not exceeding RM20 m, or number of full-time employees not exceeding 75 are considered as SMEs (SME Corporation, 2018). The majority of entrepreneurs in the perfume industry belong to either small- or medium-sized enterprises. Microenterprises were not under the scope of this study.

The target respondents were contacted using social networks. The survey was administered via a face-to-face interaction to increase the response rate and obtain complete responses. Utilising the snowball sampling method, social network was used to have access to target respondents. This sampling method was also adopted by many studies. For example, Man (2001) conducted his pilot study by adopting this method in the context of Hong Kong’s wholesale and retail SMEs. Due to a lack of complete list of perfume SMEs in Malaysia, we could not obtain the information about the total number of perfume SMEs operating in West Malaysia during the survey. Social contacts that we used helped us to obtain information about 90 SMEs involved in the perfume business. Among the 90 respondents, 80 agreed to participate in the survey, yielding a response rate of approximately 89 per cent. The remaining respondents were reluctant to participate in the survey due to their very busy schedules.

Measurement
The two domains of entrepreneurial competencies, namely, strategic competency and ethical competency of entrepreneurs were investigated among target SMEs through the
standard questionnaire. The “strategic competency” was measured by four items that were adapted from Man (2001) and Ahmad (2007) and its Cronbach’s $\alpha$ was found to be 0.669. The “ethical competency” was measured by six items that were adapted from Ahmad (2007). Nine items were used to measure the network competence by adapting Ritter et al. (2002). The Cronbach’s $\alpha$ of ethical competency and network competence were found to be 0.892 and 0.747, respectively. In this study, SMEs’ growth was measured by four items by adapting Chandler and Hanks (1993) and Ahmad (2007). And 0.697 was the Cronbach’s $\alpha$ of BG. A five-point Likert scale was used to rate agreement or disagreement from 1 (strongly disagree) to 5 (strongly agree) to assess the behaviours of entrepreneurs towards above competencies, network competence and BG. The items used to measure the above variables are shown in Table I.

To examine the relationships among the main constructs by adopting the partial least squares (PLS) technique, SmartPLS 3.2.4 was applied to evaluate the measurement model and structural model. PLS analysis was selected because it can assess all paths

<table>
<thead>
<tr>
<th>Variable</th>
<th>Statements</th>
<th>Items</th>
<th>Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic competency</td>
<td>I identify long-term problems, issues, and opportunities</td>
<td>Identification of long-term problems</td>
<td>SC1</td>
</tr>
<tr>
<td>(Ahmad, 2007; Man and Lau, 2000)</td>
<td>I am aware of the projected directions of the industry and how changes might influence my business</td>
<td>Awareness of projected direction</td>
<td>SC2</td>
</tr>
<tr>
<td></td>
<td>I prioritize work in alignment with business goals</td>
<td>Alignment with business goals</td>
<td>SC3</td>
</tr>
<tr>
<td></td>
<td>I design my business to better meet long-term objectives and changes</td>
<td>Redesigning business to meet long-term goals</td>
<td>SC4</td>
</tr>
<tr>
<td>Ethical competency</td>
<td>I always keep promises</td>
<td>Promise keeping</td>
<td>EC1</td>
</tr>
<tr>
<td>(Ahmad, 2007)</td>
<td>I admit mistakes and tell the truth</td>
<td>Telling truth</td>
<td>EC2</td>
</tr>
<tr>
<td></td>
<td>I engage in fair, open and honest marketing practices</td>
<td>Honest marketing practices</td>
<td>EC3</td>
</tr>
<tr>
<td></td>
<td>I try to be transparent and honest in business dealings</td>
<td>Transparency in business dealings</td>
<td>EC4</td>
</tr>
<tr>
<td></td>
<td>I strive to be committed in offering goods and services at fair prices</td>
<td>Commitment towards fair prices</td>
<td>EC5</td>
</tr>
<tr>
<td>Business growth (Ahmad,</td>
<td>We have enough sales</td>
<td>Sales</td>
<td>BG1</td>
</tr>
<tr>
<td>2007, Chandler and Hanks, 1993</td>
<td>We have good market share</td>
<td>Market share</td>
<td>BG2</td>
</tr>
<tr>
<td>Network competence</td>
<td>We have enough cash flow</td>
<td>Cash flow</td>
<td>BG3</td>
</tr>
<tr>
<td>(Ritter et al., 2002)</td>
<td>We have a sufficient number of employees</td>
<td>Number of employees</td>
<td>BG4</td>
</tr>
<tr>
<td></td>
<td>We compare our partners in terms of their technical knowledge</td>
<td>Comparison with partners</td>
<td>NC1</td>
</tr>
<tr>
<td></td>
<td>We evaluate the way the results of collaborations with each of our partners fit together</td>
<td>Evaluation of collaborative results</td>
<td>NC2</td>
</tr>
<tr>
<td></td>
<td>We initiate meetings and discussions among those in our firm involved in relationships with our partners</td>
<td>Meetings within firm regarding partners relationship</td>
<td>NC3</td>
</tr>
<tr>
<td></td>
<td>We coordinate the activities involved in different relationships with our partners</td>
<td>Coordination of activities</td>
<td>NC4</td>
</tr>
<tr>
<td></td>
<td>We assign people to each relationship with our partners and assess their efforts which they put into relationships with partners</td>
<td>Assigning people to build the relationship with partners</td>
<td>NC5</td>
</tr>
<tr>
<td></td>
<td>We monitor the extent to which relationships with our partners work to our advantage</td>
<td>Monitoring the extent of the relationship</td>
<td>NC6</td>
</tr>
</tbody>
</table>

Table I. Variables and measurements
simultaneously and does not need a large sample size. The other reasons of using PLS–SEM were non-normal data, new relationships, and prediction oriented features of this study (Hair et al., 2011, 2017). Additionally, G*power analysis is highly suggested in the PLS literature to calculate the appropriate sample size (Hair et al., 2014, 2017). Therefore, we have assessed the sample size using G*Power 3.1.9.2 software, an extension of the previous versions (Faul et al., 2007). Since, our PLS model involves the three predictors of the BG, a minimum sample size of 77 was needed to create a power of 0.80 for our PLS model with 0.15 of medium effect size (Hair et al., 2014, 2017). Thus, using 80 respondents, our PLS model has met the minimum sample size requirement to generate the power of 0.80 with medium effect size.

Respondents and firm background
Regarding tenure, the average age of the majority of responding firms (65 per cent) were between 6 and 10 years, while 35 per cent firms were less than six years old. Almost two-third (60 per cent) of responding firms were small businesses, employed 5–30 employees with an annual sales turnover between 300,000 and < 3 m Malaysian ringgit. The remaining (40 per cent) were medium-sized businesses, having 30–75 employees with an annual sales turnover between 3 m and < 20 m Malaysian Ringgit. All respondents were the entrepreneurs of the target wholesale and retail SMEs. The respondents consisted of 41.3 per cent males and 57.5 per cent females. Most of the entrepreneurs were in the age group of between 41 and 50 years (47.5 per cent). In terms of ethnicity, 37.5, 37.5 and 25.0 per cent of respondents were Malays, Chinese and Indians, respectively. The majority of respondents hold an undergraduate degree (46.3 per cent).

Common method bias/variance tests
In recent years, the empirical research within entrepreneurship and organisational studies have devoted much attention to the issue of common method bias or common method variance (CMV) that may bias the empirical analyses’ findings obtained in studies using the same respondents as a source for collecting the data (Jakobsen and Jensen, 2015; Tehseen et al., 2017). Doty and Glick (1998) stated that CMV occurs by introducing the systematic variance into the measures by the technique of measurement. Richardson et al. (2009) have defined CMV as the systematic error variance shared among constructs that has been measured with the same method or source. This systematic error variance can result in common method bias, and bias the estimated relationships among measures and variables (Campbell and Fiske, 1959; Jakobsen and Jensen, 2015). The issue of CMV has been continuously provoking the attention among PLS researchers because it can lead towards biases in any PLS study that has involved the survey method to collect data from the same type of respondents while using the same type of Likert scale. Since our study involved the survey method in which five-point Likert scale (same type of measuring scale) has been used to collect data from SMEs’ entrepreneurs (the same type of respondents), CMV can occur that can lead our study’s results bias and unreliable. Therefore, construct-level correction (CLC) approach proposed by Chin et al. (2013) was used to control the CMV’s impacts after obtaining the PLS estimates through the structural model’s analysis.

Data analysis
Assessment of measurement model
Table II reveals that all the outer loadings of items are above the minimum value of 0.4 to 0.8. The convergent validity of each construct is above the minimum value of 0.5. Similarly, composite reliability is also above 0.6 for each construct.
The cross-loadings as shown in Table III do not reveal any multicollinearity issue. Likewise, using the Fornell–Larcker criterion, the discriminant validity was proved as shown in Table IV because the square root of average variance extracted (AVE) of each of the latent variables is greater than its correlations with any other of the constructs of the model (Hair et al., 2014, 2017).

Henseler et al. (2015) proposed the assessment of the correlations’ heterotrait–monotrait ratio (HTMT) to determine the discriminant validity. This latest approach shows the

<table>
<thead>
<tr>
<th>Variables</th>
<th>Items</th>
<th>Indicators’ outer loadings</th>
<th>AVE(^a) (convergent validity)</th>
<th>CR(^b) (composite reliability)</th>
<th>(\rho_A)(^c)</th>
<th>Cronbach’s (\alpha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic competency</td>
<td>SC1</td>
<td>0.781</td>
<td>0.502</td>
<td>0.799</td>
<td>0.688</td>
<td>0.669</td>
</tr>
<tr>
<td></td>
<td>SC2</td>
<td>0.739</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SC3</td>
<td>0.567</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SC4</td>
<td>0.728</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethical competency</td>
<td>EC1</td>
<td>0.745</td>
<td>0.640</td>
<td>0.914</td>
<td>0.913</td>
<td>0.892</td>
</tr>
<tr>
<td></td>
<td>EC2</td>
<td>0.731</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC3</td>
<td>0.788</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC4</td>
<td>0.866</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC5</td>
<td>0.777</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC6</td>
<td>0.881</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business growth</td>
<td>BG1</td>
<td>0.736</td>
<td>0.516</td>
<td>0.804</td>
<td>0.741</td>
<td>0.697</td>
</tr>
<tr>
<td></td>
<td>BG2</td>
<td>0.469</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BG3</td>
<td>0.799</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BG4</td>
<td>0.815</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Network competence</td>
<td>NC1</td>
<td>0.761</td>
<td>0.567</td>
<td>0.839</td>
<td>0.756</td>
<td>0.747</td>
</tr>
<tr>
<td></td>
<td>NC2</td>
<td>0.742</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NC3</td>
<td>0.795</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>NC6</td>
<td>0.710</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
\(a\)Average variance extracted (AVE) = \(\text{Sum of the square of factor loadings}/(\text{Sum of the square of factor loadings} + \text{Sum of the error variances})\); \(b\)composite reliability (CR) = \(\text{Square of the sum of factor loadings}/(\text{Square of the sum of factor loadings} + \text{Square of the sum of error variances})\); \(c\)\(\rho_A\) is called as true reliability according to Hair et al. (2017)

The cross-loadings as shown in Table III do not reveal any multicollinearity issue. Likewise, using the Fornell–Larcker criterion, the discriminant validity was proved as shown in Table IV because the square root of average variance extracted (AVE) of each of the latent variables is greater than its correlations with any other of the constructs of the model (Hair et al., 2014, 2017).

Henseler et al. (2015) proposed the assessment of the correlations’ heterotrait–monotrait ratio (HTMT) to determine the discriminant validity. This latest approach shows the
estimation of the true correlation between two constructs. A threshold value of 0.90 for HTMT and confidence interval of the HTMT less than 1 have been proposed as the threshold value for determining the discriminant validity through HTMT (Henseler et al., 2015). Table V shows that HTMT criterion has been fulfilled for our PLS model.

Thus, the above results lead to the satisfaction with the measurement model analysis due to its adequate reliability, convergent validity and discriminant validity. The second stage of analysis involves the structural model analysis and hypotheses testing.

Assessment of the structural model
A structural model was employed to examine the collinearity, the coefficient of determination ($R^2$), path coefficients ($\beta$), predictive relevance ($Q^2$) and effect size ($f^2$). The values of variance inflation factor (VIF) were assessed to examine the collinearity issues. The VIF value of EC was 1.076, SC was 1.210 and NC was 1.283. Since all VIF values were found below the threshold of 5. Therefore, collinearity among the latent variables is not any issue in the structural model, and we can continue evaluating the results’ report.

After assessing the VIF values, the bootstrapping was conducted with 500 resamples using PLS 3.2.4 to get the standard path coefficients, $t$-values and standard errors to examine the significance of hypothesised relationships (Hair et al., 2017). The mediation test was also conducted on the basis of Hayes and Preacher’s (2014) concept that infers the indirect effect of strategic competency and ethical competency on BG. This describes the path coefficient in the mediation chain. Table VI and Figure 2 disclose the direct path coefficients for strategic

<table>
<thead>
<tr>
<th>Table IV.</th>
<th>BG</th>
<th>EC</th>
<th>NC</th>
<th>SC</th>
</tr>
</thead>
<tbody>
<tr>
<td>BG</td>
<td>0.718</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC</td>
<td>0.015</td>
<td>0.800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NC</td>
<td>0.367</td>
<td>0.238</td>
<td>0.753</td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>0.106</td>
<td>-0.011</td>
<td>0.402</td>
<td>0.708</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table V.</th>
<th>BG</th>
<th>EC</th>
<th>NC</th>
<th>SC</th>
</tr>
</thead>
<tbody>
<tr>
<td>BG</td>
<td>0.170 (0.125, 0.177)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EC</td>
<td>0.469 (0.266, 0.665)</td>
<td>0.253 (0.136, 0.385)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NC</td>
<td>0.229 (0.150, 0.254)</td>
<td>0.207 (0.138, 0.238)</td>
<td>0.561 (0.264, 0.801)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>$\beta$ values</th>
<th>SD</th>
<th>$t$-statistics</th>
<th>p-values</th>
<th>Decision</th>
<th>Mediation</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H1a. SC \rightarrow BG$</td>
<td>-0.060</td>
<td>0.175</td>
<td>0.343</td>
<td>0.732</td>
<td>Not supported</td>
<td></td>
</tr>
<tr>
<td>$H1b. SC \rightarrow NC$</td>
<td>0.405</td>
<td>0.131</td>
<td>3.081***</td>
<td>0.002</td>
<td>Supported</td>
<td></td>
</tr>
<tr>
<td>$H1c. SC \rightarrow NC \rightarrow BG$</td>
<td>0.166</td>
<td>0.087</td>
<td>1.908*</td>
<td>0.057</td>
<td>Supported</td>
<td>Yes</td>
</tr>
<tr>
<td>$H2a. EC \rightarrow BG$</td>
<td>-0.084</td>
<td>0.166</td>
<td>0.507</td>
<td>0.612</td>
<td>Not supported</td>
<td></td>
</tr>
<tr>
<td>$H2b. EC \rightarrow NC$</td>
<td>0.243</td>
<td>0.112</td>
<td>2.167**</td>
<td>0.031</td>
<td>Supported</td>
<td></td>
</tr>
<tr>
<td>$H2c. EC \rightarrow NC \rightarrow BG$</td>
<td>0.100</td>
<td>0.059</td>
<td>1.682*</td>
<td>0.093</td>
<td>Supported</td>
<td>Yes</td>
</tr>
<tr>
<td>$H3. NC \rightarrow BG$</td>
<td>0.411</td>
<td>0.143</td>
<td>2.871***</td>
<td>0.004</td>
<td>Supported</td>
<td></td>
</tr>
</tbody>
</table>

Table VI. Hypotheses testing – structural model

Notes: Critical t-values: *1.65 (significance level = 10 per cent); **1.96 (significance level = 5 per cent); and ***2.57 (significance level = 1 per cent)
competency construct and illustrates a negative and non-significant relationship with BG ($\beta = -0.060, t = 0.343$). The second hypothesis indicates the positive and significant relationship between strategic competency and network competence ($\beta = 0.405, t = 3.081^{***}$). However, the mediation between strategic competency, network competence and BG was positive and significant ($\beta = 0.166, t = 1.908^*$). Thus, $H1a$ was not supported but $H1b$ and $H1c$ were supported. This means that there is a mediation effect between strategic competency and BG via network competence.

The ethical competency construct showed a negative and non-significant relations with BG ($\beta = -0.084, t = 0.507$). Therefore, $H2a$ was also not supported. However, a positive and significant relationship was found between ethical competency and network competence ($\beta = 0.243, t = 2.167^{**}$). Likewise, the mediation between ethical competency, network competence and BG was positive and significant ($\beta = 0.100, t = 1.682^*$). Therefore, $H2b$ and $H2c$ were supported. This indicates that there is a mediation effect between ethical competency and BG via network competence. Finally, a positive relationship was found between network competence and BG ($\beta = 0.411, t = 2.871^{***}$). With this analysis, the tested $H3$ was supported.

The coefficient of determination ($R^2$) was 0.143 for BG and 0.220 for network competence. Cohen (1988) suggested that $R^2$ values of 0.26 and 0.13 should be considered as substantial and moderate, respectively; whereas, the $R^2$ value of 0.02 should be considered as weak. Thus, $R^2$ values of both the endogenous constructs were found between moderate to substantial because they were more than 0.13, indicating a moderate PLS model. To sum up, the strategic competency and ethical competency variables and network competence explained 14 per cent of the variance in BG. This suggests that 86 per cent of the variance in BG was explained by the other unknown factors which were not been included in this study.

Then, we examined the effect size ($f^2$). According to guidelines mentioned by Cohen (1988), the values of $f^2$ effect size 0.02, 0.15 and 0.35 are considered as small, medium and large effects of the exogenous constructs, respectively. Thus by following Cohen’s (1988) guidelines, Table VII shows that ethical and strategic competencies do not have any effect on BG.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>$f^2$</th>
<th>$f^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC</td>
<td>0.008</td>
<td>0.076</td>
</tr>
<tr>
<td>SC</td>
<td>0.003</td>
<td>0.210</td>
</tr>
<tr>
<td>NC</td>
<td>0.154</td>
<td>na</td>
</tr>
</tbody>
</table>

Table VII. The result of the $f^2$ effect sizes
on BG. However, network competence has the medium effect on BG. Likewise, ethical competency and strategic competency were also found to have small and medium to large effect on network competence, respectively.

Hair et al. (2017) asserted that besides reporting values of $R^2$, the predictive relevance should by assessed using $Q^2$ value should be included as well. The blindfolding procedure is used to obtain the $Q^2$ value that is applicable for the reflective measurement models (Hair et al., 2017). Since both the endogenous constructs, namely, network competence and BG were measured relatively, thus, their $Q^2$ values were reported. In this study, the $Q^2$ values of the network competence and BG were 0.098 and 0.036, respectively, as shown in Table VIII representing the medium predictive relevance for our PLS model (Cohen, 1988).

**PLS findings after the removal of CMV impacts**

In order to control any significant impact of CMV from the study’s findings as well to present more reliable results and conclusions. We have controlled the influence of CMV using one of the MLMV techniques known as the CLC. The CLC approach is one of the statistical remedies suggested by Chin et al. (2013) in order to remove any impact of CMV from the PLS studies. The items of social desirability as shown in the Social Desirability Scale were used to create the Marker variable in CLC approach as shown in Figure 3.

Fischer and Fick’s social desirability scale (Form X1):

1. I like to gossip at times.

### Table VIII.
The result of the prediction values

<table>
<thead>
<tr>
<th>Constructs</th>
<th>SSO</th>
<th>SSE</th>
<th>$Q^2$ (=1–SSE/SSO)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BG</td>
<td>320.000</td>
<td>308.553</td>
<td>0.036</td>
</tr>
<tr>
<td>EC</td>
<td>480.000</td>
<td>480.000</td>
<td>0.098</td>
</tr>
<tr>
<td>NC</td>
<td>320.000</td>
<td>288.529</td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>320.000</td>
<td>320.000</td>
<td></td>
</tr>
</tbody>
</table>

### Figure 3.
CLC modelling
(2) There have been occasions when I took advantage of someone.
(3) I'm always willing to admit it when I make a mistake.
(4) I sometimes try to get even rather than forgive and forget.
(5) At times I have really insisted on having things my own way.
(6) I have never been irked when people expressed ideas very different from my own.
(7) I have never deliberately said something that hurt someone's feelings (source: Fischer and Fick, 1993, p. 421).

According to Fischer and Fick (1993), the seven items of social desirability could be used to detect the CMV in any study that employs the same type of respondents. Moreover, Table IX reveals minimum difference in the values of $R^2$ by using the CLC approach. Likewise, Table X shows that path coefficients that were found to be significant or non-significant in original PLS estimation remained also significant or non-significant even in CLC estimation. This clearly indicates that CMV did not impact our study's results, thus, our study's results are more reliable to draw conclusions and implications.

**Discussion of findings and contributions**

Since a negative relationship has been found between strategic competency and BG ($\beta = -0.060$, $t = 0.343$), as well as between ethical competency and BG ($\beta = -0.084$, $t = 0.507$), we thereby reject $H1a$ and $H2a$. These negative results were inconsistent with Ahmad (2007). However, it should be noted that the results were not statistically significant. The possible explanation of these negative impacts of entrepreneurial competencies, namely, strategic competency and ethical competency is that the Malaysian wholesale and retail SMEs are facing the huge turbulence in their business surroundings since 2014. Therefore, it may be possible that these entrepreneurial competencies may strongly influence BG in more stable business environments. However, the findings of $H1b$ ($\beta = 0.405$, $t = 3.081^{***}$) and $H2b$ ($\beta = 0.243$, $t = 2.167^{**}$) that were the new assumed

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>PLS estimation</th>
<th>CLC estimation</th>
<th>Decision</th>
<th>Mediation</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H1a$. SC $\rightarrow$ BG</td>
<td>$-0.060$ 0.343**</td>
<td>$0.421$ 2.566**</td>
<td>Not supported</td>
<td></td>
</tr>
<tr>
<td>$H1b$. SC $\rightarrow$ NC</td>
<td>$0.405$ 3.081***</td>
<td>$0.339$ 1.968**</td>
<td>Supported</td>
<td></td>
</tr>
<tr>
<td>$H1c$. SC $\rightarrow$ NC $\rightarrow$ BG</td>
<td>$0.166$ 1.908*</td>
<td>$0.146$ 1.968**</td>
<td>Supported</td>
<td>Yes</td>
</tr>
<tr>
<td>$H2a$. EC $\rightarrow$ BG</td>
<td>$-0.084$ 0.507</td>
<td>$-0.081$ 0.673</td>
<td>Not supported</td>
<td></td>
</tr>
<tr>
<td>$H2b$. EC $\rightarrow$ NC</td>
<td>$0.243$ 2.167**</td>
<td>$0.222$ 2.175**</td>
<td>Supported</td>
<td></td>
</tr>
<tr>
<td>$H2c$. EC $\rightarrow$ NC $\rightarrow$ BG</td>
<td>$0.100$ 1.682*</td>
<td>$0.096$ 2.013**</td>
<td>Supported</td>
<td>Yes</td>
</tr>
<tr>
<td>$H3$. NC $\rightarrow$ BG</td>
<td>$0.411$ 2.871***</td>
<td>$0.430$ 3.546***</td>
<td>Supported</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Critical $t$-values: *1.65 (significance level = 10 per cent); **1.96 (significance level = 5 per cent); and ***2.57 (significance level = 1 per cent)
relationships in this study were found significant and positive. Thus, strategic competency has been found to have its positive relationship on network competence (H1b). This means that Malaysian entrepreneurs’ strategic competency that is related to long-term plans and formulation, as well as the execution of strategies, lead to the network competence of entrepreneurs. This clearly indicates that the strategic competency of entrepreneurs enables them to acquire critical resources by developing the long-term relationships with external parties including customers, suppliers, competitors and other relevant organisations.

Similarly, the positive influence of ethical competency on network competence has been revealed in this study (H2b). This was almost the new assumed relationship in this study that was found positive and significant. This reveals that the ethical competency of entrepreneurs leads to the network competence, the logic behind this relationship is that by acting in an ethical way, the entrepreneurs show transparency in their business activities and offer products and services at fair prices, thus, their ethical business activities result into the establishment of close and long-term relationships with the customers, suppliers, competitors and other relevant parties. Moreover, the result of H3 revealed that network competence of the Malaysian wholesale and retail SMEs’ entrepreneurs positively and significantly impact their BG. This finding is consistent with many other studies as well that have found the positive impact of network competence on the BG of SMEs in various contexts ($\beta = 0.411, t = 2.871***$). Thus, the positive correlation as well as the significant results in H1b and H3 contributed towards the mediation interaction between the strategic competency and BG (H1c) ($\beta = 0.166, t = 1.908^*\$). Likewise, the positive correlation as well as the significant results in H2b and H3 also contributed towards the mediation interaction between the ethical competency and BG (H2c) ($\beta = 1.00, t = 1.682^*$). Although the impacts of strategic competency and ethical competency of entrepreneurs were not found to affect the growth of SMEs directly, their indirect impacts have been established. Since the indirect effects have been found significant, our study thus has provided the empirical evidence regarding the “indirect-only mediation” (Hair et al., 2017) of the network competence in the relationship between the strategic and ethical competencies and BG in the context of the Malaysian wholesale and retail SMEs.

The contributions of our study are manifold. First, we contributed to the literature by developing and testing a new empirical model that incorporate the mediation effect of network competence in the relationship between strategic and ethical competencies and SMEs’ growth. Our study contributed to the literature by revealing a mediation effect between strategic and ethical competencies and SMEs’ growth via network competence. Our findings provide support to those studies that established the significance of entrepreneurial competencies in driving the growth of SMEs. The management structure and independence of small firms put entrepreneurs in the most critical position in running their businesses (Mitchelmore and Rowley, 2010). Consequently, growth and performance of small businesses are dependent upon entrepreneurial competencies (Minai et al., 2014; Mitchelmore and Rowley, 2010). However, the findings of our study contradict the assertion of Hashim et al. (2018, p. 4) that the “relationship among entrepreneurial competencies and small firm performance is questionable because of the inconsistent findings in the literature”. We argue that inconsistent findings in the literature stem from a lack of studies examining the indirect effect of entrepreneurial competencies on SMEs’ growth. Our findings suggest that being competent is important, but not a sufficient precondition for SMEs’ growth if entrepreneurs do not possess network competency. In particular, in the context of Malaysian wholesale and retail-based SMEs, our findings highlight the utmost importance of network competence for their growth.

Second, our findings on entrepreneurial competencies are also consistent with the underlying principles of RBV theory. Intangible resources with valuable, rare and
imperfectly imitable features are argued to be instrumental for entrepreneurial success and competitive advantage (Barney, 1991). The findings of our study extend this stream of literature by demonstrating that entrepreneurial competencies as examined possess these characteristics since they contribute to SMEs’ growth. In particular, our findings lend support to the argument of RBV theorists that entrepreneurial competencies are valuable resource of the firms (Barney, 1991) as they positively affect the growth of SMEs. Entrepreneurial competencies can be considered as resource-based competencies (see Lado et al., 1992). These authors further argued that for resource-based competencies to generate competitive advantage, they must exhibit complex relationships with other resources or capabilities of firms. In our study, strategic and ethical competencies exhibited a complex relationship with other competencies in determining the growth of SMEs, thereby validating the conceptual work of Lado et al. (1992). Consistent with a number of studies, we conclude that entrepreneurial competencies, namely, network competence is the essential internal resource that leads to the growth of SMEs (Ahmad et al., 2018; Mitchelmore et al., 2014). Our findings also confirm the claim that business success and growth is dependent upon a few resources of which entrepreneurial competencies are the most pivotal and strategically important (Omar et al., 2016; Tehseen and Ramayah, 2015). Network competence is even more critical strategic asset for SMEs in emerging economies. SMEs operating in emerging economies are burdened by adverse economic conditions, lack of suitable government policies, weak infrastructural facilities, higher operating costs and corruption (Abdullahi and Sulaiman, 2015; Hafeez et al., 2013; cited in Hashim et al., 2018). Leveraging network competence may help them to compensate for these obstacles, which in turn result in their BG and performance. In addition, our findings suggest that entrepreneurial competencies as examined in this study are valuable, rare and imperfectly imitable resources, since not all the business owners possess these competencies easily. Based on RBV, we argue that the performances of SMEs could be differentiated based on their internal resources (Barney 1991; Crook et al., 2008; Ketchen et al., 2007), namely, their entrepreneurs’ competencies.

Finally, given the lack of knowledge on the determinants of SMEs’ growth in the context of emerging economies, we contributed to the literature by addressing this knowledge gap in the literature. Although the economic growth of emerging economies is usually driven by SMEs, our theoretical understanding remains limited on how SMEs compete and grow in turbulent but competitive business environments of emerging economies (Bruton et al., 2008). The literature around SMEs’ growth is abundant in the context of developed countries. However, theoretical knowledge around SMEs in developed countries could not be easily applied and translated into the context of SMEs in emerging economies (Sok et al., 2016). This is because the research on entrepreneurship and small businesses is very unique due to its multidisciplinary approach (Grunhagen and Mishra, 2008). In addition, SMEs in emerging economies are operating in different and less favourable institutional environments compared to those in developed countries. Better comprehension of the entrepreneurship and SMEs businesses in the context of emerging economies is therefore of vital importance (Bruton et al., 2008; Sok et al., 2016) for policy makers, academics and entrepreneurs and managers of SMEs. In particular, understanding the direct and indirect effects of entrepreneurial competencies on the growth of SMEs in the context of emerging economies is essential. Our study contributed to the literature by establishing the critical role of entrepreneurial competencies, namely, strategic competency, ethical competency and network competence in SMEs’ growth when they are encountering uncertain business environments. More specifically, the existence of indirect effects of strategic and ethical competencies, and direct influence of network competence on SMEs’ growth has provided insights which add new knowledge to the extant entrepreneurship and SMEs’ performance literature.
This study has some implications for policy makers. Understanding the components, dynamics and effects of entrepreneurial and managerial competency has important economic, social and political implications (Newton, 2001, cited in Mitchelmore and Rowley, 2010, p. 104). SMEs are argued to act as a shield to the economic shocks, fluctuations (Hyder and Lussier, 2016), and critical to deal with unemployment problems, poverty and income inequalities (Hashim et al., 2018). In the developing countries, on average the contribution of SMEs to GDP is 70 and 95 per cent to the total employment (Hashim et al., 2018). In Malaysia, SMEs account for 99.2 per cent of total businesses, and provide employment to 56.4 per cent of its total workforce (EPU, 2010). However, it is well documented that the failure rate of SMEs is very high. Given the strategic significance of SMEs, policy makers are very concerned about circumventing their failure and promoting growth (Mitchelmore and Rowley, 2010). To address the high failure and promote growth of SMEs, policy makers across the world provide various support measures. Understanding the determinants of SMEs’ growth can help policy makers in designing the new and/or modifying the exiting support measures. Our study has provided the empirical evidence regarding the importance of network competence in the context of Malaysian wholesale and retail industries. Therefore, Malaysian Government and policy makers should initiate the specific training programs for the existing and new SMEs’ entrepreneurs to improve their network competence. The government needs to make special arrangements which may include trade fairs and seminars on specific products/services where SMEs’ entrepreneurs, suppliers and customers can be invited to facilitate their relationships. The implications of our findings for practice should also be considered. For instance, it has revealed the importance of network competence which may be one among the possible solutions to managerial problems such as SMEs’ higher failure rates, their low productivity, and low contributions towards country’s GDP and employment. Through the development of network competence entrepreneurs/managers of SMEs can benefit from the access to many critical resources, such as latest market information, technology, customers’ needs, market trends and other knowledge.

Our study must be viewed in the light of a number of limitations. First, our study is confined to a single country and thus our conclusion should be interpreted with caution. A sample of 80 firms is relatively small that may not provide a deeper understanding of the multifactor effect on SMEs’ growth. Evidence suggests that access to population in pursuit of obtaining data is a challenging task in emerging country contexts. Our study is also limited to the exploration of the effect of three entrepreneurial competencies on SMEs’ growth. Moreover, we have tested the validity of our model in context of only retail and wholesale SMEs. These limitations result in a number of future recommendations for researchers: multi-country study and large sample can be fruitful in testing the validity of our model and increasing the generalisability of findings; it would be interesting to investigate the mediating impacts of network competence among other dimensions of entrepreneurial competencies (such as leadership, marketing, conceptual, personal, and opportunity competencies) and BG; future studies should also investigate the specific competencies essential for BG in other Malaysian sectors such as manufacturing, mining, construction and agriculture; similarly, an investigation and comparison of various entrepreneurial competencies across different Malaysian industries will also provide useful insights for the BG; furthermore, the role of network competence should be deeply investigated for the growth of Malaysian SMEs businesses both in local as well as in international markets; the validity of empirical model developed in this study should be tested across different Malaysian SMEs; and the empirical testing of the developed model could provide some useful information in the context of SMEs owned by different cultural groups (Indian, Chinese and Malaysians) and could reveal the influence of strategic competency, ethical competency and network competence on BG of such SMEs.
References


Mediating role of network competence


Further reading


Corresponding author
Farhad Uddin Ahmed can be contacted at: ahmedfu@tcd.ie

For instructions on how to order reprints of this article, please visit our website:
www.emeraldgrouppublishing.com/licensing/reprints.htm
Or contact us for further details: permissions@emeraldinsight.com