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Success factors of SMEs: the case of Indonesia

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Abstract: Small and medium enterprises (SMEs) are a business group which could survive when the economic crisis hit developing countries such as Indonesia. The purpose of the current study is to identify the enabling factors to innovativeness for SMEs in the emerging Indonesian market and to examine the relationship between innovativeness and business growth performance. Drawing upon the survey questionnaire data from 300 SMEs (with an acceptable response rate of 97.67%) in the Indonesian market, five research hypotheses are tested using a structural equation modelling technique. The results suggest that: first, the micro-environmental have a significant influence on firm's innovativeness and business growth performance, second, firm's innovativeness have a significant influence on firm's innovativeness, and finally, geographical clusters have a significant influence on firm's innovativeness and business growth performance. It is believed to be the first empirical research study examining SMEs' innovativeness and their business growth performance in the emerging Indonesian market.

Keywords: micro-environmental; geographical clusters; innovativeness; business growth performance.

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1 Introduction

The purpose of the current study is to identify the enabling factors to innovativeness for SMEs in the emerging Indonesian market and to examine the relationship between innovativeness and business growth performance. Innovation is one of the most fundamental practices underpinning economic growth, and it has great potential to develop solutions to economic and social challenges. Innovation is the key to the survival of commercial firms in today's business and market environments. It enables different firms to survive and prosper by creating market value and competitive advantage.

Research on innovation management has to date focused mainly on developed market economies and large enterprises (LEs), yet, SMEs make a significant contribution to innovation and economic growth. Innovation is critical to many firms (Nam et al., 2017). The traditional innovation literature has focused on manufacturing industries and patenting intensities in developed markets and economies (Serpe et al., 2017; Zhao et al., 2018; Abdallah et al., 2016). Previous research investigations and empirical evidence are drawn from large firms and developed markets (Ferasso et al., 2017) leaving generalisability and transferability of outcomes across boundaries for further discussions. A limited number of research studies have examined the links between the contextual factors and innovation in an integrated and comprehensive manner in an emerging market (Hult et al., 2004; Martinez-Roman et al., 2011). There are needs to stimulate the development of innovation and to examine the influence of the cluster and internal-driven determinants on innovation in SMEs in an emerging market similar to the Indonesian market.

The purpose of this study is to contribute to the business and innovation management literature on SMEs and their innovative behaviours in the socio-economic context of Indonesia.

Small and medium enterprises (SMEs) are a business group which could survive when the economic crisis hit developing countries such as Indonesia (Dharmanegara et al., 2016). In Indonesia's SMEs playing a strategic role in the development of national economic (Salim, 2013). Moreover, related to Indonesia's export performance (Salim, 2013).

The SMEs segment is very important for national socioeconomic development (i.e., similar to the Indonesian market), both for developed and developing markets and economies (Forsman and Temel, 2011; Ghosh and Kwan, 1996; Lin, 1998). They are important movers in the process of structural changes in emerging markets and economies (Szirmai et al., 2011). They are significant to the local entrepreneurship and innovation activities and are able to exploit opportunities from globalisation (UAE MFT, 2012). Their important roles continue to be crucial in diversifying the sources of the national income, in improving the competitiveness and economic development, and in contributing to the flexibility and resilience of the Indonesian economy (Sarosa and Underwood, 2005; Hertog, 2010; Harrigan et al., 2011; Zhu et al., 2011). They play roles in areas related to; entrepreneurship, innovation, productivity, competition, job creation, diversification, earning, and growth (Massa and Testa, 2008; Wonglimpiyarat, 2011; Gilmore et al., 2013).

It is undeniable that SMEs could increase the strength of the Indonesian economy (Muafi et al., 2012; Sarosa, 2007), indicating that these firm, including SMEs, have the potential to nurture and drive innovation in this marketplace and beyond.

The competitive environment in most countries and for most firms have changed as production has become more technology-driven and knowledge-based, and competition has globalised and developed into more innovation-based (Mytelka, 2000; Szirmai et al., 2011). To survive today's global market economy and achieve long-term success, firms have recognised the importance of being able to adapt and keep innovating to overcome intense competition and to match changing market demands (Tucker, 2002; Cefis and Marsili, 2005; Brem and Voigt, 2009; Hertog, 2010; Ellonen et al., 2011). Even small and medium firms need to seek new strategies and business models, introduce new and better products and services, and consider new knowledge and technologies (Hadjimanolis,

1999; Chirico and Salvato, 2008). Innovation is considered to be of importance to the growth of firms, despite their size, with great leverage in creating economic values and competitive advantages and in driving changes (Dougherty and Hardy, 1996; Drucker, 2003; Haour, 2004; Davila et al., 2006).

Historically, SMEs has focused mainly on head-to-head market competition over buying and selling of existing products and services, which have decreased their presence and stickiness in the local market. Their survival objectives when market conditions are stable is to decrease costs and increase short-term profits, and when market conditions are dynamic and/or turbulent their survival strategy is to cautiously move into new domains (Lamb et al., 2000; Hertog, 2010; Valos and Bednall, 2010). They are known for their authoritative and paternalistic approaches to management, for their adoption of imported management practices, and for their centralised organisational structures, a short-term focus, high administrative intensity, and top-down and formal communication and reporting styles (Iseri and Demirbag, 1999; Wasti, 1999; Kabasakal and Bodur, 2002; Hertog, 2010; Avci et al., 2011). Further, other examples include the reliance on foreign labour sources whereas locals are prioritised for senior management roles (Grant et al., 2007; Lim, 2012), the potential for alliance is based on personal and social networks, and the lack of market research is a limiting factor to understand both customer demands and competitor behaviours (Hutchings and Weir, 2005). The outcome could be strategic orientations (conservative orientations) and business models that undermine the accumulation of sufficient resources and capabilities needed to implement innovations. Therefore, there are reasons that SMEs innovation in the emerging Indonesian market needs to be investigated.

Geographical clusters are defined as geographic proximities of interconnected companies and institutions in a particular field such as innovation (Porter, 1998), industry (Saxenian, 1996) or serving a local purpose (Pesamaa and Hair, 2007). Innovation and competitiveness are assumed to grow in focused in clusters (Porter, 2001). Geographical clusters thus support competitive advantage in a global economy, because they offer local relationship (Porter, 1998). Motivation to enter geographical clusters and selecting local partner could reflect the willingness to share risk, obtain financing, and identify knowledge and manpower that for distant firms are not available (Pesamaa et al., 2010).

According to Tracey et al. (2014), geographical clustering does not automatically lead to improved performance. The relational cluster governance helps to commercialise novel products, while hierarchical governance accelerates products' to market (Tracey et al., 2014). The ability to create, share and integrate knowledge defines a cluster's long-term competition (Nicotra et al., 2014). According to Rodriguez-Pose and Comptour (2012), geographical clusters also need a favourable socio-economic setting. A good level of education and a skilled workforce is crucial to generate innovation and promote economic growth (Rodriguez-Pose and Comptour, 2012).

SMEs in the Indonesian market are no exception to other firms in other markets and countries which should be encouraged to use innovation as a tool to improve both competitive advantage and business growth performance (Forsman and Temel, 2011). SMEs might engage in risky investments and innovative behaviours more than large firms to improve their business performance (Latham, 2009), as they can possess the advantages of entrepreneurial dynamism, internal structural flexibility, and receptiveness to changing market circumstances (Zhu et al., 2011).

This study can be justified based on its capacity to fulfil the existing shortcomings in business and innovation management literature alongside another rationale. First,

innovation is perceived differently in different markets and economies, what products and services might seem new to firms and customers in one market and economy may already be familiar in another (GEM, 2011). It could be as a result of a context-dependent to the local market and economy (Szirmai et al., 2011).

Second, previous research studies on innovation have addressed the issue of why firms innovate (Drucker, 2003; Haour, 2004; Davila et al., 2006; Teece, 2010) and its implication in supporting higher business growth performance and developing a competitive advantage in a particular situation (Cooper, 1994; Mole and Worrall, 2001; Calantone et al., 2002; Mahemba and De Bruijn, 2003; Salavou et al., 2004; Aragon-Sanchez and Sanchez-Marin, 2005; Aubert, 2005; Scozzi et al., 2005; Teece, 2010; Martinez-Roman et al., 2011).

Third, most of the research studies into the importance of innovation have been focused on large firms (Dutta, 2006). The importance of innovation in the emerging Indonesian market has not yet been entirely investigated for SMEs because it is a relatively new phenomenon and research studies in the area are very limited but increasing. Fourth, small and medium firms play important roles in the emerging Indonesian market. Data shows that SMEs represent the majority of firms in the local Indonesian market and contribute effectively to the development and growth of the local economy. Finally, this study offers a combination of academic contributions, for scholars and researchers, and managerial implications, for policymakers and practitioners. An emerging market innovation-based model is proposed as a guide for scholars, policymakers, and managers to promote and implement innovative practices within SMEs.

2 Literature review

2.1 The conceptualisation of SMEs

The term 'SME' refers to all independent businesses with less than 250 employees, less than USD\$ 190m capital investments, and less than USD \$70 m annual turnovers (Ghobadian and O'Regan, 2000). However, SMEs can be defined in a different way in different markets and economies. A commonly used method is the number of employees (Rothwell and Zegveld, 1982; Adams and Hall, 1993; Freel, 1999). Other methods include the capital investments and the annual turnovers of the firm (Wijewardena and Cooray, 1995).

The definition of SMEs varies from country to country, market to market, and industry to industry, therefore, there is no single commonly used definition (Gunasekaran et al., 2000). In the Indonesian market, the definition of SMEs is based on the number of employees, which is used in this study and is according to the Indonesia National Agency for Statistics (BPS) classification: microenterprise (MIE) (1–4 employees), small enterprise (SE) (5–19 employees), SE from a medium enterprise (ME) (20–99 employees), and ME from a LE (more than 100 employees) firms (BPS, 2016).

Small and medium firms offer the innovation outcomes of the 21st century (Rothwell and Zegveld, 1982; Jovanovic, 2001). In the emerging Indonesian market, the role of SMEs is crucial in improving national competitiveness and economic development and in contributing to the flexibility and resilience of the economy (Hertog, 2010; Harrigan et al., 2011; Zhu et al., 2011).

2.2 *The micro-environment: the resource-based perspective*

The resource-based view contains two parts of resources and capabilities for securing competitive advantage of the firm. Resources of both tangible and intangible assets are linked to the firm in semi-permanent ways (Aragon-Sanchez and Sanchez-Marin, 2005), whereas capabilities are linked to how the firm performs different tasks and activities and is dependent on the available resources (Grant, 1996).

The strategic management literature has indicated a number of internal-driven determinants (or strategic assets) of the firm's competitive advantage and success, including technological capital and innovation (Hitt et al., 1990), human resource management practice (Bacon et al., 1996), and internal structure (Feigenbaum and Karnani, 1991). Previous research studies further emphasise the importance of intangible resources and capabilities of a firm to keep its competitive advantage (Hall, 1992, 1993; Oliver, 1997), which are based on tacit knowledge and non-codified data, which are more difficult to imitate by others (Peteraf, 1993). Intellectual capital, including human (characteristics, knowledge, skills, and capabilities), organisational (technology, processes, patents, and networks), and social (links with customers, suppliers, and partners) are important strategic assets, which the firm needs to internally focus on to increase its innovation efforts by controlling and exploiting resources and nurturing and enhancing competencies and capabilities (Xu et al., 2007; Martinez-Roman et al., 2011).

However, SMEs can suffer from a number of constraints (Spithoven et al., 2013), which are the inability to spread risk over a range of product portfolios, difficulty in start-up in new and overseas markets, and funding longer-term projects (Nootboom, 1994), limited technology and knowledge acquisitions and absorptions capacities and customer dependencies (Vossen, 1998), lack of access to financing (Zhu et al., 2011), and lack of information and limited synergies (Nootboom, 1994). Considering the above discussions, the micro-(internal-driven) environmental determinants can be management orientation, organisational culture, and alliance and cooperation.

2.3 *Geographical clusters*

Geographical clusters play a significant role in creating region's success and economic wealth. Clustering occurs as a result of cooperation effect or partner firms. However, clusters need third parties support as well. According to the report made by European Commission (2007), cluster firms should be supported by the national and regional authorities in order to promote cluster firm' cooperation and to improve cluster functioning.

Casanueva et al. (2013) posit that firms cooperate with other firms to acquire knowledge and resources and to enhance innovation performance. Gnyawali and Srivasta (2013) argue that clusters help firms overcome barriers to innovation and that clusters act as catalysts for innovation. Fieldman and Florida (1994) argue that the capability to innovate is the result of specialised concentrations of R&D, industrial activity, and support services that build up in particular places over time. Innovations, therefore, need a tacit knowledge that is transmitted most effectively in face-to-face communication (Zucker et al., 1998; Sorenson et al., 2006). The efficient structure of tacit knowledge support firms to update specific standardisation and other explicit routines. Firms using the high level of tacit knowledge in the innovation aim to acquire the regional knowledge which is accumulated in the geographic clusters (Mudambi and Swift, 2012).

2.4 *Innovativeness*

Innovation is “central to the role of the enterprise in modern society” [Teece, (2010), p.724], which is considered to be a central activity that involves the entire firm and conditions its behaviour to facilitate value creation of competitive advantage and business performance (Zaltman et al., 1973; Sundbo, 1998; Cho and Pucik, 2005; Martinez-Roman et al., 2011; Yam et al., 2011). Innovation can have different meanings in different disciplines (O’Dwyer et al., 2011). It is an indefinable concept that has complexity and interactive processes of demand-and-supply-side elements of customers and research and development outcomes (Mowery and Rosenberg, 1979; Mole and Worrall, 2001; Samara et al., 2012). Early contributions to the classical innovation literature include the Schumpeter (1993) micro-economic view on innovation that contains entrepreneurial innovations. Schumpeter (1993) has also used the term ‘creative destruction’ to describe the process of creation and reinvention to continually destroy the old and create new ones.

Innovation can be related to the ability of the firm to seek new and better ways to identify, acquire, and implement ideas and tasks that come in different forms (i.e., management and administrative systems, internal cultures, processes, products, services, distributing channels, and marketing methods-segments) within the organisation (Slater and Narver, 1995; North and Smallbone, 2000; Boer and During, 2001; Calantone et al., 2002; Drucker, 2003; Haour, 2004; Deschamps, 2005; Blumentritt and Danis, 2006; Brem and Voigt, 2009; Hjalager, 2010).

Innovative capability is considered on different levels and from a broad perspective, depending on a firm strategy and its market condition (Guan and Ma, 2003; Martinez-Roman et al., 2011), which is related to the firm’s capacity to respond properly to changes in the environment (Neely et al., 2001; Akman and Yilmaz, 2008). It allows a firm to adapt to competition and achieve success in the marketplace (Guan and Ma, 2003). It is consistent with the resource-based view in explaining how a firm derives competitive advantage by channelling resources, capabilities, and competencies into innovation (Hult et al., 2004; Martinez-Roman et al., 2011). Successful innovation requires ‘exploration competencies’ that is the capability of the firm to harvest ideas and expertise from different sources (Wolpert, 2003).

The innovation research literature focuses on the identification and measurement of research and development intensity as an indicator within a firm to evaluate its innovation (Smith, 2005). Other indicators are input resources (i.e., finance and personnel) and the extent of collaborations between commercial firms, academic institutions and research laboratories that might eventually lead to the introduction of new processes, products, or services (Hjalager, 2010). Further, innovation activities and business growth performance of the firm can be evaluated using other indicators that include sales growth, return on investment, return on assets, and market capitalisation. Three dimensions turned out to be noteworthy and statistically significant, including sales growth, return on invested capital, and innovation compared to the industry average (Miller and Floricel, 2004). O’Connor et al. (2008) also discovered no relations between research and development spending and expenditure as a percentage of sales and innovation activities.

2.5 *Business growth performance*

In connection with the reviewed literature regarding the business growth performance, Zahra et al. (1999) emphasise that innovation is increasingly seen both as a contributory factor in a higher business growth performance and as a strengthening factor in a competitive advantage of the firm in a number of industries and sectors in the marketplace (Mone et al., 1998; Gunasekaran et al., 2000; Sanz-Valle and Jimenez-Jimenez, 2011; Talke et al., 2011). The business performance of the firm can be determined by its innovation capability and investment (Hurley and Hult, 1998; Mone et al., 1998; Cooper, 2000; Ali et al., 2008; Francis et al., 2012).

Small and medium firms are well-known for their creativity and new product and service development (Kenny and Reedy, 2006). However, SMEs sometimes do not succeed in recognising the opportunities that are available to them in the marketplace, including the flexibility of customising products and services to the needs of their customers. Therefore, the firm has to be a strong competitor, a smart evolve, and innovative, ahead of the market, or an early adopter within the market in order to better perform and grow in the long-term (Beinhocker, 1997).

SMEs with innovative behaviours have appropriate outlooks on obstacles and barriers as learning opportunities rather than as negative incidents (Mahemba and De Bruijn, 2003). Keskin (2006) also argues that SMEs with innovative capabilities can have a positive effect on their business growth performance. Innovation can positively influence the business growth performance of the firm (Otero-Neira et al., 2009) when different performance levels are linked to the type of innovation developed. For evaluating the business performance and growth outcomes of SMEs, a group of different indicators such as new products and services, growth sale, profitability, productivity, and market share are used, where the most profitable and productive firm is strategic behaviour-oriented towards quality, innovation, and customer satisfaction (Aragon-Sanchez and Sanchez-Marin, 2005). These indicators have been used in various research studies to evaluate business growth performance and are able to distinguish among good and/or poor performing firms (Hadjimanolis, 1999; Calantone et al., 2002; Mahemba and De Bruijn, 2003). A similar approach is used to evaluate the business growth performance of SMEs in the emerging Indonesian market in order to distinguish among different firms according to their innovation practices.

3 **Hypothesis development**

3.1 *The micro-environmental determinants, SMEs innovativeness and business growth performance*

Management orientation concept is related to the management characteristics and strategic directions of a firm. The characteristics and basic competencies (i.e., leadership and interpersonal skills) of managers are important indicators of innovation potential (Snow and Hrebiniak, 1980; Smith et al., 1986). Unlike large firms, small and medium firms usually reflect the personalities of the owners and/or the managers who have the capacity to influence day-to-day operations (Nooteboom, 1994) and their strategic orientations mirror the strategic directions and managerial practices of the firms that in turn can guide suitable activities and face challenges (Dandridge, 1979; Gatignon and

Xuereb, 1997). Management orientation seems to play an important role in determining and supporting the decision of a firm to adopt and/or generate innovation (Baldrige and Burnham, 1975; Cannon, 1985; Webster, 1988). Firms with different management strategic directions differ in how they implement and conduct their innovative behaviours (Ettlie et al., 1984).

In the small and medium firms context, innovation-oriented strategy firms (similar to prospectors) are more innovative having better technological positions, followed by customer-oriented strategy firms (similar to analysers) and modernisation-oriented strategy firms (similar to defenders) (Mahemba and De Bruijn, 2003; Aragon-Sanchez and Sanchez-Marin, 2005). Successful innovation requires strong managerial support and a resource commitment (Cromer et al., 2011).

Organisational culture concept is related to the organisational learning processes, designs, and flexible practices of a firm. Organisational culture and learning within a firm can inspire innovation and give individuals the needed space to take risks, make mistakes, and create opportunities for valuable learning and successful solutions (Martins and Terblanche, 2003; Peebles, 2003), which can influence the continuity of innovation (Xu et al., 2007).

Previous research studies on learning have produced mixed results. Some scholars have found a positive relationship between organisational learning culture and financial and non-financial innovation performances (Twati and Gammack, 2006; Spicer and Sadler-Smith, 2006; Sanz-Valle and Jimenez-Jimenez, 2011) while others have found a negative relationship or no relationship at all (Nasution et al., 2011).

SMEs with innovative and proactive orientations (similar to prospectors) have more flexibility due to their requirements for constant innovation and to their adaptations to product-market-domains than do firms with other orientations (similar to defenders) where flexibility might obstruct their efficiency maximisation and cost minimisation (Conant et al., 1990; Slater and Narver, 1995; Aragon-Sanchez and Sanchez-Marin, 2005).

Alliance and cooperation concept are related to the collaborative agreements and networks with business groups and supporting industries of a firm. Having well-developed collaborative agreements and networks of firms with public and private organisations is becoming an important mechanism for acquiring resources and capabilities and driving competitive advantage and success (Hoffmann and Schlosser, 2001; Batonda and Perry, 2003a, 2003b; Soda, 2011; Kang and Park, 2012). It can benefit the firm in a number of ways including accessing resources and capabilities, enhancing learning, transferring technology and expertise, facilitating innovation, developing market focus, accelerating market penetration, increasing production efficiency, promoting public and private partnerships, creating revenue, and reducing cost and risk (Rich, 2003; Allocca and Kessler, 2006; Soda, 2011).

Strategic business alliances and external networks with such innovative partners are very important to firms of all sizes as bases of resources and capabilities (Stuart, 2000; Teece, 2010) as these can provide more access to information, knowledge, and technologies for firms to compete and grow more effectively in the marketplace (McEvily and Zaheer, 1999; Gulati et al., 2000; Landsperger and Spieth, 2011). This is very important for small and medium firms with limited internal resources and capabilities (Starr and MacMillan, 1990; Hoffmann and Schlosser, 2001).

Consistent with the status transfer arguments, SMEs benefit more from innovative strategic alliance partners than do large firms (Stuart, 2000). SMEs might develop collaborative agreements and networks as strategic advantages to improve their innovation and competitive advantage (Stuart, 2000; Aragon-Sanchez and Sanchez-Marin, 2005; O'Dwyer et al., 2011). It is important for SMEs in Indonesia to establish trade relations, network with business partners, and connect with customers (Grant et al., 2007), which can further enable them to access resources without merging with others; maintain internal flexibility, and adapt to changing environments (Glaister and Buckley, 1996). Collaboration with research partners is another strategy that SMEs can pursue to counter their size-imposed resources and capacities constraints and to enhance their learning, knowledge, technologies, and discoveries (Davenport et al., 1999; Wincent, 2005; Lasagni, 2012). Eisenhardt and Schoonhoven (1996) also find that there is a link between SMEs with more proactive and innovative strategies (similar to prospectors) and alliance and collaboration agreements than other orientations (similar to defenders and analysers). From the above discussions, the following hypothesis is proposed:

H1 The micro-environmental positively influences firm's innovativeness.

H2 The micro-environmental positively influences business growth performance.

3.2 SMEs innovativeness and business growth performance

The work on the relationship between innovative behaviours and business growth performances of SMEs is limited (Forsman and Temel, 2011). Previous research studies have indicated that there is a significant relationship between innovation and profitability (Roberts, 1999; Gunasekaran et al., 2000), which is consistent with the theory of the growth and the innovative enterprise perspectives (Kim and Mauborgne, 2001). Innovation is linked with sales growth in the case of new products and services and with productivity in the case of new processes (Cainelli et al., 2006; Alvonitis and Salavou 2007). It allows a firm to build a monopolistic position and improve its business growth performance (Han et al., 1998; Forsman and Temel, 2011).

Previous research studies have indicated mixed results of different performance outcomes for different management strategic orientations (i.e., defenders, prospectors, analysers, and reactors) and for size-related issues in different industries (Snow and Hrebiniak, 1980; Forsman and Temel, 2011). It is argued that SMEs with proactive strategy-orientations towards innovation and more service quality and customer satisfaction are the most profitable and productive ones (Miles et al., 1978; Aragon-Sanchez and Sanchez-Marin, 2005).

Innovation is related to better business growth performance in terms of productivity, efficiency, and profitability (Tidd, 2001; Shefer and Frenkel, 2005; Forsman and Temel, 2011). However, there is an interdependent and mutually reinforcing relationship between innovation and business growth performance rather than a simple one (North and Smallbone, 2000).

The innovation capability of the firm is an important determinant to its competitive advantage and at the same time can have a positive impact on its business growth performance (Mone et al., 1998; Calantone et al., 2002; Talke et al., 2011; D'Angelo, 2012). From the above arguments, the following hypothesis is proposed:

H3 Innovativeness positively influences firm's business growth performance.

3.3 Cluster, SMEs innovativeness and business growth performance

According to Kesidou and Snijders (2012), knowledge spillovers are facilitated when firms are located closely together. They argue that geographic proximity is important because it makes inter-firm knowledge sharing easier. Local knowledge spillovers are seen as the key mechanism of knowledge acquisition in clusters (Audretsch and Thurik, 2001).

Kesidou and Snijders (2012) further argue that when firms in a cluster are located close to each other it is easier to create direct inter-firm relations for the purpose of sharing of complex technological knowledge, and this has a positive influence on the innovation of firms within clusters. Dahl and Pedersen (2004) also argue that geographic proximity makes it easier for knowledge exchange to take place.

Network breed processes that enhance knowledge and offer more planning and structure to the innovative process (Nybakk et al., 2009). Such platform is reflected in proximity and density. The above literature then suggests that it is easier for firms to share knowledge if they are located close to each other. It is suggested that this knowledge exchange will have a positive impact on a firm's innovative performance. Tracey et al. (2014) propose that a higher cluster density will promote relational governance practices and increases a product novelty. This implies that having ties to more firms within the cluster will positively influence performance.

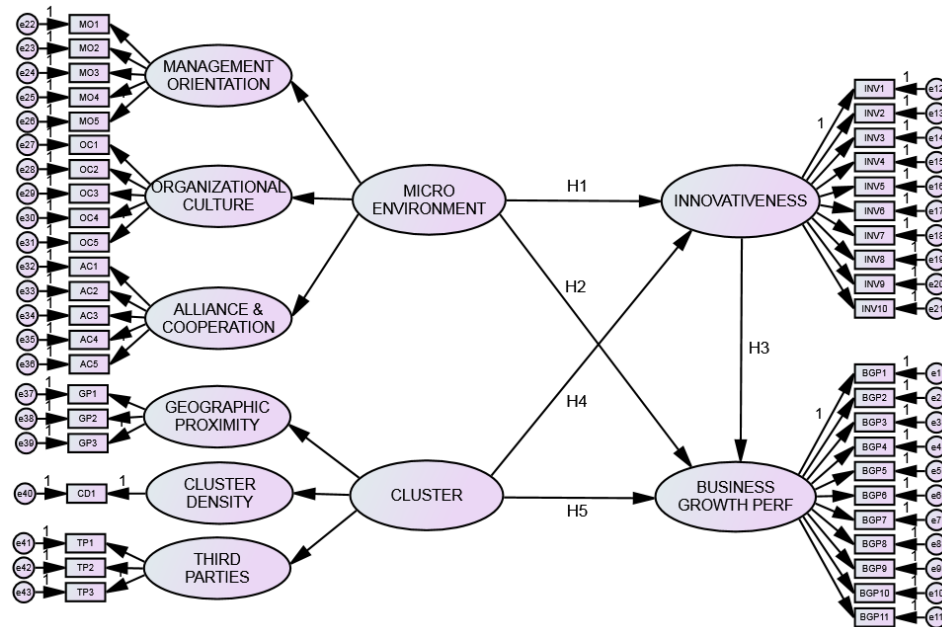
Firms also require third party intervention in order to increase innovation output. One of these third parties is local governments. Many governments use clusters to create policies to boost economic development, they argue that clusters help to attract talent, which results in information knowledge and exchange (Yung-Lung et al., 2014). The above literature suggests that third parties in the form of governments, policy-makers or indirect ties with other firms will have a positive effect on innovation activities. It suggests that third parties will facilitate the creation of clusters and the interaction between cluster members.

Simmie (2003) argues that clusters need some kind of external linkages, they cannot succeed on their own and those non-local linkages are important for the sustained competitiveness of clusters. These linkages are, according to Ter Wal and Boschma (2011) the main source of external knowledge for firms within clusters. Kesidou and Snijders (2012) point out that non-local knowledge networking that derives largely from linkages with international partners positively affects the innovation performance of the firms. They argue that this non-local knowledge is crucial for innovation. Engel and del-Palacio (2011) argue that linkages with external clusters give participant firms more benefits than those obtained from geographic proximity. They argue that geographically distant firms use virtual proximity based on relationship and connections to create an advantage, and the following hypothesis is proposed:

H4 Geographical clusters positively influences firm's innovativeness.

H5 Geographical clusters positively influences business growth performance.

Figure 1 Conceptual framework (see online version for colours)



4 Research methods

This research study combines a number of theoretical and methodological research approaches assigning each method different purposes and strengths (Morgan, 2007), which are partially high level mixed concurrent dominant status research approaches (Denzin, 1978; Leech and Onwuegbuzie, 2009). The deductive theoretical and quantitative methodological approaches were predominantly used in this research study (Easterby-Smith et al., 1991).

This research study further used the exploratory, descriptive and predictive, and explanatory and causal research designs. These research designs were useful in investigating a number of business and management situations (Zikmund, 2003). Business research strategy can provide an answer to the proposed research question, hypothesis, and conceptual model of a study, which is divided into history, archival analysis, experimentation, observation, simulation, survey, and case study (Yin, 2002; Cooper and Schindler, 2003).

The definition of latent variables in the conceptual model is developed from the literature review. In this research, the latent variables and item measurements were selected due to their alignment with the conceptual definitions (Table A1).

The sampling plan concerns the development of specific procedures and operational methods in selecting the sample (Zikmund, 2003; Davis, 2005) that can be followed to avoid potential errors (Davis and Cosenza, 1993). In this research study, the primary sampling frame consisted of a total of 57 million firms whose names were obtained from

the Indonesia National Agency for Statistics (BPS) database along with employment sizes and economic activities (BPS, 2015). The three largest sector of SMEs in Indonesia are, first, agriculture, the second is the trade, hotel and restaurants, and the third, manufacturing industry. The other sectors are simple traditional manufacturing activities such as wood products, furniture, textiles, garments, footwear, and food and beverages (Tambunan, 2008). In fact, SME is the biggest dominant form of business entities in Indonesia and represent more than 99% of the total number of enterprises in Indonesia, 97% of employment but unfortunately, only 57% of that adds value (Mourougane, 2012).

The 300 samples were stratified by employment size because firms were geographically diverse populations and this allowed enough variance with respect to the determinants under study (Aragon-Sanchez and Sanchez-Marin, 2005; Homburg and Jensen, 2007). More attention was given to the identification and selection of the most appropriate individual in each firm to be able to guarantee the reliability of information provided that the key informant was at the senior management level who had management responsibilities and control over all activities concerning innovation and knew the overall strategy of the firm to articulate and discuss matters related to innovative practices of SMEs more knowledgeable.

The term construct is used by psychologists and the term latent variable is used by social scientists to carry out the connotation of more than abstract ideas and they are specifically defined terms (Creswell, 2003). A top-down approach was selected as the most appropriate method for executing the questionnaire due to the nature of information and data required can be best provided by the owners/managers of firms under research (Mahemba and De Bruijn, 2003; Martinez-Roman et al., 2011). Data is entered into the computer using a number of statistical software programs (i.e., SPSS 20.0 and AMOS 20.0) to obtain descriptive and inferential statistical analyses, to summarise information and data, and to examine the research questions and hypothesised conceptual model (Hair et al., 2010; Bagozzi and Yi, 1988; Tabachnick and Fidell, 2001; Manning and Munro, 2007).

5 Analysis results and discussions

The survey questionnaire research strategy was selected to study 300 cases of the population of small and medium firms using the disproportional stratified sampling technique type with 275 returned survey questionnaire samples, 272 samples were selected, excluding some incomplete ones. Allocca and Kessler (2006) argue that much of the research for SMEs is based on case studies and therefore limited generalisability. Excluding five cases with severe internal non-response or incomplete one and/or more sections, there was an effective sample of 272 to proceed with the survey questionnaire analysis process, which represented 97.67% of the total number of survey questionnaires sent (Sekaran, 2003).

The results of the individuals' demographic showed that: the majority were male (66.54%) and the minority were female (33.46%). The results of the individuals' roles showed that: the majority were managing director, general manager, owner, and chief executive or officer (49.26%) and the minority were Director, Head and Senior Manager (23.16%).

The theoretical model proposed in this research (see Figure 2) suggests the use of structural equations modelling. The four dimensions and 43 items were evaluated by EFA. For the first-time EFA, all items of the factor loadings less than .60 were deleted. For the second-time EFA, the KMO value of the variables used in the study was .941, indicating that the data from the results were sufficiently robust to allow EFA. The values of Bartlett's test implied that all the items in this study were sufficient for research in social science and for factor analysis. The four dimensions of Cronbach's coefficient alpha have surpassed the criteria and indicated an internal reliability of the consistency of the instruments used in the present study. Because of EFA, five factors and 43 items were therefore derived to identify the construct.

The observed variables all had univariate normal distributions, all dimensions are multi normality. In the study, the value of indicating multivariate normality distribution. The convergent validity requirement of the constructs was satisfied, discriminant validity among the constructs was relatively satisfied. This evidence supports the convergent validity of the measurement model.

The results of the SEM model demonstrates that all of the goodness-of-fit indexes were within the recommended ranges. Thus, the result of testing the structural research model was acceptable (Bentler, 1992; Fornell and Larcker, 1981; Hair et al., 2010; Bagozzi and Yi, 1988). Based on this model, the relationships between the constructs as reflected in the hypotheses statements are shown in Table 2.

Table 1 Comparisons of goodness-of-fit indices of SEM models

<i>GOF indices</i>	<i>Criterion guidelines</i>	<i>SEM results</i>
Chi-square (χ^2)		
Chi-square		207.275
Degree of freedom		86
Probability	$p > 0.05$	0.000
Absolute fit measures		
GFI	> 0.80	0.899
RMSEA	$< .10$	0.081
RMR	$< .05$	0.025
SRMR	< 0.05	0.040
Normed chi-square	< 3 (Hair et al., 2010)	2.117
Incremental fit measures		
NFI	$> .90$ (Bentler, 1992)	0.910
CFI	> 0.90	0.938
Parsimony fit measurement		
AGFI	> 0.80	0.806
PNFI	> 0.50	0.672

Table 1 shows that the standardised estimate (β) of the path between the micro-environmental and firm's innovativeness (0.712), the micro-environmental and business growth performance (0.366), firm's innovativeness and business growth performance (0.435), geographical clusters and firm's innovativeness (0.375), and

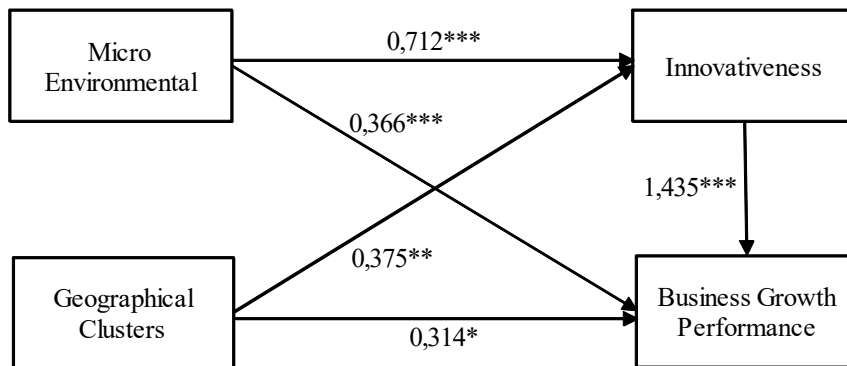
geographical clusters and business growth performance (0.314) were significant. Therefore, Hypotheses 1, 2, 3, 4, and 5 were supported.

Table 2 Testing the hypotheses of the structural research model

<i>Hypothesised path</i>	<i>Std. estimate</i>	<i>Critical ratio</i>	<i>Hypothesis</i>
H1: micro-environmental → innovativeness	0.712	8.597***	Supported
H2: micro-environmental → business growth performance	0.366	5.737***	Supported
H3: innovativeness → business growth performance	0.435	6.129***	Supported
H4: geographical clusters → innovativeness	0.375	2.717**	Supported
H5: geographical clusters → business growth performance	0.314	2.897*	Supported

Notes: *Significant at $p < .05$. **Significant at $p < .01$. ***Significant at $p < .001$.

Figure 2 SEM model



Under the H1 and H2 hypothesis, a significant positive relationship was found between the micro-environmental, firm’s innovativeness and business growth performance, meaning a consistent finding with previous research studies (McGinnis and Ackelsberg, 1983; Heunks, 1998; Storey, 2000; Lyon and Ferrier, 2002; Aragon-Sanchez and Sanchez-Marin, 2005; Blumentritt and Danis, 2006; Talke et al., 2011). The rationale for the strong effect is that owners/managers of SMEs prioritisation and strategic direction towards adopting and/or generating innovation play important roles, which are centred on incorporating innovations as strategic goals and future ambitions for their firms in the market, focusing on long-term objectives, exploring new opportunities, participating proactively in new initiatives, and allocating resources for research and development activities.

Managers can be more responsive to allocate resources to pursue appropriate strategies to fit their environmental contexts (i.e., the Indonesian market) that aim at identifying new trends and integrating new knowledge along with their firm’s existing capabilities; these are shown to be crucial for the innovation and business performance of their firms (Talke et al., 2011).

Under the H3 hypothesis, a significant positive relationship was found between firm's innovativeness and firm's business growth performance, meaning a consistent finding with previous research studies (Mone et al., 1998; Roberts, 1999; Gunasekaran et al., 2000; North and Smallbone, 2000; Calantone et al., 2002; Hult et al., 2004; Talke et al., 2011). The rationale for the strong effect is that there is supportive evidence among SMEs in the Indonesian market that firm's innovativeness has an impact on business growth performance.

Under the H4 and H5 hypothesis, a significant positive relationship was found between geographical clusters, firm's innovativeness and business growth performance, meaning a consistent finding with previous research studies (Porter, 1998; Kesidou and Snijders, 2012; Gnyawali and Srivastava, 2013; Yung-Lung et al., 2014; Nybak et al., 2009; Hurley and Hult, 1998; Hult et al., 2004). Furthermore, the argued that geographically distant firms use virtual proximity that is based on relationships and connection in order to create a competitive advantage. According to Ter Wal and Boschma (2011), external linkages are main sources of external knowledge. Moreover, Kesidou and Snijders (2012) have argued that external knowledge networking that comes mainly from linkages with international partners can positively affect firm's innovation performance.

6 Conclusions

Innovativeness is often highlighted as an important success factor in providing a competitive advantage and has a positive impact on sustainable economic development and business growth performance. In this study, the results reveal that the leading determinants mostly used to reflect the success of small and medium firms' innovativeness in the local Indonesian market are considered to be internal factors such as management, technology, and market orientations. These results are somewhat unexpected given the government of Indonesia is encouraging innovation and small firms are assumed to dominate the local market.

Small and medium firms need to evaluate their competitive strategies and incorporate innovation at both their organisational levels and in their activities. These firms are renowned for their creative ideas and new product and service developments. However, SMEs with their limitations require the support of the external environment such as the role of the local government and its agencies. SMEs in the Indonesian market must not only compete head-to-head but come-up with new products and services and create new industry sectors and market segments, encouraging investors to be more opportunity-focused and not risk-focused.

Limitations and future research, a possible limitation of this study is that this study was careful to identify aspects of configuration that have been most commonly employed to describe geographic cluster structure (i.e., geographic proximity cluster density, third parties), it is clear that other aspects of configuration could offer unique insight into the behaviour of clustered firms. Other commonly used elements of network structure such as cliques and structural holes could offer interesting avenues for future research. Given that cliques and holes exist between the ideal types of density and centralisation. There are other aspects of cluster network structure that may potentially affect governance choices, for example, the size of a cluster network.

Therefore, future research may also extend the current framework by considering more fine-grained conceptualisations of transaction governance. In the context of ongoing globalisation of SMEs, it has explored one approach to the execution, as opposed to the development, of internationalisation strategy. Further research is needed to build SME performance models focused on the external environment of the firm.

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Appendix

Table A1 Comparisons of goodness-of-fit indices of SEM models

<i>Latent variables</i>	<i>Conceptual definitions</i>	<i>Questionnaire questions/items</i>	<i>Literature sources</i>
<i>Micro environment</i>			
Management orientation	The determination in terms of the extent of management characteristic and strategic directions and the degree of agreement to the firm's innovation activities and growth (Aragon-Sanchez and Sanchez-Marin 2005; Blumentritt and Danis 2006).	<p>MO1: Our management considers innovation to be part of our firm's strategic goals and future ambitions.</p> <p>MO2: Our management focuses on long-term objectives with interests in adopting innovations.</p> <p>MO3: Our management favours high-risk projects with attitudes in exploring new opportunities.</p> <p>MO4: Our management is involved in new initiatives and innovative programmes.</p> <p>MO5: Our management allocates resources to support research and development into innovative products or services.</p>	Salavou et al. (2004), Aragon-Sanchez and Sanchez-Marin (2005), Blumentritt and Danis (2006).
Organisational culture	The determination in terms of the extent of learning processes, designs, and flexible practices culture and the degree of importance to the firm's innovation activities and growth (Nootboom, 1994; Calantone et al., 2002; Martins and Terblanche, 2003; Kenny and Reedy, 2006).	<p>OC1: Our firm is open to different perspectives that accepts and adopts new and external ideas.</p> <p>OC2: Staff within our firm obtain and exchange new knowledge and skills in fair and collegial ways.</p> <p>OC3: Our firm accurately shares important information such as success and failure and customer feedback with all relevant staff as part of our internal learning processes.</p> <p>OC4: Our firm has a flexible organisational structure.</p> <p>OC5: Our firm encourages staff to think freely, generate ideas, follow-up on ideas. Learn by experience, and take risks.</p>	Feigenbaum and Karmani (1991), Nootboom (1994), Hurley and Hult (1998), Calantone et al. (2002), Mahemba and De Bruijn (2003), Salavou et al. (2004), Aragon-Sanchez and Sanchez-Marin (2005), Blumentritt and Danis (2006), Kenny and Reedy (2006).
Alliance and cooperation	The determination in terms of the extent of collaborative agreements and networks and the degree of agreement to the firm's innovation activities and growth (Davenport et al., 1999; Gulati et al., 2000; Stuart, 2000; Hoffmann and Schlosser, 2001).	<p>AC1: Our firm has proactive relationships with partners, suppliers, and sub-contractors.</p> <p>AC2: Our firm has memberships in local and/or international business and industry associations.</p> <p>AC3: Our firm systematically identifies possible strategic partners to explore new knowledge and technology in order to improve resources and capabilities.</p>	Davenport et al. (1999), Gulati et al. (2000), Hoffmann and Schlosser (2001), Mahemba and De Bruijn (2003), Aragon-Sanchez and Sanchez-Marin (2005), Allocca and Kessler (2006).

Table A1 Comparisons of goodness-of-fit indices of SEM models (continued)

<i>Latent variables</i>	<i>Conceptual definitions</i>	<i>Questionnaire questions/items</i>	<i>Literature sources</i>
<i>Micro environment</i>			
Alliance and cooperation	The determination in terms of the extent of collaborative agreements and networks and the degree of agreement to the firm's innovation activities and growth (Davenport et al., 1999; Gulati et al., 2000; Stuart, 2000; Hoffmann and Schlosser, 2001).	AC4: Our firm has collaborative agreements with other firms to in/outsource research and development activities. AC5: Our firm has proactive networks with other firms to share innovation benefits and risks	Davenport et al. (1999), Gulati et al. (2000), Hoffmann and Schlosser (2001), Mahemba and De Bruijn (2003), Aragon-Sanchez and Sanchez-Marin (2005), Allocca and Kessler (2006).
<i>Geographical clusters</i>			
Geographic proximity	Geographically distant firms use virtual proximity based on relationship and connections to create an advantage (Simmie, 2003; Engel and del-Palacio, 2011; Ter Wal and Boschma, 2011)	GP1: Ease of information exchange and knowledge transfer with firms that are located geographically close. GP2: Ease of information exchange and knowledge transfer with firms that are not located geographically close. GP3: Impact of information exchange and knowledge transfer on innovation activities.	
Cluster density	Easier for firms to share knowledge if they are located close to each other. A higher cluster density will promote relational governance practices and increases a product novelty (Dahl and Pedersen, 2004; Nybakk et al., 2009; Tracey et al., 2014)	CD1: Estimate the percentage of firms within the cluster with which you have collaboration or knowledge exchange.	Dahl and Pedersen (2004), Nybakk et al. (2009), Tracey et al. (2014).
Third parties	The form of governments, policy-makers or indirect ties with other firms that help to attract talent, which results in information knowledge and exchange. (Yu and Jackson, 2011; Tracey et al., 2014; Yung-Lung et al., 2014)	TP1: Influence of local policies in the formation of the cluster. TP2: Impact of local policies on attracting talented new firms. TP3: Impact of local policies on the level of collaboration between firms.	Tracey et al. (2014), Yung-Lung et al. (2014).

Table A1 Comparisons of goodness-of-fit indices of SEM models (continued)

<i>Latent variables</i>	<i>Conceptual definitions</i>	<i>Questionnaire questions/items</i>	<i>Literature sources</i>
<i>Innovativeness</i>			
Innovativeness	The determination in terms of the ability of the firm to seek new and better management and administrative systems, internal cultures, processes, products, services, distributing channels, and marketing methods-segments within a determined time period. (Han et al., 1998; Vossen, 1998; Hult et al., 2004).	<p>INV1: Our firm frequently tries out new ideas.</p> <p>INV2: Our firm introduces number of new products, services, processes, or organisation/management systems.</p> <p>INV3: Our firm is first to market with new products or services.</p> <p>INV4: Our management seeks out new ways to do things.</p> <p>INV5: Our firm is creative in its methods of operation.</p> <p>INV6: Our firm uses up-to-date technologies.</p> <p>INV7: Our firm develops new market segments.</p> <p>INV8: Our firm uses new marketing methods.</p> <p>INV9: Our firm develops new ways of establishing relationships with customers.</p> <p>INV10: Our firm spends resources on research and development for new products, services, or processes.</p>	North and Smallbone (2000); Mole and Worrall (2001); Calantone et al. (2002); Aragon-Sanchez and Sanchez-Marin (2005); Scozzi et al. (2005); Blumentritt and Damis (2006).
<i>Business growth performance</i>			
Business growth performance	The determination in terms of the ability of the firm to perform and obtain growth and the degree of agreement to the firm's innovation activities and growth. (Boer and During, 2001; Mole and Worrall, 2001; Blumentritt and Damis, 2006).	<p>BGP1: Our firm's capacity to develop new products, services or processes.</p> <p>BGP2: Our firm's ability to adapt to market needs.</p> <p>BGP3: Our firm's customer satisfaction.</p> <p>BGP4: ur firm's innovation patent award.</p> <p>BGP5: Our firm's sales growth.</p> <p>BGP6: Our firm's sales growth of innovative products or services.</p> <p>BGP7: Our firm's profit growth.</p> <p>BGP8: Our firm's profit growth of innovative products or services.</p> <p>BGP9: Our firm's return on investment (ROI).</p> <p>BGP10: Our firm's return on investment (ROI) of innovative products or services.</p> <p>BGP11: Our firm's market share.</p>	North and Smallbone (2000); Mole and Worrall (2001); Calantone et al. (2002); Aragon-Sanchez and Sanchez-Marin (2005); Scozzi et al. (2005); Blumentritt and Damis (2006).