
Analysing the direct and indirect effects of entrepreneurial competencies on international market diversification and profitability: a study of small exporting firms in Ghana

Prince Kwarteng Opong*, Utz Dornberger
and Md. Noor Un Nabi

International Small Enterprise and
Promotion Training (SEPT) Program,
Leipzig University,
Ritterstraße 9-13, 04109 Leipzig, Germany
Fax: +49-(0)341-9739279
Email: prince.oppongk@yahoo.com
Email: dornberg@uni-leipzig.de
Email: noor@uni-leipzig.de
*Corresponding author

Abstract: The study analyses the direct and indirect effects of entrepreneurial competencies (ECs) on the international performance of small exporting firms. Considering the high importance of ECs, it particularly looks at their direct and indirect impacts on international market diversification (IMD) and profitability. We contribute to the growing research in special areas of internationalisation of SMEs and underscored particular competencies for internationalisation, their interactions and relationships as well as implications for small exporting firms in Ghana and their international performance. Primary data was collected through a survey of 134 small exporting firms from different sectors in Ghana and analysed with structural equation modelling, which was made of nine constructs. The study showed that five identified ECs have direct positive effects on IMD, which also leads to a superior rate of profitability. It furthermore highlighted the mediation effect of IMD which caused indirect effects of ECs on profitability.

Keywords: entrepreneurial competencies; small and medium-sized enterprises; SMEs; internationalisation; international market diversification; IMD; international performance; Ghana.

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Biographical notes: Prince Kwarteng Opong is a researcher and a trainer at the International Small Enterprise Promotion and Training (SEPT) Program at the Leipzig University, Germany. Additionally, he teaches economic and business management courses. He is also a PhD candidate of Entrepreneurship and International Business at the Leipzig University where he advances his research in the dynamics of the role of formal and informal institutional mechanisms in internationalisation with focus on SMEs. Having completed his

undergraduate study in Economics and MBA, particularly focused on SME development, he is dedicated to conveying theoretical and application-oriented knowledge with practice-relevant experience in business dynamics and development, financial inclusion, entrepreneurship and SME development. His areas of interest and research are in institutions, export management, start-ups and entrepreneurship in general.

Utz Dornberger is the Director of the International SEPT Program and Professor for Development Economics with special emphasis on SME Development at the Leipzig University. His academic and professional focus is especially on innovation in SMEs, entrepreneurship promotion and internationalisation processes. His research interest covers areas including innovation management, international marketing, management of innovative services, and management of R&D cooperations. He has led several knowledge, research and technology transfer projects. He is also the co-Founder of Conoscope GmbH, a consulting firm specialised in the fields of innovation management and internationalisation. He has international experience in five continents and over 50 countries.

Md. Noor Un Nabi is a Professor in Business Administration discipline at the Khulna University in Bangladesh and currently a Visiting Professor at the International Small Enterprise Promotion and Training (SEPT) Program at the Leipzig University in Germany. He regularly teaches in MBA and executive MBA programs in universities in Bangladesh, Vietnam and Germany. His research interests include strategy and the capabilities for the internationalisation of the firms from the developing and emerging market countries, institution and the differential patterns of entrepreneurship, international entrepreneurship and comparative behaviour of international entrepreneurship in advanced and emerging economies context, and participation and upgrading opportunities for the developing countries' firms in the global value chain.

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1 Introduction

Studies and discussion on the systematic relationship between the internationalisation of firms and their performances have been attractive to international business scholars (Hsu et al., 2013; Powell, 2014). Internationalisation has a direct positive link to small and medium-sized enterprises (SMEs) performance (Fernández-Olmos et al., 2016). Spreading resources in different markets make SMEs diversify risk (Cuervo-Cazurra, 2016). They commit the resources to their efficient uses to achieve higher returns and superior performance (McDowell, 2018). Internationalisation helps the SMEs to acquire additional knowledge, skills, and experience, which enable them to possess competitive advantages over their competitors that have limited their business activities to only the local markets (Fernández-Olmos et al., 2016). It is, therefore, a major necessity for SMEs to gain competitive advantage and perform better (Dutot et al., 2014; Schweizer, 2012). The success of the internationalisation ventures of SMEs is directly related to how

information on the international market is managed (Benito et al., 1993; Child and Hsieh, 2014; Knight and Liesch, 2002), how opportunities are created and exploited using the competencies of the entrepreneur, how they diversify their market as a result and eventually lead to a superior rate of profitability.

Nonetheless, SMEs may face challenges pertaining to information access and management, marketing approaches and operational strategies in their internationalisation; particularly small exporting firms. Leonidou (1995, 2004) have principally pointed out that the most notable ones pertain to information, functions, marketing and distribution, relationship and representation and procedures. When talking of internationalisation of SMEs, the main focus is export but has been characterised by such challenges as identified in Leonidou (1995, 2004). Entrepreneurial competencies (ECs) however, could appreciably address these challenges for SMEs to thrive in internationalisation. ECs have been presented to be needful in managing SMEs optimally (Katsikeas et al., 1996; Leonidou, 2004; Roy and Simpson, 1981) and could set the platform for exporting SMEs to address the challenges in the international market. However, the competency approach to discussing business performance appears prevalent but leaves a gap for discourse on the link between elements of EC for internationalising entrepreneurs of small firms and their performances in the international market.

Mostly, for an SME, the process of achieving business success, especially in the international market, is strongly influenced by the entrepreneurs or owner-managers and the competencies they possessed, which is highlighted as the entrepreneurship factor in the framework of Horne et al. (1992). The entrepreneurial factor is acknowledged as an important and beneficial input both at the level of firms and industries (see Blanchfower, et al., 2001; Audretsch and Fritsch, 2002; Carree et al., 2002). Our study pays attention to the firm level entrepreneurship. Studies suggest that the psychological and behavioural characteristics together with management and field-specific technical knowledge and skills of entrepreneurs are considered significant variables that influence an organisation's competitiveness (see Bird, 1995; Man et al., 2002), and the performance for that matter.

Interest in ECs derives from the supposed link between competencies and the birth, survival and growth of a venture (Bird, 1995; Baum, 1994). The entrepreneur establishes and mostly manages the business (Carland et al., 1984). There is evidence to suggest that understanding of the competencies required and the changing role of the entrepreneur through the different phases of development of a business will support the development of competencies, and will, in turn, have consequences for successful business growth (Lewis and Churchill, 1983). For international markets, the exporting entrepreneurs need to specially manage information in a way that gives them a superior advantage to exploit the opportunities presented (Child and Hsieh, 2014).

In Man et al. (2002), they described ECs as the total capability of an entrepreneur to perform the job role successfully. This involves converting the resources at the disposal of the business into the most optimum returns. Additionally, competencies can be seen as behavioural and noticeable (Bird, 1995). As a matter of this fact, competencies can be learned, acquired and they are changeable. This means training and development tend to improve these ECs.

Miller and Toulouse (1986) pointed out in their work that the strategic orientation of a business firm is affected by the influence of the chief executive officer (CEO). Moreover,

business strategies are largely dependent on an entrepreneur's personal competencies (Morris et al., 2005). These strategies may be associated with positioning the firm above its competitors in the international market.

Despite the highlighted importance of ECs, the insight and discussion of competencies in the entrepreneurial literature needs more (Brinckmann, 2008). Even observed in the on-going discussions on competencies approach, it appears ECs have been generalised across the board; not taking into consideration certain factors such as sectors, markets, type of product or services, among others, which may require particular competencies to carry out activities effectively. Leonidou et al. (2010) indicated that researches of special areas of internationalisation of SMEs are scarce and need to be initiated. This includes areas that border on competencies. Coudounaris (2018) also called for a repetition of studies in the future in different environments which are characterised by variation in cultural issues and business ethics. With emphasis on the need to explore the role of ECs in internationalisation of SMEs, this paper focuses on analysing the role of ECs on international market diversification (IMD) and profitability of small exporting firms. The study is based on the field data from the small exporting firms in industrial agriculture and handicraft sectors in Ghana.

2 Theoretical framework and hypotheses

2.1 IMD and profitability

IMD has been at the forefront of international business scholarly discussion with interest in exploring the various elements of this phenomenon (see Batsakis and Mohr, 2017; Tihanyi et al., 2000, 2003). Firms diversify internationally by expanding beyond the borders of their home countries across different other countries or geographical regions (Capar and Kotabe, 2003). This widens the scope of their markets and business operations. They tend to grow their sales as they gain more customers in these new markets.

The outcomes of firms, including SMEs, diversifying internationally have been associated with performances (see Capar and Kotabe, 2003; Gaur and Kumar, 2009; Lu and Beamish, 2004). Both IMD and product diversification are key phenomena that have substantial effects on firm performance (McDowell, 2018); even though firms from emerging economies could have further reasons for diversifying internationally such as the desire to diversify risk (Cuervo-Cazurra, 2016). This could be attributed to the challenging circumstances in their home countries. Entering a new international market is in most cases synonymous to market expansion, which potentially presents an increase in sales and revenue, thereby increasing the rate of profitability.

2.2 EC and SMEs international performance

In competency's literature, there are numerous definitions of competence (Hoffmann, 1999; Hayton and McEvoy, 2006). According to Smith and Morse (2005), the terms 'skills', 'expertise', 'acumen' and 'competency' are all interrelated and are sometimes used interchangeably in the literature. Competencies could be seen as a description of something which a person carrying out activities in a given occupational area should be

able to achieve; it is a description of an action, behaviour or outcome which a person should be able to demonstrate (Cheng et al., 2003). Significant to notice in the competencies literature is the fact that there has been a search for long-lasting individual characteristics which results in success or performance in a job or organisation (Thomas and Herrisier, 1991). There could be a significant variation in these characteristics from a motive, trait, an aspect of the person's self-image or social role, skill, or a body of knowledge on which the entrepreneur draws (Boyatzis, 1982).

The competency approach has been notably used to analyse firms' performance and viewing a similar approach in international performance is not farfetched. Firm's internal factors relevant to SMEs include competencies, capabilities, firm strategy, structures and they influence the firms' competitive success (Bartlett and Ghoshal, 1989; Doz and Prahalad, 1987; Hamel and Prahalad, 1989). These internal resources serve a similar purpose when it comes to international performance for SMEs. Ferreira and Simões (2016) pointed out that the combination of firms' resources such as EC and firm capabilities lead to superior competitive advantage and result in export performance in the end.

The competencies of entrepreneur are a key determinant of the performance of SMEs (see Nimalathasan, 2008; Man et al., 2002; Sarwoko et al., 2013) in both domestic and foreign markets. Ahmad et al. (2010) in their studies of small firms in Malaysia concluded that EC have a positive link with the success of the SMEs that they investigated. Gerli et al. (2011) in analysing the relationship between EC and firm performance established that EC have a considerable impact on performance. Such competencies would be crucial for SMEs to remain competitive in the international market as well.

The exporting entrepreneurs' ways of reasoning, analyses of the market, predicting ahead, strategising and their ability to adapt to uncertainties in the international market are key to dealing with challenges that confront them. The management of their relationship and networks as well as the information they create and receive are vital to their performance in creating opportunities and new markets to expand their businesses and eventually boosting their profitability.

2.3 Underscored EC needful for SMEs internationalisation

EC have been categorised based on their specific purposes and attributes of the entrepreneurs. The same has been used to measure the competences of the entrepreneur and they include, forecasting competencies, information management competencies, flexibility and adaptation competencies, decision-making and strategy competencies, relationship and networking competencies, risk-taking competencies, marketing and sales competencies (see Ahmad et al., 2010; Sarwoko et al., 2013; Wickramaratne et al., 2014). Acknowledging that the entrepreneur establishes and manages the business (Carland et al., 1984), most researchers identify that there is different categorisation of EC and differentiate the EC necessary to start a business from those that are necessary to manage the business through growth (Chandler and Hanks, 1994a, 1994b; Chandler and Jansen, 1992; Man et al., 2002). These EC have been underscored and proposed as being needful for operating in the international market which is characterised by complexities (Hsu et al., 2013), uncertainties (Glavee-Geo and Engelseth, 2016), and dynamism that makes it distinct from the domestic one.

2.3.1 Forecasting competencies, IMD and profitability

The entrepreneur needs to possess the skills that help to identify new opportunities in new business environments (Man et al., 2002) which includes the international market in order to develop market opportunities through diverse ways. The ability of the entrepreneur to analyse situations, tell how to commit resources and make predictions of likelihoods and outcomes helps in the deployment of resources and management of investment at the disposal of the firm. This could result in optimum returns for the firm. McClelland (1987) outlines these as crucial competencies for entrepreneurs who have been successful in their business and they are needed at all stages of the business from the establishment to when they are able to internationalise. Chandler and Jansen (1992) similarly added that the skill to identify and exploit opportunities has been one of the most vital resources of the entrepreneur. In addition, Shane and Venkataraman (2013) postulated that opportunity recognition and utilisation are paramount to business performance and firms' competitiveness. Aouni and Surlemont (2008) considered that, with these competencies, the entrepreneur identifies the potential opportunity in his international market environment as he is able to analyse conditions to give him a foresight of the picture that lies ahead and predict outcomes. Things such as being able to predict economic indicators, market behaviours and customer behaviours become a great asset in the international market. This will make them enter into new international markets and thereby diversifying internationally as they identify potential market opportunities by forecasting ahead of their potential competitors and exploiting the opportunities that they are able to identify in the international business world. The expansion caused by the diversification brings about bigger customer segments and an increase in sales which potentially leads to a greater rate of Profitability. Based on the arguments of the discussion, we hypothesise that:

Hypothesis 1 IMD mediates the relationship between forecasting competencies and profitability.

2.3.2 Information management competencies, IMD and profitability

The effectiveness of internationalisation processes is contingent on how entrepreneurs manage information that is related to the internationalisation of the SMEs (Benito et al., 1993; Child and Hsieh, 2014; Knight and Liesch, 2002). The entrepreneur needs to be able to utilise the resources available to obtain adequate information about the target market, the customer, the dos and the don'ts and the behavioural patterns of actors of the market in order to know which strategies to adopt in the internationalisation process. Toften (2005) concluded empirically that there is a significant positive relationship between informational skills (generation, interpretation, and utilisation) and export profitability. Piercy et al. (1998) similarly found and confirmed informational skills as a discriminator between high and low performances in firm exports.

The success of the internationalisation quests by firms of all sizes is directly related to how information on the international market is managed (Benito et al., 1993; Child and Hsieh, 2014; Knight and Liesch, 2002). Explicit Information on direction and approach with broader scope creates room for rational decision-making (Child and Hsieh, 2014). Yet the entrepreneur who is the main decision maker should have the right capability for recognising, exploring and processing information for strategic and efficient business

internationalisation decisions (Hsu et al., 2013). Therefore, competencies for this action are prerequisites and also pivotal in the process.

The way entrepreneurs in the internationalisation process learn and use internationalisation-related knowledge is vital for their success in the international market (Basly, 2007; Fletcher and Harris, 2012; Rodriguez et al., 2010). The entrepreneur's competencies which are deemed as both skills set and traits enhance the international performances of the SMEs. Hsu et al. (2013) point out that competencies of the entrepreneur who is the decision-maker provide the capability for identifying, seeking and processing information and this is critical for more effective internationalisation decisions and strategies. They further added that Information and knowledge are deemed to be crucial in dealing with international complexity and ambiguity. Zhou et al. (2007) also added that such information and knowledge stimulate awareness of foreign market opportunities and thereby making information management competencies of entrepreneur very essential in internationalisation. These competencies may include the ability to scan around for information on the market; the customers and their desires; other actors and competitors; resources within the environment; best practices in the market. Acting upon such information will present them opportunities to exploit in the international market and thereby diversifying as they enter new international markets and resulting in a superior rate of profitability. We, therefore, propose the hypothesis that:

Hypothesis 2 IMD mediates the relationship between information management competencies and profitability.

2.3.3 Flexibility and adaptation competencies, IMD and profitability

In the organisational behaviour literature, scholars such as William Richard Scott, Paul Lawrence, Jay Lorsch, and James D. Thompson have all argued in line with the contingency theory that there is no one best way for firms to be managed, in terms of decisions, approaches and strategies from production to marketing levels. For instance, Scott (1981) state that "The best way to organize depends on the nature of the environment to which the organization must relate." The optimal way of dealing with a situation in a firm is dependent upon the internal and external situations. Entrepreneurs should possess qualities and trait that creates room for flexibility in order to be able to adapt to the uncertainties and dynamism in the international market when they are confronted with market changes. Competence has been considered to be a combination of knowledge, experience, productive attributes and the appropriate combination of functional and technical skills to make things happen (Campion et al., 2011; Leblanc and Gillies, 2003; Yusoff and Armstrong, 2012). Therefore, in a nutshell, competency requires knowledge, skills, and experience; most specifically those that make the entrepreneur adapt and fit the international market are significant.

People in key positions in the firm who are involved in day-to-day management and making strategic decision use their competencies to build internal capability at all levels which tend to be crucial in pursuing innovation and thereby giving a competitive advantage (Lim et al., 2012; Nobre et al., 2012; Yusoff and Armstrong, 2012). Such people include entrepreneurs who are mainly responsible for the internationalisation processes of their firms. Their possession of competencies which enable them to adapt to market changes in a foreign environment is crucial for success. Competencies that

enhance dynamism on the part of the entrepreneurs in approach to management and strategies are key to allowing firms to change, evolve and adapt to remain a source of competitive advantage and perform well in the international market. This line of argument has been supported in developing the concept of dynamism in competencies over time and the need of such for entrepreneurs in internationalisation (see Sanchez et al., 1997; Teece, 2007; Teece et al., 1997). With the international market being characterised with dynamism and complexities (Hsu et al., 2013), internationalising entrepreneurs need some flexibility and adaptation qualities to enable them to adapt to the changes that the market will present and fitting in to make the best of it. It is our proposition that:

Hypothesis 3 IMD mediates the relationship between flexibility and adaptation competencies and profitability.

2.3.4 Decision and strategy competencies, IMD and profitability

Skills sets that are needed in making right decisions, setting, assessing, and implementing the strategies of the firm are crucial for firms' performance (Ahmad et al., 2010; Man et al., 2002; Sarwoko et al., 2013) in all markets including foreign markets. David (2013) has likened these set of competencies to strategic management; and include, setting mission, defining objectives based on this mission, ensure internal and external analysis, originating strategy to accomplish these objectives, and efficiently executing and appraising the strategy. Strategies of firms in their business and market operations are critical for increasing the value of the entrepreneur in a firm (Ornoff, 2002).

Man et al. (2002) and Sarwoko et al. (2013) discussed the skills that are associated with strategic decisions in the way resources are allocated in the firm. These include the ability to determine and make decisions on where to commit more of various internal and external human, physical, financial and technological resources, among others. It is connected to the ability to efficiently combine the units of resources at the disposal of the SMEs and realising their best returns. These competencies are associated with management and ability to lead, control, monitor, allocate, and develop the external and internal resources of the firm (Lau et al., 1999) in the implementation of all strategies, including those associated with the internationalisation process.

The entrepreneur needs discerning talents pertaining to good judgments concerning markets and customers; that is reflected in the entrepreneurial behaviours in decision making (Man et al., 2002). They pertain to the abilities that are reflected in the behaviours of the entrepreneur associated with analytical thinking, learning, innovative behaviours, assessment of risk and the need to have a different view of the market (Izquierdo and Deschoolmeester, 2005). The possession of aptitude in making cognitive and analytical thinking, learning, problem-solving, sustaining temporal tension, and dealing with uncertainty is part of entrepreneur's judgment calls (Bird, 1995) which affects the firm's performance in the international market. Making the right decisions and adopting efficient strategies result in higher returns through the identification of the most optimal use of resources and entering new markets. Such expansions diversify international markets for SMEs and present them with a favourable rate of profitability. Following the discussion, we hypothesise that:

Hypothesis 4 IMD mediates the relationship between decision and strategy competencies and profitability.

2.3.5 Relationship and network competencies, IMD and profitability

How the entrepreneur manages his or the firm's relationship with customers, partner, competitors and other actors of the market is necessary for the firm's performance as he could acquire knowledge or information through such relations. During the relationship process, the entrepreneur may build competencies relating to person-to-person or individual-to-group based interactions, building a context of cooperation and trust, using contacts and connections, persuasive ability, communication and interpersonal skill (Man et al., 2002).

Possessing ECs pertaining to the ability to develop term and trusting relationships, forming strong alliances and networks could deal with such issues as obtaining international market information, reliable foreign representation, a business partnership built on trust, healthy customer relationship, among others. Entrepreneurs would rather trust their networks for reliable information about opportunities, customer or what is happening in the market in order to reduce risks. SMEs preferably trust in their knowledge and intuition (Andersson, 2011; Schweizer, 2012) and sometimes prefer social and business relationships (Aspelund and Butsko, 2010; Ibeh and Kasem, 2011). They get introduced to new business partners or customers, new opportunities to exploit and leads them into new international markets, thereby diversifying their market portfolios. Such endeavours increase their rate of profitability as they become more competitive, receive better offers and increase turnovers. Against this backdrop, we hypothesise that:

Hypothesis 5 IMD mediates the relationship between relationship and networking competencies and profitability.

2.3.6 Risk-taking competencies, IMD and profitability

It is often asserted that the best entrepreneurs are those who are not afraid to take risks; as an investment with anticipation of yielding results is all about risks. These competencies enable the entrepreneur to resist the fear of committing resources and to innovate to face the difficulties involved in maintaining competitiveness in the market (Izquierdo and Deschoolmeester, 2005). Man et al. (2002) see these competencies are those that drive the entrepreneur to move ahead with the business into where there are prospects. It also gives the entrepreneurs the drive to see the end results of committing resources to the business and the performance of the firm (Chandler and Jansen, 1992). Dimitratos and Plakoyiannaki (2003) argued that one of the six components of an international entrepreneurial culture is international risk attitude, specifically preparedness to launch into the international arena in the face of risk exposure. This makes competencies that help in managing risks in the international market an important factor for firms' international performance. Decision makers' risk perception is essential, especially in the case of SMEs where entrepreneurs are sole decision makers. Entrepreneurs take the risks; their competence shapes up the magnitude and management of risk being taken (Eduardsen and Marinova, 2016). To ensure success in the international market, the entrepreneur needs to possess positive risks orientation in order to deal with 'affordable risks'. The orientation to take risk propels entry into new markets as Man et al. (2002) asserts that such competencies drive the entrepreneur to where there are prospects. This increases sales, which eventually increases the rate of profitability. In line with these arguments, we propose that:

Hypothesis 6 IMD mediates the relationship between risk-taking competencies and profitability.

2.3.7 Marketing and sales competencies, IMD and profitability

Marketing competencies are strongly determinative on international market performance (Kanibir et al., 2014). Drawing from Ritter's (2006) work positioning marketing as a critical element in the customer value-creation process of firms, arguments in the literature point out the significant relationship between export performance and marketing and sales competencies. This position is constituted around the ability of the exporting entrepreneur to generate the idea, plan, execute and control marketing and sales efforts in ways that look more productive and beat competitors. Certain kinds of abilities and skills of the entrepreneur have been noted in the literature to include marketing planning, market analysis, and niche marketing (Valos and Baker, 1996); research and monitoring, pricing, distribution and customised marketing practice (Kuppusamy and Anatharaman, 2008). Such an embodiment of competencies helps the entrepreneurs to perform well in the internationalisation process. The internationalising entrepreneur needs to demonstrate good convincing and packaging skills to win the attention of the customers to make demands. This prepares the foundation to set the strategy for creating a competitive advantage in a multi-dimensional competitive environment of the international market.

The marketing and pricing competencies help the entrepreneur to be efficient in marketing products and services, convincing and attracting a potential customer and winning them over. Gaining such customers in different international markets diversifies portfolio which would lead to potential increase in sales, thus tending to increase the rate of Profitability. Based on the aforementioned arguments we draw the hypothesis that:

Hypothesis 7 IMD mediates the relationship between marketing and sales competencies and profitability.

3 Methodology

3.1 Constructs and measurements

3.1.1 Entrepreneurial competencies

The discussed ECs was operationalised based on previous researchers in the area of EC who asked respondents to do self-assessment of their own competencies (see Ahmad et al., 2010; Chandler and Hanks, 1994a, 1994b; Chandler and Jansen, 1992; Man et al., 2002; Sarwoko et al., 2013; Wickramaratne et al., 2014).

3.1.2 Profitability

Profitability performance is mostly measured in internationalisation studies by profit to sales or profit to asset ratios, which is often referred to as return on assets (Lu and Beamish, 2004) or return on sales due to this measure being flexible to work with. It offers respondents clarity. We implemented based on Almodóvar and Rugman (2014)

and Fernández-Olmos et al. (2016), Lu and Beamish (2004), who have also used this approach.

3.1.3 International market diversification

IMD was operationalised based on the direction of the majority of previous studies, who used entry to foreign markets (see Hashai, 2011; Hilmersson, 2014) and the ratio of foreign sales and total sales (see Gaur and Kumar, 2009; Hsu et al., 2013). Benito-Osorio et al. (2016) also used this approach for SMEs.

3.1.4 Constructs and indicators reliability and validity

Table 1 presents the indicator loading, average variance extracted (AVE), composite reliability, rho_A, the Cronbach's alpha and the standard root mean residual (SRMR) of the constructs for the data collected for the study.

Table 1 Constructs and indicators reliability and validity

<i>Constructs</i>	<i>Items</i>	<i>Loading</i>	<i>Average variance extracted (AVE)</i>	<i>Composite reliability</i>	<i>rho_A</i>	<i>Cronbach's alpha</i>	<i>SRMR</i>
Forecasting competencies	Fo_Com1	0.919	0.654	0.847	0.994	0.765	0.075
	Fo_Com2	0.859					
	Fo_Com4	0.617					
Information management competencies	IM_Com1	0.878	0.661	0.886	0.841	0.828	0.071
	IM_Com2	0.841					
	IM_Com3	0.763					
	IM_Com4	0.765					
Flexibility and adaptation competencies	FA_Com2	0.776	0.637	0.84	0.738	0.717	0.080
	FA_Com3	0.761					
	FA_Com4	0.854					
Decision and strategy competencies	DS_Com1	0.811	0.700	0.903	0.928	0.861	0.085
	DS_Com2	0.807					
	DS_Com3	0.842					
	DS_Com4	0.885					

Notes: Items removed: indicator items are below 0.5 loadings: Fo_Com3, RT_Com1, FA_Com1.

- a Standard root mean residual (SRMR) *if <0.1 or <0.08, then data fits the model.
- b All item loadings >0.5 indicates indicator reliability.
- c All average variance extracted (AVE) >0.5 indicates convergent reliability.
- d All composite reliability (CR) >0.7 indicates internal consistency.
- e All Cronbach's alpha = or >0.7 indicates indicator reliability.

Table 1 Constructs and indicators reliability and validity (continued)

<i>Constructs</i>	<i>Items</i>	<i>Loading</i>	<i>Average variance extracted (AVE)</i>	<i>Composite reliability</i>	<i>rho_A</i>	<i>Cronbach's alpha</i>	<i>SRMR</i>
Relationship and network competencies	RN_Com1	0.876	0.653	0.848	0.784	0.736	0.090
	RN_Com2	0.695					
	RN_Com3	0.842					
Risk-taking competencies	RT_Com2	0.877	0.746	0.854	0.663	0.66	0.078
	RT_Com3	0.85					
Marketing and pricing competencies	MP_Com1	0.703	0.546	0.857	0.815	0.797	0.075
	MP_Com2	0.773					
	MP_Com3	0.795					
	MP_Com4	0.727					
	MP_Com5	0.691					
Profitability	Prof_Perf1	0.909	0.678	0.861	0.831	0.764	
	Prof_Perf2	0.872					
	Prof_Perf3	0.669					
International market diversification	IMD_Perf1	0.912	0.836	0.938	0.904	0.902	
	IMD_Perf2	0.921					
	IMD_Perf3	0.909					

Notes: Items removed: indicator items are below 0.5 loadings: Fo_Com3, RT_Com1, FA_Com1.

- a Standard root mean residual (SRMR) *if <0.1 or <0.08, then data fits the model.
- b All item loadings >0.5 indicates indicator reliability.
- c All average variance extracted (AVE) >0.5 indicates convergent reliability.
- d All composite reliability (CR) >0.7 indicates internal consistency.
- e All Cronbach's alpha = or >0.7 indicates indicator reliability.

3.2 Data collection and analysis

The study adopted both qualitative and quantitative approaches. Face-to-face interviews were conducted to collect the data from the entrepreneurs of the small exporting firms from industrial agriculture and handicraft sectors in Ghana with 134 valid responses between July 2016 and October 2017. At the initial stages, ten small exporting firms were interviewed for a pilot study in Accra. The intention was to make sure that the survey instrument has a refined structure and also to amend and improve upon probable problems with the questionnaire in according with Cooper and Schindler (2003).

Purposive sampling (Jankowicz, 2002) technique was used with the purpose of getting information from people from the firms with key knowledge about the issues in question. These were mainly made up of owner-managers. The information was gathered without relying on archival sources in order to avoid the problems of low response and lack of reliability that are associated with phone and email surveys with small firms as

targets (Zhang et al., 2009). Using structural equation modelling inferential analysis was done to establish the direct impact of the ECs on IMD and the mediation effects of IMD on the relationship between ECs and Profitability.

4 Findings

The relationships (direct and indirect) among the constructs have been outlined here based on the findings of the study. Table 2 shows direct and mediation effects between the elements of EC and IMD, as well rate of profitability.

As presented in Table 2, the results of the structural equation modelling revealed that five out of the seven underscored competencies had a direct positive impact on IMD but not on profitability. Only relationship and network competencies gave direct positive impact on profitability. Model 5 shows relationship and network competencies recorded the highest significant coefficients for both IMD profitability. The coefficients for the remaining ECs showed weak but direct positive effects on IMD as they recorded below average coefficients of 0.35, 0.24, 0.47 and 0.26.

Furthermore, the hypotheses from the modules in Table 2 show the indirect impact of the underscored ECs on the rate of profitability for the small exporting firms through the mediation of IMD. Competencies including information management, flexibility, and adaptation, decision and strategy, as well as, marketing and pricing did not initially have a direct significant effect on profitability. However, the mediation effect from IMD caused significant indirect effect between each of them and profitability. Therefore, Hypothesis H2, that IMD mediates the relationship between information management competencies and profitability was supported. Likewise, Hypotheses H3, H4, H5, and H7 were all supported that IMD mediates the relationship between those ECs and profitability. However, Hypothesis H1 in model 1, that IMD mediates the relationship between forecasting competencies and profitability was not supported. Hypothesis H6, which stated that IMD mediates the relationship between risk-taking competencies and profitability was also not supported.

Table 2 Relationships and hypotheses testing

<i>Hypothesis</i>	<i>Effect</i>	<i>Relationship</i>	<i>Std beta</i>	<i>Std error</i>	<i> t-value ^</i>	<i>r²</i>	<i>P-values</i>
Model 1	Direct	Forecasting comp. → IMD	0.107	0.113	0.875	0.010	0.382
	Direct	Forecasting comp. → profitability	-0.038	0.127	0.067		0.946
H1	Mediation	Forecasting comp. → IMD → profitability	0.081	0.085	0.859	0.554	0.391
Model 2	Direct	Information management comp. → IMD	0.348	0.085	3.946	0.112	0.000**
	Direct	Information management comp. → profitability	-0.030	0.063	0.43		0.667
H2	Mediation	Information management comp. → IMD → profitability	0.263	0.065	3.879	0.554	0.000**

Notes: **if p < 0.01, *p < 0.05.

Table 2 Relationships and hypotheses testing (continued)

<i>Hypothesis</i>	<i>Effect</i>	<i>Relationship</i>	<i>Std beta</i>	<i>Std error</i>	$ t\text{-value} ^{\wedge}$	r^2	<i>P-values</i>
Model 3	Direct	Flexibility and adaptation comp. → IMD	0.235	0.101	2.218	0.050	0.027*
	Direct	Flexibility and adaptation comp. → profitability	0.053	0.062	0.781		0.435
H3	Mediation	Flexibility and adaptation comp. → IMD → profitability	0.172	0.073	2.229	0.554	0.026*
Model 4	Direct	Decision and strategy comp. → IMD	0.467	0.067	6.961	0.218	0.000**
	Direct	Decision and strategy comp. → profitability	-0.101	0.067	1.437		0.151
H4	Mediation	Decision and strategy comp. → IMD → profitability	0.37	0.059	6.230	0.558	0.000**
Model 5	Direct	Relationship and network comp. → IMD	0.711	0.054	13.147	0.497	0.000**
	Direct	Relationship and network comp. → profitability	0.383	0.116	3.153		0.002
H5	Mediation	Relationship and network comp. → IMD → profitability	0.327	0.072	4.707	0.614	0.000**
Model 6	Direct	Risk-taking comp. → IMD	0.162	0.077	1.876	0.021	0.061
	Direct	Risk-taking comp. → profitability	0.041	0.065	0.561		0.575
H6	Mediation	Risk-taking comp. → IMD → profitability	0.119	0.056	1.894	0.554	0.059
Model 7	Direct	Marketing and pricing comp. → IMD	0.262	0.08	2.912	0.055	0.004**
	Direct	Marketing and pricing comp. → profitability	0.031	0.070	0.376		0.707
H7	Mediation	Marketing and pricing comp. → IMD → profitability	0.194	0.06	2.853	0.553	0.005**

Notes: **if $p < 0.01$, if * $p < 0.05$.

This accentuates the point that superior magnitude of the aforementioned ECs is important for international performance as lead to superior profitability with mediation from IMD.

5 Discussion

The findings of the study show that there is a positive relationship between the respective ECs and IMD. They further have indirect significant effects on profitability through a mediation effect from IMD. This indicates that having more of these competencies could eventually result in superior international performance. Firms diversify their portfolios by entering new markets and positioning to increase their profitability. SMEs can use internal resources such as ECs to develop new market-specific knowledge (Akerman, 2014) and vital information in the international market. The abilities of entrepreneurs to scan around for information, locate markets, and utilise such information in locating new markets or dealing with problems of uncertainties in the international market is vital. There is also the possibility for them to acquire knowledge from internal sources through the first-hand experience in their operations, internally stored information, and from externally available information (Costa et al., 2016). To decide to enter into the international market, SMEs information and knowledge of the market is crucial for the strategies to use and to ascertain the risks and uncertainties ahead. For instance, knowledge and information that are considered essential for decision making in terms of market entry mode (Pinho, 2007; Francioni et al., 2013) could come from the existing and new contacts, relationships, collaborations and networks (Xie and Amine, 2009; Ibeh and Kasem, 2011; Castellacci, 2014).

The notion of relationship and network contributions to firms' performance in the international market abounds. It is essential for export entrepreneurs to acknowledge that quality and well-performing relationships with their customers abroad result in superior export performance, thus it is needful to appropriately initiate and develop such quality relationships (Glavee-Geo and Engelseh, 2016). Entrepreneurs use their networks to obtain information and knowledge of the international market and cut transaction costs. Management and use of such information and knowledge in the internationalisation process have ripple effects on their strategies and decisions; hence making these competencies intertwined. For instance, some scholars have argued that SMEs prefer to trust in their knowledge and intuition (Andersson, 2011; Schweizer, 2012) and sometimes prefer social and business relationships (Aspelund and Butsko, 2010, Hultman et al., 2012; Ibeh and Kasem, 2011). The information they obtain from multiple sources is crucial for their success in the international market (Knight and Liesch, 2002; Casillas et al., 2010).

Lacking information is a huge obstacle in the SMEs internationalisation activities (Hsu et al., 2013; London, 2010). Hessels and Terjesen (2010) concluded that imperfections in the access to information results in significant risks, uncertainties and extra cost for SMEs that internationalise. The extra costs are born from gathering the needed market information and assessing partnerships to make a decision afterwards. Nevertheless, many SMEs struggle in acquiring the right information and knowledge and managing it effectively to facilitate their internationalisation (Hsu et al., 2013; Nguyen et al., 2006). This may be due to the owner-managers being bereft of such competencies. In some cases, they bear huge costs to acquire such vital knowledge and information and this increases significantly their total cost of operation. It eventually affects their profitability and competitiveness. Relationship and network competencies, coupled with

information management competencies of entrepreneurs could empower the internationalising firm to overcome this challenge. The findings of this study show that entrepreneurs are able to develop long-term trusting relationships with employees, customers, and suppliers. This implies an interaction with members of the network through networking activities (Sparrow and Hodgkinson, 2006). They also channel that into acquiring the needed information, managing them and resulting into the diversification of their international markets and leading to favourable profitability.

The survival and desirable performance of firms in the international market is associated with the possession of a systematic, thoughtful and proactive market monitoring, information collecting, information processing, organisation's information disseminating and sharing mechanism to facilitate the learning of the values, developing the skills sets and capacities, developing the processes and initiating actions that facilitate the dynamic fit between the organisation and the market place environment (Morgan, 2004). The combined set of the aforementioned ECs is therefore crucial for the favourable international performance of small exporting firms. Doyle (2000) concluded that networks, involving organised systems of relationships between entrepreneurs and the outside world are particularly valuable to the small business sector due to the gains they present.

The study also revealed that the competencies of the Ghanaian exporting entrepreneurs were appreciably above average and expected to be matched by their international performance, all things being equal. This defies the assertion that entrepreneurs from developing countries such as Ghana normally lack the required competencies to manage their SMEs (Poblete and Grimsholm, 2010). Nonetheless, the high levels of the competencies could not adequately mitigate the problems of the small exporting firms in Ghana and adversely affect their performance. Such problems include institutional failures, bottlenecks in processes, bureaucracies, corruption and etc which increase their costs.

6 Conclusions

The underscored ECs are vital for the success of activities in the international market as they present SMEs with superior performance outcomes for IMD and profitability. IMD significantly mediates the impact of the elements of ECs on firms' profitability in the international market. They enable the entrepreneurs to deploy other resources and factors efficiently, create and exploit opportunities and transform them into business success in order to maintain their competitiveness. They are able to develop relationships and networks which notably lead to superior international performance. This conclusion is consistent with the findings of Castellacci (2014), Ibeh and Kasem (2011) and Musteen et al. (2010). The ECs help the SMEs to obtain relevant market information, manage them efficiently, come up with the right decisions and strategies and penetrate new international markets.

The ultimate objective of most firms is to maximise their profitability by creating and exploiting opportunities to increase their sales, revenue, or grow their returns on investments. Diversifying their portfolio by entering new markets as they expand their operations presents firms with opportunities as well as risks which need to be managed properly. Their ability to exploit the opportunities to their benefits and manage the risks effectively induces a superior rate of profitability. Through the exploitation of

opportunities and diversifying their portfolios in new markets, they enjoy an increase in sales and economies of scales that position them favourably to benefit from cutting costs and obtaining better margins. This presents an argument in support of the significant mediation role that IMD plays in the discussion of direct and indirect effects of the elements of ECs on the Profitability of SMEs and large firms alike. It is, therefore, needful to conceptualise context-specific and function-relevant ECs that are useful to internationalising firms. It is also important to examine the significance of the link between the elements of the ECs and IMD, as well as the rate of profitability in order to ascertain the dynamics in there.

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Appendix 1

Table 3 Discriminant validity

Code no.	1	2	3	4	5	6	7	8	9
1 Forecasting competencies	0.809								
2 Information management competencies		0.813							
3 Flexibility and adaptation competencies			0.798						
4 Decision and strategy competencies				0.837					
5 Relationship and network competencies					0.808				
6 Risk-taking competencies						0.864			
7 Marketing and pricing competencies							0.739		
8 International diversified market	0.099	0.334	0.224	0.467	0.705	0.144	0.234	0.914	
9 Profitability	0.082	0.224	0.212	0.271	0.705	0.143	0.199	0.744	0.824

Notes: The diagonals are the square root of the AVE of the latent variables and indicates the highest in any column or row.

Source: Using Fornell and Larcker (1981)

Appendix 2

Table 4 Discriminant validity Heterotrait-Monotrait ratio (HTMT)

	<i>Forecasting comp.</i>	<i>Information mgt. comp.</i>	<i>Flexibility and adaptation comp.</i>	<i>Decision and strategy comp.</i>	<i>Relationship and network comp.</i>
International diversified market	0.126	0.385	0.282	0.501	0.828
Profitability	0.098	0.268	0.256	0.297	0.921
	<i>Risk-taking comp.</i>	<i>Marketing and pricing comp.</i>	<i>International diversified market</i>	<i>Profitability</i>	
International diversified market	0.186	0.255			
Profitability	0.201	0.250	0.859		

Appendix 3

Table 5 Collinearity statistics (inner VIF values)

<i>Code no.</i>	<i>Construct</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>
1	Forecasting competencies								1.000	1.010
2	Information management competencies								1.000	1.126
3	Flexibility and adaptation competencies								1.000	1.053
4	Decision and strategy competencies								1.000	1.279
5	Relationship and network competencies								1.000	1.987
6	Risk-taking competencies								1.000	1.021
7	Marketing and pricing competencies								1.000	1.058
8	International diversified market									
9	Profitability									

Notes: All inner variance inflation factor (VIF) between the variable are <5. There is no strong indication of multicollinearity.

Appendix 4**Table 6** Construct and indicator items description

<i>Construct</i>	<i>Indicator item</i>	<i>Description</i>
Forecasting competencies	Fo_Com1	Forecasting probable opportunity
	Fo_Com2	Making right judgements of situations
	Fo_Com3	Predicting outcomes in the market right
	Fo_Com4	Forecasting likely customer needs
Information management competencies	IM_Com1	Scanning internet and other sources for right information
	IM_Com2	Systematic collection of information on operations
	IM_Com3	Systematic collection of customer post-purchase information
	IM_Com4	Analysing and interpreting the international market information
Flexibility and adaptation competencies	FA_Com1	Learning new culture of businesses in new markets
	FA_Com2	Understanding and learn from new competitors
	FA_Com3	Willing to reallocate resources and re-strategise
	FA_Com4	Changing methods, channels, pricing to adapt
Decision and strategy competencies	DS_Com1	Quick decision making
	DS_Com2	Strategising to meet short and long-term needs
	DS_Com3	Analysing and evaluating issues before decision
	DS_Com4	Determining strategic actions weighing cost and benefits
Relationship and network competencies	RN_Com1	Developing long-term trusting relationship
	RN_Com2	Maintaining a personal network of work contacts.
	RN_Com3	Communicating, interacting and negotiating regularly
Risk-taking competencies	RT_Com1	Orientation towards high-risk projects
	RT_Com2	Orientation towards fear of failure
	RT_Com3	Orientation towards uncertainties about outcomes
Marketing and pricing competencies	MP_Com1	Price sensitivity
	MP_Com2	Consideration of product durability before pricing
	MP_Com3	Using sales promotion and advertising techniques
	MP_Com4	Level of coordination in my promotional techniques
	MP_Com5	Variation of market practises such as packaging, branding
Profitability	Prof_Perf1	Returns on assets
	Prof_Perf2	Returns on investment
	Prof_Perf3	Returns on sales
International market diversification	IMD_Perf1	Entry to different new markets
	IMD_Perf2	Number of new international markets
	IMD_Perf3	International sales to total sales