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Exploring the Underlying Entrepreneurial Competencies Essential for the Competitive Advantage of Indigenous Contractors in the Global South: A Ghana Study

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ABSTRACT

This study identifies the underlying entrepreneurial competencies (ECs) essential for indigenous contractors' competitive advantage in the construction industry in the Global South using Ghana as a case study. Structured questionnaire aided collection of research data from 667 indigenous building and civil engineering practitioners in the Ghanaian construction industry (GCI). Exploratory Factor Analysis (EFA) reduced the underlying ECs into four underlying components namely: strategic competencies, self-trait competencies, acquired competencies, and market intelligence competencies. Market intelligence competencies was unique to this Ghana study. This study provides the main and sub-ECs useful in explaining and assessing ECs of indigenous contractors in the Ghanaian construction industry. It informs policymaking, and capacity building of indigenous contractors in Ghana and countries in the Global South whose construction industry shares characteristics with Ghana.

Keywords: Exploratory factor analysis, Entrepreneurial competencies, Global south

INTRODUCTION

It is a common phenomenon, in the construction industry in the Global South, to see indigenous contractors springing up or becoming successful during the tenure of one government only to fold up or become inactive during the tenure of another successive government. Thus, do not transcend generations, unlike their foreign counterparts. This is attributable to inability of indigenous contractors to acquire or develop the entrepreneurial competencies essential to survive competition, have an advantage over their foreign counterparts, and grow businesses beyond generations and political tenure of successive governments. Apparently, studies in the past have linked firms' competitive advantage with entrepreneurial competencies of firm owners (see Mansfield, 1996, Mitchelmore and Rowley, 2013; Ahmed and Ahmed, 2018;

Kruger and Steyn, 2020).However, little is known of studies, if any, that identify the underlying entrepreneurial competencies (ECs) essential for indigenous contractors' competitive advantage in the construction industry in the Global South. It is against this backdrop that this current study seeks to identify the underlying entrepreneurial competencies (ECs) essential for indigenous contractors' competitive advantage (CA) in the construction industry in the Global South using Ghana as a case study.

Ade et al. (2017) opined that contractors' CA connote ability of contractors to do better than benchmarked firms in terms of market share, stakeholders' satisfaction, profitability, and/or sales share in a given industry. Hence, in this study indicators of CA are sales share, market share, profit share, and stakeholders' satisfaction compared with best-performing contractors in the Ghanaian construction industry (see Ade et al., 2017; Somiah, 2018). These indicators have been used in previous studies as measuring indicators for CA. Moreover, entrepreneurial competencies (ECs) are the "underlying characteristics such as generic and specific knowledge, motives, traits, self-images, social roles, and skills, which result in venture birth, survival and/or growth" (Bird,1995:51). According to Mansfield (1996), entrepreneurial competencies are success factors which contribute to obtaining a competitive advantage. However, these ECs, according to Bird (1995), are changeable and learnable. Suggesting that ECs are dynamic and that the relevance of ECs is time-bound. Hence, the ECs that were relevant in one political, socio-economical dispensation or geographical context might not necessarily be essential in another context since the dynamics in the construction industry vary. Thus, this current study aimed to identify the underlying entrepreneurial competencies (ECs) essential for indigenous contractors' competitive advantage in the construction industry in the Global South using Ghana as a case study. Though Ghana is being used as a case study, the Ghana example may be of help to Global South countries since Ghana's construction industry share close characteristics with many countries in the Global South such as Nigeria, Angola, Senegal, South Africa. Global South generally refers to the low-income, underdeveloped and culturally or politically marginalized countries outside North America and Europe (Global North). Global South include countries in the regions of Asia, Latin America, Africa, and Oceania (Dados & Connell, 2012).Specifically, this study was guided by the following objectives:

- to identify the main and sub underlying ECs essential for CA of indigenous contractors in the Ghanaian construction industry;
- to suggest ECs essential for indigenous contractors' CA in the Ghanaian construction industry;

Contractors are individuals or corporate bodies who own and operate construction business (es) in Ghana. Hence, indigenous contractors are Ghanaians who are owners of construction businesses in Ghana. This definition is consistent with the provisions of the Public Procurement Act, 663 as amended, Act 914 of the Republic of Ghana (The Republic of Ghana, 2003; The Republic of Ghana, 2016). The remaining section of this research has been broadly organized under literature review, methodology, results and

discussions, and conclusions. A future study that assesses ECs of indigenous contractors using the conceptual framework this study develops will be a novelty and further informs building the capacity of indigenous contractors for CA.

ESSENTIAL ENTREPRENURIAL COMPETENCIES FOR COMPETITIVE ADVANTAGE IN PREVIOUS STUDIES

Concerning the essential ECs for CA, previous studies have advanced some mixed, non-conclusive and inconsistent views. This is attributable to the varying socio-economic, cultural, and political settings under which the studies were carried out coupled with sample size inadequacies and lack of a comprehensive framework that guided the studies. In a study in Ethiopia by Ahmed and Ahmed (2018) with the primary aim to investigate the critical factors of entrepreneurial competencies for successfully managing the micro and small enterprise in Ethiopia, eight key competencies were revealed. The competencies were: conceptual competence, strategic competence, personal competence, opportunity recognition competence, organizing competence, relationship competence, network competence, and commitment competence. The study employed factor analysis with a sample size of 200. Research respondents were manufacturing micro and small enterprises in Dessie, Kombolach and Haik City Administration in Ethiopia. Though the primary objective was achieved, the study was inconclusive and findings could not be generalized to be a representation of what was happening across industries in Ethiopia. This was as a result of the sample size inadequacy that characterized the study. This study learned support to the assertion by Man et al. (2009) that the inconsistent and non-conclusive results of EC studies were as a result of a lack of formal structural frameworks and comprehensive theoretical basis. Thus, addresses this weakness characterizing previous studies by employing Neuman (2006) technique in determining the sample size and it is theoretically underpinned by the Managerial Competency Theory by Boyatzis (1982), the Competency-Based Model for the success of an entrepreneurial start-up by Wu (2009) and Kruger and Steyn (2020): conceptual model of entrepreneurial competencies needed to utilise technologies of Industry 4.0.

In recent past, Zainol and Mamum (2018) carried out research primarily to study the effects of entrepreneurial competencies on the success of businesses in the context of Malaysia. The study tested the effect of entrepreneurial competencies on competitive advantage and performance of informal women entrepreneurs in Kelantan, Malaysia. The study employed Structural Equation Modelling (SEM) for data analysis and revealed that competencies such as commitment, organizing, conceptual, opportunity recognition are essential EC for competitive advantage (Zainol & Mamum, 2018). Though the study employed a more robust tool in data analysis, its findings lacked generalisability in Malaysia as it was limited to 384 informal women entrepreneurs who operated in the night market.

In another Malaysia study that sought to examine the effect that entrepreneurial competencies have on the competitive advantage of microenterprises

in Malaysia, the sample size of the study was 300 respondents from Peninsular Malaysia. The study's findings revealed that organizing and commitment competencies have a positive effect on competitive advantage whereas relationship competency had a negative effect on competitive advantage though earlier studies by Man et al. (2009) and Grzybowska and Łupicka (2017) found relationship competency to be very essential ECs for CA. This suggests that the essential ECs that worked in a particular industry may not necessarily give the same result in another industry (Fazal et al., 2019). Since the focus of the study was not on construction entrepreneurs in the construction industry, then further extending the study to other industries could aid in generalizing the ECs essential for competitive advantage in the Global South. It is in this regard that this current study focuses on the construction industry in the Global South using Ghana a s a case study. According to Kiggundy (2002), entrepreneurial competencies essential for competitive advantage include wisdom, attitudes, values, knowledge, skills, abilities, beliefs, personality, expertise (social, technical, and managerial), mindset and behavioural tendencies of the entrepreneur. Lizote and Verdinelli (2014) reiterated that ECs essential for CA encompasses skills, knowledge, and personality-related competencies. Ahmad et al. (2010) found willingness to learn, knowledge in business ethics, and conceptual thinking ability to be essential ECs for CA. Man et al. (2009) investigated the relationship between entrepreneurial competencies and firms' competitive advantage using a sample of 153 owners/managers of SMEs and concluded that ECs essential for competitive advantage were embodied in the entrepreneur's innovative, opportunity, relationship, human and strategic competencies.

In the United Kingdom (UK), a study by Dimitratos et al. (2013) sought to provide a comprehensive ECs essential for multinational enterprises. The researchers used 260 directors and top-level management members from Dutch, French, Germany, United States of America, and Japanese firms based in the UK. The researchers identified innovativeness, risk-taking, proactiveness, networking, autonomy, and learning to be ECs essential for competitive advantage. Like many EC studies, this study suffers conclusiveness and generalisability due to inadequate sample size. More so, the focus was not on construction entrepreneurs or contractors in the construction industry. It focused on the service sectors including mechanical engineering, pharmaceutical, electronic and vehicle. Further, Oyeku et al. (2014) and Grzybowska and Łupicka (2017) found ECs essential for CA to be inclusive of critical thinking skills, problem-solving abilities, ability to persuade and discuss with all stakeholders, organizational skills, and team player competencies. Ambos et al. (2010) were of the view that initiation abilities and reputation are essential ECs for CA; whereas Inyang and Enuoh (2009) stressed on management competencies as essential ECs for CA. Wickramaratne et al. (2014) emphasized on opportunity scanning competencies. Accordingly, Behling and Lenzi (2019) identified eight main essential ECs to have consisted of opportunity seeking and initiative, risk-taking, demand for efficiency and quality, persistence, commitment to the work contract, information seeking, goal setting, systematic planning and monitoring, persuasion and networking, and independence and self-confidence when the researcher surveyed

211 individual micro-entrepreneurs (IME) operating in the Brazilian state of Santa Catarina. The study by Tehseen and Ramayah (2015) organized essential ECs as opportunity competency, learning competence, ethical competence, and Familism. In a South Africa study, Kruger and Steyn (2020) developed a conceptual model of entrepreneurial competencies needed to utilize technologies of industry 4.0 and found essential ECs to include innovation, creativity, networking and sale.

Theoretical Background

In identifying the ECs essential for contractors' CA the Managerial Competency Theory by Boyatzis (1982), the Competency-Based Model for the success of an entrepreneurial start-up by Wu (2009) and Kruger and Steyn (2020) : conceptual model of entrepreneurial competencies needed to utilise technologies of Industry 4.0 were employed. These theories covered a wide scope of thought and appear close to contain all the entrepreneurial competencies for competitive advantage. In the theory of Managerial Competency, Boyatzis (1982) organized ECs under four main domains with each of the domain having three distinct competency levels namely: unconscious motives and traits, conscious self-image and role-taking (or social role and self-concept), and behavioural skills. Variables including the need for achievement, need for control of financial outcomes, persistence, confidence, integrity, values, beliefs, attitudes, tolerance for ambiguity as well as task motivation have been used in measuring motive and traits which relates to the psyche of the entrepreneur (Bird, 1995; Kiggundy, 2002); and are difficult to change (Mansfield et al., 1987; Bird, 1995; Kiggundy, 2002; Man et al., 2009); whereas, variables such as the ability to maintain direct control, scanning for opportunities, initiating and designing control change, concern for a high quality of work, assertiveness, recognizing the importance of business relationship, were used to measure competency at the social role and self-concept level. Similarly, latent variables such as knowledge, expertise (social, managerial and technical), comprehensive planning and monitoring, manoeuvring in the industry, skills in product and service design as well as organizing had been used to measure competency at the skills level (Mansfield et al., 1987; Bird, 1995; Kiggundy, 2002; Man et al., 2009).

Further, in the competency-based model for the success of an entrepreneurial start-up by Wu (2009), 23 main entrepreneurial competencies were identified. These were analytical thinking, business acumen, client service orientation, commitment to learning, communication, conceptual thinking, order and quality, developing others, empathy, expertise, flexibility, influence, information seeking, initiative, innovation, organizational awareness, personal motivation, relationship building, result-orientated, self-confidence, self-control, team leadership, verbal and written communication (Wu, 2009: 282-283). Admittedly, Competency-Based Model for the success of an entrepreneurial start-up by Wu (2009) appears to have built upon the Managerial Competency Theory by Boyatzis (1982) and the Generic Entrepreneur Competency Theory by Mansfield et al. (1987). Thus, it appears to be more comprehensive in containing the very essential ECs for CA

Table 1. Variables description.

Label	Entrepreneurial competencies	Author(s)
ECA1	Conceptual thinking abilities	(Ahmed et al., 2018)
ECA2	Critical thinking and problem-solving skills	(Oyeku et al., 2014)
ECA3	Organizing skills	(Oyeku et al., 2014)
ECB1	Commitment	(Zainol & Mamum, 2018; Fazal et al, 2019)
ECB2	Self confidence	(Wu, 2009; Ahmed et al., 2018; Behling, 2019)
ECB3	Independence	(Dimitratos et al., 2013)
ECC1	Unique technology	(Kiggundy, 2002)
ECC2	Adaptable to changes	(Tehseen and Ramayah, 2015)
ECC3	Unique managerial skills	(Inyang and Enuoh, 2009)
ECD1	Intelligence on opportunities in the market	(Wickramaratne et al.,2014)
ECD2	Intelligence on business relations	(Man et al., 2008; Dimitratos et al., 2013)
ECD3	Intelligence on influences in the market	(Wu, 2009)

(see Wu, 2009: 282-283) which is essential for this study. However, Kruger and Steyn (2020) further advanced the frontier of existing knowledge on ECs by arguing that essential ECs are embodied in innovation skills, creativity skills, skills in integrating business technology, skills in leadership and communication skills, and networking and sales of the entrepreneur. Entrepreneurs who exhibit these competencies assume a strategic position in globalized and technology-driven industries, and the construction industry is of no exception.

Literature Synthesis

From the literature review, it was obvious that no single study was exhaustive in containing all the essential ECs for CA. Whiles some of the findings contrast one another, others appear to have been renamed by different authors. Thus, in identifying the underlying entrepreneurial competencies (ECs) that will aid indigenous contractors to obtain a competitive advantage in the construction industry in the Global South using Ghana as a case study, the literature reviewed were amalgamated. The literature review revealed that the ECs essential for CA that have dominated EC studies were conceptual thinking abilities, critical thinking and problem-solving skills, organizing skills, commitment, self-confidence, independence, unique technology, adaptable to changes, unique managerial skills, intelligence on opportunities in the market, intelligence on business relations, and intelligence on influences in the market. Thus, formed the comprehensive framework that guided this study.

METHODOLOGY

This study adopted a two-stage approach to research. The first stage was a literature review which aided in identifying the underlying ECs essential for indigenous contractors' CA. The second stage was the use of a structured

questionnaire to seek the views of 667 construction industry practitioners on the underlying ECs essential for CA of indigenous contractors' CA in the Ghanaian construction industry (GCI). The common criteria for selecting the targeted respondents was that: a respondent should be an owner (contractor) or a construction practitioner with an indigenous building and civil engineering construction firm. The construction firm/contractor should have belonged to the Association of Building and Civil Engineering Contractors of Ghana (ABCECG); the respondent should have been working in the GCI for at least five years and have had experience and/or knowledge on the issue under investigation. Experience means work experience and, knowledge means knowledge acquired by work experience over some years (at least five years) and/or by formal education. The targeted respondents were asked to rate the 12 identified underlying ECs essential for indigenous contractors' CA in the GCI based on a 5-point scale, where 5 denoted very influential, 4 influential, 3 neutral, 2 not influential and 1 not very influential based on their experience and/or knowledge. The initial section of the survey included some items for collecting respondents' demographic. This included respondents' job role in the firm, work experience in the construction industry, and gender. In the second part of the survey, the respondents were asked to rate the underlying ECs essential for CA of indigenous contractors in the GCI. Blank spaces were provided for the participant to further suggest underlying ECs essential for indigenous contractors' CA that were not captured in the questionnaire. Since the suggestions received were closely associated with the 12 variables identified from the comprehensive literature survey this study undertook, the 12 ECs were maintained for the study. The questionnaire was self-administered with the help of field workers for a period of 3 months and a 100% response rate was recorded. The field workers were trained and retrained before administering the questionnaire with their assistance.

Results and Discussions

Descriptive statistics (percentages and frequencies) aided in analysing the respondents' demographics as shown in Table 2. The demographics suggested a high level of experience with only 7.80 % of the respondents with 5 years of experience. This attested to the quality and kind of data that was given out by the respondents. It also suggested that the respondents of this study had significant experience in the field of study. Hence were in a better position to provide the needed information based on their experience and knowledge. More so, 76.46% of the respondents were male whiles the remaining 23.54% were female. This is an indication that feminine views had representation in this study, it also reveals the common notion of low women contractors and practitioners within the construction space. In all, the profile of respondents assured the value and reliability of responses.

EFA was employed for the data analysis. EFA explores the possible underlying factor structure that explains the pattern of correlations within a set of observed variables without imposing a preconceived structure on the outcome (Rehbinder, 2011) in this case, the underlying ECs essential for indigenous contractors' CA in the GCI. Concerning objective one, EFA was

Table 2. Respondents' demographic characteristics.

Main variables	Specific variables	Frequency (N)	Percentage (%)
Job role of respondents	Quantity surveyor	109	16.34
	Contract manager	45	6.75
	Chief executive officer	119	17.84
	Procurement manager	105	15.74
	Project manager	40	5.99
	Civil engineer	209	28.36
	Construction engineer	20	2.99
	Architect	40	5.99
	Total	667	100
Working experience in Ghana	5 years	52	7.80
	6 to 10 years	80	11.99
	11 to 15 years	92	13.79
	16 to 20 years	215	32.23
	Above 20 years	228	34.18
	Total	667	100
Gender	Male	510	76.46
	Female	157	23.54
	Total	667	100

conducted on the data set to establish the main and sub underlying ECs essential for indigenous contractors' CA in the GCI by employing varimax rotation with Kaiser Normalization. The EFA result organized the data into four components. By observing the factor structure and the pattern of association, component one (1) was named strategic competencies (ECA) of indigenous contractors. This validates the argument by Ahmed (2018) that strategic competencies are essential for CA. Strategic competencies are ECs indigenous contractors should possess in response to the current market dynamics to obtain CA. Strategic competencies had three latent variables namely, unique technology which is consistent with Kiggundy (2002), adaptable to changes which is consistent with Tehseen and Ramayah (2015), and unique managerial skills which is consistent with Inyang and Enuoh (2009). Component two (2) was termed acquired competencies of indigenous contractors.

Acquired competencies are the ECs the indigenous contractor must learn or develop because they are essential for CA. They are not inherent but acquired either through formal or informal (apprenticeship) means. Acquired competencies had three latent variables: conceptual thinking abilities which is consistent with Ahmed et al. (2018), critical thinking and problem-solving skills which supports Oyeku et al. (2014), and Organizing skills which supports Oyeku et al. (2014).

Component three (3) was called self-trait competencies of indigenous contractors. According to Bird (1995) and Wu (2009), self-trait competencies are essential EC for CA. Self-trait competencies are the inherent ECs of the indigenous contractors essential for CA. The three sub-variables which constituted

Table 3. Rotated Component Matrix of ECs essential for CA

	Component				KMO
	1	2	3	4	
ECA1		0.810			
ECA2		0.796			
ECA3		0.728			
ECB1			0.732		
ECB2			0.813		
ECB3			0.778		0.734
ECC1	0.756				
ECC2	0.772				
ECC3	0.785				
ECD1				0.712	
ECD2				0.813	
ECD3				0.748	

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 5 iterations.

self-trait competencies were commitment according to Zainol and Mamum (2018) and Fazal et al. (2019), self-confidence which is consistent with Wu (2009), Ahmed et al. (2018) and Behling (2019), and independence which supports Dimitratos et al. (2013). Component four (4) was termed market intelligence competencies of indigenous contractors. Market intelligence competencies are the ECs that aid indigenous contractors to gather relevant information about the industry and competitors which are essential for CA. Market intelligence competencies had three variables. They were intelligence on opportunities in the market which supports Wickramaratne et al. (2014), intelligence on business relations which is consistent with Dimitratos et al. (2013), and intelligence on influences in the market Wu (2009).

Apart from strategic competencies, acquired competencies and self-trait which had been identified as the main underlying ECs for CA in previous studies, market intelligence competencies was unique to this Ghana study (see Table 3).

Further, the sampling adequacy of the data set was proved using the Kaiser–Meyer–Olkin (KMO). Field (2005) and Kissi et al. (2016) suggested that the value of the KMO must be greater than 0.5 (Field, 2005; Kissi et al., 2016). The KMO value was 0.734. This was greater than 0.5. Also, Bartlett's Test of Sphericity was substantial ($p<0.001$) indicating that correlation among variables was also adequate.

CONCLUSION

This study identifies the underlying entrepreneurial competencies (ECs) essential for indigenous contractors' competitive advantage in the construction industry in the Global South using Ghana as a case study. It addressed the lack of conceptual ECs framework aiding indigenous contractors in obtaining competitive advantage in the construction industry in Ghana and the Global South region at large. It also provides the base point to assess ECs

of indigenous contractors essential for CA, especially in the GCI. Strategic competencies, self-trait competencies, acquired competencies, and market intelligence competencies were identified to be the main ECs essentials for CA of indigenous contractors in the GCI. Market intelligence competencies was unique to this Ghana study. Generally, the objectives of the study were achieved.

This study has theoretical, practical, policy and curriculum implications. It empirically unravels 12 ECs of indigenous contractors essential for CA in the GCI which were organized under four main components. Practically, the study has conceptualized ECs essential for contractors' CA in the Global South using Ghana as a case study. This will inform industry stakeholders in policy formulation aimed at developing the EC capacity of indigenous contractors and practitioners in the GCI for CA. It will inform future curriculum review to make the content of existing EC curriculum more responsive to the needs of the construction industry in the Global South as it highlights the four main ECs essential for indigenous contractors' CA.

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