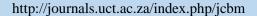


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# Consultants` Perspectives of Survival Strategies for Small and Medium Construction Firms at Infancy Stage

E. T. Adu <sup>1</sup>, A. D. Lamptey-Puddicombe <sup>2</sup> and A. Opawole <sup>3</sup>

- <sup>1</sup> Department Quantity Surveying, University of Uyo, Uyo, Akwa Ibom State, Nigeria
- <sup>2</sup> Department of Quantity Surveying, Rivers State University, Port-Harcourt, Rivers State, Nigeria
- <sup>3</sup> Department Quantity Surveying, Obafemi Awolowo University, Ile-Ife, Nigeria

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#### Abstract

This study examines survival strategies for Small and Medium Construction Firms (SMCFs) at infancy stage as well as the factors affecting the adoption of these strategies. The study area is Uyo Metropolis in Akwa Ibom State, Nigeria. The study employed stratified random sampling technique to select a sample for the study. Primary data obtained from 103 validated questionnaires, administered to professionals in the built environment are analysed using percentage, mean score and Kruskal Wallis test. Results reveal that all the strategies examined in this study are significant for the survival of SMCFs at infancy stage; dominant among the factors are: innovativeness, required skills, willingness to take risk, entrepreneurial attitudes and behaviours, entrepreneurial organization structure and strategies, and financial resource management. The results further reveal that the dominant factors affecting the adoption of survival strategies for SMCFs at infancy stage are: availability and access to finance, the poor state of the country's infrastructure, poor managerial/executive capacity of the implementing agencies, characteristics of entrepreneurs and failure to adapt to the changing business environment. The study recommends that in addition to regular training to acquire required skills for effective management of the firms, SMCFs should also adopt any or a combination of the strategies highlighted, to survive in the current dynamic and competitive construction environment.

Keywords: Construction Firms, Construction Industry, Entrepreneurship, Stakeholders, Strategies.

#### 1. Introduction

In a bid to address the issue of unemployment, government efforts have focused mainly on implementing one initiative or the other. This may not be unconnected to the notion that the solution to unemployment can only be achieved when people take to entrepreneurial activities (Okezie, Alex, & Asoluka, 2013). This could also be attributed to the fact that small and medium-sized enterprises (SMEs) cover a wide range of industries and play an important role in both developed and developing economies (Sharma & Bhagwat, 2006). Also, a booming and blooming SME's sector is viewed as one of the significant characteristics of a flourishing and growing economy that every government intends to attain (Etim, Adabu, & Ogar, 2017). Ongori and Migiro (2010) assert that in Africa, SMEs employ more than 40% of all new

entrants to the labour force because they are labour intensive.

Similarly, Sharma and Bhagwat (2006) assert that the SMEs sector accounts for 40 per cent of industrial production, 35 per cent of total 20 exports and provides about 80 per cent of employment in industrial production in India. The economic development of most nations such as Malaysia, Singapore, Hong Kong, South Korea and Taiwan is intrinsically linked to the development of the SME sector. Study shows that by the end of 2012, 80% of China's employment and 60% of the country's GDP had been provided by the 13 million SMEs that constitute more than 99% of all the country's enterprises (Gao & Banerji, 2015). In Nigeria, the contribution of SMEs to the economy is of notable significance as 70% of the country's employment is generated by SMEs (Aina, 2007).

<sup>1</sup> Corresponding Author.

Email address: teatea4t@yahoo.com

Entrepreneurship has permeated every industry and arguably every career of choice (Allen, 2003), the way people think, reason and act are opportunity-based, holistic in approach and leadership balanced (Timmons & Spinelli, 2004). As part of initiatives to address the issue of unemployment, the communiqué of the World Conference on Higher Education held in Spain implored tertiary institutions to produce entrepreneurship graduates towards a sustainable economy (Udoudoh, 2018). Many countries have also included entrepreneurship training at secondary schools and higher education institutions since the 1990s (Duell, 2011). As part of the effort, the Nigeria government in 2006 gave a directive through the Higher Education Institutions (HEIs) to immediately include Entrepreneurship Education (EEd) as a compulsory course for all students with effect from the 2007/2008 academic session (Etuk, Offiong, & Usip, 2018). Despite the numerous laudable programmes, policies, schemes and financial investment by the government of different nations, many SMEs fail to grow beyond the infancy stage. The situation in Nigeria is not much different as entrepreneurial development is still very slow, and many SMEs find it difficult to survive the turbulence in the market economy (Diyoke, 2014). The situation in the construction industry is worrisome. This is because the industry is more susceptible to high failure compared to SMEs in other sectors, such as manufacturing and agriculture. Odeyinka, Kaka and Mortledge (2003) had earlier reported a high rate of failure in the construction industry compared to other sectors of the economy. The impact of the failure is endemic and disruptive to the construction industry, individuals and the society at large (Scarborough, Zimmere, & Wilson, 2008; Abd-Hamid et al., 2015). The construction business is limited to 80% in many construction companies in what is believed as a lack of business opportunities and the recent world economic decline (Adesiyan, 2016).

Several programmes and initiatives in resuscitating SMEs, particularly in developing countries, have no clear directive of survival strategy for entrepreneurship at the infancy stage. The infancy stage of entrepreneurship is a phase before the maturity stage in the business lifecycle, which is about a maximum of six to seven years from the commencement of the business. Most entrepreneurs at this stage are immature and inconsistent with the needs of a business-driven system. Ndabeni (2008) states that many new ventures fail and only a few attain survival and sustainability rating in both developed and developing countries. Turyakira (2018) reports a continuous business failure of small and medium-sized enterprises in developing countries. Research findings in Nigeria reveal that most SMEs collapse within their first five years of existence (Aremu & Adeyemi, 2011). The authors add that a smaller percentage goes into extinction between the sixth and tenth years, while only about five to ten per cent of young companies survive and grow to maturity. In corroboration, Ajayi, Peace and Mafimidiwo (2015) confirm a high mortality rate of business organisations in Nigeria (including the construction industry) due to poor performance. The situation is not much different in other countries (Thwala & Phaladi, 2009; Adcorp, 2012). This may not be unconnected to the fact that today's business environment characterised by more volatility and

uncertainty than ever before, with globalization being the order of the day has become a reality for all players on the domestic and international scene (Naicker & Saungweme, 2009). Collett, Pandit and Saarikko (2014) identify poor management, high debt in the adverse macroeconomic and microeconomic environment as three critical factors responsible for the failure of SMEs. In a similar study, Santini, Favarin, Nogueira, Oliveira and Ruppentthal (2015) identify eleven major factors causing mortality of small businesses and classified them into two. The first group is the internal and external factors, and the second group of factors are related to the owner-manager, to the business itself and the environment.

Previous studies have attempted to address this problem and also to suggest possible solutions in some developing countries (Adejumo & Olaoye, 2012; Okezie et al., 2013; Diyoke, 2014; Bouazza, Ardjouman & Abada, 2015; Abd-Hamid et al., 2015; Igwe, Newbery, White & Nihar, 2017; Jegede, 2018), yet there is a dearth of research on strategies for survival of SMEs at infancy stage particularly in the construction sector. This may be because researchers have not recognized the vacuum created by the dead and ailing firms rendering investigation of strategies for its survival crucial. In order to investigate the subject and contribute to narrowing the knowledge gap, this study provides insight to the survival strategies at the infancy stage of construction entrepreneur with the view to ensuring sustainable entrepreneurship in the built environment. The objectives of the study are to examine the survival strategies at infancy stage for SMCFs and to assess further the extent of the factors that affect the adoption of these strategies from consultants` perspectives in Uyo Metropolis of Nigeria. The result of this study should provide useful information for construction entrepreneurs on survival strategies to be adopted, especially at the infancy stage and also ensure smooth take-off for potential entrepreneurs. The proposed strategies will not only ensure the survival of SMCFs but will also promote the globalization of SMEs, improve economic status and reduction in poverty level.

# 2. Entrepreneurship and SMCFs

Entrepreneurship has become a global topic, and yet it has no universally accepted definition (Dana, 2001). Baron and Henry (2011) attempt to describe entrepreneurship as a field that seeks to understand how opportunities to create something new (such as products or services) arise, and are created by individuals who then use various means (for instance launching a new business) to exploit or develop them. Oladun (2012) views entrepreneurship as creating a product, a service, task or activity that meets the needs of the society with its attendant financial rewards and risks. Similarly, Nwoke, Adebayo and Olutope (2017) define entrepreneurship as the process which involves the effort of an individual or individuals in identifying viable business opportunities in an environment and managing the resources needed to exploit them. Entrepreneurship is, therefore, a medium that intends to meet the needs of ordinary citizens and the nation by creating a product or service of values. Most governments, especially in the developing countries in an attempt to strengthen their socio-economic development,

have redirected their focus on entrepreneurship and formation of new firms and industries (Rattanawiboonsom & Ali, 2016). According to Bondinuba (2012), small firms are classified as having between 10 and 99 employees, while medium firms have between 100 and 200 employees. This classification defines SMCFs, which is an extension of SMEs in the construction sector.

The construction industry plays a complementary role in entrepreneurship in both developed and developing countries. Studies reveal that the construction industry is a key provider of employment opportunities worldwide perhaps second to agriculture. It is the primary provider in urban areas, especially in the building sector involving both new and maintenance work which is labour intensive (Women in Informal Employment: Globalising and Organising (WIEGO, 2018). The industry is identified as one of the leading economic indicators in terms of building permits that offers foresight into future real estate supply levels of which a high volume indicates a vibrant construction industry with an attendant increase in GDP (Smith, 2018). The construction industry aids the development of entrepreneurship by creating an enabling environment through the provision of physical infrastructures, such as transportation, access to power, water and raw materials. Without these facilities, entrepreneurship activities will suffer serious consequences such as an increase in production cost and associated risks which impact economic growth and development. Efforts toward these provisions enhance the relevance of the industry in wealth creation and job opportunities which make the industry one of the best sectors positively complementing government efforts in meeting the needs of the citizenry. In order to sustain these laudable achievements, construction entrepreneurs need to capture economic value through the exploration and exploitation of construction businesses (Abd-Hamid et al., 2015), both at local and national levels. This is made possible because of the multi-disciplinary approach of the industry which involves different trades, professionals, skilled and unskilled personnel producing value chain through interdependency in providing necessary inputs at different phases of the project from inception to completion (Akinsiku & Olubunmi, 2014). This is a good platform for entrepreneurs to thrive, especially among young built environment graduates (Adu & Oladele, 2018). These include contracting and subcontracting works such as aluminium works, professional glaziers, finishing works, material manufacturing as well as labour and skills management on site. All these can be accommodated in the built environment (Dada, 2017) apart from the core management services required at different project lifecycle.

#### 3. Survival and Survival Strategy for SMCFs

Survival is one of the primary ways of measuring business success apart from other factors such as profits, return on investment, sales growth, and the number of personnel employed, happiness and corporate reputation (Schmidpeter & Weidinger, 2014). A considerable number of studies in the entrepreneurship field view the concept of survival as similar to success (Praag, 2003;

Reijonen & Komppula, 2007). Reijonen and Komppula (2007) find a similarity between survival and success and define survival as continued business operations, and failure as going out of business. Praag (2003) posits that the longer a business can survive in the market place and prevent involuntary exit, the more successful it is. Survival is therefore fundamental to the success of entrepreneurship provided a right strategy is employed. Strategies are well-planned series of actions, ways and means of making use of available human and non-human resources intelligently and skilfully to achieve a goal. According to Yusuf and Dansu (2013), the concept of strategies is built on the future ability of a business to operate ethically and contribute to economic development while improving the quality of life for its workforce, the local and global community and future generations. Strategies are an integral part of every endeavour and are fundamental to the formation, survival and successful growth of entrepreneurship in today's competitive environment. formulation business The implementation of these strategies might hold the key to the growth and survival of SMEs. An understanding of sources, causes and nature of the failure of SMEs is a significant determinant of the choice of strategy to adopt for organisation survival. Investigation of causes of factors responsible for premature death or failure of SMEs has received much research attention. Failure of SMEs is attributed to several factors which include unethical practices, lack of information, economic recession, soliciting or offering kickbacks, incompetence, poor infrastructure, lack of quality education, ineffective credit and financial system, corruption and political instability (Tarus & Nganga, 2013; Ononogbo, Joel, & Edeja, 2016; African Economic Outlook, 2017; Igwe, Newbery, White, & Nihar, 2017). Similarly, Agwu and Emeti (2014) identified other factors contributing to this premature death of SMEs such as insufficient capital, irregular power supply, infrastructural inadequacies, lack of focus, inadequate market research, lack of succession plan, inexperience and lack of proper bookkeeping, inability to separate business and personal finances.

Etim et al. (2017) in a study on the influence of entrepreneurial orientation as a survival strategy for SMEs in Nigeria, affirm that there is a significant positive relationship between the survival of SME's and entrepreneurial orientation variables which include innovation, risk-taking and pro-activeness. Fadanhusi (2012), in a similar study on the growth of small businesses, reveals a positive correlation between survival strategies via innovativeness and the survival of SMEs. Okpara (2009), also, observes that SMEs that are driven by innovation have a higher survival rate than those with a conservative attitude. Abd-Hamid et al. (2015) in a study on predictors for the success and survival of entrepreneurs in the construction industry find that the success and survival of construction enterprises depend on success factors which have a direct impact on the business success, not only in the short-term but also, the long-term. Ali (2018), in a recent case study on one of the most successful entrepreneurs in the water industry in Basra city, shows that five strategies are used by the founder to keep his firm alive. These include a sale on credit (buy now and pay later), groundwater to produce freshwater for low cost, care for wholesale and retail dealers and quality products, technology investment for cost reduction, and social network and family support. Factors such as entrepreneurial attitudes and behaviours have been identified as necessary for firms of all sizes to prosper and grow (Kraus, 2013). Man et al. (2002) also identify entrepreneurial competency as important in a firm's performance and competitiveness. Competitiveness, conversely, has a variety of attributes such as personality traits, skills and knowledge that enhance survival of entrepreneurs. Traditional factors such as age and size of the firm, organizational strategies; individual and environmental factors are also found to have an impact on

the survival of SMEs (Geroski, Mata, & Portugal, 2010). Other factors such as ambition, independence, self-confidence, risk-taking, vision, creativity, energy, passion, and commitment are vital traits expected of successful entrepreneurs (Hisrich, Shepherd, & Peters, 2005; Ogbo & Agu, 2012). In addition to the above review, which provides insight into the survival strategies for entrepreneurship, comprehensive literature identifies 18 variable factors as presented in Table 1. The concern of this study, however, is to examine the variables that constitute survival strategies for SMCFs at the infancy stage.

Table 1: Survival Strategies for Construction Entrepreneurship

| S/n. | Factors   | Sources                           |
|------|---|-----------------------------------|
| 1    | Entrepreneurial organization structure and strategies | Chen and Lee, 2007                |
| 2    | Competitive aggressiveness                            | Venkatraman, 1989                 |
| 3    | Entrepreneurial attitudes and behaviours              | Kraus, 2013; Morris et al., 1996  |
| 4    | Required skills                                       | Osemeke, 2012; Ogbo and Agu, 2012 |
| 5    | Autonomy  | Lumpkin and Dess, 1996            |
| 6    | Organizational flexibility and speed                  | Morris et al., 2012               |
| 7    | Financial resources and management                    | Wiklund et al., 2009              |
| 8    | Adaptability  | Morris and Kuratko, 2003          |
| 9    | Entrepreneurial competencies                          | Ma et al., 2002                   |
| 10   | Corporate venturing                                   | Antoncic and Hisrich, 2001        |
| 11   | Willingness to take risk                              | Rauch et al., 2009                |
| 12   | Environmental factors                                 | Geroski et al., 2010              |
| 13   | Proactiveness   | Rauch et al., 2009                |
| 14   | Innovativeness  | Rauch et al., 2009                |
| 15   | Human resource management                             | Anyadike et al., 2012             |
| 16   | Social network  | Mboko and Smith-Hunter, 2009      |
| 17   | Family support  | Mboko and Smith-Hunter, 2009      |
| 18   | situational responsiveness                            | Mboko and Smith-Hunter, 2009      |

# 4. Factors Affecting the Adoption of Survival Strategies for SMCFs

Identifying survival strategies for sustainable entrepreneurship is not sufficient in helping entrepreneurs to achieve the desired result. Entrepreneurs need to understand the nature and dynamics of challenges and difficulties inherent to the implementation of these strategies. This is because entrepreneurs operate in a competitive environment coupled with constraining internal organizational factors which determine the success or failure of any adopted strategy or initiative. However, these factors are inherent in every business, small or large; understanding and the priority accorded to these factors are important to the adoption of the survival strategies for entrepreneurs. Adopting a strategy for the survival of entrepreneurship is therefore critical to its continued existence and success even beyond the infancy stage. Previous studies reveal that failure of several programmes and many support initiatives to revamp entrepreneurship by past and current governments of Nigeria was blamed on poor implementation (Okezie et al., 2013; Adejumo and Olaoye, 2012).

Similarly, Etim et al. (2017) also blamed this on the initial response of the policymakers in Nigeria as either not proactive or reactive enough to respond to the alarming rate of the depth of problems faced by SME's or understand the magnitude of the difficult conditions faced

by owners of SME's. Igwe et al. (2017) identify five major institutional barriers which also affect the adoption of survival strategies in Nigeria as follows: an ineffective credit and financial system, corruption, political instability and an inefficient legal system, poor infrastructure, lack of quality education, and religion, traditions and customs. Entrepreneurship operates within environmental factors such as economic, political, financial, technological and legal positions of an organization (Taormina & Lao, 2006). Inability to assess effective management poses a threat to its success and survival. Besides, Igwe, Amaugo, Ogundana, Egere and Anigbo (2018) identify insecurity, bribery, bureaucratic delays, power outage and lack of market access among the existing challenges of entrepreneurship.

Infrastructure deficit in most developing countries has retarded efforts of entrepreneurs in the adoption of rewarding initiatives for its survival in the market place. Onodugo and Onodugo (2015) raise a serious concern on the state of Nigeria's infrastructure and view it as a nightmare to both entrepreneurs and the rest of the country's population. The authors add that with the existing infrastructure or non-existence in some places; the cost of doing business has risen tremendously. The relocation of some multinational organizations from Nigeria to Ghana a few years ago was not unconnected with the poor state of infrastructure. Several other factors that could hinder entrepreneurs in adopting recommended

strategies have been identified in the literature. These include lack of access to external financing, low human resources, characteristics of entrepreneurs, managerial capacities, location of the enterprise, access to information, inadequate business planning, technological capacities, access to finance, human resources capacities, corruption, lack of motivation, and education background of the entrepreneur (Haynes, 2003; Ciavarella et al., 2004;

Dionco-Adetayo, 2004; Ucbasaran, Westhead, & Wright, 2004; Morse, Fowler & Lawrence, 2007; Krasniqi, 2007; Pasanan, 2007; Sridhar & Wan, 2010; Sidika, 2012; Onodugo & Onodugo, 2015; Bouazza Ardjouman & Abada, 2015). The summary of literary works on 31 variable factors affecting the adoption of survival strategies for SMCFs is as presented in Table 2.

Table 2: Factors affecting adoption of survival strategies for entrepreneurship

| S/n. | Factors  | Sources  |
|------|--|--|
| 1    | Lack of management skills and training                   | Bouazza et al., 2015                             |
| 2    | Characteristics of entrepreneurs                         | Ciavarella et al., 2004                          |
| 3    | Managerial capacities                                    | Olawale and Garwe, 2010                          |
| 4    | Lack of resources for implementation                     | Ofori, 1994                                      |
| 5    | Contractor's incompetence/inadequacies                   | Ogunlana et al., 1996                            |
| 6    | Human resource capacities                                | Lee, 2001  |
| 7    | Lack of commitment to solve its problems                 | Ofori, 1994                                      |
| 8    | Technological capacities                                 | Drucker, 1985; Morse et al., 2007                |
| 9    | The poor state of the country's infrastructure           | Ogunlana et al., 1996; Onodugo and Onodugo, 2015 |
| 10   | Access to finance  | Krasniqi, 2007                                   |
| 11   | The poor executive capacity of the implementing agencies | Ofori, 1994                                      |
| 12   | Low technological capacities                             | Morse et al., 2007; Bouazza et al., 2015         |
| 13   | Corruption   | Onodugo and Onodugo, 2015                        |
| 14   | In-appropriateness of some of the recommendations        | Ofori, 1994                                      |
| 15   | Inconsistent government policies                         | Onodugo and Onodugo, 2015                        |
| 16   | Problems caused by clients and consultants               | Ogunlana et al., 1996                            |
| 17   | Failure to adapt to the changing business environment    | Onodugo and Onodugo, 2015                        |
| 18   | Lack of motivation factors                               | Dionco-Adetayo, 2004                             |
| 19   | Lack of support from expected quarters                   | Rahman and Singh, 2014                           |
| 20   | Location of the enterprise                               | Sridhar and Wan, 2010; Leidholm, 2002            |
| 21   | Education background                                     | Almus, 2002; Martinez et al., 2007               |
| 22   | Access to information                                    | Okumus, 2000                                     |
| 23   | Inadequate business planning                             | Ahmad and Seet, 2009                             |
| 24   | Networking   | Ciavarella et al., 2004                          |
| 25   | Problems caused stakeholders                             | Ogunlana et al., 1996                            |
| 26   | Cumbersome legal and regulatory constraints              | Bouazza et al., 2015                             |
| 27   | Resource allocation                                      | Okumus, 2000                                     |
| 28   | Operational plans  | Okumus, 2000                                     |
| 29   | Control mechanism  | Thorpe and Morgan, 2007                          |
| 30   | Cooperative management                                   | Thorpe and Morgan, 2007                          |
| 31   | Organisational behaviour or culture                      | Okumus, 2000                                     |

# 5. Methodology

The study utilises primary data obtained through a field survey in order to achieve the objectives. The study area is Uyo, the capital of Akwa Ibom State, the leading oilproducing state in the Niger Delta. Uyo is also one of the fastest-growing state capitals in terms of infrastructure and development within the South-South region of Nigeria (Olubajo & Kuma, 2017). The choice of the area was to explore the possibility of reducing the mortality rate among SMCFs and reviving ailing ones majorly at the infancy stage. This is with the view to ensuring their contributions to the "industrialization" agenda of the government as well as sustaining the contributions of these firms to both the local and national economy. The purpose of the industrialization agenda is to rebrand Akwa Ibom State from "civil service" state to industrialize base of Nigeria. The study population consists of professionals in the construction industry.

Since professionals in the SMCFs within Uyo metropolis are used in this study, the stratified random sampling technique is employed to determine the sample of the study. The technique is important as it further enhances the sampling precision of the study population (Kumar, 2005). The stratification was done according to the respective professional bodies. The professionals include Architects, Builders, Engineers, Estate Surveyors and Quantity Surveyors. Before the distribution of the questionnaire, a pre-test to evaluate the proper understanding of the questions and to ascertain whether the questionnaire items adequately cover the constructs and objectives of the study was undertaken. The questionnaire was moderated by five research experts in the field of entrepreneurship and the built environment. The pilot study is considered necessary to ascertain the reliability of the questionnaire when used in the population of the study. This process assists in eliminating any potential problems of the research instrument and in testing the validity and workability of the instrument. Inputs are collated, which result in 15 variable strategic factors for the survival of entrepreneurship and 23 variable factors affecting the adoption of the strategy were adopted in the production of the final questionnaire used in this study. The reliability was also tested and found to be high with Cronbach  $\alpha$  of 0.67 and 0.82 of variable factors for survival strategies and factors affecting the adoption of the strategies, respectively. Thus, it is deemed acceptable, since the value of alpha is desirable with the range higher than 0.6 (Hair, Anderson, Tatham & Black, 2006). The reliability as a quality criterion helps to minimize errors and give stable results of data collection.

The sample frame of 272 was obtained from the directories of registered professionals from their respective chapters in the state. This comprises of the Nigerian Institute of Architects (NIA), Nigerian Institute of Builders (NIB), Nigerian Institute of Engineers (NSE), Nigerian Institute of Estate Surveyors and Valuers (NIESV) and the Nigerian Institute of Quantity Surveyors (NIQS). The sample size of the study is determined using Taro Yamane formula for finite populations (Olusanya, 2018), which states that

$$n = \frac{N}{1 + N(e^2)} \tag{1}$$

Where n is the sample size, N is the finite population, e is the level of significance (0.05), and 1 is unity.

The breakdown of the sample frame and sample size for each category is shown in Table 3. Thus, a sample size of 235 is adopted for the study. The minimum qualification of the respondents is Higher National Diploma (HND) which is also minimum qualification for corporate membership of professional bodies in the Nigerian built environment; 83 per cent have over five years of professional work experience in the industry.

Table 3: Sample Frame and Sample Size of the Study

| Professional       | Sample frame | Sample size |
|--------------------|--------------|-------------|
| Architects         | 63           | 54          |
| Builders           | 22           | 21          |
| Engineers          | 93           | 76          |
| Estate Surveyors   | 55           | 48          |
| Quantity Surveyors | 39           | 36          |
| Total              | 272          | 235         |

Section (A) of the questionnaire solicits data on the demographic characteristics of respondents. The aim is to establish a relationship between responses and organisational characteristics of the respondents. Section (B) uses a 5-point Likert scale ranging from 1 (no importance) to 5 (very high importance) to establish the level of importance of survival strategies for SMCFs based on the perception of respondents. The study subsequently seeks the perception of respondents on the severity of factors affecting the adoption of the survival strategies for SMCFs using a five-point Likert scale ranging from 1 (no effect) to 5 (very high effect). The questionnaires were self-administered, and one hundred and nine questionnaires were returned in which six feedbacks were identified as invalid due to incomplete information. One hundred and three valid questionnaires

were used for the analysis giving a valid response rate of 44%. The percentage is higher than the 20-30% returned rate for research conducted within the construction industry. Therefore, the result of the survey cannot be considered as biased or of little significance (Moses & Stahelski, 1999; Akintoye & Fitzerald, 2002). The collected data were checked for completeness and consistency before data processing and analysis. The views of respondents were compared to determine whether or not they differ in their perception of factors constituting survival strategies and factors affecting the adoption of the strategies. This leads to the postulation of two hypotheses:

 $H_{o1}$ : There is no significant variation in the survival strategies for SMCFs among the perceptions of the various professionals; and

 $H_{o2}$ : There is no significant variation in the effect of the factors affecting the adoption of the strategy for SMCFs among the perceptions of the various professionals.

The two hypotheses of the study are analysed using Kruskal Wallis tests. Mean Score (MS) is used to determine the level of significance of each factor by five expressions defined by the intervals 0.8 with 3.4 as a cut-off for high significance based on Kazaz, Manisali and Ulubeyli (2008). The ranking of the factors is determined based on the mean item score of each item calculated by the following equation:

$$MS = \frac{\sum (RP_i \times R_i)}{n}$$
Where:  $MS = Mean\ Score,\ RPi = Rating\ point\ i\ (range)$ 

Where:  $MS = Mean\ Score$ ,  $RPi = Rating\ point\ i\ (range\ from\ 1-5)$ ,  $Ri = response\ to\ rating\ point$ ,  $i)\ and\ n = total\ responses = summation\ of\ Ri\ from\ 1-5$ 

#### 6. Results and Discussion of Findings

Results arising from the analyses of the data collected for the study are presented below. This includes the test of the two hypotheses; evaluation of the survival strategies for SMCFs; and the relative effect of the factors affecting adoption of the strategies for SMCFs.

## 6.1 Tests for the two hypotheses of the study

The study tests whether or not there is significant variation in the perception of various professionals of the survival strategies for SMCFs and the effect of the factors affecting the adoption of the strategies. This became necessary to ascertain the level of importance of the survival strategies for SMCFs and variance of the factors militating against the adoption of the strategies among the SMCFs or whether it could be generalized. This is achieved using a Kruskal-Wallis test. Kruskal-Wallis Test (H) is a nonparametric statistic which is an alternative to the one-way analysis of variance test (Pallant, 2007; Udofia, 2011). This test is used when the assumptions for the parametric statistic cannot be satisfied or are violated (Pallant, 2007). One of the assumptions of the parametric techniques is that the level(s) of measurement of the variable(s) should be an interval or ratio scale otherwise the non-parametric alternative is to be considered (Pallant, 2007). These criteria are satisfied by the data used for this study, hence

the choice of the Kruskal-Wallis (H) Test. The rule for rejection or non-rejection of the hypothesis is that if p-value > 0.05, the hypothesis is accepted, but if p-value  $\leq$ 

0.05, the hypothesis is rejected. The results are presented in Table 4 and Table 5.

Table 4: Kruskal-Wallis H-Test for variation in of the importance of survival strategies for construction entrepreneurship in Uvo Metropolis of Nigeria

| Parameters Tested                   | Respondent groups         | N  | x²cal | x²tab | P-Value | Decision |
|-------------------------------------|---------------------------|----|-------|-------|---------|----------|
| The relative importance of survival | Architects                | 15 | 1.5   | 9.488 | 0.827   | Accept   |
| strategies                          | Builders                  | 15 | 1.233 | 9.488 | 0.873   | Accept   |
|                                     | Engineers                 | 15 | 2.067 | 9.488 | 0.723   | Accept   |
|                                     | Estate Surveyors          | 15 | 4.5   | 9.488 | 0.343   | Accept   |
|                                     | <b>Quantity Surveyors</b> | 15 | 2.867 | 9.488 | 0.58    | Accept   |

<sup>\*</sup>N= Number of factors

Table 5: Text of Variation of Effect of the Factors Affecting the Adoption of the Survival Strategies among the Respondents

| Parameters Tested                   | Respondent groups         | N  | x²cal | x²tab | P-Value | Decision |
|-------------------------------------|---------------------------|----|-------|-------|---------|----------|
| The relative importance of survival | Architects                | 23 | 0.241 | 9.488 | 0.994   | Accept   |
| strategies                          | Builders                  | 23 | 0.677 | 9.488 | 0.954   | Accept   |
|                                     | Engineers                 | 23 | 1.068 | 9.488 | 0.899   | Accept   |
|                                     | Estate Surveyors          | 23 | 0.293 | 9.488 | 0.99    | Accept   |
|                                     | <b>Quantity Surveyors</b> | 23 | 1.193 | 9.488 | 0.879   | Accept   |

<sup>\*</sup>N= Number of factors

The results of the Kruskal Wallis test presented in Table 4 indicate that the calculated chi-square (x2) values obtained for all the respondent groups, that is, 1.500, 1.233, 2.068, 4.500 and 867 are less than the table value of 9.488. The indicative hypothesis is therefore accepted, and the inference is that the perceptions of construction professionals on the relative importance of the survival strategies for SMCFs do not differ significantly. Also the p-value (asymptotic significance) for each of the respondent group, that is, 0.827, 0.873, 0.723, 0.343 and 0.580 is greater than 0.05 further confirm that there is no variation in the perceptions of the respondent groups regarding the importance of the survival strategies for SMCFs in the study area. This may be attributed to the general understanding of the respondents of the relationships between strategies and business survival. The result supports Nobre and Silva (2014) and Fadanhusi (2012) that there is a positive correlation between adoption of survival strategies and SME's survival.

Similarly, the results in Table 5 indicate that the calculated chi-square (x2) value obtained for all the respondent groups, that is, 0.241, 0.677, 1.068, 0.293 and 1.193 are less than the table value of 9.488 implies that there is no significant variation in the perceptions of construction professionals on the effect of the factors affecting the adoption of the survival strategies for SMCFs in the study area. The p-value (asymptotic significance) of 0.994, 0.954, 0.899, 0.990 and 0.879 all greater than 0.05 which also confirm that the effect of the factors affecting the adoption of the survival strategies for SMCFs does not vary significantly among the selected construction professionals involved in the study. This supports the study by Gilmore, Carson, and Rocks (2006) who blamed the problems of adoption on several particular characteristics and constraints of SMEs such as lack of time, limited budgets, lack of marketing expertise, lack of market information, and lack of planning. Consequently, the two research hypotheses that the

perceptions of construction professionals of the relative importance of the survival strategies for SMCFs, as well as the relative effect of the factors affecting the adoption of the strategies do not differ significantly in the study area were retained. Besides, the overall view of the respondents is further analysed in the following sections.

#### 6.2 Evaluation of Survival Strategies of SMCFs

This section consists of an evaluation of fifteen variables of survival strategies for construction entrepreneurship (which also include SMCFs) identified through literature review and pilot survey. The combined data of the respondents were analysed to determine the perception of selected project team members on the level of importance of survival strategies SMCFs. The decision to combine the data for the analysis is based on the conclusion earlier drawn that there is no variation in the perceptions of the respondents in the level of importance of survival strategies for SMCFs growth in the study area. The result of the analysis, which indicates the MS of each factor, standard deviation (SD), rank and remark column indicating the significance of each factor are as presented in Table 6.

The result of the analysis shows that all the factors are significant with the MS of the factors range as  $3.43 \le MS \le$ 4.80. Ten of the factors have very high significance (VHS) with the remaining five factors ranking high significance (HS). The results reveal that the innovation is the most significant survival strategy, while the least factor is autonomy. Among the top five most significant survival strategies for construction entrepreneurial innovativeness (MS = 4.80, SD = 0.81), required skills (MS = 4.70, SD = 0.70), willingness to take risk (MS =4.67, SD = 0.83), entrepreneurship attitudes and behaviours (MS = 4.60, SD = 1.07), and entrepreneurial organization structure and strategies (MS = 4.55, SD = 0.79). However, the five least significant factors are environmental factors (MS = 4.18, SD = 1.28), human resource management (MS = 3.99, SD = 1.62), corporate venturing (MS = 3.83, SD = 1.24), competitive

aggressiveness (MS = 3.50, SD = 1.10), and autonomy (MS = 3.43, SD = 1.08).

Table 6: Survival Strategies for Construction Entrepreneurship at Infancy Stage

| S/n. | Factors   | Mean score | Std. Deviation | Rank               | Remarks |
|------|---|------------|----------------|--------------------|---------|
| 1    | Innovativeness  | 4.80       | .81            | 1 <sup>st</sup>    | VHS     |
| 2    | Required skills                                       | 4.70       | .70            | $2^{\text{nd}}$    | VHS     |
| 3    | Willingness to take risk                              | 4.67       | .83            | $3^{\text{rd}}$    | VHS     |
| 4    | Entrepreneurial attitudes and behaviours              | 4.60       | 1.07           | $4^{th}$           | VHS     |
| 5    | Entrepreneurial organization structure and strategies | 4.55       | .79            | $5^{th}$           | VHS     |
| 6    | Financial resource management                         | 4.44       | .88            | $6^{th}$           | VHS     |
| 7    | Proactiveness   | 4.41       | .55            | $7^{\text{th}}$    | VHS     |
| 8    | Organizational flexibility and speed                  | 4.38       | 1.08           | $8^{th}$           | VHS     |
| 9    | Adaptability  | 4.34       | .57            | 9 <sup>th</sup>    | VHS     |
| 10   | Entrepreneurial competencies                          | 4.30       | 1.04           | $10^{\text{th}}$   | VHS     |
| 11   | Environmental factors                                 | 4.18       | 1.28           | $11^{\rm th}$      | HS      |
| 12   | Human resource management                             | 3.99       | 1.62           | $12^{th}$          | HS      |
| 13   | Corporate venturing                                   | 3.83       | 1.24           | $13^{th}$          | HS      |
| 14   | Competitive aggressiveness                            | 3.50       | 1.10           | $14^{\mathrm{th}}$ | HS      |
| 15   | Autonomy  | 3.43       | 1.08           | $15^{th}$          | HS      |

The result of this study supports the previous findings of Ifemkwe and Adedamola (2016), who found a statistically significant relationship between survival strategies and SMEs' sustainability. A similar study conducted by Jegede (2018) further confirms the result of this finding stating that the innovative ability is a sine-qua-non for the survival of the entrepreneur and growth of the small business to a large business. Findings reveal innovation strategy as the most significant for the survival for SMCFs at the infancy stage. Innovation involves the analysis of dynamic competition, the pattern of investment, pricing and brand recognition strategies (Schmalensee, 2002). Supporting the findings from the previous study, Hurley and Hult (2008) classified innovation into two dimensions which include innovativeness and innovation capability. According to the authors, innovative firms accept and adopt new ideas, products, processes and organizational forms while innovation capability equips firms with an ability to implement and realize innovation. In construction, innovative ideas are critically needed not only to survive the turbulent stage of survival but also to meet the needs of clients in given value for their hard earn income.

Required skill in any endeavour is an essential attribute that differentiates high performers from average performers. In order for an entrepreneur to weather the storm of challenges at the infancy stage, it is highly necessary to acquire the required skills. This is in agreement with Barbero, Casillas and Feldman (2011) who assert that SMEs should possess high capabilities in specific functional areas, to grow fast and intensively. According to Olagunju (2004), entrepreneurial skill is the individual ability to create a new business through the exploitation of an idea in other to benefit both the individual and society. Skills are required in daily operation, finance, marketing, human and non-human resources, as well as general management. Construction entrepreneurship, among other things, needs creative, analytical, innovative, managerial, marketing, communicative, technical, and interpersonal skills in order to survive the present competitive and volatile

economic and political environment. These also help to achieve maximum profitability and productivity sufficient for the survival of the organisation at the infancy stage. The finding is also in agreement with the study of Akhamiokhor (2017), which reveals a significant relationship between employee productivity and human resource strategies in the selected SMEs. Another critical strategy identified in the study for the survival of SMCFs is the willingness to take risks. A successful construction entrepreneur is viewed as a risk-taker who anticipates risks and the potential impact in advance. Generally, the construction project is a complex endeavour inherent with risks and uncertainties. Construction business owners must, therefore, anticipate risk, strike when it is opportune, and effectively manage when there is a threat. This finding is similar to the study by Putnins and Sauka (2013) who find higher performance as a result of the reward for taking constructive risks. The finding is also in line with Jegede (2018), who states that the lower the risk, the lower the profit. The author adds that a riskless venture hardly possesses any tangible profit and that risk is variability in return.

Entrepreneur's attitude, traits and behaviour are important strategies that enhance entrepreneurial capability and competence for business growth and survival. According to Harvie, Narjoko and Oum (2010), entrepreneurial attitudes are those important characteristics needed by SMEs to upgrade their positions in production networks. This concurs with Markman and Baron (2003) who state that the closer the match between the individual's characteristics and the requirements of being an entrepreneur, the more successful the individual will be. Characteristics of the entrepreneur, which include socio-demographic characteristics, background characteristics and personality characteristics are necessary for business survival. This finding is also consistent with the previous findings by Gurol and Atsan (2006). An entrepreneurial organization is described as a consciously coordinated social entity, with a relatively identifiable boundary to achieve a common goal or set of goals (Robbins & Mathew, 2009; Abd-Hamid et al., 2015). A well-designed organization structure of the construction business, as revealed in this study is an effective strategy fundamental to the survival and success of entrepreneurship. Previous studies also find a strong positive link between organizational structure and entrepreneurship survival of business and construction projects (Shahu, Pandir, & Ganapathy, 2012).

# 6.3 Assessment of the Factors Affecting the Adoption of Survival Strategies for SMCFs

This section consists of combined data of the perceptions of the respondents on the effect of the 23 factors identified from literature that affect the adoption of survival strategies of entrepreneurship. The combined data were used having ascertained that there is no variation in the perception of the respondents on the effect of factors affecting the adoption of survival strategies for SMCFs in the study area. The result of the analysis, which indicates the MS, SD, rank and remark column indicating the significance of each factor are as presented in Table 7.

Table 7: Factors Affecting the Adoption of Survival Strategies for SMCFs

| S/n. | Factors   | Mean score | Std. Deviation | Rank             | Remarks |
|------|---|------------|----------------|------------------|---------|
| 1    | Availability and access to finance                    | 4.89       | .46            | 1 <sup>st</sup>  | VHS     |
| 2    | The poor state of the country's infrastructure        | 4.81       | .75            | $2^{nd}$         | VHS     |
| 3    | Poor managerial/executive capacity of the             |            |                |                  |         |
|      | implementing agencies                                 | 4.69       | .85            | $3^{\rm rd}$     | VHS     |
| 4    | Characteristics of entrepreneurs                      | 4.62       | .94            | $4^{th}$         | VHS     |
| 5    | Failure to adapt to the changing business environment | 4.57       | .87            | $5^{th}$         | VHS     |
| 6    | Low technological capacities                          | 4.51       | .84            | $6^{th}$         | VHS     |
| 7    | Inadequate business planning                          | 4.44       | 1.32           | $7^{\text{th}}$  | VHS     |
| 8    | Lack of motivation                                    | 4.42       | 1.26           | 8 <sup>th</sup>  | VHS     |
| 9    | Lack of commitment to solve its problems              | 4.41       | 1.14           | 9 <sup>th</sup>  | VHS     |
| 10   | In-appropriateness of some of the recommendations     | 4.37       | 1.24           | $10^{th}$        | VHS     |
| 11   | Corruption  | 4.28       | 1.42           | $11^{\rm th}$    | VHS     |
| 12   | Human resources capacities                            | 3.98       | 1.52           | $12^{th}$        | HS      |
| 13   | Access to information                                 | 3.71       | 1.65           | $13^{th}$        | HS      |
| 14   | Lack of support from expected quarters                | 3.63       | 1.67           | $14^{th}$        | HS      |
| 15   | Inconsistent government policies                      | 3.60       | 1.26           | $15^{th}$        | HS      |
| 16   | Education background                                  | 3.51       | 1.21           | $16^{th}$        | HS      |
| 17   | Networking  | 3.45       | 1.18           | $17^{\text{th}}$ | HS      |
| 18   | Lack of management skills and training                | 3.45       | 1.78           | $18^{th}$        | HS      |
| 19   | Location of the enterprise                            | 3.22       | 1.68           | 19 <sup>th</sup> | MS      |
| 20   | Problems caused by the stakeholders                   | 3.05       | 1.79           | $20^{th}$        | MS      |
| 21   | Lack of resources for implementation                  | 2.83       | 1.82           | $21^{st}$        | MS      |
| 22   | Cumbersome legal and regulatory constraints           | 2.75       | 1.02           | $22^{nd}$        | MS      |
| 23   | Problems caused by the immediate local community      | 2.67       | 1.86           | $23^{rd}$        | MS      |

The result of Table 7 shows that the rank of the factors range from  $2.67 \le MS \le 4.89$ , with the most prevalent among the factors being availability and access to finance with MS = 4.89 (SD = 0.46); the least ranked factor is problems caused by the immediate local community with MIS = 2.67. Eleven of the factors have very high significance (VHS); five factors have high significance (HS), while the remaining five factors have medium significance (MS). Poor state of the country's infrastructure (MS = 4.81, SD = 0.75) ranks second, followed by poor managerial / executive capacity of the implementing agencies (MS = 4.69, SD = 0.85). Characteristics of entrepreneurs (MS = 4.62, SD = 0.94) ranks next, while failure to adapt to the changing business environment (MS = 4.57, SD = 0.87) ranks fifth. Among the least ranks factors are problems caused by the stakeholders (MS = 3.05, SD = 1.79) and lack of resources for implementation (MS = 2.83, SD = 1.82). These also include cumbersome legal and regulatory constraints and problems caused by the immediate local community with MS 2.75 (SD = 1.02) and 2.67 (SD = 1.86) respectively, as shown in Table7.

The findings show that several factors are affecting the adoption of survival strategies for SMCFs which can be categorized into three based on the previous studies, namely: personal characteristics of entrepreneur, internal and external characteristics of an entrepreneurial organization. The prevalent among the factors are further discussed in this section. Availability and access to finance; this factor ranks most by the respondents as affecting the adoption of survival strategies for SMCFs. This factor is a critical issue among construction entrepreneurs in most states of the federation and many developing countries. This result is similar to the finding of a study earlier conducted by Afolabi (2013) who identifies financial constraints explained by high lending rates and high loan requirements as the major cause of the absence of a strong and virile SMEs sub-sector in the Nigerian industrial development process. This was shared by Kim, Knotts and Jones (2008) who argue that limited access to financial resources may restrict more substantial investments especially those that require a more extended payback period, creating a growth and development barrier. Findings also show that Chad-Cameroon pipeline project worth US\$4.2 billion which was one of the most expensive projects funded by the World Bank in Africa at the time failed because World Bank withdrew its financial backing (Fabian & Amir, 2011). A good entrepreneur as a matter of necessity, should have a sound knowledge of project financing, especially large scale and privately financed projects. A project of this nature is often complex owing to the involvement of several stakeholders, the high costs and risks, and the long duration of project development and the contract duration.

The poor state of the country's infrastructure has been an unresolved problem in the entire nation for several decades. It is not a surprise that this factor is highly ranked in this study. It is a critical issue facing entrepreneurs and concern individuals in the country. The result of the study is in agreement with previous studies by Jegede (2018), the finding reveals associated infrastructural problems such as shortage of water supply, inadequate transport systems, lack of electricity to improper solid waste management as a major factor affecting the survival and growth of SMEs in developing economy. The finding is also consistent with the report of a survey on the competitive performance of 144 economies worldwide conducted by World Economic Forum on Global Competitiveness in 2014 in which Nigeria was ranked low in the quality of its infrastructure (Damoah, 2015). The poor managerial system is a major factor responsible for the failure of implementing the recommended strategy or policy that promotes organizational existence or perhaps using the wrong approach. This is in agreement with Dandira (2011) who notes that even though remarkable progress has been made in the field of strategic management, the problem of strategy implementation failure persists. The problem of the poor managerial system identified in this study is consistent with the findings by Mba and Cletus (2014) who opine that inefficiency in overall business management and poor record-keeping is a major feature of most SMEs. Other challenges include technical problems/competence and lack of essential and required expertise in production, procurement, maintenance, marketing and finances which are also identified as factors that lead to funds misapplication, wrong and costly decision making. The implications are very critical and can eventually lead to the death of the SMCEs.

Findings reveal that the entrepreneur's characteristics are one of the most influential factors that affect business performance and competitiveness in the market (Simpson et al. 2004). These characteristics, among other things, include the age of the entrepreneur, gender, education and family background and previous experience (Guzman & Santos, 2001; Ucbasaran et al., 2004). These factors can either motivate or demotivate an entrepreneur from being proactive and taking specific actions where necessary. The result of this study is in agreement with the findings by Markman et al. (2007) which relate personal perseverance to a person's capability to persist in the face of difficulties, risks, and failure. The authors maintain that such persons will consistently rise and breakthrough, and as they persevere, they become more skilled and

empowered to tackle the next adversity. Inability to manage the ever occurring changes in business environments can as well hinders entrepreneur in achieving success. Changes witnessed in business environments may be from internal or external sources. Internal sources may include changes in project scope, technology, time and cost. External factors, on the other hand, include opportunities, threats, technology, macroenvironmental factors, political climate, and information available in the market which will potentially affect all entrepreneurs, regardless of their background, business sector, or business concept (Dahlqvist, Davidsson & Wiklund, 2000; Adu & Ekung, 2019). Findings from previous studies reveal that inability to manage these changes contribute to project failure (Kaliba, Muya & Mumba, 2009).

#### 7. Conclusion and Recommendations

This study investigated survival strategies for SMCFs at infancy stage and factors affecting the adoption of the strategies. Based on the findings above, the study concludes that ensuring the survival of SMCFs at infancy stage depends upon understanding and effective application of specific strategies. The five most dominant among the strategies are: "innovativeness", "required skills", "willingness to take the risk", "entrepreneurial attitudes and behaviours", "entrepreneurial organization structure and strategies", and "financial resource management". Apart from effective management of financial resources, entrepreneur human and competencies and networking in managing entrepreneurial environments are also identified as a panacea for success and survival of SMCFs at the infancy stage. The study also concludes that adoption of the strategies for survival of entrepreneurship is not without challenges which can undermine the effort in achieving the desired goal. Critical among these challenges are: "availability and access to finance", "poor state of the country's infrastructure", "poor managerial/executive capacity of the implementing agencies", "characteristics of entrepreneurs and failure to adapt to the changing business environment". It was further concluded that the respondents had a common view of survival strategies and factors affecting the adoption of these strategies in the study area. Finally, the study concludes that without concerted efforts of government in providing enabling entrepreneurship infrastructure, the gap created in employment generation, national economy and poverty will continue to exist as a result of an increase in the mortality rate of SMCFs at the infancy stage.

This study recommends that to survive in the current dynamic and competitive construction business environment, SMCFs should adopt any or a combination of the strategies highlighted in this study. Owners of SMCFs should also be involved in regular training to acquire the required skills in the management of human and non-human resources. Government through different Support Initiatives and Programmes, should ensure the survival of newly created and registered business firms, especially within the seven years of its existence in the business. There is also a need for a conducive and enabling environment for businesses to thrive through the

provision of adequate infrastructures. As a way of ensuring the survival of the industry, the government should also set up monitoring and evaluation teams saddled with the responsibility of ensuring steady progress of enterprises and offer advice where necessary. Incentive schemes should be made available for the smooth take-off of newly established SMCFs as well as extending this Initiative to foreign investors. Government policy should help, among other things, to reduce administrative costs and regulatory burden at the same time encouraging SMCFs in accessing loans from commercial banks and lending institutions. A study of this nature should be carried out in other state capitals and

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geo-political zones for comparison and generalization of the findings in Nigeria and developing countries of the world

#### 8. Limitations of the study

The major limitation of the study is the total dependence on the views of the respondents and that the study focused mainly on survival strategies for SMECFs in the construction industry at the infancy stage. The findings might specifically apply only to similar contracting organizations and not the majority of SMCFs.

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