PROCEEDINGS OF CIB CONFERENCE 2014

THEME
CONSTRUCTION IN DEVELOPING COUNTRIES AND ITS CONTRIBUTION TO SUSTAINABLE DEVELOPMENT

Conference Date
28th -30th January, 2014

Conference Venue
ORCHID HOTELS & EVENTS CENTRE,
Lekki, Lagos, Nigeria.

Hosts:

University of Lagos, Akoka,
Yaba, Lagos, Nigeria

Heriot-Watt University,
Edinburgh, UK

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FORWARD

Construction is known to play a very significant role in the growth and development of every economy. Indeed, buildings, roads, dams, airports, power plants, stadia, ports and so on are *sine-qua-non* of development and all these are construction products. It therefore means that construction is the bedrock of development and no country can think, dream and experience development without an efficient and effective construction industry. However, the construction industries of most developing countries have remained a serious concern to all because they lack the capacities and capabilities to provide the enabling environment for sustainable development.

Against this background, the University of Lagos, Lagos, Nigeria decided to host the 2014 edition of the Conference of International Council for Research and Innovation in Building and Construction (CIB) W107 Commission on Construction in Developing Countries. The conference holding in Lagos, Nigeria has as its theme *Construction in Developing Countries and its Contribution to Sustainable Development*. The conference effectively covers all aspects of the theme in five sub-themes. The sub-themes are: Environmental Planning, Design, Management, Technology and Education and Research. In the conference, attempts are made to create a high level of awareness on the importance of *Construction Industry Development Board* (CIDB) through highly educative keynote papers presented by international experts. Further attempt is made to use the conference as a spring board for *Construction Industry Development Board* (CIDB), *Nigeria* through the CIDB Stakeholders’ Forum that is planned as part of the conference events.

The conference attracts paper submission from across the globe in particular UK, USA, Australia, Singapore, South Africa, Kenya, Ghana and the host country Nigeria. This reflects the global nature of the conference. In all, 7 keynote papers and 78 research papers will be presented in the conference. The research papers consist of 46 papers on Management, 8 papers on Technology, 6 papers on Design, 4 papers on Education and Training and 14 papers on Environmental Planning. The research papers underwent a two-stage paper review process. The first stage involved the review of each abstract by members of the Conference International Scientific Committee. The second stage involved the review of the full paper of each accepted abstract by at least two members of the Conference International Review and Scientific Committees. The two-stage review process helped to improve the quality and standard of the papers accepted for the conference.

It is the hope of the organisers of the conference that participants would derive significant benefits both in terms of research and professional practice from the keynote and research papers presented at the conference.

*Professor Godwin Idoro*
Conference Co-Chair and Head, Department of Building, University of Lagos, Akoka, Lagos, Nigeria.
ACKNOWLEDGEMENT

University of Lagos and indeed Nigeria would not have been able to host the International Council for Research and Innovation in Building and Construction (CIB) Conference 2014 without the efforts and support of some individuals and organisations. The Conference Organising Committee is grateful to the International Council for Research and Innovation in Building and Construction for granting the hosting rights of the 2014 CIB W107 conference to University of Lagos.

The Organising Committee wish to thank all members of the International Scientific Committee, International Review Committee and International Advisory Committee for the efforts and time spent to review the abstracts and full papers submitted for the conference. Your comments have indeed improved the quality of the papers. The Committee is grateful to all authors for their submissions in particular those whose papers could not be accepted for the conference. We also appreciate our invaluable delegates whose presence made the conference possible.

The Conference Organising Committee highly appreciate the Conference Keynote Speakers: Professor George Ofori of National University of Singapore, Singapore, Professor Paul Olomolaie of University of West of England, UK; Professor Stephen Ogunlana of Heriot-Watt University, Edinburgh, UK; Professor Akintola Akintoye of University of Central Lancashire, UK; Dr. Rodney Milforl of Construction Industry Development Board, (CIDB), South Africa; German Mphahlele of Construction Industry Development Board (CIDB), South Africa; Emeka Ezeh of Bureau of Public Procurement, Nigeria and Terver Gemade of Federal Housing Authority, Nigeria for the efforts and time spent in attending the conference and presenting the keynote papers. The array of keynote speakers reflects a rich blend of leading lights in research and industry.

The Organising Committee also highly appreciates the significant role played by the Conference Co-Chair, Professor Stephen Ogunlana. His suggestions and support can best be regarded as the secret behind the success of the Conference. For the few organisations: Bureau of Public Procurement, Nigeria; Julius Berger Plc, Nigeria; Adesanya & Partners, Nigeria and Shelter & Roads Construction Limited, Nigeria that identified with the conference, the Organising Committee is grateful for your support.

The Organising Committee is also grateful to the Vice-Chancellor Professor Rahamon Bello and the entire management team of University of Lagos, Lagos, Nigeria for supporting the hosting of the Conference and ensuring its success. The Committee is equally grateful to the management of Orchid Hotels & Events Centre, Nigeria for making its premises available as the venue of the Conference.

We thank industry actors and regulators, professional bodies and government agencies in the built environment in Nigeria for their support in particular for attending the CIDB Stakeholders’ Forum. We appreciate industry experts from outside Nigeria for sharing their experiences.

This acknowledgement will not be complete without appreciating the efforts of the members of the Conference Organising Committee: Professor Kole Odusami; Dr. Martin Dada; Dr. Anthony Iweka; Dr. Victor Ilechukwu; Dr. Wale Alade; Dr. Hikmot Koleoso; Funlola Famuyiwa; Emmanuel Akinsiku; Adeyemi Akintola; Julius Faremi; David Adio-Moses; Ibukun Awolusi. The Conference will not have been possible and successful if not for the time and efforts you put in. To K. Abdullahi, Director of Highways (Southwest), Federal Ministry of Works, Nigeria, the Organising Committee is grateful for your suggestions. To all other individuals and organisations whose names are not mentioned but who in one way or the other contributed to the success of the Conference, the Organising Committee appreciates your contribution.

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PEER REVIEW PROCESS

The organizers of this conference undertook that in order to ensure highest quality in these proceedings, authors’ submission have been subjected to a rigorous double blinded peer review process which involved at least two renowned and knowledgeable experts in the field.

The first stage of the reviews involved the abstracts. A total of 183 abstracts were received for the conference. Each of these was sent to at least two anonymous reviewers. Thereafter, the authors of accepted abstracts were provided with the reviewer comments and were required to submit the full papers, after incorporating all suggested amendments indicated in the reviewed abstract.

Submitted full papers were again subjected to peer reviews by at least two reviewers. The review comments were then sent to the authors of accepted papers with the request that they should address all of the issues raised by the reviewers. They were also required to provide evidence of how they addressed each of the areas of concern. Authors whose papers were rejected were equally provided with reviewer’s comments so that they could identify the deficiencies therein. During this peer review process, it was ensured that technical and scientific committee members, editors and organizers were not involved with the review of any paper they authored or co-authored.

At this stage, papers of authors who have demonstrated sufficient evidence that all reviewers’ comments had been addressed were accepted into the proceeding. Out of the 104 papers that were received, 78 were finally accepted for inclusion in this conference and proceedings.
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FACTORS INFLUENCING DEVELOPMENT OF SMALL CONSTRUCTION COMPANIES IN ABIA AND AKWA IBOM STATES, NIGERIA

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Abstract
The economic significance of small construction companies (SCCs) has been globally recognized, especially in developing economies. This study was carried out in Abia and Akwa Ibom States. Its objective was to identify and evaluate factors affecting the growth and development of SCCs in the research area. SCCs in Nigeria often experience stunted growth and show high mortality. Sixty Five (65) SCCs were randomly selected and administered with questionnaires. Data obtained were analyzed using descriptive statistics, and binary logistic regression. The study reveals that majority of CEOs of SCCs are first degree (n=31, 47.69%) and higher national diploma (n=24, 36.62%) holders. Key findings are that there are significant relationships between SCC growth and development and the entrepreneurial/managerial competence of the SCC leadership (p =0.007), financial problems (p= 0.028), work availability problems (p =0.027) and equipment problems (0.034). By implication, addressing these problems will lead to a virile SCC subsector in the Nigerian construction industry. On the bases of the key findings of this study, adequate entrepreneurship training of construction professionals is recommended to the government and other stakeholders in the affected states. It is also advocated that professional and educational institutions should work together to improve the construction management competence of SCCs.

Keywords: Contractor, Construction, Development, Nigeria, Small Construction Companies

INTRODUCTION
The construction industry is significant to a nation’s economy as it is essential in creating employment and generating wealth, and improving the quality of life of the citizens through the provision of social and economic infrastructure. It links the economy with a multiplier effect that enables other industries to thrive (Abdul-Rahman et al, 2011). In Nigeria, the construction industry is said to account for about 69% of the nation’s fixed capital formation and is considered as a significant sector of the economy with immense potentials for growth (Dada, Akpadiaha & Ologunagba, 2012).

Nigeria is currently fine-tuning her economic policies in a bid to harness her non-oil resources in all sectors of the economy. Oluwakiyesi (2011) reports that in 1981, the construction sector accounted for 5.8% of Nigeria’s GDP and in the last three decades, Nigeria’s total GDP (gross domestic product) has risen to approximately 495 times its 1981 size. Trailing far behind, construction sector GDP has only grown to 125 times its size of 1981. Notably, the drivers of Nigeria’s GDP over the last three decades have remained the same – Agriculture (crop production), Crude oil production and Wholesale & Retail trade (Oluwakiyesi, 2011). The National Bureau of Statistics (NBS) (2013) shows that the building and construction sector accounted for only 2.19% of the nation’s GDP in 2012. The Survey Report on Micro, Small and Medium Enterprises (MSMEs) in Nigeria (2010) indicates that only 10.76% of the total construction industry contribution to the GDP is attributable to the small construction companies (SCCs). Thus, close to 90% of the sector’s contribution to the GDP is accounted for by large construction firms signifying a
large untapped small contractor sector. SCCs form a vital sub-set of the Nigerian small-medium enterprises (SME). Efforts to revamp the construction industry in Nigeria will necessarily involve the SCCs given their access to construction at the grassroots, geographical spread and prominence in the informal levels.

Clearly, Nigerian SCCs are faced with the growth and development inhibiting factors inherent in the Nigerian business environment. United Nations Centre for Human Settlements (Habitat) [UNCHS] (1996) suggests that in developing countries, the contractor’s entrepreneurship should be of a higher quality as the operating environment poses severe problems that can hinder the running and further growth and development of the company. Despite this, specifically focused National policy and empirical studies on the Nigerian SCCs are scarce. Information on the Nigerian small contractor is at best unorganized (Oyedele, 2013), diverse and uncoordinated, thus giving further retarding organized small contractor development efforts. The objective of this paper is to identify and evaluate factors affecting the growth and development of SCCs in the research area.

SMALL CONTRACTOR DEVELOPMENT IN NIGERIA

Ofori (2012) reports that the Task Group 29 (TG29) of the International Council for Research and Innovation in Building and Construction, at its meeting in Arusha in 1998, defined construction industry development as follows: Construction industry development is a deliberate and managed process to improve the capacity and effectiveness of the construction industry to meet the national economic demand for building and civil engineering products, and to support sustained national economic and social development objectives. Contractor development refers to the process of identifying and removing the constraints affecting the development and performance of construction firms (Construction Industry Development Board [CIDB], 2011). UNCHS (1996) states that over the past decades many developing countries have implemented initiatives to improve the performance of local construction contracting firms, either as part of, or in isolation from, comprehensive programmes for improving the construction industry. The development of small-scale contractors entails activities such as training in business management, development of user-targeted training material, development of appropriate contract procedures, streamlining of payment procedures and providing interested contracting firms with attractive market prospects and a conducive environment in which they can operate efficiently (Bjorn Johnannessen Engineering Consultant, 2000).

According to the Report of the Vision 2020 National Technical Working Group on Small and Medium Enterprises (SMEs) (2009), during the era of the five-year National Development Plans 1960 – 1975, SMEs were grouped with the manufacturing sector in a bid to achieve rapid industrial transformation of the economy. The National Development Plans were replaced by the Rolling Plans, which were later replaced by NEEDS. It is only with the inception of NEEDS 2 that SMEs were treated as a sector in their own right rather than being grouped under the manufacturing sector. The Nigerian government subsumes the SCCs under SMEs, and the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) (established in 2003) was given the mandate to among other things, stimulate entrepreneurship/enterprise development and provide policy advocacy for improved business operating environment for SMEs. SMEDAN which regards an enterprise as small, if it employs 10-49 workers, has not created any construction industry-specific development programme. SCCs suffer as small-scale enterprise development programmes in Nigeria concentrate on the creation and nurturing of companies in the commercial and industrial sectors of the economy (UNCHS, 1996). SCCs are peculiar in many ways, and are often operationally significantly different from other SMEs, being project, rather than production oriented. Unheeded calls have been made for the establishment of the construction industry development board (Nigerian Institute of Building, 2012; Adegboyce, 2012) in Nigeria, as obtainable in countries such as Malawi (National Construction Indus-
try Council of Malawi, 1996, The Construction Industry Development Board of South Africa, 2000). Although such a board will cater for broad developmental issues in the construction industry, it presents a more viable option for small contractor development.

**Barriers to Small Contractor Development in Nigeria**

Construction companies are known to be susceptible to economic circles, often tending to close down at times of depression (Ajayi, Pearce & Mafimidiwo, 2012). As a result, the business environment in which SCCs operate needs to be cautiously managed to protect these very vulnerable units of the national economy. Existing literature identifies the following obstacles to the development of SCCs in South Africa: lack of well structured training programme, poor procurement systems and lack of management capacity and resources to equip managers to operate their companies effectively, lack of competitive advantages over large firms (Dlungwana & Rwelamila, 2004). Materu (1993) identifies SCCs’ problems in Tanzania under the following headings: work availability problems, finance problems, equipment problems, construction materials problems and management skills problems. Tshivhase and Worku (2012) find barriers to emerging contractors in the Limpopo Province (South Africa) to include: poor human resources, inadequate information technology, poor financial resources, poor marketing resources, high tax resources, high cost of construction materials, inadequate institutional support, adverse socio-economic conditions and client delays during construction.

The development of SCCs in Nigeria has not been accorded any special research scrutiny or policy drive with the intention of evolving developmental programmes for them within the Nigerian context. It is conceivable, that Nigerian SCCs are faced with similar development inhibiting factors as those of the countries reported above, but the dimensions of the barriers need to be statistically established to form a basis for policy making. Oyedele (2013) observes that the Nigerian construction industry is afflicted by lack of local skilled labour, the unavailability of materials, and unethical practices. Other constraints include shortage of skilled manpower, high rate of enterprise mortality, restricted market access, overbearing regulatory environment and poor policy implementation. The policy framework for the support of SMEs is in its infancy, while the funding institutions are not favourably disposed to SMEs. The construction industry in Nigeria has high rates of entry and exit by contractors according to the Corporate Affairs Commission (CAC) records (Oyedele, 2013).

Critical success factors for SMEs (inclusive of SCCs) in Nigeria were found by Sanusi (2004) to include competent entrepreneurship, technical and managerial skills as well as enabling environment for investment in small- and medium-scale industries. In the midst of these observed deficiencies, large construction companies in Nigeria have tended to survive more than the small ones which justifies a need for a conscious action plan to stem the impacts of these barriers on SCCs. Besides, developmental programmes, when eventually operational for SCCs need to be prioritized to give priority attention to the more significant hindrances to their development.

**Characteristics and Significance of SCCs**

Nigerian small contactors are characterized by indigenous male ownership, use of manual labour and often old technology. SCCs comprise a significant component of the construction economy in developing countries (including Nigeria) and contribute to employment creation. As a result of their specialisation and relatively low overhead costs, small and medium contractors form a good sub-contractor resource base from which, large established contractors draw (Agumba & Fester, 2011). They can also undertake small projects at different and remote geographical locations that might be unattractive to big firms or too costly when undertaken by large construction firms. The low overheads enable small contractors to work at more competitive prices, and a large number of functional small
and medium scale contractors have helped to decentralise the construction industry dominated by established large contractors.

Besides, the relatively low technical and managerial skills, technology and financial resources required at this level often lower the entry requirement for the small and medium size owners to begin to participate in construction contracting. Through these means, a large number of small, functional, indigenously owned contractors can develop a platform for growth and redistribution of wealth (Thwala & Mvubu, 2009). It is to be noted however that people sometimes register construction companies to take advantage of an opportunity, where it is certain that they will be given a job, and not necessarily because they are or wish to stay in business as contractors. This situation creates a proliferation of closed-down contractors, denies access to jobs to those permanently in the construction business and stands in the way of a reliable small contractor database. Most observers agree that small and medium enterprises are important drivers for economic growth. However the performance of small and medium size construction contractors have come under intense scrutiny notably in the aspect of poor quality work and productivity as well as costs, schedules or completion period, profitability, dispute and clients satisfaction.

Previous Empirical Studies and research gap
In a survey of 75 contracting firms in Lagos, Ajayi, Pearce and Mafimidiwo (2012) found that rising costs of construction materials and inadequate training of supervisory/technical staff are the major causes of contractor failure in a depressed economy. The study did not address broad developmental issues with SCCs in focus. It is clearly apparent in the Nigerian construction literature that SCCs have been given inadequate attention, and contractor development issues have been seldom researched on. It is however known that while the SCCs may constitute negligible economic entities individually, collectively they contribute substantially to national construction output (Amoah, Ahadzie & Dansoh, 2011). Unfortunately, SCCs have often been left out of the sampling frames of most empirical studies and are not easily visible and identifiable by national databases (Amoah, Ahadzie & Dansoh, 2011) especially in the sub-region. In a Limpopo Province (South Africa) based study, Tshivhase and Worku (2012) surveyed 104 emerging contractors then working in construction sites in the area. The study found that majority of the contractors were entrepreneurs with underprepared and disadvantaged backgrounds in terms of technical and entrepreneurial skills as well as capital and access to finance. A similar study could not be found for Nigeria, a gap intended to be filled by the present study. Mills, Smith and Love (2002)’s study was concerned with developing a framework for identifying the critical factors that militate against regional contractors succeeding in winning tenders in their own regional areas of Victoria. They found that regional contractors in the Australian construction industry consider research and development, company benchmarking and project reviews as bigger problems. The study further showed that both regional and metropolitan contractors have difficulty in self-learning.

METHODOLOGY
A cross sectional survey of small construction companies in Umuahia, Abia State and Uyo, Akwa Ibom State was carried out with questionnaire as the primary instrument for data collection. An acceptable sample frame of small contractors in the research areas could not be obtained and as a result, questionnaires were administered purposively on small contractors currently working on sites in the two towns of the research area (Umuahia and Uyo). Sample frames obtained from institutions in the research area (government ministries, departments and agencies) do not distinguish between SCCs and other kinds of contracting organizations. Secondly, contractors’ contacts obtainable from these sources are not all current, making it impracticable to administer questionnaire on them. It is probable that some of the contractors in the lists obtainable from these sources have either relocated or they have gone out of business. The researchers therefore used purposive sampling technique for the study. Mainly building contractors were covered by the study,
Factors influencing development of small construction companies in Abia and Akwa Ibom states, Nigeria

and the questionnaires were targeted on owners of small construction companies and their site supervisors. The structured questionnaire was first served on construction academics in Abia State Polytechnic and University of Uyo, which led to certain corrections being made on the questionnaire to improve its validity. In all, 150 copies of the questionnaire were distributed out of which 65 acceptably filled copies were returned for analysis. Companies who indicated employment of more than 20 permanent staff were excluded from the study to be sure that all companies covered were small construction companies. The barriers to the development of small construction companies included in the questionnaire were those found in literature (especially Materu, 1993) and from the authors’ experiences. The Statistical Package for the Social Sciences (SPSS) was used to apply the Logistic Regression statistic on the obtained data.

Highest Academic Qualification of SCC CEOs

The study sought to find out the highest academic qualification of SCC leadership in the research area. The educational status of SCC leaders has a bearing on their entrepreneurial, technical, managerial and leadership abilities, and therefore on the development of the SCCs themselves. Findings in this regard are as shown in Table 1. Based on the findings of this study, SCC chief executive officers are mostly first degree (n=31, 47.69%) and higher national diploma (n=24, 36.62%) holders. It could be that these CEOs hardly have time for further academic activities once they get involved with their companies. It has been noted that graduates of Polytechnics and Universities in Nigeria lack sufficient practical skills to face the rigors of industrial practice, and this creates a situation where a Nigerian first degree qualification may be insufficient academic preparation for the establishment of a construction company.

<table>
<thead>
<tr>
<th>Highest Academic Qualification of SCC CEOs</th>
<th>OND</th>
<th>HND</th>
<th>BSC</th>
<th>MSC</th>
<th>Ph.D</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture</td>
<td>3</td>
<td>2</td>
<td>12</td>
<td>4</td>
<td></td>
<td>21(32.31%)</td>
</tr>
<tr>
<td>Engineering</td>
<td>7</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>9 (13.85%)</td>
</tr>
<tr>
<td>Building</td>
<td>11</td>
<td>9</td>
<td>2</td>
<td></td>
<td></td>
<td>22(33.85%)</td>
</tr>
<tr>
<td>Quantity surveying</td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td>7(10.77%)</td>
</tr>
<tr>
<td>Estate management</td>
<td>1</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td>5 (7.69%)</td>
</tr>
<tr>
<td>Land surveying</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban and regional planning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Mgt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>1(1.54%)</td>
</tr>
<tr>
<td>Total</td>
<td>3(4.62%)</td>
<td>24(36.92%)</td>
<td>31(47.69%)</td>
<td>6(9.23%)</td>
<td>1(1.54%)</td>
<td>65</td>
</tr>
</tbody>
</table>

Length of time of operation of SCCs in the Construction Industry

On how long they have been in operation, it was observed that most SCCs covered by the study have existed for 6-10 years (n=25, 38.46%), see Table 2. Two factors may have accounted for this: the fact that most SCCs in Nigeria are operated by people who are not full-time professional builders and are therefore in construction as a secondary business, just as reported to be the case in Ghana (Amoah, Ahadzie & Dansoh, 2011). Secondly, the early death of small construction companies in Nigeria due to economic recession (Ajayi et al, 2012) may be another contributing factor.

<table>
<thead>
<tr>
<th>Duration of Existence</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5 years</td>
<td>18</td>
<td>27.69%</td>
</tr>
<tr>
<td>6-10 years</td>
<td>25</td>
<td>38.46%</td>
</tr>
<tr>
<td>11-15 years</td>
<td>9</td>
<td>13.85%</td>
</tr>
<tr>
<td>16-20 years</td>
<td>8</td>
<td>12.31%</td>
</tr>
<tr>
<td>Above 20 years</td>
<td>5</td>
<td>7.69%</td>
</tr>
<tr>
<td>Total</td>
<td>65</td>
<td>100%</td>
</tr>
</tbody>
</table>
Professional Employed by SCCs and the nature of their employments
Table 3 shows the number of the different professionals employed by SCCs in the study area, and the nature of their various employments. The results suggest that most operators in the SCC sector are architects (n=97, 24.56%) of which majority are part-time staff of SCCs. This is followed by builders (=67, 16.96%) and engineers (=67, 16.96%).

<table>
<thead>
<tr>
<th></th>
<th>Architect</th>
<th>Engineer</th>
<th>QS</th>
<th>Builder</th>
<th>Surveyor</th>
<th>URP</th>
<th>Estate Surveyor</th>
<th>Accountant</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time Employment</td>
<td>32</td>
<td>27</td>
<td>11</td>
<td>23</td>
<td>3</td>
<td>1</td>
<td>20</td>
<td>117</td>
<td>29.62%</td>
</tr>
<tr>
<td>Part-time Employment</td>
<td>47</td>
<td>16</td>
<td>17</td>
<td>14</td>
<td>6</td>
<td>2</td>
<td>4</td>
<td>125</td>
<td>31.65%</td>
</tr>
<tr>
<td>Outsourced/contract staff</td>
<td>18</td>
<td>24</td>
<td>32</td>
<td>30</td>
<td>18</td>
<td>3</td>
<td>4</td>
<td>153</td>
<td>38.73%</td>
</tr>
<tr>
<td>Total</td>
<td>97(24.56%)</td>
<td>67(16.96%)</td>
<td>60(15.19%)</td>
<td>67(16.96%)</td>
<td>56(61.54%)</td>
<td>18(4.17%)</td>
<td>64(16.20%)</td>
<td>395(100%)</td>
<td></td>
</tr>
</tbody>
</table>

Table 4 shows that the development of SCCs in the research area is affected by entrepreneurship/management (p=0.007), work availability (p=0.027), financial (p=0.028) and equipment (p=0.034) problems in the order of decreasing significance. Construction materials problems (p=0.483) are not significant barriers to the development of SCCs in the research area. The odds ratio for ‘work availability problems’ is 5.608 implying that an SCC that has work availability problems is 5.608 times more likely not to develop than another SCC that does not have the problem. Similarly, an SCC that has financial problems is 6.712 times less likely to develop than another SCC that does not have financial problems.

<table>
<thead>
<tr>
<th>Factors that Affect the development of SCCs</th>
<th>Odds ratio</th>
<th>P-value</th>
<th>95% confidence interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurship/management problems</td>
<td>0.469</td>
<td>0.007</td>
<td>(0.271, 0.812)</td>
</tr>
<tr>
<td>Work availability problems</td>
<td>5.608</td>
<td>0.027</td>
<td>(1.220, 25.777)</td>
</tr>
<tr>
<td>Financial problems</td>
<td>6.712</td>
<td>0.028</td>
<td>(1.231, 36.605)</td>
</tr>
<tr>
<td>Equipment problems</td>
<td>2.067</td>
<td>0.034</td>
<td>(1.055, 4.049)</td>
</tr>
<tr>
<td>Construction materials problems</td>
<td>1.533</td>
<td>0.483</td>
<td>(0.465, 5.051)</td>
</tr>
</tbody>
</table>

Table 4: Factors influencing development of SCCs

The findings of this study are consistent with that of Fortuin (2004) to the effect that SCCs in Umuahia and Uyo have limited success in obtaining works. Similarly, only a small percentage of the respondents had received managerial training which is reflected by the factor ‘entrepreneurship/management problems’, just as also reported by Fortuin (2004) for Western Cape Construction Industry. Access to construction training appears to be rather lower in the research area compared to some other cities in Nigeria such as Lagos and Abuja. Mills, Smith and Love (2002) report that regional contractors in Australia experience difficulties in getting training for site workers and managers. The inability of SCCs to send staff for training may not be unrelated with the financial status of their organizations, which in accordance with the findings of this study resulted in a barrier to the development of SCCs in the research area.

Construction materials (0.483) problems are not significant barriers to the development of SCCs in the research area.

RESULTS FROM INTERVIEWS WITH KEY STAKEHOLDERS

Insincerity in the bidding process
Stakeholders lamented the unwholesome practices in the bidding processes in which a winner is chosen by the client’s team before the tendering process is concluded. Some
tendering processes are ‘fixed’ with a winner in mind, and other bidders only engage in the exercise for formality’s sake. Such practices negate excellence by destroying the incentive for hardwork on the part of bidders, and therefore erode SCC development. As advocated by Tshivhase and Worku (2012), more transparent bidding processes should be enshrined for all procurements in Nigeria that makes for transparency and equal opportunity.

Access to Finance
Most SCCs only engage in projects within their merger equity finance. Cost of funds is high, and clients are often skeptical to commit funds to SCCs due to unpleasant experiences where contractors escaped with advance payments. Growth is diminished where profitable opportunities are lost to the contractors’ inability to finance the early stages of a project. Mechanisms for project financing by SCCs can be as critical to SCC survival, and to form the fulcrum on which SCC development revolves and develops, standards have to be set as prerequisites for accessing finance within certain thresholds from banks by SCCs.

Payment for Jobs
Stakeholders complained that clients of the industry delay payments to the detriment of SCCs. Essentially, most SCCs need adequate cashflow to sustain the flow of construction and maintain both office and site staff. Laryea (2010) identified cumbersome payment processes as a major problem for contractors in the Ghanaian construction industry. A similar situation obtains in the Nigeria, especially in the research area. SCCs having formal contracts asserted their dissatisfaction with the clients’ payment delays, which ends up adding to the contractors’ costs. Contractors have to make repeated visits to the client, and often tip a number of staff of the client’s organization before approved payments can be accessed, all this adding to his cost.

CONCLUSION
The findings of this study suggest that key barriers to the development of SCCs in the research area are: entrepreneurship/management problems, work availability problems, financial problems and equipment problems. Stakeholders in SCCs in the research area believe that insincerity in the bidding process, access to finance and payment problems hinder development of SCC, and suggest policy improvements to address these areas.

RECOMMENDATIONS
Stakeholders should develop policies focused on the improvements in the entrepreneurial/managerial competences of SCC leadership in the research area. Specifically, professional bodies should embark on training workshops in the area with a focus on improving the managerial competencies of SCC leadership.

Equal opportunity and access to jobs should be consciously pursued and deliberately enshrined in all bidding processes in the research area. Favoritism should be eschewed. The government should intentionally, as a matter of policy, reserve some jobs for SCCs.

Clear frameworks should be developed for SCCs to access funds from financial institutions if and when awarded valid contracts. Such frameworks should make it unnecessary for SCCs to adhere to conventional borrowing procedure in order to access funds.

More equipment hire firms need to be established in the research area. Besides, big construction firms should be encouraged to allow the hire of their equipment, and wherever necessary, the technical competence to use the equipment, to SCCs.
REFERENCES


