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SKILLS AND COMPETENCIES FOR SURVIVAL IN THE MODERN CONSTRUCTION INDUSTRY: STUDENTS' PERSPECTIVE IN NIGERIA

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The nature and dynamism of the construction industry has made it one of the most competitive industries. Changes due to technological advancement and the need for innovation has caused a paradigm shift in the nature of skills and competencies needed for sin-vival in the industry. Studies noted a gradual drift of job opportunities in the industry from knowledge based to competency based with no reciprocating change in the training of students in the built environment Programmes. This creates a huge gap between the competencies possessed by graduates of the built environment Programmes and the requirements of the industry. This paper assessed the perception of final year students in the built environment Programmes on the importance of key skills and competencies needed to survive in the industry, as well as the extent to which they possess such skills and competencies. A quantitative research approach was adopted, with questionnaires distributed to elicit data from the respondents. The data was analyzed using both descriptive and inferential statistics. Self-confidence, qualitative reasoning, and self-awareness were found to be the most relevant competencies for survival in the construction industry. Whereas, self-confidence, time consciousness and collaboration skills were found to be the most acquired competencies amongst the students. The findings of the study give a comparative view on the relevant competencies in the construction industry and the acquired competencies by graduates of the built environment Programmes. The study provides an insight into the gap between the required and acquired competencies, and recommends that the built environment Programmes improve their efforts towards ensuring active participation of students in practical industry cases which will improve the student's capabilities and provide graduates with requisite skills for survival in the industry.

Keywords: skills, competencies, construe! ion industry, Nigeria, students

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INTRODUCTION

The construction industry has been identified as one of the key sectors driving the economic growth of many countries globally. Tunji-Olayeni and Mosaku (2016) noted that the building and construction sector is one of the top five sectors used in measuring the National Gross Capital Formation (NGCF) and the Gross Domestic Product (GDP) of any country and its effect on every other sector, makes it a significant factor for sustainable development. However, the construction industry has undergone significant changes in recent years and faced increasing challenges as a result of its complex nature, global competitiveness, changing regulatory requirements, aging workforce, new technologies, and environmental awareness (Abudayyeh et al., 2000; Chinowsky and Diekmann, 2004; Ahn, Pearce and Kwon, 2012).The industry's' specific problem of fragmentation is gradually becoming obsolete as merging or blurring of professional services boundaries has become imminent. As such, job opportunities in the industry are gradually shifting from knowledge based to skills and competency based (Igwe, Okolie and Nwokoro, 2019). Industrial globalization and the need to hold a competitive advantage are among the factors forcing employers in the construction industry to seek for more competent and skilled workforce. Ahn et al. (2012) noted that apart from strong technical foundation of construction skills graduates of built environment courses must also additionally acquire competencies such as leadership, collaboration, creativity, and problem-solving skills in order to succeed in today's complex and dynamic industry. Beyond good academic qualifications, employers also require a workforce that is equipped with relevant competences and personal talents (Ogundele and Kayode, 2013). It is therefore expedient that graduates acquire useful skills that will help them succeed in the construction industry.

Various studies have ascertained the relevant skills and competencies required of graduates in different built environment disciplines across the globe from the perspectives of both graduates and professionals, with a view to transforming the graduates into confident, aggressive and purposeful individuals to bridge the gap between unemployment and job creation (Ahn, Pearce and Kwon, 2012; Moreno, Muñoz and Morote, 2019; Ustyuzhina, Mikhaylova and Abdimomynova, 2019). Most of the existing studies in Nigeria and beyond considered the competencies from the perspectives of the employers and some of them revealed similar skills emphasized by the employers and experienced professionals in the built environment with a few of them reporting some disparities that may be accounted for by environmental factors. (Acheampong, 2013; Aliu & Aigbavboa, 2018, 2019; Dalibi, 2017; Maina, 2018; Maina & Daful, 2017). Perspectives of the students and graduates, which can enhance the quality and balance of approaches to improving the situation have been majorly overlooked in the existing literature.

Although there were a few recurring requisite built environment skills needed for survival across different geographical locations, findings of these studies show that there is a disparity in the order of need. This can be attributed to the fact that geographical and cultural factors define perspectives and professional practices. Hence, in an attempt to give a holistic picture of the situation and

contribute to the debate leading to significant improvement in skills shortage in the construction industry, this study aims to broaden the perspective by assessing the relative importance of skills and competencies as well as level of acquisition amongst final year students of built environment Programmes in Nigeria, with a view to improving their chances of employability and survival in the construction industry.

LITERATURE REVIEW

Skills and competency development

Skills and competencies have been used interchangeably in the literature with no clear consensus on their definitions. The term "Competency" has often been discussed as a broad concept that includes knowledge, skills and attitude (European Commission, 2012; Garavan & O'Cinneide, 1994). This denotes that having the right knowledge, skills and a positive attitude provides an individual with the competencies to face challenges and uncertainties associated with a given vocation (Ernest, Matthew and Samuel, 2015). These competencies manifest in the form of innovation, change and other actions necessary for the personal or work life of the individual (Mensah, 2013). Evidently, every man possesses a certain skill which is acquired through learning or practice (Adedeji et al., 2017). As such, skills and competencies can be exploited to improve performance or employability of individuals.

Studies have highlighted the significance of skills and competency development in various industries and the business world (Zaharim et al., 2009; Ahn, Pearce and Kwon, 2012; Dalibi, 2017; Oladokun and Gbadegesin, 2017; Ruge and McCormack, 2017). Ahn et al. (2012) classified the skills and competences needed for USA construction graduates into four major clusters. The study noted that graduates are required to be responsible and creative in leadership coupled with good collaboration and interpersonal skills. In a study to assess the factors that affect employability of built environment graduates in Nigeria, Dalibi (2017) noted that skills such as communication, analytical and teamwork were ranked the most required from the employers' perspective. These skills have been found to be the most requisite skills in quite a number more studies in various industries (Zaharim et al., 2009; Ahmed et al., 2014; Adebakin, Ajadi and Subair, 2015; Oladokun and Gbadegesin, 2017). From the professional's perspective, the ability to handle uncertainty amongst other competencies are critical to graduates of the built environment due to the dynamic nature of work they are often involved in. Graduates of the built environment should have a balanced and wide skill-sets which as noted by Lazear (2004) develops their competency.

The disequilibrium between labour market requirements and lack of essential employable skills and competency by the graduates has been identified as the major contribution to unemployment in Nigeria (Oviawe, 2010) . The emerging world economy of the 21st century is highly competitive and globalized which is not only knowledge based and science and technology driven. The human brain is now the number one resource and is re-affirming the fact that learning is a life-long process. Thus, skills certification is more relevant and critical to

sustainable development and global competitiveness. Anaele (2002) noted that the amount of knowledge and skill imparted to the students should meet the demand of industries with synergy between the academic and industrial environments. Table 1 shows the most consistent skills and competencies found to be relevant and important for survival in various industries around the globe. The skills and competencies were streamlined and adapted to fit the context of this study, and to limit ambiguity.

Table 1: Skills and competencies as derived from literature

S/N	Skills and Competencies	Source
1	Self confidence	(Oladokun and Gbadegesin, 2017)
2	Qualitative reasoning	(González and Wagenaar, 2003; Maina and Daful, 2017)
3	Self-awareness	(Edum-Fotwe and McCaffer, 2000)
4	Time consciousness	(Edum-Fotwe and McCaffer, 2000)
5	Team work and collaboration skills	(Bernold, 2005; Itani and Srour, 2016; Maina and Daful, 2017)
6	Competitiveness	(Oladokun and Gbadegesin, 2017)
7	Critical thinking skills	(Ahn, Pearce and Kwon, 2012; Maina and Daful, 2017)
8	Creativity and innovative skills	(Itani and Srour, 2016)
9	Negotiations skills	(Edum-Fotwe and McCaffer, 2000; Irewolede, Omolayo and Zakariyyh, 2020
10	Commitment and resilience	(González and Wagenaar, 2003; Maina, 2018)
11	Judgment and decision making	(González and Wagenaar, 2003; Maina and Daful, 2017)
12	Interpersonal skills	(Padil, Esa and Jamal, 2015; Maina and Daful, 2017)
13	Networking and relationship building	(Itani and Srour, 2016; Irewolede, Omolayo and Zakariyyh, 2020)
14	Opportunity taking	(Ahn, Pearce and Kwon, 2012)
15	Strategic thinking	(Oladokun and Gbadegesin, 2017)
16	Pro-activeness	(Padil, Esa and Jamal, 2015; Maina and Daful, 2017; Oladokun and Gbadegesin, 2017)
17	Open mindedness	(Oladokun and Gbadegesin, 2017)
18	Curiosity	(Oladokun and Gbadegesin, 2017)
19	Cognitive flexibility	(Padil, Esa and Jamal, 2015; Maina and Daful, 2017)
20	Emotional intelligence	(Fernández-pérez *et al.*, 2017)
21	Risk taking propensity	(Itani and Srour, 2016)

Construction education and training in Nigeria

The educational sector in Africa as noted by Amoako (2010) has continued to be predicated on the colonial style, which focuses majorly on producing "task-groomed" individuals with certain skill sets and expertise suitable for specific jobs only. Ernest et al. (2015) opined that the focus of academia in Africa have not been to produce innovative graduates with the ability to be dynamic in their professional practice. In an ideal climate, tertiary institutions are expected to generate knowledge through research, disseminate same and ignite the development mechanism of the nation through innovative inputs. Promotion of positive character for career development is also sacrosanct. Such graduates of tertiary institutions are expected not only to be well developed cognitively but to also develop the ability to analyze issues and develop logical thinking capacities. However, studies claim that knowledge exchange in Nigeria and some other African countries have been decreasing as opposed to increasing (Nwajiuba et al., 2019; Okolie et al., 2019). The educational sector particularly in developing countries like Nigeria have been reported to be very slow in reforming the activities of the sector to compliment the changing outlook of a dynamic society. Education stakeholders in developing countries still find it difficult to innovate in order to cater for today's labour demands (Okolie et al., 2019).

Theoretical inclination has been identified as major defect in the Nigerian educational system (Ejere and Tende, 2012). There is a broad sentiment in the construction industry that new graduates are not adequately trained to deal with the soft issues on complex construction project (Nwajiuba et al., 2020). In particular, Toor and Ofori (2008) noted that academic Programmes do not prepare professionals with an appropriate blend of hard and soft skills. The technological education system in Nigeria is closely fashioned after the British system which is basically suited to a society with a high level of technological development and awareness as in Britain (Aniekwu & Ozochi, 2010). More so, the quality of graduates has been a major area of concern among most employers in the Nigerian construction industry, who have expressed relative dissatisfaction with regards to the level of technical and essential skills possessed by the graduates (Udofia et al., 2000). These observations are as relevant in the construction industry as any other in the contemporary times, but more so in construction because of the dynamic nature of the industry.

METHODOLOGY

The final year students of the construction courses offered in Ahmadu Bello University; Zaria-Nigeria were used as respondents for the study. This resulted from a preliminary assessment of all the final year students in construction related departments in the University which revealed that the students have acquired some construction industry experience during their industrial attachments with various organizations in about 25 states covering all the regions of the country. A total of 180 questionnaires were distributed final year students across all the departments to form the study sample. This sample size was derived from the preliminary assessment which showed the average number of students per department to be 100, with homogeneous

characteristics. As such, thirty (30) questionnaires each were distributed to six strata which include the Department(s) of Architecture, Building, Civil Engineering, Geomatics, Quantity Survey and Urban & Regional Planning to minimize estimation error due to over sampling of certain departments as noted by (Bartlett, Kotrlik and Higgins, 2001). Students were selected at random within each stratum to allow for even opportunity across the population. The questionnaire was designed into three sections with a view to elicit perceptual data from the respondents. Section A inquired about the demography of the respondents. A Likert scale was presented in section B which inquired about the perception of the sample population on the importance of identified skills and competencies needed for survival in the built environment. Finally, section C inquired about the respondent's acquisition level of the skills and competencies based on a self-assessment. Data was analyzed using descriptive and inferential statistics. A one sample T-test was used to test the significant difference of the respective variable means to further ascertain the most relevant and acquired skills and competencies. This is consistent with similar studies assessing diverse variables with regard to a certain study phenomena (Ilwang and Low, 2012; Zailani, Abubakar and Muhammad, 2019). Furthermore, comparative analysis was used to ascertain the difference between relevant and acquired competencies amongst students in the built environment.

RESULTS

Response rate

Figure 1 shows the distribution of the questionnaires used for analyses. A total of 136 questionnaires which represent 75.5% response rate were used. The Department of Urban and Regional Planning had the least response rate with only 8 questionnaires returned, while the Department of Quantity Surveying had the highest response rate with 29 questionnaires. Department of Geomatics had 27, Civil Engineering had 26, and the Departments of Building and Architecture returned 24 and 22 questionnaires respectively.

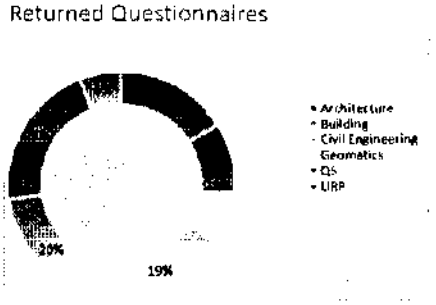


Fig 1: Response rate

Demography of respondents

The first section of the questionnaire asked questions regarding the age of the respondents. This is based on fact that a correlation was found between the age and competency levels of respondents (Lévesque and Minniti, 2011). The study noted that the distribution of a population across age cohorts matters because

survival decisions are not neutral with respect to age. Figure 2 shows the age distribution of the respondents across all strata.

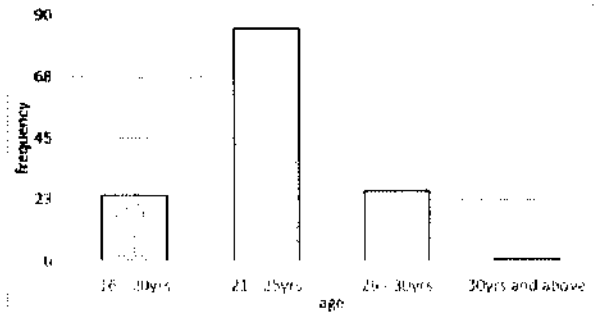


Fig 2: Age Distribution of Respondents.

Majority of the respondents (62.5%) fell within the age bracket of 21 – 25 years. Respondents with respective ages within the range of 26-30 years as well as 16-20 years represent 19.1% and 17.6% of the respondents respectively. Whereas, only 0.7% of the respondents reported being of 30 years or above. Previous studies reported that individuals between the ages of 25 to 34 years are at their peak of entrepreneurial intentions, although the exact number varies across countries based on their level of development (Cowling, 2000; Blanchflower, 2004; Grilo and Irigoyen, 2006)

Relevance of Skills and Competencies for Industry Survival

The construction industry has been often referred to as one of the most competitive industries due to its nature and dynamism (Flanagan et al., 2007). As a result, industry professionals often have to resolve to their skills and competencies for survival. A total of twenty-one (21) skills and competencies were identified from literature and presented to the respondents on a Likert scale. Respondents were required to rate their perceived relevance of each identified skill and competence using a scale 1-4, where (1 = Not important, 2 = Moderate importance, 3 = Important, and 4 = Very Important). Table 2 shows the ranking of the respective skills and competencies based on the ratings provided by the students.

A one sample T-test was used to test the significant difference of the respective variable means at the 95% confidence level and 0.05 interval. The average mean values for all the twenty-one variables were above the t-value (2.0) and were found Signiant ($p<0.05$). As such, all variables were deemed relevant to the built environment. Self-confidence as a survival competency was ranked 1st with a mean value of 3.5 and standard deviation of 0.843. The respondents perceived the attitude of an individual to be confident and self-assertive as the most relevant survival competency in the built environment. This is in line with the thinking of (Peters and Brijlal, 2011) who opines that successful professionals believe strongly in their ideas, trust their instincts and can be prudent and persuasive is presenting those ideas. More so, the ability to think as an individual, as well as be a team player with team work and collaboration skills were reported to be highly important to survival with respective mean scores of 3.4. Other competencies and skills that include qualitative reasoning,

creativity and innovative skills, time consciousness, self-awareness and competitiveness were all ranked high with respective 3.4 mean scores.

Table 2: Ranking of skills and competences based on Relevance

		N	Mean	Std. Dev.	T-Sig.	Rank
ESC21	Self confidence	136	3.5	0.843	.000	1
ESC17	Qualitative reasoning	136	3.4	0.718	.000	2
ESC18	Self-awareness	136	3.4	0.738	.000	3
ESC13	Time consciousness	136	3.4	0.754	.000	4
ESC9	Team work and collaboration skills	136	3.4	0.758	.000	5
ESC20	Competitiveness	136	3.4	0.767	.000	6
ESC7	Critical thinking skills	136	3.4	0.796	.000	7
ESC3	Creativity and innovative skills	136	3.4	0.804	.000	8
ESC15	Negotiations skills	136	3.3	0.744	.000	9
ESC4	Commitment and resilience	136	3.3	0.751	.000	10
ESC11	Judgment and decision making	136	3.3	0.812	.000	11
ESC8	Interpersonal skills	136	3.3	0.819	.000	12
ESC6	Networking and relationship building	136	3.3	0.825	.000	13
ESC19	Opportunity taking	136	3.3	0.913	.000	14
ESC1	Strategic thinking	136	3.3	0.971	.000	15
ESC16	Pro-activeness	136	3.2	0.803	.000	16
ESC5	Open mindedness	136	3.2	0.808	.000	17
ESC12	Curiosity	136	3.2	0.949	.000	18
ESC14	Cognitive flexibility	136	3.1	0.755	.000	19
ESC10	Emotional intelligence	136	3.1	0.837	.000	20
ESC2	Risk taking propensity	136	3.0	0.910	.000	21

t-value=2; $p<0.05$

Relevant survival skills and competencies ranked in the mid-table, all with respective mean scores of 3.3 include negotiation skills, commitment and resilience, judgement and decision making, interpersonal skills, networking and relationship building as well as opportunity taking. This shows the perceived significance of having a positive attitude towards success, complimented by the ability to interact and find common grounds with industry stakeholders. Furthermore, the constant thought of strategy formulation and implementation to attain a sustainable competitive advantage was ranked 15th with a mean score of 3.3 and standard deviation of 0.825. However, competencies and skills with regards to the cognitive flexibility, emotional intelligence and risk propensity of the individual were ranked least among the variables with mean scores of 3.1, 3.1 and 3.0 respectively. Regardless of their respective mean values and rank, the variables were found to be significantly different from the sample t-value ($p<0.01$).

Skills and competencies acquired

Using the twenty-one identified skills and competencies, respondents were further asked to assess the level to which they possess or acquire the skills and competences using a scale 1-5, where (1 = very low, 2 = low, 3 = moderate, 4 = high, and 5 = very high). Table 3 shows the ranking of the skills and competencies based on self-assessment of the respondents. The result of the one sample T-test shows almost all the variables were significantly different

from the sample t-value (3.0) on the 95% confidence level and 0.05 confidence interval.

Table 3: Ranking of skills and competencies based on self-assessment.

		N	Mean	Std. Dev	Sig	Rank
SAESC21	Self confidence	136	3.8	1.065	.010	1
SAESC13	Time consciousness	136	3.6	1.051	.000	2
SAESC9	Team work and collaboration skills	136	3.6	1.081	.000	3
SAESC18	Self-awareness	136	3.5	0.902	.000	4
SAESC7	Critical thinking skills	136	3.5	1.003	.000	5
SAESC8	Interpersonal skills	136	3.5	1.003	.000	6
SAESC3	Creativity and innovative skills	136	3.5	1.032	.000	7
SAESC6	Networking and relationship building	136	3.4	0.976	.000	8
SAESC4	Commitment and resilience	136	3.4	0.987	.000	9
SAESC14	Cognitive flexibility	136	3.3	0.904	.000	10
SAESC17	Qualitative reasoning	136	3.3	0.951	.000	11
SAESC16	Pro-activeness	136	3.3	0.967	.000	12
SAESC5	Open mindedness	136	3.3	1.065	.001	13
SAESC19	Opportunity taking	136	3.3	1.074	.001	14
SAESC20	Competitiveness	136	3.3	1.090	.000	15
SAESC15	Negotiations skills	136	3.3	1.108	.001	16
SAESC11	Judgment and decision making	136	3.3	1.141	.001	17
SAESC1	Strategic thinking	136	3.3	1.251	.010	18
SAESC12	Curiosity	136	3.2	1.046	.051	19
SAESC2	Risk taking propensity	136	3.1	0.537	.000	20
SAESC10	Emotional intelligence	136	3.0	0.934	.714	21

t-value =3.0; $p<0.05$

Self-confidence was ranked 1st as the most possessed survival competency amongst the sample population with a mean value of 3.8. The mean score, despite been not farfetched from the t-value (3.0) was found to be significantly different from the t-value ($p<0.05$). Time consciousness and the ability to be a team player through collaborative skills were ranked 2nd and 3rd respectively. Individual attitudes and skills that include being self-aware, critical thinking, interpersonal skills and creativity were all ranked high amongst the skills and competencies acquired with respective mean scores of 3.5. The study respondents reported to have the capacity to be introspection and have the ability to recognize their inherent and unique capabilities. The students have a relative ability to think critically, interact with others and also be creative in providing innovative solutions to problems. More so, the ability to establish connection and build relationship, with a strong commitment and resilience to succeed were ranked 8th and 9th with respective 3.4 mean values.

Cognitive flexibility amongst other competencies which include, qualitative reasoning, pro-activeness, open mindedness, opportunity taking, competitiveness, negotiations skills, decision-making and strategic thinking were all ranked mid-table with respective mean scores of 3.3. All variables were found to be significantly different from the t-value ($p<0.05$). However, the

inherent characteristic of an individual to be inquisitive and curious for knowledge was ranked 19th with a mean value of 3.2. Furthermore, results of the t-test show the mean score is not significantly different from the t-value. As such, it can be reported that the curiosity level of the students is not farfetched from average.

Risk taking propensity which indicates the willingness and ability of an individual to engage in risky or uncertain endeavors was ranked 20th with a mean score and t-significance (3.1, $p<0.05$). Emotional intelligence which is the ability to understand respective individual feelings and feelings of others was ranked the least possessed competence amongst the students. Result of the one sample t-test shows that the mean value for emotional intelligence is not significantly different from the sample t-value ($p=0.714>0.05$), and as such can be interpreted to be possessed or acquired to a relative level amongst the students regardless of its rank.

Comparative analysis

To ascertain the gap between the skills and competencies relevant to the construction industry and those acquired by students of the built environment Programmes, a comparative analysis was undertaken. Figure 3 shows the comparison between ranking of the identified skills and competencies based on relevance and acquisition.

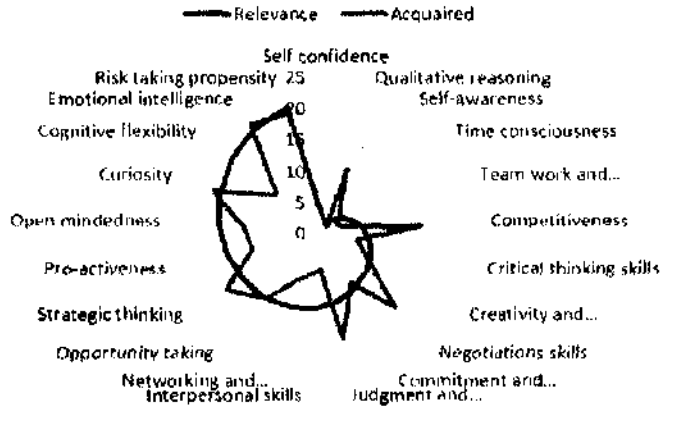


Figure 3: Comparison between relevant and acquired skills and competencies

Self-confidence ranked highest as the most relevant and the most acquired competence as shown in Table 2 and 3. Qualitative reasoning which ranked 2nd most important competence was ranked 11th most acquired. The disparity in the ranking shows that students in the built environment Programmes lack the relative ability to express conceptual knowledge, make judgements and draw conclusions subjectively using quantitative data. This can limit their ability to make "on the spot" professional judgements or decisions during practice. Being self-aware of respective individual capacity and limitations, time consciousness, critical thinking and creativity, commitment, and the ability to work in a team through collaboration measured closely as skills and competencies highly relevant in the industry and also acquired by the students.

However, competitiveness and negotiation skills which both ranked amongst the top most relevant skills and competencies in the construction industry ranked low in the acquired skills and competencies assessment.

Judgement and decision making were relatively farfetched from the level of acquisition amongst the students with respective rankings of 11th and 17th as shown in Tables 2&3. So also, interpersonal skills, networking and connection building, strategic thinking, pro-activeness, open-mindedness, and cognitive flexibility all have relative level of disparity among the two rankings. Whereas, relevance of skills and competencies that include opportunity taking, curiosity and risk-taking propensity in the industry were not farfetched from the level of acquisition amongst students.

DISCUSSION

At the dawn of the new century, technological advancement and the dynamic nature of the construction industry have created a paradigm shift in the nature of job opportunities in the industry from knowledge based to competency based. Graduates of the built environment Programmes are now required to have requisite skills and competencies in addition to their academic qualifications, in order to survive in the highly dynamic and competitive job market. The findings of the study add to existing literature by assessing the skills and competencies requisite for survival in the construction industry from the perspective of the students in construction related Programmes. As noted earlier, the perspective of students has been majorly overlooked when assessing such skills and competencies in the construction industry. The comparative analysis showed that there was no significant difference between the perceived relevant competencies and the acquired competencies amongst students. Looking at the top 10 ranked relevant skills and competencies in the industry presented in Table 2&3, only qualitative reasoning, competitiveness, and negotiation skills were ranked out of the top 10 acquired skills and competencies amongst the students. Emotional intelligence and risk-taking propensity which were both ranked the least relevant competencies, were also ranked least in the self-assessment. This shows that students feel that to an extent they possess the requisite competencies that would ensure their survival in the industry. Although Maina and Daful (2017) opined that students tend to overate the level of skills acquired and relevance of the skills when compared to what is expected in the industry from the perspective of professionals, the ranking of the relevant competencies by the students in this study mirrors the perception of professionals and recruiters in the industry as found in literature (Edum-Fotwe and McCaffer, 2000; Ahn, Pearce and Kwon, 2012; Oladokun and Gbadegesin, 2017). Ahn, et al., (2012) noted that due to the complex nature of the construction industry, graduates that possess the ability to critically analyze complex issues and proffer viable solutions to the problems tend to be most preferable for employment by recruiters. This problem-solving skill involves a combination of problem definition and decision making which is concerned with addressing the problems that have already occurred (Edum-Fotwe and McCaffer, 2000). Furthermore, competencies that manifest in the attitude of the individual such as self-confidence, time consciousness, self-

awareness, interpersonal and negotiation skills were perceived to be relevant in the industry from both perspectives.

Relatedly, the skills that were ranked low from the perspective of the students in this study were also not farfetched from findings in previous studies. Risk taking propensity that applies to the intrinsic drive of an individual to take on job opportunities was perceived to be not relevant in the construction industry. Itani and Srour (2016) found that risk taking propensity is amongst the least competencies employers demand from graduates in the construction industry. Cognitive flexibility which is the ability of an individual to be open minded with regards the approach to execute job task is amongst the least relevant competencies which is in line with the findings of Maina and Daful (2017) that creativity and ability to generate novel ideas in technical jobs is often not valuable. This might be largely due to the fact that such jobs often involve predefined tasks that need to be executed in a predefined manner. More so, Although Fernández-pérez et al. (2017) noted that Individuals with strong Emotional Intelligence seem to be more aware of how certain outcomes influence their behavior towards task execution, Emotional Intelligence was ranked amongst the least relevant and also least possessed competence amongst the students.

CONCLUSION

This study identified the relevant survival skills and competencies in the construction industry from the student's perspective, as well as assess the acquisition level of these skills and competencies amongst the students of the built environment Programmes. The study provides an insight into the gap between the relevant skills expected of built environment graduates for survival in the industry and the extent to which such skills are acquired by the respondents. The major strength of the study in academic and industry debates lies in its consideration of the perspectives of students who have experienced the workings of the construction industry and therefore able to combine the insights of the academic and industry environments. Previous studies are mostly limited to the views of practitioners and employers in the industry. The findings show that the students of the built environment Programmes have the requisite competencies and skills to survive in the industry. However, it is recommended that students of construction related courses should strive to improve their skills and competencies relevant in the industry by active engagement with experts through internships, and participating in diverse industry practical cases. Albeit the contributions of this study, the generalizability of the results may be limited by the demographic context of the respondents. Although the respondents have had their industrial attachments from different states in Nigeria, the fact that all of them studied in the same University makes it impossible to generalize the findings of the research.

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