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## FOUNDATIONAL COMPETENCY IMPROVEMENT NEEDS FOR EMPLOYABILITY OF ACCOUNTING EDUCATION STUDENTS IN NORTH-EAST NIGERIA

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**ABSTRACT:** *The study examined the foundational competency improvement needs for employment of undergraduate accounting education students in North-east, Nigeria, using descriptive survey research design involving a structured questionnaire. The sample of the study comprised 52 Accounting educators, 156 accountants in industries, and 281 final year undergraduate accounting education students. The questionnaire had two different rating scales. The first rating scale was used to collect data relating to the level of importance of the skills and the second rating scale was used to collect data on the extent to which the skills were consciously developed during their studies. This questionnaire was validated and pilot tested, and a reliability coefficient of 0.79 was obtained. The data were collected by the researcher assisted by ten trained research assistants. The data were analyzed using Table of frequencies, mean scores, standard deviation, and Improvement Needs Index to answer the two research questions, while the two hypotheses were tested using independent sample t. test. The study disclosed that all the 52 foundational skills were adjudged by accounting educators and accountants in industries as very important for inclusion in the curriculum of undergraduate accounting education students in North-east, Nigeria. Undergraduate accounting education students were deficient in four of the six subscales of foundational skills. Based on the findings, it was recommended that accounting educators should include the areas of deficiencies identified in this study in undergraduate curriculum of accounting education and focus attention on developing those skills.*

**KEYWORDS:** accounting skills, employability skills, skill improvement needs, accounting education, foundational skills

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### INTRODUCTION

The business environment in which accountants work today is rapidly changing with the development in Information and Communication Technology and globalization of world economies (Mandilas *et al*, 2016; Hakim, 2016). It is in recognition of this challenge that Tan and Fawzi (2016), Bui and Porter (2010) emphasized that university accounting program should provide the graduates with a set of generic skills in addition to strong technical and functional skills to equip the graduates with the required competencies to successfully contribute to the rapidly changing economic, technological and social environment.

A review of relevant literature on the employability skills that employers expect of accounting education graduates by Tan and Fawzi (2017); Mandilas *et al* (2016); Hakim (2016); Fouche and Kgapola (2016); Fouche (2013), Warren and Toole (2005) found that university accounting programs are failing to adequately provide the skills that meet the expectations and needs of employers. In particular, Hakim (2016, p.4) stressed that “globally, professional bodies express concern that accounting programs are over –emphasizing technical skills at the expense of generic skills”.

Naido, Jackling, Oliver and Prokofieva (n. d.) investigated the contribution of accounting graduate education to the development of employment capabilities of the graduates. The authors sought the perception of three stakeholder groups and collected data through three online surveys known as employability indicators. It was found that the graduates perceived that their employability skills were not well developed. The study also demonstrated that expectation-performance gap existed in the capabilities of graduates despite the efforts to articulate the attributes required of accounting graduates.

To address this challenge, Musou (2017, P. 44) stated that an education reform is needed in accounting in order to make the advanced profession’s ideal explicitly recognized and more consciously cultivated in the educational setting. Yuan (2013) suggested that “as business become more complex and technology advances, accountants must continue to increase their technical as well as their non- technical knowledge.”

In Nigeria today, the rate of unemployment among accounting graduates is very high. This situation is not because job opportunities are not available. The problem is that new accountant lack the necessary soft skills required for the workplace success. For example, Fouche and Kgapola (2016), Manpower Group (2013), Caleb and Udofia (2013) reported that employers around the world are complaining that a large number of job applicants lack necessary soft skills. Yuan (2013, p.27) stated that employers are starting to have predicaments toward the overwhelming fresh graduates who don’t meet the demands of the public or private sector expectations. Gap of soft skills among accounting graduates and what employers expect graduates to have are derived from the curriculum.

Soft skills are known by different names across the world. They are the 21<sup>st</sup> century skills that form the basis upon which technical skills are applied effectively for the success of organization’ s objectives. (Kamenetz,2015). As explained by the author, students must combine soft skills with hard skills effectively by communicating well, demonstrating good work ethics, working well with others, demonstrating adaptability, solving problems, responding to situations, collecting, organizing and analyzing data in order to be successful in the workplace. Prasanta (2014) said soft skills are the skills that enable students to work effectively and “fit in” at the workplace. According to the author, soft skills have wide range of importance and are more critical today than ever before because they equip students with the skills to be competitive and productive in the world of work. Mandilas *et al* (2016) suggest the need to fit the curriculum of accounting education with the needs

of labor market. This fit will allow improvement in the employability of higher education graduates.

Warwick and Howard (2015) defines employability skills as those skills that combine both knowledge of a specific subject discipline, and skills that relate to the application of knowledge and the transferable skills that allow individual to function in any workplace. Ogbuanya and Shettima (2016) opined that employability skills are known by other names such as key skills, generic skills, foundational skills, non-technical, social skills and soft skills and more. Warwick and Howard (2015, P. 164) agree with this view when they state that “there has been little consensus about what these skills actually are” Some authors, for example, Ramlall, S and Ramlall D, (2014) stated that employers want new employees to have strong soft skills as well as hard skills. The authors consider soft skills as very important attribute in job applicants preparing for a long term career success.

Warwick and Howard classified employability skills into five categories: communication and workplace skills, organizational development skills, decision support skills, secondary research skills, and health and safety skills. Each of the categories has at least four factors that employers expect accounting graduates to possess. Klibis and Oussi (2013) stated that employers expect graduates to develop employability skills related to: critical analysis, intellectual skills, interpersonal skills, ethical awareness, communication and team work and personal skills. The five employability skills mentioned by Villiers (2010) are communication, problem solving and thinking, leadership and teamwork, ethical and moral values and self-management.

Several other studies, for example and Tan and Fawzi (2017) have suggested varied components of employability skills that employers and manager expect entry level accountants to possess. Thus, there is a huge variety of employability skills mentioned in the literature. In a sense, there is confusion over the breath, interpretations and interrelationships in the structure of employability skills.

As explained by Asonitou (2015), competency based education is specified in terms of outcome or what an individual can accomplish rather than an individual’s knowledge or capabilities. The author, P. 3 further said “most authors refer to the idea that competencies must contribute in some way to performance and be outcome focused”. Anonymous (2014) stated that a competency based curriculum is one in which learner develop understanding in a way in which they can apply this in practical situation. The outcome is what students can do. It promotes what is known as higher order skills. Aina (2009) described competency based program in terms of the capabilities exhibited by those benefiting from the program. Olaitan *et al* (1999) describe competency as a process of designing program, which helps a student to acquire knowledge, attitudes and skills needed for successful entry into employment. The process, according to the authors involves arranging the skill, attitudes and knowledge to be learned hierarchically. To be competent means that the individual has acquired knowledge, attitudes, skills which are for the successful performance of tasks at specified level of proficiency.

## Statement of the Problem

There has been an increasing concern among Parents, Employers, Business leaders and Professional Experts that tertiary institutions are not adequately preparing accounting education graduates suitable for entry level employments in modern business environment. Prior studies by Tan and Fawzi, 2017; Hussein,2017; Fouche and Kgapola, 2016, Hakim, 2016; Klibi and Oussi, 2013; Aworanti,2012; Chaker and Abdullah, 2011; and Villiers,2010 examined generic employability skills expected of accounting graduates in various countries. Unfortunately, most of the studies addressed the problem from the point of view of either the employers, accounting academics, fresh graduates or students. There appear to be limited literature comparing their perceptions as the basis for determining the areas of priority skills needs. Even more importantly, there are conceptual diversity and inconsistencies not only in the findings, but also in the structure of the broad skills categories and combination of generic skills. For these reasons, this study compares the perceptions of three stake holders: employers, accounting educators and graduating students. The study examines and compared the discrepancies between the relative importance of the skills from the point of view of employers and accounting educators and the extent to which the skills were consciously developed among the graduating students, from the point of view of students, using the framework for accounting education proposed by American Accounting Association and educational standards by International Federation of Accountants

## Aim of the Study

The aim of the study was to determine the foundational competency improvement needs for employability of accounting education students in North- east, Nigeria. The specific objectives of the study were to determine

1. What is the importance of foundational competency improvement needs for employability of undergraduate accounting education students in North-east, Nigeria?
2. What is the extent to which foundational competencies for employability of undergraduate accounting education students were consciously developed during their studies in North - east Nigeria?

The following null hypotheses were postulated to guide the study and were tested at 0.05 level of significance

**HO<sub>1</sub>:** There is no significant difference in the mean responses of accounting educators and accountants in industries on the importance of foundational competency improvement needs for employment of undergraduate accounting education students in North- east, Nigeria

**HO<sub>2</sub>:** The influence of gender on mean responses of male and female undergraduate accounting education students on the extent to which foundational competencies were consciously developed during their studies in North- east, Nigeria is equal to zero

## LITERATURE REVIEW/ THEORETICAL UNDERPINNING

Pitan (2015) studied 600 management staff in five sectors of Nigeria labour market skills demand using a survey research design and purposive sampling techniques. The reliability coefficient of the structured questionnaire was 0.83. Data was analysed using descriptive statistics and analysis variance (ANOVA). The results disclosed that all the skills were considered as very critical by the five sectors. However, communication skills and analytical skills were rated highest by the five sectors. The study suggested that Nigerian Universities should address the identified skills needs of the different sectors of the labour market through curriculum review.

Caleb and Udofia (2013) conducted a study on the generic skills and employability of 60 out of a population of 80 electrical installation students in technical colleges of Akwa Ibom State, Nigeria. The study employed a survey research design and the researcher developed questionnaire called electrical installation employability indices. The reliability of the questionnaire was 0.89 using test retest method and the statistical tools were mean and analysis of variance (ANOVA). The result showed that the students possess some of the essential generic skills and it was recommended that the lecturers should emphasize the importance of generic skills and group discussions in classrooms.

Hussein (2017) examined graduate perception of the importance of generic skills in undergraduate accounting education course in Egypt. Data was obtained from 119 accounting professionals and 126 final year accounting education students in 2016 studying in six private Universities to measure their opinion on the importance of generic skills in accounting education. The list of generic skills for this study was developed with reference to International Accounting Education Board in 2016 and also with reference with skills identified from literature. Mean, standard deviation and t-test were used to analyse the data. Results showed that five factors: intellectual and communication, interpersonal, creative ability, organization, research and analytical skills are the skills most desired for employability and career advancement of accounting education graduates. It was recommended that Universities in Egypt should reevaluate their accounting education process and establish strong links with professional accounting firms.

Hakim (2016) examined accounting graduates' self-assessment and employers' assessment of skill sets acquired in the accounting university programs in Lebanon. During the period April – May 2014, a quantitative study was done involving data collection from 70 accounting employees and 70 practitioners. The study assessed the perception of employees and employers of the importance of technical and non-technical skills at entry level employment in accounting. The competence skills profile was sub-grouped into 6 categories: 1) technical and functional skills, 2) interpersonal and communication skills, 3) knowledge of business environment, 4) professional ethics, 5) teamwork and leadership development, and 6) decision making skills. The statistical tools used were mean, standard deviation, t-test, factor analysis and multiple regression. The validity of the questionnaire was assessed using Cronbach's alpha, with an alpha of 0.94. The study suggests that

there is an existing perception gap between employers and the newly hired employees about the preparedness of the latter and about the importance of the skills required by the profession.

In the context of this study, foundational competencies are those competencies needed by all accounting graduates. They support other broad management and specialized accounting competencies and prepare students for life long careers. Mastery of those competencies is necessary for all accountants if they are to add value to their future organization. The five foundational competencies include communication, problem solving, and analytical thinking, human relation, technology and quantitative methods (Lawson *et al*, 2014).

Roy (2009) stated that ability to express oneself well in terms of communication is more than the hallmark of a graduate, it is a professional necessity. The author stated that communication is extremely important in organization. Analytical thinking and problem solving according to Lawson *et al* (2014) are competencies that enable accountant to conduct research, identify alternatives, objectively and logically evaluate data driven and qualitative evidence related to specified options, and apply professional judgment. The competency requires accountants to be able to define a broad range of alternatives including stakeholder effects; to provide objective evaluation of the strengths and weaknesses of evidence and the alternative; to evaluate decisions within the context of organizational strategies; to remain open to constructive criticisms and minority view points; and to incorporate values, ethics and attitudes. A study by Siegel (2000) found that majority of the employees who have skills in solving problems are key to management success. The skills are important because they enable student to deal with scientific, social and practical problems.

According to Lawson *et al* (2014), human relation skills are necessary for team-based interactions within the context of gender, ethics, and multicultural diversity. A study by Centko (1995) revealed that positive human relation is key to success while in the workplace. Quantitative competencies according to Lawson *et al* include the ability to comprehend and use the time value of money, mathematical methods, including calculus, statistics, programming, optimization analysis, decision modelling, and simulation and risk analysis techniques.

Technology competencies according to Lawson *et al* (2014) include the use of software. Accounting software is application software that records and process accounting transactions within various functional modules (Anonymous (2014a). Accounting software helps the user to become efficient and less burdened with tedious accounting tasks. The software reduces the amount of time one spends performing accounting tasks (Anonymous, 2014b). According to Shanker (2014), accounting software have the following advantages: it makes the accounting process faster; there are fewer mistakes in calculations or in typing; enables one run reports to find out which customers have paid and who is owing; and, it is fast and easy process because the software organizes data as it is entered. Association of National Accountants of Nigeria (ANAN, 2016) said accounting software performs double entry functions for general ledger, account receivable, and account payable, support – functions for payroll, inventory, invoicing and fixed assets. Some high end systems also support sales analysis and time billing, preparation,

presentation and interpretation of financial reports. Jat and Jugu (2008, P. 13) reported that as a result of advances in technology, most of the manual or mechanical aspects of accounting are now computerized.

computers are gradually taking over the manual accounting process of transactions. The two fields of accounting are now computerized in most developed economies and even in some developing economies. The computer makes the accounting process very simple. When subsidiary ledgers are prepared on computer software such as excel, that is well programmed, control accounts in the subsidiary ledger is automatically prepared. As data enters the subsidiary ledgers, the control accounts are automatically updated. It is worthy of note that well written accounting software has a point of origination, where data from source documents are keyed-in, and a terminal point, where processed data can be produced in form of reports. The need for bookkeepers to have computer knowledge is there obviated, although the software is programmed to perform a function in accordance with accounting principles.

## **METHODOLOGY**

The research design for this study is a sample survey research design in which attempt was made to examine areas to improve curriculum content of accounting education students in North-east, Nigeria in order to make the student generally employable. The study involves the use of questionnaire to collect data from accounting educators, accountants in industries and final year accounting education students in order to answer the research questions and to test the null hypotheses related to the study.

The study was carried out in tertiary education institutions offering accounting education and industries located in North-east region of Bauchi, Gombe, Yobe, Borno, Adamawa and Taraba states of Nigeria. The industries used for the study were those registerable with Industrial Training Fund. The tertiary education institutions in North- east region include Abubakar Tafawa Balewa University, Bauchi, Tatari Ali Polytechnic, Bauchi, Federal College of Education Gombe, Federal College of Education, Potiskum, Modibbo Adama University, Yola, Federal College of Education, Yola, University of Maiduguri, and College of Education Zing, Taraba State.

The population of this study comprise all the 172 accountants in industries (those working as accountants in industries and have knowledge of the required skills for employability) 52 accounting educators (those currently teaching accounting education in tertiary education) and 312 final year undergraduate accounting education students in North- east, Nigeria. A total of 281 final year undergraduate accounting education students and 156 accountants in industries drawn from tertiary education institutions and industries located in North- east region of Nigeria constituted the sample for this study. This sample was selected using simple random sampling method. The sample size was randomly drawn using Krejcie and Morgan Table for determining needed sizes of

randomly chosen sample(s) from a finite population (N) (Isaac and Michael, 1983). There was no sampling for accounting educators because they are not many.

The structured questionnaire developed by the researcher was used for data collection for this study. The title of the instrument is: Curriculum Content Improvement Needs of Accounting Education Students (CCINOAES). A team of six certified accountants from Bauchi, two accounting educators, and two experts in measurement and evaluation from Abubakar Tafawa Balewa University (ATBU) Bauchi and Tatarsi Ali Polytechnic, Bauchi, validated the questionnaire used for data collection of this study. The experts were required to ensure that the items provide adequate answers to the research questions. They were asked to review the questionnaire in terms of clarity, appropriateness of terms, organization, expression, directions used, and correctness of spellings. In order to achieve the objectives of the study, the experts were given free hand to either remove any items they considered irrelevant or add any other items they consider important but were not reflected in the questionnaire. Based on their inputs, the questionnaire was reduced from 200 items to 169 items.

As part of the validation exercise, a pilot study was carried out in College of Education and industries located in Azare Bauchi state. Azare was selected for the Pilot Study because it has similar population characteristics with the main population of the study. The structured questionnaire used for the pilot study was administered to sample of accounting educators, final year undergraduate accounting education students and accountants in industries located in Azare by the aid of two trained research assistants. This population was not involved in the main study. Out of a total of 60 copies of the questionnaire distributed to accounting educators, final year undergraduate accounting education students, and accountants in industries, 51 or 86.05 percent were returned. The reliability of the questionnaire used for the study was obtained through the pilot study. Data gathered through the pilot study were analyzed using Cronbach's alpha, also referred to as coefficient alpha. The result showed positive overall reliability coefficient of .0.79 for the entire questionnaire. This was considered high enough and showed that the questionnaire can be used to determine the foundational competency improvement needs for employability of undergraduate accounting education students.

The structured questionnaire that was used for data collection for this study was administered to the participants by the researcher, and with the aid of trained research assistants. The research assistants were 10 in number. Each copy of the questionnaire was accompanied by a letter introducing the researcher and the purpose of the study. Both the research assistants and the participants were quite cooperative. The result of their efforts was high return rate and satisfactory completion of the returned copies of the questionnaire. The questionnaire was distributed and collected the following day. Out of 281 copies of questionnaire distributed to final year undergraduate accounting education students, 238 were returned, representing 84.69 percent. Out of the 238, females constituted 98 or 41.18 percent. Of the 52 copies of the questionnaire distributed to accounting educators, 49 or 94.23 percent were returned. A total of 121 out of 156 copies of the questionnaire distributed to accountants in industries were returned. The entire 408 copies of the returned questionnaire were used.

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The four research questions were analyzed using the mean, standard deviation, t-test and Improvement Needs Index developed by Borich (1980). The Improvement Needs Index has been widely used to assess weighted discrepancy scores as follows:

- i. The weighted mean of each item under level of importance component =  $x_1$
  - ii. The weighted mean of the item under extent of competence or skill developed =  $x_d$
  - iii. The difference between two weighted means for each item =  $x_1 - x_p$
- i. When the difference between the two weighted mean is zero, (0) it means that improvement is not needed because the level at which the skill is needed is equal to considered level of performance of the task by accounting education students.
  - ii. When the difference between the two weighted mean is negative (-) for any item, it means that improvement is not needed because the level at which the skill is needed is lower than the level at which the skill is considered to be developed.
  - iii. When the difference between the two weighted mean is positive (+) for any item, it means that improvement is needed because the level at which the skill is needed is higher than the level at which the skill was considered developed among accounting education students.

All the null hypotheses for this study were analyzed using t-test. As the basis for decision, the null hypotheses stated for the study was rejected if the probability value or value of significant level is less or equal to 0.05; and was upheld if the probability value is greater than 0.05. Data collected through the use of rating scale was interpreted relative to the real upper and the real lower limits of numbers. For the different number of points 0, 1, 2, 3, and 4, the real lower and the real upper limits of the numbers are as follows: 0 represents the interval between -0.50 and 0.49; 1 represents the interval between 0.50 and 1.49; 2 represent the interval between 1.50 and 2.49; 3 represent the interval between 2.50 and 3.49; and 4 represents the interval between 3.50 and 4.49. The data collected were analyzed using IBM SPSS version 23.

**RESULTS****Table 1: Analysis of Foundational Competency Improvement Needs for Employability of Undergraduate Accounting Education Students**

S/N	Items	Respondents				$\bar{x}_C - \bar{x}_S$	Remarks
		$n_E = 49, n_I = 121, n_S = 238,$ $n_T = 408$					
		$\bar{x}_C$	$\sigma_C$	$\bar{x}_S$	$\sigma_S$		
<b>Communication and Personal Skills</b>							
1.	Ability to communicate orally to others	3.31	0.63	2.88	0.91	0.43	IN
2.	Ability to write with clarity	3.26	0.62	2.92	0.86	0.34	IN
3.	Ability to make presentations	3.18	0.67	2.67	0.93	0.51	IN
4.	Adapting to change	3.18	0.63	2.62	0.96	0.56	IN
5.	Reporting ability	3.15	0.69	2.71	0.91	0.44	IN
6.	Desire for personal success	3.22	0.66	2.61	0.96	0.61	IN
7.	Ability to persevere	3.24	0.66	2.54	0.93	0.7	IN
8.	Ability to apply theoretical knowledge	3.20	0.63	2.64	0.97	0.56	IN
9.	Ability to manage self	3.21	0.62	2.66	0.97	0.55	IN
10.	Ability to meet deadline	3.33	0.65	2.55	0.94	0.78	IN
11.	Striving to add value to work	3.30	0.61	2.55	0.95	0.75	IN
12.	Ability to work under pressure	3.20	0.64	2.50	1.07	0.7	IN
13.	Documenting ideas and decisions	3.24	0.64	2.45	1.01	0.79	IN
14.	Ability to take initiative	3.19	0.66	2.59	0.98	0.6	IN
15.	Ability to manage time	3.29	0.63	2.55	0.96	0.74	IN
16.	Demonstrate emotional stability	3.19	0.67	2.42	0.99	0.77	IN
17.	Show flexibility in handling situations	3.31	0.63	2.49	1.05	0.82	IN
	<b>Cluster Mean</b>	<b>3.24</b>	<b>0.64</b>	<b>2.61</b>	<b>0.96</b>		
<b>Quantitative Methods</b>							
18.	Analyzing quantitative problem	3.24	0.62	2.51	0.94	0.73	IN
19.	Understanding statistical packages appropriate to business environment	3.21	0.64	2.36	0.92	0.85	IN
20.	Apply statistical techniques appropriate to business environment	3.29	0.67	2.21	0.94	1.08	IN
21.	Identify accounting areas that can use quantitative techniques	3.36	0.58	2.32	1.01	1.04	IN
	<b>Cluster Mean</b>	<b>3.28</b>	<b>0.63</b>	<b>2.35</b>	<b>0.95</b>		
<b>Interpersonal Skills</b>							
22.	Ability to coach others	3.21	0.67	2.50	0.93	0.71	IN
23.	Ability to serve as mentors for others	3.26	0.65	2.48	0.90	0.78	IN
24.	Listening effectively to others	3.33	0.62	2.38	0.98	0.95	IN
25.	Ability to supervising others	3.18	0.65	2.40	0.95	0.78	IN
26.	Ability to work as a member of a team	3.16	0.67	2.49	0.90	0.67	IN
27.	Ability to inspire confidence	3.14	0.70	2.40	0.89	0.74	IN
28.	Ability to facilitate others work	3.11	0.70	2.34	0.92	0.77	IN
29.	Ability to defend point of view	3.15	0.64	2.41	0.91	0.74	IN
30.	Ability to motivate others	3.18	0.70	2.45	0.88	0.73	IN
	<b>Cluster Mean</b>	<b>3.19</b>	<b>0.67</b>	<b>2.43</b>	<b>0.92</b>		

<b>Analytical and Problem Solving Skills</b>							
31.	Demonstrate practical research skills	3.22	0.67	2.63	0.95	0.59	IN
32.	Ability to think analytical	3.22	0.66	2.49	0.93	0.73	IN
33.	Being able to make sound decisions	3.25	0.65	2.60	0.83	0.65	IN
34.	Interpreting information	3.24	0.67	2.47	0.91	0.77	IN
35.	Being creative while working	3.29	0.64	2.39	0.98	0.9	IN
36.	Ability to think logically	3.31	0.63	2.47	0.96	0.84	IN
37.	Ability to compile information	3.28	0.62	2.45	0.90	0.83	IN
38.	Ability to think critically	3.30	0.61	2.42	0.89	0.88	IN
39.	Ability to organize workload	3.28	0.65	2.44	0.97	0.84	IN
	<b>Cluster Mean</b>	<b>3.27</b>	<b>0.64</b>	<b>2.48</b>	<b>0.92</b>		
<b>Technology Skills</b>							
40.	Financial spreadsheet competence	3.30	0.63	2.61	0.93	0.69	IN
41.	Word processing skills	3.28	0.61	2.77	0.95	0.51	IN
42.	Accounting software skills	3.19	0.66	2.36	0.91	0.83	IN
43.	Electronic commerce skills	3.22	0.67	2.43	0.95	0.79	IN
44.	Presentation software skills	3.22	0.63	2.16	0.98	1.06	IN
45.	World wide web	3.19	0.65	2.34	0.99	0.85	IN
46.	Computer security skills	3.26	0.68	2.29	0.95	0.97	IN
47.	Electric transfer of accounting data	3.25	0.66	2.48	0.96	0.77	IN
48.	Hardware skills	3.19	0.65	2.35	1.05	0.84	IN
49.	Data base package skills	3.16	0.72	2.15	0.98	1.01	IN
50.	Statistical analysis package competence	3.35	0.63	2.53	1.03	0.82	IN
51.	General ledger software skills	3.23	0.63	2.32	0.96	0.91	IN
52.	Tax presentation software skills	3.34	0.64	2.16	0.98	1.18	IN
	<b>Cluster Mean</b>	<b>3.24</b>	<b>0.65</b>	<b>2.38</b>	<b>0.97</b>		
	<b>Grand Mean</b>	<b>3.24</b>	<b>0.65</b>	<b>2.45</b>	<b>0.94</b>		

Key:  $\bar{x}_C$  = Mean of Accounting Educators and Accountants in Industries Combined,  $\bar{x}_S$  = Mean of Students,  $\sigma_C$  = Standard Deviation of Accounting Educators and Accountants in Industries Combined,  $\sigma_S$  = Standard Deviation of Students,  $n_E$  = number of Accounting Educators,  $n_I$  = number of Accountants in Industries,  $n_S$  = number of Students,  $n_T$  = Total Respondents. Source: Field work, 2019

Table 1 showed that accounting educators and accountants in industries accepted all the 52 foundational employability competencies as very important for inclusion in the content needed for improvement of the curriculum of undergraduate accounting education students in North-east, Nigeria, with item mean scores ranging from  $\bar{x} = 3.11$  to 3.36. The cluster mean scores for level of importance of foundational employability skills were: communication and personal skills ( $\bar{x} = 3.24$ ), quantitative method ( $\bar{x} = 3.28$ ), interpersonal skills ( $\bar{x} = 3.19$ ), analytical and problem solving skills ( $\bar{x} = 3.27$ ), technology skills ( $\bar{x} = 3.24$ ).

It can also be seen from Table 1 that, the cluster mean scores for extent to which foundational employability skills were not developed among the students during their undergraduate studies were: quantitative methods ( $\bar{x} = 2.35$ ), interpersonal skills ( $\bar{x} = 2.43$ ), technology skills ( $\bar{x} =$

2.38), analytical and problem solving skills ( $\bar{x} = 2.48$ ). The undergraduate accounting education students accepted that communication and personal skills ( $\bar{x} = 2.61$ ) were well developed.

The standard deviation of foundational employability skills ranged from 0.58 to 0.72 and the cluster standard deviation was from 0.63 to 0.67. Similarly, the standard deviation of the level of development of foundational employability skills ranged from 0.83 to 1.07 and the cluster standard deviation was from 0.92 to 0.97. This showed that accounting educators and accountants in industries were close to one another in their responses.

The weighted discrepancy mean scores ( $\bar{x}_c - \bar{x}_s$ ) of the 52 foundational employability skills ranged from  $\bar{x} = 0.34$  to  $\bar{x} = 1.19$ . The difference between the two weighted means is positive (+). This showed that undergraduate accounting education students in North-east, Nigeria need improvement in foundational skills for employment in the labor market.

**Table 2: Summary of t-test Analysis of the Responses of Accounting Educators and Accountants in Industries on Foundational Competency Improvement Needs for Employability of Undergraduate Accounting Education Students.**

	$\bar{x}$	$\sigma$	N	Df	$\alpha$	$t_{cal}$	P	Decision
Educators	3.38	0.17	49	168	0.05	8.05	0.00	S
Accountants	3.18	0.14	121					

**KEY:**  $\bar{x}$  = Mean,  $\sigma$  = Standard Deviation, n = Number of Respondents, df = Degree of Freedom,  $\alpha$  = level of significance,  $t_{cal}$  = Calculated t-value, p = Significance (2-tailed), NS = Not Significant. Source: Field work, 2019

Data presented on Table 2 showed the summary of t-test comparison of the mean responses of Accounting Educators and Accountants in industries relating to foundational competency improvement needs for employability of undergraduate accounting education students in North-east, Nigeria. The said Table indicates that the t-value ( $t = 8.05$ ,  $df = 168$ ,  $P < 0.05$ ) was statistically significant. Consequently, the null hypothesis 1 was rejected. This means that accounting educators and accountants in industries shared different views relating to foundational competency improvement needs for employability of undergraduate accounting education students in North-east, Nigeria.

**Table 3: Summary t-test Analysis for Influence of Gender on Extent of Development of Foundational Competencies for Employability of Undergraduate Accounting Education Students**

	$\bar{x}$	$\sigma$	N	Df	$\alpha$	$t_{cal}$	$p$	Decision
Male	2.56	0.33	140	236	0.05	4.47	0.00	S
Female	2.36	0.34	98					

**KEY:**  $\bar{x}$  = Mean,  $\sigma$  = Standard Deviation, n = Number of Respondents, df = Degree of Freedom,  $\alpha$  = level of significance,  $t_{cal}$  = Calculated t-value,  $p$  = Significance (2-tailed), NS = not significant, S = significant. Source: Field work, 2019

Table 3 revealed the summary of t-test comparison of the mean responses for influence of gender on the extent to which foundational competency improvement needs for employability of undergraduate accounting education students were developed in North-east, Nigeria. The said Table indicated that the t-value ( $t = 4.47$ ,  $df = 236$ ,  $P < 0.05$ ) was statistically significant. Consequently, the null hypothesis 2 was rejected. This implies that gender influenced the mean responses of accounting education students on the extent to which their foundational competency improvement needs for employability were developed during their studies in North-east, Nigeria.

## Major Findings

The highlights of the major findings are as follows:

1. Accounting educators and accountants in industries reported that all 52 foundational competencies are very important for inclusion in undergraduate curriculum for accounting education students in North-east, Nigeria. Based on the cluster mean scores, the undergraduate accounting education students considered four of the five foundational skills as not sufficiently developed during their studies in North-east, Nigeria. The weighted discrepancy mean scores for level of importance by accounting educators and accountants in industries are higher than the weighted discrepancy scores for level of skill development by undergraduate accounting education students in all the skills. Since the difference the two weighted mean scores ( $\bar{x}_c - \bar{x}_s$ ) is positive, there is the need for improvement in the acquisition of foundational competencies of undergraduate accounting education students to enable them secure jobs in the labor market
2. The foundational competency improvement needs for acquisition of employability skills reported by undergraduate accounting education students in North-east Nigeria are in the areas of quantitative methods, interpersonal skills, analytical and problem solving skills and technology skills. The undergraduate accounting education students considered communication skills as well developed during their studies in North-east, Nigeria.

3. Accounting educators and accountants in industries shared different views on foundational competency improvement needs for employability skills acquisition of undergraduate accounting education students in North- east, Nigeria.
4. Gender significantly influenced the undergraduate accounting education students mean responses on extent of development of foundational competencies during their studies in North- east, Nigeria.

## DISCUSSION OF FINDINGS

The objective of research questions one was to find out the foundational competency improvement needs for employability of undergraduate accounting education students in North- east, Nigeria. The answer to this research question is presented in Table 1. The results obtained from research question 1 showed that accounting educators and accountants in industries considered all the 52 foundational competencies as very important for inclusion in the content for improvement of the curriculum of undergraduate accounting education students in North- east, Nigeria.

The overwhelming acceptance of the foundational competencies by accounting educators and Accountants in industries is consistent with Lawan *et al* (2014) who reported the American Accounting Association's proposal that an accounting education student needs the listed foundational employability skills in order to be better prepared to add value to their organizations. Further analysis of Table 1 showed that undergraduate accounting education students considered quantitative method, technology skills, interpersonal skills, analytical and problem solving skills as not sufficiently developed. Based on the cluster mean values as indicated on Table 1, communication skills was adjudged by undergraduate accounting education students as well developed. It was found in this study that since the difference between the mean levels of importance are higher than the mean levels of development on all the items, undergraduate accounting education students in North-east, Nigeria need varying levels of improvement in four of the five foundational competencies.

The result of this study support the need to pay more attention to the teaching of this skills in the curriculum of undergraduate accounting education students in North-east, Nigeria as emphasized by Prasauta (2014), and Yuan (2013). Kumenetz (2015) reported that accounting education graduates should combine foundational skills with technical skills in order to communicate well, demonstrate good work ethics, listen and work well with others, demonstrate adaptability, solve problems, appreciate ethical dimensions, respond promptly to situations, follow instructions, negotiate, collect, organize, and analyze data to be successful in the 21<sup>st</sup> century workplace. According to Prasauta (2014), foundational skills have wide range of importance and more critical today than ever before because they equip students with meaningful ways to remain competitive and productive in the world of work. When it comes to growing in the workplace, foundational skills are very important, especially in large workplace where so many people with similar technical expertise will compete for a position. Yuan (2013) reported that as business become more complex, accountant must continue to increase their technical as well as foundational knowledge

so they must work more creatively and apply their technical knowledge to a broader set of abstract academic careers.

With P-value of 0.00 which is less than 0.05 in Table 2, the null hypothesis that there is no statistically significance difference in mean responses of accounting educators and accountants in industries on foundational competency improvement needs of undergraduate accounting education students is rejected. This finding is consistent with that of Hussein (2017) whose findings showed that there is significant variation at 1% level in the perceived level of importance in scores between two groups of respondents related to 11 skills of the study. However, this result is at variance with Klibi and Oussi (2013) who found that there is no statistically significant difference between employers and students in their perception of the importance of technical and generic skills

With P value of 0.00 which is less than 0.05 on Table 3, the null hypothesis that there is no statistically significant influence of gender on the mean responses of male and that of female undergraduate accounting education students on the extent to which accounting competencies were developed during their studies was rejected. Further analysis of the results contained on Table 3 showed that female undergraduate accounting education students rated foundational competencies lower than their male counterpart. This result is at variance with that of Ovwiroro (2015) who established that female lecturers in Colleges of Education rated the various ways private sector lecturers enhance the realization of TVET program objectives higher than male lecturers.

### **Implication of the Study**

The study has shown that all the foundational skills were adjudged by accounting educators and accountants in industries as very important for inclusion in the curriculum of undergraduate accounting education students and that the accounting education students are deficient in four of the subscales of foundational skills. That the undergraduate accounting education students perceive themselves as deficient in foundational skills implies that sufficient attention has not been given to development of those skills during their studies in North-east Nigeria. The study has shown the importance and the need to pay sufficient attention to development of foundational skills in education of accountants of the future.

### **CONCLUSION**

Accounting education graduates like other graduates need to have the required skills that would enable them secure relevant place in the labor market. As a result of a series of high profile corporate failures, change of technology and globalization of world economies, employers are seeking a diverse range of skills and attributes in graduates in order to maintain a competitive advantage. Today there is the question as to which specific foundational skills set should be included in the undergraduate curriculum of accounting education students to make them employable. This study is part of the effort to respond to the challenges by identifying areas of undergraduate accounting education curriculum in which improvements are needed in the training of accounting education students. Based on the two research questions posed for the study, it was discovered that undergraduate accounting education students are deficient in four of the five

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foundational competencies in this study. This situation requires a review of the undergraduate curriculum for accounting education to capture the areas of deficiencies identified in this study, so that the products will be equipped with relevant skills, knowledge and attributes that will meet the expectations and needs of employers. Accounting educators should include the areas of deficiency identified in this study in the undergraduate curriculum of accounting education and focus attention on developing those skills among the students.

### **Future Research**

The following suggestions are made for future research

1. A study is suggested that will identify the actual proficiency of undergraduate accounting education students in the area of foundational competency needs using achievement based test.
2. Research is suggested that will use the same questionnaire developed for this study in other regions of Nigeria.

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