Exploratory Factor Analysis of Marketing Entrepreneurial Competencies Required by Technical College Students for Self-employment

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Abstract--- Exploratory Factor Analysis (EFA) systematically simplify correlated measures and investigate probable causal factor structure of the set of observed variables without reaching a default result structure. The aim of the study was to identify and analysed a marketing entrepreneurial competencies (MAEC) elements required by technical college students of North-West geo-political zone of Nigeria. A quantitative research approach was used to develop insight from the experts' perspectives via a survey questionnaire. The samples of the study involved 331experts including 249 teachers from nine technical colleges and 82 entrepreneurs from SMEs in the three states of the zone. Data collected were analysed using Statistical Package for Social Sciences (SPSS) 24, with a Cronbach's alpha value of 0.863. Moreover, the value for KMO measure of sampling adequacy equaled 0.803 and the value for Bartlett's test was significant at 0.000 level. Accordingly, out of the 13 elements run for the EFA three elements were deleted due to the low factor loading. The findings obtained from the EFA identified ten important competencies required by technical college students for integration in the curriculum. Therefore, it can be concluded that for a suitable integration of entrepreneurial competencies into technical college programs these important elements of MAEC need to be place into consideration.

Keywords--- Marketing Entrepreneurial Competencies, Self-Employment, Technical College Programs.

I. INTRODUCTION

Marketing entrepreneurial competencies are one of the vital competencies required for entrepreneurship activities in the modern market strategies. The marketing competencies are essential practical skills that enable an individual to become novice entrepreneur and excel in the field. The term MAECs is used as a consolidative construct aimed at handling marketing activities under certain condition[1]. Therefore, MAEC stands as positive identifying and utilizing immediate opportunities to acquire and maintain profitable businesses by innovation approaches to advertisement, resources leveraging risk taking and value creation [1]. More so, due to the vital role of MAEC plays in the venture startup it should be among the important components of entrepreneurial competencies (ECs) required by technical college students for self-employment. According to Ismail et al. [2] MAEC are one of the significant ECs component needed by college students to become successful entrepreneurs. Consequently,

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positive and continuous development of marketing strategies eventually affect and influence the entrepreneurial competence of technical college students as entrepreneurs and thus, improve their participation in the market segment.

In Nigeria for instance, technical colleges are designed to address the issue of job creation, youth employment, self-reliance, poverty eradication, skill development and increase productivity so as to compete with the current opportunities and challenges in the labour market. These colleges are considered as the foremost vocational institutions, under the supervision of National Board for Technical Education (NBTE). With all the supervision and monitoring most of the students of this institution are graduating without the required skills and competencies as observed by Musa and Medugu [3]. In other hand, lack of incorporation between the curriculum taught in the colleges and the required skills in the workplace as well as in the small business and enterprise as perceived by Chekole [4] remain the major obstacle to the growth and development of SMEs. With regards to this Enombo et al. [5] suggested the need for new school curriculum that would adopt the teaching of entrepreneurial education, this will serve as a solution to the current issues of unemployment and high poverty rate. Therefore, it is pertinent to investigate with a view to providing for a solution to this problem. Consequently, embedding marketing entrepreneurial competencies into technical college curriculum could be the appropriate solution that will boost the contribution of SMEs who are the moving engine of sustainable economic growth in emerging economic countries [6] that will assist in alleviating poverty and creating jobs for self-employment among the youths. Hence, this research is aimed at exploring and ascertaining the element of MAEC required by technical college students in Nigeria that would be integrated in the technical college programs curriculum.

II. LITERATURE REVIEW

It is imperative to assess the development of entrepreneurial marketing competencies of technical college students both the concept and the complex of practice activities because it must be mark as a total character [7]. They further reiterated that marketing is growing of both "inward" i.e. during the entire venturing system process, and "outwards" i.e. within the whole community socially and politically. Therefore, it is vital to note these two aspects of marketing evaluation in term of the students' marketing competencies. Since marketing tools and technologies emerge as a full, necessary elements for not only proper running of commercial enterprises but also for politics, education, medicine, sport, non-profit organization [7]. Indeed, MAEC are tremendously important to be incorporated in technical college programs. In view of this, it is vital to note that a well organise and established marketing competencies for the training of technical students will help in boosting the nation economy, reduce crises, increase local/international donations, encouraging students' performance, etc. Therefore, it has been believed that student's desire to be an entrepreneur has great influence by their satisfaction with entrepreneurial marketing issues [8]. Consequently, Brown and Hanlon [9] identifies early growth marketing competencies constructs:

"Builds effective relationships with customers. Proactively and aggressively sells products/services. Meets customer's expectations. Delivers exemplary service by exceeding customer expectations. Ensures a high-quality product/service. Adapts services/products to changing market needs" (p. 44).

Building on the above, most of the time, entrepreneurial marketing has a good relationship with growth, taking advantage of market opportunities, creating value through networks, customer orientation and informal market analysis, since entrepreneurs have marketing ambitions [10]. One of the biggest challenges in venture start-up is resource leveraging. According to Long et al. [11] resource leveraging is significantly correlated with the management of the market value and the different operations on the capital have different effects in venture start up in various conditions.

Accordingly, resource leveraging in entrepreneurship contribute immensely to venture start-up in any entrepreneurship setting likewise for technical college students. Considering this Morris et al. [1] identified and define resource leveraging as inventiveness in doing more with less. In every venture start-up some aspects must be considered, since the venture need a capital before starting and the trained students does not have means to sale out his idea. Additionally, family and peer group has a vital role to contribute in making a joint venture to start-up a business since their member has the experience so the family or peer group should gather money for the member to create a new venture with a functional implementation and agreement with full monitoring by the members. This is what was tagged [9] as 'mobilizing support and resources from others.' It is an essential dimension of MAEC. Therefore, resource leveraging is essential for venture start-up because no business will take up without working capital as such it is importance resource in any business take up. Consequently, Hacioglu et al. [12] analysed that resource leveraging as one of the dimensions of entrepreneurial marketing is positively associated with innovative performance. Similarly, Maziriri and Mapuranga [13] affirmed that resource leveraging as MAEC dimension is instrumental in stimulating business growth among SMEs. Equally, a reliable and validated result was achieved by Sahid and Habidin[14] who established that resource leveraging was among the four- dimensions of MAEC construct that improve venture performance of SMEs. The findings are also follows Sadiku-dushi et al. [15] who found that resource leveraging is a very vital dimension of MAEC required by technical college students in their programs.

With the above recommendation, it is imperative to mention that, advertisement is an important prerequisite in marketing strategies. This is because no entrepreneur can survive without advertising his/her product. The knowledge and ability to market product is very important in any venture start-up. According to Onoh [16] marketing skills such as advertisement ability are necessary for technical college students for them to become prospective entrepreneurs. In business one have to comprehend how to call the attention of customers and make them understand the standard and quality of the product and how it makes different from others. Abaho et al. [17] indicated that entrepreneurs with the ability of making stunning prices and advertising ability should easily have high probability of improving sales, profitability and market share. Therefore, it is significant for entrepreneur to concentrate on the knowledge of advertisement, in fact advertisement increase the opportunity chances of a business and improve the venture start-up. Based on the important role of advertisement in marketing strategy [9] developed behavioural observation scales and they found that advertisement is one of the important behaviour of

entrepreneurial marketing competencies need for novice entrepreneurs.

Moreover, sales and service is another important component of marketing entrepreneurial competencies. Sales and services in marketing is one of the vital skills that uplift entrepreneur to reach the success in any enterprise. Therefore, sale and service ability in venture start-up is a child of necessity that should be in MAEC. Onoh [16] affirmed that sale and services as a marketing skill were required by technical college students for set up a new venture for selling of products and providing services to customers in a better way that would enhance profit purposes. It is also agreeing by Brown and Hanlon [9] who emphases that entrepreneur most builds effective relationships with customers pro-actively and in a hostile way to make sure that products/services are saleable. It is evident from the literature that sale and service is vital in modern marketing strategy that can lift entrepreneur to the most desired position in business.

III. OBJECTIVE

The purpose of the study is to identify the elements of marketing entrepreneurial competencies required by technical college students for self-employment in Nigeria.

IV. METHODS

The purpose of this research is to explore and ascertain the element of MAEC required by technical college students in Nigeria that would be integrated in the technical college programs curriculum. Having an appropriate MAEC elements will assist in integrating entrepreneurship training in the colleges which produce novice and prospective entrepreneurs that will contribute in job creation and poverty alleviation in the country. The samples of the study involved 331experts as respondents, it includes 249 teachers and 82 entrepreneurs drawn from the population using Krejcie and Morgan (1970) table for determining the sample size of a known population. They construct 95% confidence interval with $\pm 3.5\%$ margin of error. Therefore, the rationale late adopting this technique is every respondent in the population has an equal chance of being selected [18].

4.1 Data Collection

Data collection is an important aspect of conducting research in education. Data collection in this study was based on quantitative instrument (structured questionnaire). It was based on the purpose of gathering information from the respondents to allow full range of possibilities that will give useful information and to systematize these procedures by their degree of determined nature, their focus for numeric versus non-numeric data analysis [18]. The teachers' and entrepreneurs' questionnaire was formulated by the researchers to answer research question about the required marketing entrepreneurial competencies for technical college students in Nigeria. The questionnaire consists two parts, Part I requires background information on respondents' gender, educational qualification and working experience. Part II contained the 13 items structured questionnaire that was developed based on the reviewed literatures follows the research purpose. Thus, both the two categories of the respondents used the 13 items structured questionnaire.

4.2 Exploratory Factor Analysis via SPSS

Essentially, the EFA according to is done to determine the number of factors that influence the variables and

which variables are related [19]. In this study, the main reason of using EFA is to determine which elements of the questionnaire precisely define the scale of individual variables and the exceptions that do not contribute to the scale of any variable. To be precise, the EFA is used to identify MAEC elements by exploring and summarizing the basic correlational structure for the data collected using the 13 item questionnaire [20]. These 13 items are all about the marketing entrepreneurial competencies that are required by technical college students. Samples of 331 raw data were used for analysis and reduction methods in this EFA were carried out using the MAEC questionnaire.

The EFA was carried out using SPSS 24.0, the principal factor analysis with Kaiser-Meyer-Olkin (KMO) and the Bartlett sphericity test; extraction correlation matrix with eigenvalues greater than 1 and maximum iterations for convergence up to 25; varimax rotation, correlation between elements, diagonal correlations of anti-image and total explained variance were taken into account. The threshold for KMO is> 0.5 and the Bartlett test, if significant, is less than 0.05; if KMO is <0.5, it is not interpreted [21]. Varimax rotation was adequate for correlated data and the factor load value greater than 0.5 was accepted. According to Hair et al. [21] elements that appeared in both aspects of the coefficient with values above 0.5 and those that appeared alone in the component were eliminated.

4.3 Data Analysis and Findings

An appropriate method and statistical tools were used to determine the results of this research. The data were verified using the descriptive statistics (kurtosis and asymmetry) to test the data normality that is value of 2 for kurtosis and 7 for skewness as suggested by Klein [22] were used to screened the collected data in this study. The data was similarly being analysed using EFA through SPSS version 24. EFA was used to determine the suitable areas of MAEC through discovery and summary of the basic data correlational structure collected for data with 13 items questionnaire [23].

V. **RESULTS**

The following tables present the results of EFA of marketing entrepreneurial competencies, including estimates of 13 items of MAE, namely MAE1 to MAE13 similarly no item was deleted in the test of normality and outliers and the overall Cronbach's Alpha coefficient of all the items is 0.823 (Table 1) higher than the recommended threshold value of 0.6 [21].

Item	Cronbach's	Ν	Mean	Std. Deviation	Skewness		Kurtosis	
	Alpha Value	Statistic	Statistic	Statistic	Statistic	Std. Err	Statistic	Std. Err
MAEC1	0.863	331	3.23	.864	-1.227	.134	1.637	.267
MAEC2		331	3.15	.806	910	.134	.998	.267
MAEC3		331	3.12	.893	-1.062	.134	1.304	.267
MAEC3		331	3.12	.893	972	.134	.721	.267
MAEC5		331	3.13	.842	837	.134	.518	.267
MAEC6		331	3.10	.868	708	.134	.347	.267
MAEC7		331	3.01	.916	816	.134	.054	.267
MAEC8		331	3.18	.864	-1.089	.134	1.166	.267
MAEC9		331	3.14	.901	-1.054	.134	.854	.267
MAEC10		331	3.15	.882	-1.154	.134	1.517	.267
MAEC11		331	3.12	.939	-1.226	.134	1.200	.267
MAEC12		331	3.19	.791	864	.134	.690	.267
MAEC13		331	3.21	.934	-1.126	.134	1.306	.267
Valid N		331						

Table 1: Results of the Normality and Reliability Tests

The value of KMO was 0.803 which exceeded the factor analysis validity threshold value of 0.5. This threshold value was supported by the Bartlett's test of Sphericity which is significant at 0.00 which confirmed that the results obtained were significant as shown (Table 2).

Kaiser-Meyer-Olkin (KMO) and Bartlett's Test								
Kaiser-Meyer-Olkin	.803							
Bartlett's Test of Sphericity	Approx. Chi Square	641.257						
	df	45						
	Sig.	.000						

The inter-item correlation of all the 13 variables (Table 3) were greater than 0.3 with the exception of MAE3 and MAE7 which showed that there is a pattern relationship between items in the remaining data set [24]. Upon review the meaning of this item MAE3 (Knowledge of advertising strategy), MAE7 (Determining the social values of the local community) were omitted in EFA.

	MA E	1	2	3	4	5	6	7	8	9	10	11	12	13
	1	1.00 0	.589	.257	.370	.397	.252	.278	.399	.245	.280	.401	.238	.339
	2	.589	1.00 0	.309	.441	.399	.504	.316	.452	.397	.420	.380	.278	.278
	3	.257	.309	1.00 0	.362	.243	.366	.104	.276	.324	.340	.302	.191	.103
	4	.370	.441	.362	1.00 0	.542	.419	.177	.243	.248	.196	.248	.168	.283
	5	.397	.399	.243	.542	1.00 0	.530	.218	.308	.248	.222	.309	.063	.248
	6	.252	.504	.366	.419	.530	1.00 0	.289	.353	.401	.359	.240	.148	.266
	7	.278	.316	.104	.177	.218	.289	1.00 0	.289	.358	.231	.272	.175	.162
	8	.399	.452	.276	.243	.308	.353	.289	1.00 0	.610	.341	.413	.210	.291
	9	.245	.397	.324	.248	.248	.401	.358	.610	1.00 0	.356	.497	.305	.254
	10	.280	.420	.340	.196	.222	.359	.231	.341	.356	1.00 0	.402	.275	.236
	11	.401	.380	.302	.248	.309	.240	.272	.413	.497	.402	1.00 0	.328	.349
lation	12	.238	.278	.191	.168	.063	.148	.175	.210	.305	.275	.328	1.00 0	.419
Corre	13	.339	.278	.103	.283	.248	.266	.162	.291	.254	.236	.349	.419	1.00 0

Table 3: Correlation Matrix

Likewise, all the corresponding anti-images correlation diagonal values measuring sampling adequacy of the 13 items exceeded 0.5. These values shows that all the EFA assumptions were met for the remaining 10 variables (Table 4) and therefore, it is suitable to run EFA with remaining 10 items [25].

		1	2	3	4	5	6	7	8	9	10	11	12	13
	1	.801 ^a	423	093	045	180	.195	115	161	.157	.025	141	015	153
	2	423	.846 ^a	.051	181	.054	287	043	113	041	169	022	095	.089
	3	093	.051	.825 ^a	233	.076	192	.110	033	085	167	106	073	.157
	4	045	181	233	.834 ^a	366	036	.002	.071	031	.083	.045	022	132
_	5	180	.054	.076	366	.791 ^a	370	011	069	.068	.019	152	.122	003
ion	6	.195	287	192	036	370	.798 ^a	113	001	156	123	.151	.058	139
elat	7	115	043	.110	.002	011	113	.906 ^a	011	174	042	048	039	.036
)TTC	8	161	113	033	.071	069	001	011	.853 ^a	454	056	019	.075	098
Ŭ	9	.157	041	085	031	.068	156	174	454	.805 ^a	011	281	127	.033
ges	10	.025	169	167	.083	.019	123	042	056	011	.903 ^a	182	088	031
ma	11	141	022	106	.045	152	.151	048	019	281	182	.870 ^a	090	144
ti-i	12	015	095	073	022	.122	.058	039	.075	127	088	090	.804 ^a	333
An	13	153	.089	.157	132	003	139	.036	098	.033	031	144	333	.799 ^a

Table 4: Measures of Sample Adequacy of Marketing Entrepreneurial Competencies

Three component of initial eigenvalues > 1 were indicated in Table 5, which collectively accounted for 63.96% of the variation in the actual variables greater than the minimum recommended variance explained of 60% [21]. This submitted that only three extracted factors had associative relationships. Likewise, the cumulative value of the Extraction and Rotation Sums of Squared Loadings were the same, making 63.96%. Therefore, the variation explained by the initial solution had not been lost due to the latent factors that implied the suitability of the extraction method.

Table 5: Total Variance Explained of Marketing Entrepreneurial Competencies

Comp	Initial	Eigenvalu	es	Extraction	Sums of Squa	are Loadings	Rotation Sums of Square Loadings				
onent	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %		
1	4.106	41.064	41.064	4.106	41.064	41.064	2.562	25.625	25.625		
2	1.286	12.860	53.925	1.286	12.860	53.925	2.115	21.147	46.771		
3	1.004	10.037	63.961	1.004	10.037	63.961	1.719	17.190	63.961		
4	.810	8.102	72.063								
5	.657	6.573	78.636								
6	.593	5.932	84.568								
7	.521	5.208	89.776								
8	.432	4.317	94.093								
9	.312	3.119	97.212								
10	.279	2.788	100.000								

The variance proportion observed in each item in contrast to the other items and matrixes of MAE were presented in Table 6.

Only 10 out of the 13 items attained values were above 0.4 and closer to 1, the extraction communalities obtained through principal component analysis of the data selection were perceived to be suitable with exception of MAE10 fail to appear in the second analysis.

Upon review the meaning of this item MAE10 (Deciding on the quality of the products based on the need of consumers.). Moreover, all the 10 items of MAE were loaded into three factors [21] as shown in Table 6.

Commur	alities		1 st analys	sis	2 nd analysis				
Items	Initial	Ext.	Items	1	2	3	1	2	3
MAE1	1.000	.512	MAE9	.816				.866	
MAE2	1.000	.583	MAE8	.705				.801	
MAE3	1.000	.356	MAE10	.601					
MAE4	1.000	.663	MAE11	.571				.575	
MAE5	1.000	.679	MAE7	.516					
MAE6	1.000	.592	MAE3	.458					
MAE7	1.000	.295	MAE5		.809		.824		
MAE8	1.000	.568	MAE4		.792		.780		
MAE9	1.000	.696	MAE6		.641		.677		
MAE10	1.000	.427	MAE2		.557		.605		
MAE11	1.000	.532	MAE1		.506		.529		
MAE12	1.000	.633	MAE13			.784			.752
MAE13	1.000	.676	MAE12			.755			.810

Table 6: Communalities and Matrixes of Marketing Entrepreneurial Competencies

Consequently, reviewing the meaning of these items factor 1 covered five items including: MAE5 (Build and retain effective sales relationships.), MAE4 (Identify and recognize marketing opportunities within local communities and/or diverse markets.), MAE6 (Develop marketing strategies and plans for products/services.), MAE2 (Identifying and implementing a marketing distribution plan.) and MAE1 (Knowledge of the form of goods required by the consumers.). Factor 2 covered three items including MAE9 (Build and deliver customer service and customer care support), MAE8 (Develop sales strategies and plans.) and MAE11 (Measuring present market as a base for forecasting future market). Factor 3 has only two items MAE12 (Planning to achieve the selecting of the relevant products.) and MAE13 (Ensure marketing operations comply with legal, regulatory, ethical and social requirements.). As a result, the findings of this study are presented in figure 1 below.

Marketing Entrepreneurial Competencies

- Build and retain effective sales relationships.
- Identify and recognize marketing opportunities within local communities and/or diverse markets.
- Develop marketing strategies and plans for products/ services.
- Identifying and implementing a marketing distribution plan.
- Knowledge of the form of goods required by the consumers.
- Build and deliver customer service and customer care support.
- Develop sales strategies and plans.
- Measuring present market as a base for forecasting future market.
- Planning to achieve the selecting of the relevant products.
- Ensure marketing operations comply with legal, regulatory, ethical and social requirements.



Figure 1: Marketing Entrepreneurial Competencies Model

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VI. DISCUSSION

Generally, the respondents believed that marketing is one of the vital ECs needed by entrepreneurs after having equipment and working capital. Knowledge of marketing and the ability to assess the market are vital ECs exploring by this study because marketing competencies will enable an entrepreneur to penetrate and explore the emerging market around him. Therefore, these findings were supported with the with work of [8] which divulges that satisfaction with MAEC has greater influence on student's desire to become an entrepreneur. Additionally, the findings are in line with the observations of Chernysheva et al. [7] who maintained that developing MAECs to college students have a great impact in their overall character. Consequently, according to the respondents the important components for entrepreneurial training that are deemed necessary to be integrated in technical college should include: ability to market product, ability on how to penetrate the market are among the important aspect of MAEC. These findings were in agreement with the work of Ismail et al. [2] who believed that MAEC is a significant component of the ECs needed by college students to become successful entrepreneurs. Therefore, MAEC should be among the important components of ECs required by technical college students for self-employment. Consequently, positive and continuous development of marketing strategies eventually affect and influence the entrepreneurial competence of technical college students as entrepreneurs and, consequently, improve their participation in a market segment.

Furthermore, the study revealed that MAEC is positive and significantly related to distinctive ECs model for technical college programs required by technical college students for self-employment upon graduation. This is also in line with the findings of Ogbuanya and Nungse [26] who recommended the inclusion of MAEC in the electronic curriculum of technical colleges in north-central Nigeria because the curriculum content was seriously inadequate for the development of MAEC. Indeed, it is tremendously important to be included in technical college programs. A well organized and established marketing competencies for the training of technical students will help in boosting the nation economy, reduce crises, increase local/international donations, encouraging students' performance, etc. Consequently, it has been believed that student's desire to be an entrepreneur has great influence by their satisfaction with entrepreneurial marketing issues [8].Therefore, for the students to become successful novice entrepreneurs they need MAEC.

Moreover, the result of this study showed that resource leveraging in entrepreneurship contribute immensely to venture start-up in any entrepreneurship setting likewise for technical college students as overall experts agreed with this statement. This is what was tagged [9] as 'mobilizing support and resources from others.' It is an essential dimension of MAEC. Therefore, resource leveraging is essential for venture start up because no business will take up without working capital as such it is one of the most importance resource in any business take up. This study finding is in line with result of [12] who analysed that resource leveraging as one of the dimensions of entrepreneurial marketing is positively associated with innovative performance. Therefore, resource leveraging is a very vital dimension of MAEC that should be integrated into ECs model required by technical college students in their programs.

Advertisement was another important MAEC identified in this study by the respondents. Interestingly, all the respondents agreed that advertisement is a prerequisite in marketing strategies. This is because no entrepreneur can

survive without advertising his product. The knowledge and ability to market product is very important for any venture start up. According to Onoh [16] marketing skills such as advertisement ability are necessary for technical college students for them to become prospective entrepreneurs. The findings are also in agreement with the result of Abaho et al. [17] who indicated that entrepreneurs with the ability of making stunning prices and advertising ability should easily have high probability of improving sales, profitability and market share. In line with the above discussions [9] developed behavioural observation scales found that advertisement is one of the important behaviour of entrepreneurial marketing competencies need for novice entrepreneurs.

As a result of the above discussions it infers that advertisement is positively and significantly related to MAEC and is one of the most important aspect of modern marketing strategies. Therefore, it is required by the technical college students to become novice technical entrepreneurs once they have graduated from the college.

Consequently, this result shows that sales and services in marketing are child of necessity in marketing. Therefore, it should be included in the ECs model. These findings are in line with the assertion of Onoh [16] who affirmed that sale and services as a marketing skills are required by technical college students for set up a new venture for selling of products and providing services to customers in a better way that would enhance profit purposes. It is also in agreement with [9] who emphases that entrepreneur most builds effective relationships with customers pro-actively and in a hostile way to make sure that products/services are saleable. It is evident from the experts that sale and service is vital in modern marketing strategy that can lift entrepreneur to the most desired position in business. Therefore, it is highly recommended to be infused into the technical college proposed model.

VII. CONCLUSION

The result of this study was used to develop a ECs conceptual model for integrating into technical college programs for the students to become well trained entrepreneurs who are expected to create jobs rather than looking for a job after graduation. The findings obtained from the EFA showed that a three-factor structure is an appropriate method for describing MAEC elements. This conceptual model will help in having a sustainable entrepreneurship that would bust the economic growth of the nation more especially through the SMEs. The conceptual model was developed in accordance with the analysed data via EFA showing the vital MAEC elements according to their appropriateness for the effective integration into technical college programs in Nigeria. The conceptual model has an implication to NBTE which is the supervisory agency toward the ensuring of the integration into the curriculum so that the knowledge should be imparted into the students.

RECOMMENDATIONS

Looking at the outcome of this study it is recommended to stake holders in technical education especially NBTE to embrace this ECs conceptual model to integrate it into technical college curriculum and to make it implementation as soon as possible. This will facilitate the students to acquire ECs for self-employment and help SMEs in busting the economy of Nigeria.

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