

Development and validation of instrument for assessing perception of students on academic reputation of Universities in North-East, Nigeria.**Happy L. MICHAEL, Christian I. AMUCHE and Donatus OBIJI**

Department of Educational Foundations, Taraba State University, Jalingo, Nigeria

Abstract

The study developed and validated the "University Academic Reputation Scale (UARS)" to evaluate students' perceptions of the academic reputation of North-East Nigerian universities. Three research questions guided the study, employing an instrumentation design with a sample of 1058 undergraduate students from four public universities in the zone. Expert judgment validated the face and content of UARS, resulting in a content validity index of 0.76. Exploratory factor analysis identified five components using principal components analysis with varimax rotation, while confirmatory factor analysis established convergent and discriminant validity. Reliability was ensured through Guttman split-half, Cronbach's alpha, and Feldt Gilmer methods, yielding a high reliability index of 0.92. Findings from the study shows that five distinct components, supported by average variance extracted values above 0.5 and square roots higher than inter-construct correlations. This indicates that the components are distinct yet converge to measure the same factor. The study recommends the use of UARS with its identified five components for assessing students' perceptions of academic reputation in North-East and other Nigerian geo-political zones. Researchers, university administrators, policymakers, and regulatory bodies are encouraged to use this instrument to enhance the academic quality assessment of universities.

Keyword: Academic Reputation, Validity, Reliability, University Education.**Introduction**

Academic reputation is a positive image that promotes governance and recognition of the University in the corporate environment (Wormell & McCallum, 2013). University education is the highest level in tertiary education in any nation, saddle with the responsibility of developing individual, mental and intellectual capacity, acquisition of skills and ability to solve local, national and global problems. The fundamental objectives of establishing a university is very important, if such university is to retain its relevance in the society. University education is to see to the development of relevant manpower, improvement in intellectual capacity of citizen and acquisition of skills to solve both local and national problems. For universities to achieve these stated goals, they need to have a positive image that attract potential students, lecturers and philanthropic donation to such institution (Laaro, 2020). The poor quality of instruction, research, infrastructure, and amenities in Nigerian universities has been a great concern to many stakeholders, since poor academic quality

could jeopardize the objectives of university education in Nigeria. To achieve these goals, the quality of instruction, research, physical infrastructures, and policy guiding the universities should be of a high standard. The assessment of variables that contribute to the advancement of university education became a necessity and needs to be assessed on a regular basis so that valid, reliable, and accurate feedback can be provided. This feedback will help in both formative and summative decisions in universities, especially in North-East, Nigeria.

There are growing pressures on the university system attributed to the high inflation rate, increased dependence on external funding for daily operations, and the desire to enhance their reputation for sustained relevance. Additionally, factors such as evolving technology demands, changing regulatory requirements, and demographic shifts can also contribute to the mounting pressures on universities. Downes (2017) viewed academic reputation as favourable image that can attract quality

students, quality lecturers and donations from corporate organizations. A University with damaged reputation as a result of their negligence or indiscretions can reduce student's enrollment and their donors or philanthropists may withdraw support. There is a need for government and university authorities to be more proactive in building and retaining their reputation. Universities also need to put appropriate strategies in place to communicate their strength to stakeholders (Pinar, Trapp, Girard & Boyt, 2014).

The reputation of universities is synonymous with their ranking since both seek to establish the quality of instruction, programs, research and facilities in our universities. With the increase in the quest for higher education, there is a need for the provision of accurate and valid information on the academic quality of our universities. Universities ranking can be based on empirical statistics or assessment of current students, prospective students, university regulatory body, educators and scholars (Salako, 2014). There are basic criteria used by regulatory bodies especially National Universities Commission (NUC) when ranking universities in Nigeria. Wale (2015) highlighted twenty-five criteria used in judging the reputation of universities in Nigeria. These criteria are: number of human resources, percentage of equipment fully operational, number of books titles in the library, reports of peer reviews, students/ staff ratio, accredited programs by professional bodies, number of research recognition from professional bodies, amount of research grant received by the institution, number of published papers cited in referred journal, books, articles, and publication of staff, patents attained by institutions, a product sold, post-doctoral staff, income generated from consultancy activities, results of students admitted into the university, percentage of employable graduates, employer report, number of Nobel prizes won by alumni members, number of Ph.D. graduates, compliancy to acceptable quality standard, customer satisfaction and service delivery standard. These criteria are grouped into university human resources, employer rating, academic content, social and physical facilities, library and funding. Looking at these criteria

listed above, it becomes evident that the academic standing of universities is contingent upon the performance of their faculty.

There is much justification for university ranking, one of the main purposes is to provide a source of information to prospective parents, students and the general public that will guide them in their choice of programme and institution. Guided by this report, parents, prospective candidates can make their choice of selection from many alternatives. The information from ranking can also be beneficial to companies and firms looking for collaborative academic research partners on how to improve the quality of their products and services. Ranking brings about healthy competition among universities since it helps various universities to strive for quality instruction, programmes, research and facilities. It helps universities in top-ranking to work harder on their system to maintain their position while those with low rank will be encouraged to put in more effort to improve on their position (Salako, 2014). Additionally, ranking serve as an effective instrument that can be used for public accountability and also as a guide to the government in the allocation of funds to each university as a practice by some countries in the world.

Looking at the position occupied by Universities in North-East Nigeria, they have not been competing with their counterpart in other political zones of the country favourably. NUC ranking report from 2016 to 2020 show that many Universities in North-East Nigeria have not recorded any improvement based on their ranking positions while some are declining on the ranking table. The challenges obtained from unfavorable rank of a Universities in North-East could serve as a motivation for effective planning, policy development and strategic planning aimed at upgrading or sustaining a desired rank. This will enable universities in North-East Nigeria to identify crucial factors aligned with their priorities, allowing them to enhance their ranking position as needed. To accomplish this, it is essential to create and validate a questionnaire that is valid, reliable, and practical.

However, it is very important to determine the validity of a developed instrument which will help in establishing its usefulness. Validity is the accuracy of an instrument to provide the right measurement based on the purposes of the instrument. (Anikweze, 2012). This implies that every instrument designer has something in mind before designing such an instrument. To validate a questionnaire involving latent traits, factor analysis needs to be carried out. This involves the calculation of matrix of correlation among the variables that have been accessed in one particular participants sample. This correlation matrix allows one to find the linear combination of variables that will produce the first and largest factors. Morgan (2015) and Taherdoost (2016) highlighted basic conditions that will give room for item inclusion in a questionnaire. The first condition is the eigenvalue which must be from 1.0 and the scree-plot must support the eigen-value. Tavakol and Wtzel (2020) also affirmed that the factor loading of each component must be greater than or equal to 0.3. Thompson Asim and Ubi (2020) opined that items with less than 0.4 communalities value should be discarded because they cannot be related to other items. This implies that there must be a significant correlation between an item and the underlined component or construct.

In addition, establishing the reliability of an instrument is very important if the information that will be gathered using such an instrument will be accepted by all. Reliability can be seen as the consistency of an instrument in measuring whatever it does measure. According to Anikweze (2012), an instrument can be described as reliable in terms of the level of consistency over different occasions of administration of the instrument and the different scoring of responses by different raters. Brian, Puffer and Bolton (2014) Taherdoost (2016) see reliability as the internal consistency of items in an instrument. Reliability concerns the extent to which an instrument provides a consistent and stable result. An instrument is said to have high reliability if the items in such instrument hang together and measure the same construct.

Establishing the reliability of questionnaires is

very important because it helps in maintaining a uniform set of questions throughout the instrument. Conducting a pilot test is a common practice for assessing the reliability of a questionnaire. Any issues identified in the questionnaire during the pilot test can be addressed and corrected to enhance its overall reliability. The reliability of a questionnaire could be established using Cronbach alpha, split half, test-retest and alternative form reliability (Livingston, 2018). Establishing the internal consistency of an instrument plays an important role in instrument development. An assessment gains significance and trustworthiness when conducted using an instrument with a proven reliability index. Such reliability not only reflects the researcher's integrity in evaluation but also enhances the instrument's effectiveness in distinguishing responses.

Students' perceptions of the academic reputation of a university involves intangible qualities, the validity of which can only be confirmed through face, content, and construct validation. Typically, content experts play a crucial role in establishing evidence of face and content validity by thoroughly scrutinizing the content and objectives measured by the assessment instrument. Employing factor analysis as a statistical method to discern underlying factors or constructs is of paramount importance. This involves conducting both exploratory and confirmatory factor analyses, with adherence to fundamental conditions being essential in the process. Assessment of the university's academic reputation is considered very important in the development of university education because it helps in examining the strength and weaknesses of university policies and programmes. University students, as the primary consumers of its services, are well-positioned to assess the quality of academic programs, facilities, and services both within and outside the university. From literature, there seems to be a paucity of information on instruments that can be used to assess the perception of students on academic reputation of universities in North-East Nigeria.

Furthermore, engaging with students from various universities across the zone reveals their lack of participation in the assessment of their

institutions. This suggests that a comprehensive and effective policy on institutional evaluation has frequently been overlooked. As a result, the absence of fundamental information within the university's management may have hindered North-East Nigerian universities from consistently enhancing their academic quality and infrastructural development in the region. The unavailability of university reputation records and statistics can impede the accurate distribution of resources to critical areas where they are required. These challenges might be accountable for the subpar ranking results and limited recognition of universities in North-East Nigeria. Consequently, the development of an instrument for students' institutional evaluation is imperative if the objectives of university education are to be realized in North-East Nigeria.

Purpose of the Study

The following research objectives were raised:

1. To identify the underlying components of university academic reputation scale
2. To establish the construct validity of university academic reputation scale
3. To determine the reliability of university academic reputation scale

Research Questions

1. What are the underlying components of university academic reputation scale?
2. What is the construct validity of university academic reputation scale?
3. What is the reliability of university academic reputation scale?

Methodology

The study adopted Research and Development (R&D) design, which involves the development of new products that will facilitate educational advancement. To develop University Academic Reputation Scale UARS, items were pooled through comprehensive review of the literature and interviews conducted with the target population. The instrument (UARS) underwent content validation by a panel of experts specializing in science education and educational measurement and evaluation at the Faculty of Education, Taraba State University, Jalingo. The purpose was to assess whether the scale's items accurately represented the stated

objectives and content. The content experts, providing independent judgments, scored the instrument as 0.77, 0.81, and 0.69, with the resulting average of 0.76 establishing the Content Validity Index (CVI) and affirming the instrument's content validity. Additionally, these experts offered valuable insights into item appropriateness, language usage, relevance, and overall structure, leading to modifications and the removal of one item based on their feedback. Furthermore, the University Academic Reputation Scale (UARS) demonstrated a reliability index of 0.96, assessed using ordinal alpha, following a pilot test involving 30 undergraduate students. The population of the study comprised 158,067 undergraduate students in fourteen public universities in North-East Nigeria. A sample of 1,058 undergraduate students was randomly selected for the final validation of UARS, aimed at further validating the initial scale. The multi-stage sampling technique involved selecting states where the instruments were administered, with four states (Taraba, Adamawa, Gombe, and Bauchi) chosen purposively based on accessibility and security considerations. These states collectively represent 66.6% of the target zone. Within these states, four universities were randomly selected out of nine using a hat and draw method. The selected universities—Taraba State University, Jalingo; Modibbo Adama University, Yola; Gombe State University, Gombe; and Abubakar Tafawa Balewa University, Bauchi—comprise 44.4% of the universities in the selected states. For each university, two faculties (Education and Science) were purposively chosen. In the final stage, 200-level undergraduate students were purposively selected as the unit of analysis, totaling the sample size of 1,058 based on Krejcie and Morgan's probability sampling table. The contribution of each university to the sample was determined using a formula, resulting in Taraba State University contributing 274, Modibbo Adama University contributing 204, Gombe State University contributing 217, and Abubakar Tafawa Balewa University contributing 363.

Data obtained were analyzed using Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). The Principal Component

Analysis (PCA) with varimax rotation was employed in determining the underlying components and the factor structure of the scale. Guttman split-half, Cronbach coefficient alpha and Freltd-Gilmer methods were used to

establish the reliability of UARS. The Confirmatory Factor Analysis (CFA) with the use of Average Variance Extracted (AVE) was applied to determine the convergent and discriminant validity of the instrument.

Results

Table 1: Kaiser-Meyer-Olkin (KMO) test and Bartlett's test of Sphericity result of SUCLEAR

Sampling Adequacy	Sphericity	Significance
0.990	.000	Sig

The Kaiser-Meyer-Olkin test of sampling adequacy and Bartlett's test of Sphericity confirm the adequacy of items in the scale and sample size of the study (0.996). The result was found to be appropriate and statistically significant at 0.000 p level.

Research Question One:

What are the underlying components of university academic reputation scale in North-East, Nigeria? The answer to research question One is presented in table 2.

Table 2: Principal Component Analysis showing the components underlying Universities

Component	Total Eigenvalue	% of Variance	Cumulative %
1.	12.088	37.776	37.776
2.	2.596	8.114	45.889
3.	1.964	6.137	52.027
4.	1.353	4.229	56.256
5.	1.025	3.203	59.459

Table 2 shows the underlying factors component extracted from the university academic reputation scale. Five components were extracted from the scale with eigenvalue greater than 1. These eigenvalues indicate that only five constructs can be accounted for in the university

academic reputation sub-scale. The first factors component has an eigenvalue of 12.088, the second factors component value is 2.596, the third is 1.964, and the fourth is 1.353 while the last factors component has an eigenvalue of 1.025.

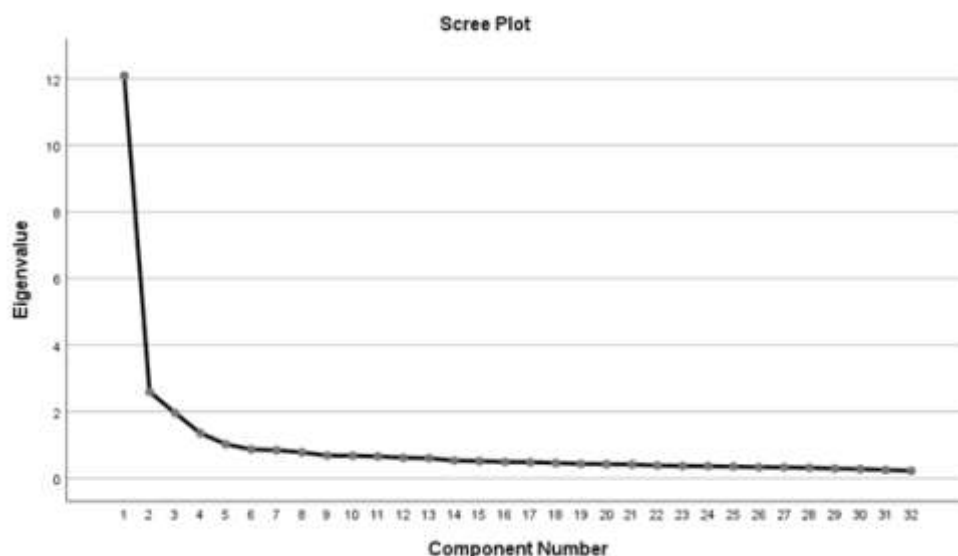


Fig 1: Principal Component Analysis Scree Plot of Academic Reputation Scale

Figure 1 shows the principal component analysis scree plot of the university academic reputation scale. The scree plot reflects the five extracted components of the scale, each with

three or more factors loading. From the scree plot, the first factors component eigenvalue is 12.0, the second 2.5, the third 1.9, the fourth 1.3 and the last dimension value is 1.0.

Table 3: *Rotated Component Matrix of University Academic Reputation Scale showing the factors loading*

FACTOR	IQ	AQ	UR	IR	HR
IQ1	0.838				
IQ2	0.827				
IQ3	0.806				
IQ4	0.781				
IQ5	0.746				
IQ6	0.735				
IQ7	0.732				
IQ8	0.696				
IQ9	0.660				
AQ1		0.845			
AQ2		0.820			
AQ3		0.779			
AQ4		0.776			
AQ5		0.760			
AQ6		0.732			
AQ7		0.721			
AQ8		0.689			
AQ9		0.628			
UR1			0.868		
UR2			0.857		
UR3			0.838		
UR4			0.822		
UR5			0.785		
UR6			0.750		
UR7			0.682		
IR1				0.842	
IR2				0.824	
IR3				0.665	
HR1					0.884
HR2					0.869
HR3					0.754
HR4					0.647

KEY: **IQ**-Infrastructural Quality, **AQ**- Academic Quality, **UR**-University Reputation, **IR**-Interpersonal Relationship, **HR**-Human Resources

Table 3 shows the rotated component matrix of university academic reputation scale. The result shows that only five constructs or components can be accounted for. The first construct extracted (IQ) infrastructural quality loaded nine items or factors, (AQ) academic quality loaded nine items or factors, (UR) university reputation loaded seven items, (IR) interpersonal relationship loaded three items

while the last extracted construct or dimension (HR) human resources loaded four items or factors. All the item loadings are between 0.628 and 0.884.

Research Question Two

What is the construct validity of university academic reputation scale in North-East Nigeria?

Table 4: *Convergent Validity of University Academic Reputation Scale*

Construct	Guttman split half	Cronbach Alpha	Feldt Gilmer	Average Variance Extracted (AVE)
Infrastructural Quality	0.836	0.834	0.835	0.577
Academic Quality	0.801	0.797	0.800	0.566
University Reputation	0.811	0.810	0.810	0.644
Interpersonal Relationship	0.786	0.781	0.793	0.610
Human Resources	0.645	0.636	0.652	0.630

The information from table 4, shows the convergent validity of the university academic reputation scale. The result obtained from the reliability indices of each construct using different methods show that the results are

similar. The average variance extracted (AVE) which is the final criterion for judging convergent validity is greater than 0.5, which indicates that the items measuring the constructs are highly correlated and the convergence of the construct is achieved.

Table 5: *Discriminant Validity of Academic Reputation Scale*

Construct	IQ	AQ	UR	IR	HI	vAVE
Infrastructural Quality						0.759
Academic Quality	0.543					0.752
University Reputation	0.412	0.505				0.802
Interpersonal Relationship	0.423	0.454	0.571			0.781
Human Resources	0.358	0.414	0.445	0.508		0.794

The result from table 5, shows the discriminant validity of the academic reputation scale. The discriminant validity is measured with the inter construct correlation matrix value and the square root value of average variance extracted. The information provided above shows that all the correlation between the constructs is less than the square root value of the average variance extracted. This showed that the discriminant validity of the scale is achieved.

This is evidence that all the construct or latent variables in the scale are different or distinct from each other.

Research Question Three:

What is the reliability of university academic reputation scale in North-East, Nigeria? The answer to research question ten is presented in table 6

Table 6: Reliability Indices of University Academic Reputation Scale

Methods	Reliability Indices
Guttman Split-half	0.9218
Cronbach alpha	0.9194
Feldt-Gilmer	0.9208
Average	0.9206

Results from table 6 above, shows the reliability coefficient of university academic reputation scale using three methods: Cronbach alpha, Guttman split-half and Feldt Gilmer. The three methods yielded high-reliability indices ranging from 0.9194 to 0.9218, giving an average reliability index of 0.9206.

Discussion of Findings

The result of the Kaiser-Meyer-Olkin (KMO) and Bartlett's test of Sphericity confirmed the adequacy of items and sample size of the developed scale. This is in line with McCoach (2013) who opined that a sample size from one thousand and above is excellent for instrument development. The result shows that five components underlined the UARS scale using principal component analysis (PCA) with varimax rotation. The factor analysis method employed in this study was in line with what Falaye and Awopeju (2012), Agrey and Lampadan (2014), Anyasi, Ogunnaike, Oloruntoba, Folorunsho, Dinyain and Dibia (2019), Amuche and Mahmood (2019) and Mandal, Banerjee and Otola (2019) used in their respective studies. The factor loading of items that made up the final scale of UARS was above 0.4. This is in line with Tavakol and Wetzel (2020) who affirmed that factor loading must be from 0.4 for an item to be retained in the scale and to be judged reliable. Moreover, the study's results indicate that the Average Variance Extracted (AVE) for each construct exceeded 0.5, and their corresponding square roots surpassed the inter-construct correlation values. This suggests that the constructs are distinct from each other, and their respective characteristics converge to measure the same underlying concept. The reliability index results, indicating a value of 0.92, affirm the excellent reliability of the UARS instrument. This outcome aligns with the assessment by Thompson, Asim, and Ubi (2020), who considered a reliability coefficient in the range of 0.80 to 0.90 as indicative of excellent reliability.

Conclusion

The findings of the study showed that UARS is a valid and reliable instrument. The scale contained five components. The construct

validity of UARS was established while the reliability coefficient was excellent (0.92). Hence, it can be concluded that these five constructs are adequate for assessing students' perception of university academic reputation in North-East, Nigeria.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. Any researcher, university administrators, policy makers and regulatory bodies or practitioners intending to assess students' perception of university academic reputation should use the five components identified in this study.
2. UARS should also be used in other geopolitical zones of Nigeria, to assess the perception of university students on academic reputation of their universities

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SCALE FOR ASSESSING STUDENTS PERCEPTION OF UNIVERSITY ACADEMIC REPUTATION IN THE NORTH-EAST, NIGERIA (UARS)

SECTION A
 Please supply the required information by filling/ticking the spaces below.

1. Name of University: _____

2. University Type: State Federal

3. Faculty: _____

4. Department: _____

5. Sex: Male Female

SECTION B

STUDENTS PERCEPTION ON UNIVERSITY ACADEMIC REPUTATION

INSTRUCTION: for the following items, please tick only one response that best reflect your perception of your university academic reputation.

1= Poor 2= Fair 3= Good 4= Very good 5= Excellent

		1	2	3	4	5
INFRASTRUCTURAL QUALITY						
1	Quality of facilities in campus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Quality of health care service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Quality of internet services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Quality of libraries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Quality of research institutes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Quality of research laboratories					
7	Quality of security					
8	Quality of sport programmes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Transportation network within the campus.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ACADEMIC QUALITY						
10	Employability of graduates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Quality of admitted students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	Quality of graduates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	Quality of programmes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14	Quality of published research					
15	Scholarship programmes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	Stable academic programme					
	UNIVERSITY REPUTATION					
17	ADMISSION POLICIES OF UNIVERSITY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	Awards received by the University	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	Conducive social environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	Examination ethic of the University					
21	Moral standard of the University					
22	Quality of cultural activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23	Quality of discipline	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24	Recognition of certificate					
25	Recognition of University name					
	INTERPERSONAL RELATIONSHIP	1	2	3	4	5
26	Relationship between student and school management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27	Relationship between students and staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28	Relationship between University staff and management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29	University relationship with the host community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	HUMAN RESOURCES					
30	Quality of administrative staff.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31	Quality of lecturers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32	University Administration skill					
33	Use of educational technology					