The Structural Weaknesses for Quality of Education in Private Universities of Bangladesh

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Abstract- Recently, quality of education is an important issue in all over the world. Private sector universities established in Bangladesh on 1992 to enhance higher education. At present there are 38 public and 90 above private universities are running their academic activities in Bangladesh. A large number of students are studying at the undergraduate and graduate levels in private universities of Bangladesh. These students are getting education in the fields of business, science and engineering, arts and social sciences respectively. Nowadays this is a burning issue that most of the private university of Bangladesh does not provide quality of education and produce quality graduates. There are some structural weaknesses or factors which influence quality of education of private universities. To identify the major influencing structural weaknesses or factors of private universities that are the main objectives of the study. The findings of the research may helps to the concern line ministry and agencies to develop such policy to enhance quality higher education in the country. Survey and interview research method were used in the study. Factor analysis was used to identify the factors that are highly affecting the quality of education of private sector universities. Multiple regression analysis were used to show that the relationship between identified factors and quality of education. Results show that there are four significant structural weaknesses or factors are immensely affecting quality of education of private universities in Bangladesh. The identified factors or structural weaknesses are answers script do not examine by second examiner, students class irregularities, incompleteness of credit hour and syllabus and questionnaire do not moderation by moderation committee. Multiple Regression Analysis shows that the identified factors are significantly related to the quality of education of private universities of Bangladesh. This study suggests that If there is a initiate in identified factors, there will be considerably improved quality of education of private universities of Bangladesh.

Index Terms- Bangladesh, Private University, Quality of Education, Structural Weaknesses.

I. INTRODUCTION

This study show that the quality of education is affecting due to some structural weaknesses in private universities of Bangladesh. At present there are 90 above private universities running their academic activities in Bangladesh. These universities are providing education in the fields of business, science and engineering, arts and social sciences respectively. At this time a large number of students are studying at the undergraduate and graduate levels in private universities of Bangladesh. But nowadays a question has been raised about their quality of education. Most of the private universities of Bangladesh did not provide quality of education and produce quality graduates because of they have some institutional structural weaknesses. This study tries to identify the major structural weaknesses that affect the quality of education of private universities of Bangladesh. If these structural weaknesses are removed, the quality of education of private universities will be enhanced.

Literature review shows that quality of education means a combination of the learner's outside experiences, learning environment, content of education, learning processes, and education outcomes. The learning environment should be safe, healthy and stimulating. Appropriate education content is relevant to the learner and presented in a well-managed classroom. Learning outcomes should meet promote participation in society (UNICEF,2014). Quality of education depends on both administrative and faculty characteristics and it also depends on student's current status and socioeconomic background. (Husain Salilul Akareem et al,2012). If Private universities try to improve their current standing through maintaining and retaining reliability and viability, they should maintain the highest student quality, designing a broad based liberal arts curriculum and emphasizing on research and scholarly activities. Overall they should have strategic plan to ensure the quality of education (SSM Sadrul Huda et al, 2010). Quality students intake, quality in teaching, transparency in grading system, library and laboratory facilities, constitute regulations for private universities, proper financing, formation of accreditation council may ensure quality of education in private sector universities of Bangladesh.(Mobasser Monem et al. 2010). There are some indicators of quality of education like methods of teaching and learning, assessment methods, renewing the curriculum continually, updating and upgrading professional knowledge and skills, and improving the broader educational, administrative and resources(UGC,2006). The Poor infrastructure facilities, inefficient and inexperienced low quality teaching staff, dissatisfaction of teachers and students and the profit motive of founders are the major obstacles for ensuring quality of education in private sectors University in Bangladesh (Abu Naser, 2008). Nine factors were related to explain the satisfaction of alumni with their education such as, comprise teacher quality, method and content, peer quality, facilities and resources, the effectiveness of the administration, campus politics, gender and year of graduation (Syed Saad Andaleeb, 2003). Faculty qualifications, intake (students) selection system, assessment system, campus facilities, research environment, leadership of

university, market orientation, and corporate attachment are associated with quality of business education. (Nazamul Hoque et al, 2013). Considering factors for ensuring quality of higher education in Bangladesh are tuition fees, choice of the students and guardians, session jam, popularity, teaching aids, library facilities, availability of books and journals, research facilities, and laboratory facilities.(Malaya Tashbeen Barnamala,2015). Quality of teaching, quality intake, financial resources and related issues may ensure quality of education of private universities in Bangladesh.(Touhida Tasnima,2008). Most of the private unversities are depending on part time teachers, poor infrastructures, without service rules, Poor library facilities, and they have no computer lab saminer library.(Addur Rouf et al, 2015)

The above mention research discussed about some index or indicators of quality of education but did not discuss about the factors which are affecting quality of education in private universities of Bangladesh. Few researchers identified some affecting factors of quality of education but they did not show that how much percentage of a individual factor is significantly affecting quality of education of private universities. They also did not prove that their identified factors and the quality of education were significantly related or not. This study tries to identify some important structural weaknesses or factors which are significantly affecting quality of education in private universities of Bangladesh.

The rest of the article is structured as follows: First, the objectives of the study will be stated, this is followed by a description of the research methods and procedures used in the study. The findings of our study are then discussed. Finally, implications, limitations, and directions for future research are offered.

II. OBJECTIVES OF THE STUDY

The objective of this study is to identify the impact factors which are playing negative role for providing quality of education in the private universities of Bangladesh. The specific objectives are profiled below.

i. To find out the major structural weaknesses of private universities in Bangladesh.
ii. To identify the impact factors which are affecting quality of education in private universities of Bangladesh.
iii. To identify the significant factors are related to the quality of education.
iv. To provide some recommendation to reduce structural weaknesses and assure quality of education in private sector universities of Bangladesh.

III. METHODOLOGY

This study attempts to identify the impact factors concerned with the quality of education in the private universities of Bangladesh. To conduct the study both primary and secondary sources of data were used. Primary data were collected from the private university student's, stuffs and concern line authorities.

Secondary data were collected from the previous research monographs and the journals.

3.1 Determination of Sample Size

This study only includes private universities of Bangladesh. The universities were selected for this study by random sampling techniques. According to statistics 2016, there are 90 above government approved private universities in Bangladesh but at present about 80 private universities are runing their academic activities. (University Grant Commission's Report, 2016). We selected 80 private universities as a population and sample has been selected from 80 universities. The sample can be determined by using the following formula suggested by Yamane (1967)[1]. The formula used in this study is shown below.

$$n = \frac{N}{1 + N(e)^2}$$

(1)

Where,
n = Sample Size
N = Population
e = Percentage of sampling error
In calculating sample size[2] the following assumptions were made to determine, n = 45

(i) Population[3] size is > 80 universities
(ii) Percentage of sampling error[4] is 10%

However, this study collected data from 45 private universities of Bangladesh.

3.2 Questionnaire Design and Test of Reliability

The questionnaire of the study was considered with dichotomous[5] and Likert scale[6] method. Dichotomous questionnaire designed with possible two answers of YES/NO. Likert scale questionnaire was designed with 5 point scales which range from 1 to 5 where 1 is indicating strongly disagree and 5 is indicating strongly agree. Table 1 shows the reliability coefficient[7] of the questionnaire. It shows that the Cronbach's alpha[8] of the questionnaire is 0.917 which is excellently acceptable as per Nunnally (1978)[9].

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[1] Yamane, Taro. (1967). Statistics: An Introductory Analysis, 2nd Edition, New York: Harper and Row.

[2] Sample size is a part of the population which is systematically determined and that represent the characteristics of population.

[3] Population is a complete set of items that information is desired.

[4] Sampling error is the level of precision, is the range in which the true value of the population is estimated to be. This is range is expressed in percentage points.

[5] The dichotomous question is a question which can have two possible answers. Dichotomous questions are usually used in a survey that asks for a Yes/No, True/False or Agree/Disagree answers.

[6] Likert scale is a five or seven point scale which is used to allow the individual to express how much they agree or disagree with a particular statement.

[7] A measure of the accuracy of a test or measuring instrument obtained by measuring the same individuals twice and computing the correlation of the two sets of measures.

[8] Cronbach's alpha is a measure of internal consistency that is how closely related a set of items are as a group. It is considered to be a measure of scale reliability.

[9] Nunnally (1978) offered a rule of thumb of 0.7. More recently, one tends to see 0.8 cited as a minimum alpha. One thing to keep in mind is that alpha is heavily

Table 1 Reliability[10] statistics

Cronbach's Alpha	Number of Items
0.917	20

This study identified some structural weaknesses or variables that affect the quality of education of private university in Bangladesh. The questionnaire set up with following variables such as, student's admission with direct or admission test, Applicant's previous exams passing year limit, department wise seat limit for admission, semester duration, teacher's course load, credit hour & syllabus completion, examination committee, question moderation committee, questionnaire moderation, answer script second examine, students termination system, necessary academic infrastructure such as, class rooms facilities, seminar library and laboratory facilities etc.

3.3 Data Collection

A survey has been conducted among the 45 private universities of Bangladesh. Random sampling technique was used for data collection. Most of the data of the study were collected from primary sources by interview through questionnaire and some were collected from website of different universities. The interviewers were bachelor students of sociology & Anthropology and Economics department of Asian Universities of Bangladesh. Interviewers were properly trained on the matters representing the questionnaire for data collection before resuming the interview. All the data of the study were collected from November 2016 to January 2017.

3.4 Measurement

Descriptive statistics[11] and inferential statistics[12] were used to analyze the data. A Principal Component Analysis (PCA) with an Orthogonal Rotation (Varimax)[13] using the SPSS (Statistical Package for Social Sciences) was performed on the survey data. Multiple Regression Analysis[14] was conducted to identify the relationships between the dependent and independent variables for develop a model in this study.

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dependent on the number of items composing the scale. Even using items with poor internal consistency you can get a reliable scale if your scale is long enough.
[10] Reliability refers to the consistency or repeatability of an operationalized measure.
[11] Descriptive statistics consists of methods for organizing, displaying and describing data by using tables and summery measures.
[12] Inferential statistics is concerned with making predictions or inferences about a population from observations and analysis of a sample.
[13] Varimax rotation is an orthogonal rotation of the factor axes to maximize the variance of the squared loadings of a factor (column) on all the variables (rows) in a factor matrix, which has the effect of differentiating the original variables by extracted factor. Each factor will tend to have either large or small loadings of any particular variable. A varimax solution yields results which make it as easy as possible to identify each variable with a single factor. This is the most common rotation option.
[14] In statistics, regression analysis is a statistical process for estimating the relationships among variables. It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables. More specifically, regression analysis helps one understand how the typical value of the dependent variable (or 'Criterion Variable') changes when any one of the independent variables is varied, while the other independent variables are held fixed.

IV. FINDINGS OF THE STUDY

The analysis and interpretations of this study have been divided into two divisions such as, (i) Factor Analysis[15] and Multiple (ii) Regression Analysis[16]. Factor Analysis to reduce the items to impact factors related to impede quality of education and Multiple Regression Analysis to identify the significant factors or structural weaknesses that affect the quality of education of private universities of Bangladesh.

Factor Analysis was run to identify the factors or structural weaknesses relating to the quality of education and it identified number of four factors that affect the quality of education of private universities of Bangladesh. Result shows that the communalities of the items are very high indicating higher level of association among the scale items on variables (Appendix 1).

Results also show that there are four factors or structural weaknesses as a whole affect the quality of education in private universities of Bangladesh such as, answer script do not second examine by second examiner (43.803%), Students class irregularities (17.418%), Incompleteness of credit hour and syllabus (7.854%) and questionnaire do not moderation by moderation committee (6.132%), (Table-2).

The most important factors are answer script do not examine by second examiner, students class irregularities, Incompleteness of credit hour and syllabus and questionnaire do not moderation by moderation committee.

Table 2 Impact Factors and Total Variance Explained

Sl.	Factors	Initial Eigen values		
		Total	% of Variance	Cumulative %
1.	Answer scripts do not examine by second examiner	8.761	43.803	43.803
2.	Students class irregularities	3.484	17.418	61.221
3.	Incompleteness of credit hour and syllabus	1.571	7.854	69.074
4.	Questionnaire do not moderation by moderation committee.	1.226	6.132	75.207

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[15] Factor Analysis is used in data reduction to identify a small number of factors that explain most of the variance observes in a much larger number of manifest variables.
[16] Multiple Regressions Analysis is an extension of simple linear regression. It is used when we want to predict the value of a variable based on the value of two or more other variables. The variable we want to predict is called the dependent variable (or sometimes, the outcome, target or criterion variable). The variables we are using to predict the value of the dependent variable are called the independent variables (or sometimes, the predictor, explanatory or regressor variables).

Extraction Method: Principal Component Analysis.

Multiple Regression Analysis shows that the factors identified by the Factors Analysis can explain about 81% of dependent variable. This means that the identified factors or structural weaknesses through this analysis are highly important and have significant influence on the quality of education in private universities of Bangladesh. (Table-3)

Table 3 Model Summery

Model	R	R Square	Adjusted R Square[17]	Std. Error of the Estimate
1	.897	.805	.785	.40266

a. Predictors: (Constant), REGR factor score   4 for analysis 1, REGR factor score   3 for analysis 1, REGR factor score 2 for analysis 1, REGR factor score   1 for analysis 1
b. Dependent Variable: Overall

Analysis of Variance (ANOVA)[18] shows that the factors identified by this analysis together significantly related to the dependent variable. This means that the factors identified in this analysis significantly related to the quality of education in private universities of Bangladesh. (Table- 4). If there is a change in the factors, this will be enhance the education quality in the private sector universities of Bangladesh.

Table 4 Analysis of Variance (ANOVA)[b]

Model	Sum of Squares	df	Mean Square	F	Sig.
1. Regression	26.759	4	6.690	41.259	.000[a]
Residual	6.486	40	.162		
Total	33.244	44			

a. Predictors: (Constant), REGR factor score   4 for analysis 1, REGR factor score   3 for analysis 1,
REGR factor score   2 for analysis 1,
REGR factor score   1 for analysis 1
b. Dependent Variable: Overall

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[17]   The adjusted R-squared is a modified version of R-squared that has been adjusted for the number of predictors in the model.
[18] Analysis of variance (ANOVA) is used to determine whether there are any significant differences between the means of two or more independent (unrelated) groups.

Table 5 shows that the individual factor relationship with the dependent variable of the regression model. It shows that the factors such as, answer script do not examine by second examiner (8.456), students class irregularities (7.679), incompleteness of credit hour and syllabus (4.238), and questionnaire do not moderation by moderation committee (4.075) are significantly related to the quality of education in private universities of Bangladesh.

Table 5 Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.489	.060		41.464	.000
Answer scripts do not examine by second examiner	.513	.061	.591	8.456	.000
Students class irregularities	.466	.061	.536	7.679	.000
Incompleteness of credit hour and syllabus	.257	.061	.296	4.238	.000
Questionnaire do not moderation by moderation committee	.247	.061	.285	4.075	.000

a. Dependent Variable: Overall

V.   DISCUSSION

The purpose of this study was to identify the structural weaknesses of private universities of Bangladesh which are affecting the quality of education. To our knowledge, it is the first study that demonstrates the affect of structural weaknesses on quality of education in private universities of Bangladesh.

5.1 Summary of the findings
After analyzing the data our study got some findings. Factor Analysis has identified four factors that highly affect the quality of education of private sector universities. The identified most important factors are answers script do not examine by second examiner, Students class irregularities, incompleteness of

credit hour and syllabus and do not construct question moderation committee for final questionnaire moderation. The factor answers script do not examine by second examiner individually influence quality of education(43.803%), Students class irregularities (17.418%), do not completion of credit hour and course syllabus (7.854%) and questionnaire do not moderation by moderation committee (6.132%). The four factors as a whole (75.207%) significantly influence the quality of education in private universities of Bangladesh. Multiple Regression Analysis shows that all the identified factors that are significantly related to the quality of education of private universities of Bangladesh. Moreover, our study empirically validated and our results indicate that there has significant relationship between structural weaknesses and quality of education. This means that the factors identified in this analysis are significantly related to the overall quality of education.

5.2 Managerial implications

Our study suggests that if there is a change in identified factors, there will be change in the quality of education of private universities of Bangladesh. If private university will initiate second examine system, questionnaire moderation, class regularities and complete of credit hour and syllabus, it will be significantly enhanced quality of of education of private sector universities of Bangladesh.

5.3 Limitations of the study

There are some limitations might be related to data collection. The first limitation of the study is that we determined our sample size with 10% sampling error and we collected our data from Dhaka city base private universities. Second limitation might be the omission of some important variables, such as, number of teachers, class room facilities, research facilities for students and others infrastructural facilities etc. Another shortcomings of the study is that it did not include public sector universities of Bangladesh. Another potential limitation of the study is related to the measurement of quality of education.

5.4 Recommendations for future research

This study has identified the impact factors for quality of education of private universities of Bangladesh. But it did not include some influencing variables, such as, number of teachers, class room facilities, library facilities, research facilities for students and it also did not include government universities of Bangladesh. These recognized shortcomings could inspire future researchers for further study in this regard.

APPENDICES

Appendix 1 Communalities

Sl. No.	Name of the Variable	Extraction
VAR 01	University campus type (Own or rented).	.614
VAR 02	Student admission type	.843

	(Direct or admission test).	
VAR 03	Admission without test.	.682
VAR 04	Applicant passing year of S.S.C and H.S.C examination not determined for admission.	.673
VAR 05	Department wise seat limit not fixed.	.926
VAR 06	Incompleteness of Credit hour.	.940
VAR 07	Incompleteness of Syllabus.	.940
VAR 08	Teacher's course load high.	.804
VAR 09	Students class irregularity.	.827
VAR 10	Do not declare non collegiate on the basis of student's attendance.	.827
VAR 11	Termination system do not maintain on the basis of frequent fail.	.771
VAR 12	Do not constructs examination committee for each department to conduct final examination.	.667
VAR 13	Questionnaire do not moderation by moderation committee.	.834
VAR 14	Do not provide remuneration for invigilation.	.256
VAR 15	Do not provide remuneration for examine answer script.	.721
VAR 16	Answer script do not second examine by second examiner.	.926
VAR 17	Time and fund not allocated for research.	.554
VAR 18	No seminar library facilities.	.670
VAR 19	No computer lab facilities.	.854
VAR 20	No common room facilities.	.713

Extraction Method: Principal Component Analysis

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