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QUALITY ASSURANCE AND ACCREDITATION MECHANISMS OF HIGHER EDUCATION INSTITUTIONS: POLICY ISSUES AND CHALLENGES IN BANGLADESH

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Abstract:
The Purposes of this study are to explore the existing quality status and analyze the gaps between existing practices and formal quality assurance and accreditation (QAA) systems, and to assess and tap the institutional learning and challenges of introducing QAA mechanism in Bangladesh. However, the intention is to explore the preparedness to introduce formal QAA mechanism and their implications on the institutional performance in the context of Bangladeshi Higher Education Institutions (HEIs). The Mix method approach is applied here, where the primary data are collected from the university faculty members in order to determine the perceptions towards quality improvement initiatives in HEIs. The study revealed that HEIs in Bangladesh face a number of challenges in terms of formal quality assurance practices. The key variables brought from formal QA framework fell into six quality areas: leadership and

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institutional governance, curriculum, facilities, student, staff, and quality assurance process development. The study suggests that the main challenge lies with quality assurance process development to introduce formal QAA in HEIs. Existing quality status from this study shows that quality areas of student, curriculum and facilities remain above the average level of standard, but the quality areas of leadership and institutional governance, staff and quality assurance process development are below the average conditions. The findings would assist academicians to enhance quality assurance framework at national level as well as institutional level. However, the challenges the individual higher education institution would encounter to implement the formal QAA mechanism are addressed at length.

Keywords: quality education; accreditation; higher education; quality assurance; higher education institutions; Bangladesh

1. Introduction

Quality of higher education contributes to skilled human capital formation that is essential to develop a country's socio-economic competencies. It is often believed that quality education is the key factor in determining the place of a nation in global competition (Materu P., 2007). The quality of a country's higher education sector as well as its assessment and monitoring is not only key to its social and economic wellbeing; it is also a determining factor affecting the status of that higher education system at the international level (UNESCO, 2005).

Higher education sector in Bangladesh typically includes the universities along with its affiliated colleges and the madrasas that provide education after higher secondary level. After the independence in 1971, higher education was provided by the state with its public universities, which inflates after 1991 through the affiliated colleges of the National University and approved private universities since the adoption of Private Universities Act 1992. Following this rapid expansion, quality issue in higher education has become a theme of discussion and major concern to all stakeholders. A general concern is that huge enrollment accompanied by inadequate infrastructure and resources, incompatibility of existing capacity and lack of organizational arrangements and governance may result in deterioration of academic quality and standards. As a response to the increasing worries, some initiatives such as policy improvement, implementation of quality specific development program and legislative improvement has been taken to enhance the quality of higher education by the government of Bangladesh.

Policy upgrading includes implementation of a long-term strategic plan namely Strategic Plan for Higher Education in Bangladesh: 2006-2026, and formulation of an up-to-date National Education Policy (NEP)-2010 which, among other issues, promises

to increase quality of higher education. In education policy, it is mentioned that private universities, public universities and other institutions offering graduate and postgraduate degrees are brought under surveillance to evaluate their performance and an Accreditation Council with adequate authority will be formed to carry out that responsibility (NEP, 2010). With the assistance of the World Bank the University Grants Commission (UGC) of Bangladesh has been implementing a development program namely Higher Education Quality Enhancement Project (HEQEP) since May, 2009.

Legislative progress includes upgradation and modernization of Private University Act (PUA)-1992 through approving Private University Act in 2010 which aptitudes to increase quality of private universities education. The Act provides to ensure the quality education and mentioning through internal quality assurance cell/unit and to set up an independent, separate and national Accreditation Council for ensuring a set standard in higher education (Article 36 & 38; PUA, 2010). To implement the national education policy, the MoE has already prepared a Draft Education Law (DEL) clarifying the quality assurance and accreditation mechanism to assess and assure the quality of the education provided by both public and private institutions (DEL, 2013). HEIs offering graduate and postgraduate program must have an internal quality assurance mechanism to get accreditation from the proposed Accreditation Council. The QAA mechanism has the potentiality to indorse enhancement in the HEIs and programs in ways that are linked not only to acquire competencies or employment of graduates but also to more efficient and transparent operations of the institution itself and its programs (Charman, 2006). Thus, research relating to this mechanism will help to expedite immediate implementation of this mechanism in the higher education arena. This study comprises of analyses of programs and institutional level quality assurance systems and practices; it deals with terms and concepts like quality, its assurance and accreditation and their underlying assumptions and with theories that could address QAA system in Bangladesh. Therefore, this research will address the question: What are the specific academic and institutional challenges that affect the process of introduction of QAA mechanism in HEIs in Bangladesh? The purpose of this study is to evaluate the preparation of universities to introduce formal QAA mechanism in HEIs in Bangladesh. This research is meant to explore the existing quality status and find the gaps between existing practices and formal practices in established QAA practices so that HEIs can enter the formal QAA process within a desirable time frame. Finally, this study broadly attempts to assess and tap the institutional learning and challenges of introduction of QAA in selected universities in Bangladesh.

2. Literature Review

The projected demand for higher education could reach 263 million students globally by 2025, which was nearly 100 million in 2000 (Tricia Ryan, 2015 referencing Karaim,

2011). Raising demand of higher education pushes us to ensure its quality, whose assurance can be a driver for institutions to achieve excellence in higher education (Tricia Ryan, 2015). But the insight of quality assurance is complex and contextual; and a gap exists in the view among professionals, academic staffs and students (Smidt, 2015, p. 626). Several key dimensions of quality in higher education include excellence, value, consistency, and meeting needs and expectations; yet no single quality assurance framework can address all aspects of quality; so, choices are made about what kinds of quality are assessed (Harvey, 2014; Wilger, 1997 cited in Tricia Ryan, 2015). Multidimensional conceptions are found in the literatures regarding quality assurance in higher education. Many scholars, (Puzziferro & Shelton, 2008; Barnett, 1992; Lundberg & Schreiner, 2004; Vincent, 1987; Schindler, Puls-Elvidge, Welzant, and Crawford, 2015; Bogue, 1998; Harvey & Green, 1993; Barker, 2002; Cheng & Tam, 1997; Lagrosen, Seyyed-Hashemi, & Leitner, 2004; Oldfield & Baron, 2000; Scott, 2008; Tam, 2010; Vlăsceanu et al., 2007; (Green, Marmolejo, & Egron-Polak, 2012), have taken efforts to add theory and practical gen to the literature on the quality assurance and accreditation in higher education in world perspective. Cheng and Tam described quality as a system that constitutes the input, process, and output of the educational system and that provides services that completely satisfy both internal and external stakeholders by meeting their explicit and implicit expectations (Cheng, Y & Tam, W, 1997).

Regarding **Quality Assurance,** most scholars on the concept of quality assurance quoted it as 'a systematic, structured and continuous attention to quality in terms of quality maintenance and improvement (Vroeijenstijn A., 1995). It is a collective process by which a university ensures that the quality of educational process is maintained to the standards it has set itself (Wilger, 1997), where standards can be designated as a statement in general or specific terms on the knowledge, understanding, skills and attitude to be demonstrated by successful graduates. In the context of higher education, quality assurance is viewed as the ongoing development and implementation of ethos, policies, and process that aim to maintain and enhance quality as defined by articulated values and stakeholder needs (Boyle & Bowden, 1997). The International Network for Quality Assurance Agencies in Higher Education (INQAAHE) states that assurance of quality in higher education is a process of establishing stakeholder confidence that provision fulfils expectations or measures up to threshold minimum requirements, which embraces input, process and outcomes (INQAAHE, 2005).

Accreditation is the immediate output of quality assurance process. It is a certification that an institution or a specific program possesses educationally appropriate objectives that are being achieved. Farashuddin (2013) said that "*Educational Accreditation may be defined as a type of quality assurance process under which services and operations of educational institutions or programs are evaluated by an external*

agency to determine if applicable standards are met". It follows a systematic process, which starts with the self-assessment done by the institution itself. The process usually includes a self-evaluation, peer reviews and site visits (Materu P., 2007). From the North-American experience, accreditation assures the educational community, the general public, and other agencies or organizations that an institution or program (a) has clearly defined and educationally appropriate objectives, (b) maintains conditions under which their achievement can reasonably be expected, (c) is in fact accomplishing them substantially, and (d) can be expected to continue to do so (Chernary, 1990).

Regarding the question of formal QAA mechanism, a number of studies have been conducted to examine the spectrum and factors affecting quality higher education in Bangladesh (Andaleeb, 2003; Alam, Haque, & Siddique, 2006; Tasmina, 2008; Islam, 2008; Aminuzzam, M. S., 2008; Momen, & Baniamin, 2010; Ali, 2011; Villanvea, 2011; Sarkar, Rana, & Zitu, 2013; Hoque, Mowla, Chowdhury, & Uddin, 2013; Sultan & Tarafder, 2013). Andaleeb conducted a study focusing nine critical factors (teacher quality, method and content, peer quality, direct facilities, indirect facilities, administrative efficacy, political climate, gender effects and satisfaction) to revitalize quality of higher education (Andaleeb, 2003). The quality control in higher education mainly involves with quality of inputs which is selection of students and quality of processing of inputs to final products (Alam, Haque, & Siddique, 2006). Quality of higher education depends on teachers' responsibility and teaching skills of teachers, educational curriculum, library uses, accessibility of higher education, and economic status of the students, which are very poor in quality (Islam, 2008). Problems and the way forwards of quality assurance of higher education are found in the study of Aminuzzaman M. S., 2008. Momen and Baniamin have emphasized on infrastructures and human resources to assure quality in higher education (Momen & Baniamin, 2010). Similarly, Inadequate resources and insufficient facilities are the main challenges for quality of higher education in Bangladesh (Sarkar, Rana, & Zitu, 2013).

Information regarding initiatives of accreditation is found in some international conference papers (Asaduzzaman, 2005; Lamagna, 2006 and Farashuddin, 2013). These papers show that there were several initiatives already taken to establish an accreditation council in Bangladesh; but focusing only private university. However, no study was found which focused about establishment of formal quality assurance and accreditation mechanism for HEIs in Bangladesh.

3. Research Methods

A mixed methods approach of social science research is applied for this study to achieve the assumed purposes of the study, to seek out answers of the research questions and to realize the situations in which this study took place. Here, both

qualitative and quantitative methods are employed to fully identify and explain the adoption of formal QAA mechanism at the university level by confronting and confirming data from documents and leaders' experiences and perceptions.

3.1 Data Sources, Sampling and Data Collection Tools

Non-random, convenience sampling method is used for this study, where data is collected from the primary sources. All 165 Sub-Project Manager of HEQEP are selected as population, from where 60 are nominated as sample. A questionnaire was developed with 29 indicators under 6 variables (5 independent and 1 dependent) each of which were rated on a six-point rating scale (1 = highly unsatisfactory; 2 = unsatisfactory; 3 = moderately unsatisfactory; 4 = moderately satisfactory; 5 = satisfactory; 6 = highly satisfactory). Questionnaires were distributed to the respondents through email and hand to hand, form where 15 (25%) are filled in through direct interviews and 45 (75%) are received though returned mail. These questionnaires are collected from the public universities and private universities whose ratio is given in table 6.1.

Table 3.1: Number of Respondents and Universities by Category

Sl. No.	Types of University	No. of Sampled University	No. of Respondents	Percentage of survey
1	General Public University	6	28	46.7%
2	Technical Public University	7	28	46.7%
3	Private University	2	4	6.6%
Total		**15**	**60**	**100%**

3.2 Techniques of Data Analysis

In this study, the data collected are coded, entered, cleaned and analyzed using the Statistical Package for Social Sciences (SPSS 15) software. The quantitative data was reduced into descriptive statistics such as percentages; correlations etc. A validity test is executed to check the validity of the instrument and some descriptive statistics of data is also provided to explain the characteristics of sample. The mean response is calculated by adding all items of construct and divided by the total number. The standard deviation of each item is also calculated to check dispersion or variability of the data.

4. Findings Analysis

This section deals with analyses of empirical data pertaining to quality of education in the selected public and private universities in Bangladesh.

4.1 Demographic Characteristics of the Respondents

The table 4.1 reveals that out of 60 respondents 75% of the respondents have PhD degree, 18% have only master degree and 2% have post doc and MPhil degree respectively. Moreover, 58% are in a position of professor, 27% are associate professor, and 15% are assistant professor. Furthermore, 28% of them have 11 to 15 years of teaching experience, 23% have more than 20 years, 20% have 16 to 20 years, 17% have 6 to 10 years, and only 12% have less than 5 years teaching experience.

Table 4.1: Respondents by Educational Qualification, Professional Rank and Experience

Educational Qualification			Professional Rank/Position			Length of Teaching Experience		
Last Degree	**No.**	**%**	**Rank/Position**	**No.**	**%**	**Experience**	**No.**	**%**
Post Doc	2	3.3	Professor	35	58.3	Up to 5 yrs.	7	11.7
PhD	45	75.0	Associate Professor	16	26.7	5-10 yrs.	10	16.7
MPhil	2	3.3	Assistant Professor	9	15.0	11-15 yrs.	17	28.3
Masters	11	18.3	Lecturer	0	0.0	16-20 yrs.	12	20.0
Total	60	100	Total	60	100	20 yrs. Plus	14	23.3

4.2 Leadership and Institutional Governance

This variable includes 10 items with 2 for leadership and 8 for institutional governance. Descriptive statistics of these items present in table with mean value and standard deviation.

4.2.1 Leadership knowledge about formal QAA mechanism and its implementation

The statistics in table 4.2.1 indicate that 36.7% respondents perceive that university leadership's knowledge about formal QAA mechanism and its implementation is unsatisfactory; 63.3% perceive that it is satisfactory but among them 38.3% perceive that it is moderately satisfactory. Only 25% of the surveyed population thinks that it is at the satisfactory and the above level. The mean value of the scale is 3.7 but scale's value of particularly satisfactory level is 5.

Table 4.2.1: Leadership knowledge about formal QAA mechanism and its implementation

Name of scale	Percent
Highly Unsatisfactory	3.3
Unsatisfactory	15.0
Moderately Unsatisfactory	18.3
Moderately Satisfactory	38.3
Satisfactory	21.7
Highly Satisfactory	3.3

N=60, Range = 1 – 6, Mean = 3.7 and Std. Dev. = 1.17

4.2.2 Leadership Commitment to implement formal QAA process

The table 4.2.2 shows that 46.7% university teachers notice that university leadership's commitment to implement formal QAA mechanism is somehow unsatisfactory; 53.3% perceive that it is satisfactory but among them 26.73% perceive that it is moderately satisfactory. It means that only 26.7% of the surveyed population thinks that it is at the satisfactory and the above level. The presented table indicates that 73.3% of the university teachers in Bangladesh perceive that university leadership's commitment to implement formal QAA process is at below the satisfactory level.

Table 4.2.2: Leadership Commitment to implement formal QAA process

Name of scale	Percent
Highly Unsatisfactory	6.7
Unsatisfactory	15.0
Moderately Unsatisfactory	25.0
Moderately Satisfactory	26.7
Satisfactory	16.7
Highly Satisfactory	10.0

N=60, Range = 1 – 6, Mean = 3.62 and Std. Dev. = 1.38

4.2.3 University's Vision, Mission is aligned with the NEP and publicly known

Statistics in table 4.2.3 shows that 50% respondents observe that university's vision and mission compare to vision and mission set in national education policy is unsatisfactory; 50% perceive that it is satisfactory but among them 28.3% perceive that it is moderately satisfactory. It means that only 21.7% of the surveyed population perceives that it is at the satisfactory and the above level. The mean value of the scale is 3.4 but scale's value of particularly satisfactory level is 5. So, formulation or reformulation of university's vision, mission aligned with the aims and objectives of national education policy as well as dissemination of this statement to the society is another challenging factor for formal QAA process development in HEIs in Bangladesh.

Table 4.2.3: University's Vision, Mission is aligned with the NEP and publicly known

Name of scale	Percent
Highly Unsatisfactory	10.0
Unsatisfactory	18.3
Moderately Unsatisfactory	21.7
Moderately Satisfactory	28.3
Satisfactory	15.0
Highly Satisfactory	6.7

N=60, Range = 1 – 6, Mean = 3.4 and Std. Dev. = 1.4

4.2.4 University's Specific Objectives and KPIs of different areas

The table 4.2.4 reveals that 61.7% respondents think that university's specific objectives and KPIs of different areas are unsatisfactory; 38.3% perceive that it is satisfactory but among them 31.7% perceive that it is moderately satisfactory. It means that only 6.6% of the surveyed population thinks that it is at the satisfactory and the above level. The mean value of the scale is 3.1 but scale's value of particularly satisfactory level is 5.

Table 4.2.4: University's specific objectives and KPIs of different areas

Name of scale	Percent
Highly Unsatisfactory	10.0
Unsatisfactory	18.3
Moderately Unsatisfactory	33.3
Moderately Satisfactory	31.7
Satisfactory	3.3
Highly Satisfactory	3.3

N=60, Range = 1 – 6, Mean = 3.1 and Std. Dev. = 1.16

4.2.5 Department's Specific Objectives and respective KPIs

Statistics of the table 4.2.5 directs that 53.3% of university teachers think that specific objective and KPIs set by faculty/department and other administrative unit consistent to the university's objectives and KPIs of different areas are unsatisfactory; 46.7% perceive that it is satisfactory but among them 31.7% perceive that it is moderately satisfactory. It means that only 15% of the surveyed population thinks that it is at the satisfactory. The mean value of the scale is 3.3 in 5.

Table 4.2.5: Faculty/Department's specific objectives and KPIs of different areas

Name of scale	Percent
Highly Unsatisfactory	10.0
Unsatisfactory	13.3
Moderately Unsatisfactory	30.0
Moderately Satisfactory	31.7
Satisfactory	13.3
Highly Satisfactory	1.7

N=60, Range = 1 – 6, Mean = 3.3 and Std. Dev. = 1.21

4.2.6 Governance: Individual Faculty's Specific Objectives and KPIs

The data in the table 4.2.6 indicates that 66.7% respondents perceive that specific objective and KPIs set by faculty/department and other administrative unit consistent to the department's objectives and respective KPIs are unsatisfactory; 33.3% remark it as satisfactory but among them 20.0% perceive that it is moderately satisfactory.

Table 4.2.6: Individual Faculty's specific objectives and KPIs

Name of scale	Percent
Highly Unsatisfactory	13.3
Unsatisfactory	15.0
Moderately Unsatisfactory	38.3
Moderately Satisfactory	20.0
Satisfactory	10.0
Highly Satisfactory	3.3

N=60, Range = 1 – 6, Mean = 3.08 and Std. Dev. = 1.26

4.2.7 Committees of Courses functional and performed adequately

The table 4.2.7 shows that 46.7% respondents conceive that regular functionality and performance of the committees of courses are unsatisfactory, where 53.3% of them find it as satisfactory but 26.7% considers that it is moderately satisfactory. It means that only 26.6% of them think that it is at the satisfactory and above.

Table 4.2.7: Committee of courses functional and performed adequately

Name of scale	Percent
Highly Unsatisfactory	1.7
Unsatisfactory	15.0
Moderately Unsatisfactory	30.0
Moderately Satisfactory	26.7
Satisfactory	18.3
Highly Satisfactory	8.3

N=60, Range = 1 – 6, Mean = 3.7 and Std. Dev. = 1.23

4.2.8 Program Objectives, Course Content, Grading, and Graduates Records

It is found that 46.7% respondents are of the opinion that proper documentation, dissemination and available information about program objectives, course content, grading systems and graduate records are unsatisfactory; 53.3% of them think it as satisfactory but among them 20.0% find those are moderately satisfactory, where 33.4% of the surveyed population perceive that those are at the satisfactory and the above level (Table 4.2.8).

Table 4.2.8: Program Objectives, Structure, Course Content, Grading, and Graduates records

Name of scale	Percent
Highly Unsatisfactory	0
Unsatisfactory	21.7
Moderately Unsatisfactory	25.0
Moderately Satisfactory	20.0
Satisfactory	26.7
Highly Satisfactory	6.7

N=60, Range = 1 – 6, Mean = 3.72 and Std. Dev. = 1.2

4.2.9 Performance of the resources and function of the support unit

The table 4.2.9 discloses that 66.7% respondents think that performance and quality of resources and function of the different support unit are unsatisfactory, where 33.3% perceive that it is satisfactory. However, 20.0% of them perceive that it is moderately satisfactory and only 13.4% of them consider that it is at the satisfactory and the above level. The mean value of the scale is 3.08 and standard deviation is 1.2.

Table 4.2.9: Performance of resources and function of the support unit

Name of scale	Percent
Highly Unsatisfactory	11.7
Unsatisfactory	16.7
Moderately Unsatisfactory	38.3
Moderately Satisfactory	20.0
Satisfactory	11.7
Highly Satisfactory	1.7

N=60, Range = 1 – 6, Mean = 3.08 and Std. Dev. = 1.2

4.2.10 TPIs and RPIs well documented and evaluation from student and peers

Descriptive statistics indicates that 85% respondents agree that consideration of TPIs and RPIs, and promotion of the teacher on the basis of evaluation of teaching performance by the peers and the students are unsatisfactory, 15% satisfactory and 10.0% of them moderately satisfactory, where 5% of them perceive that it is at the satisfactory and the above level (Table 4.2.10).

Table 4.2.10: TPIs and RPIs well-documented and evaluation from student and peers

Name of scale	Percent
Highly Unsatisfactory	13.3
Unsatisfactory	35.0
Moderately Unsatisfactory	36.7
Moderately Satisfactory	10.0
Satisfactory	1.7
Highly Satisfactory	3.3

N=60, Range = 1 – 6, Mean = 2.62 and Std. Dev. = 1.11

4.3 Curriculum

This variable consists of 6 sub-variables of which 2 for curriculum development, 2 for curriculum delivery and 2 for assessment. Descriptive statistics of this item is presented in with mean value and standard deviation.

4.3.1 Need assessment, stakeholder engagement, reviews feedback

The table 4.3.1 reveals that 38.3% respondents ponder that curriculum development through need assessment, stakeholder engagement and regular up-date of curriculum

on the basis of feedback is unsatisfactory; 61.7% perceive that it is satisfactory and 43.3% think that it is moderately satisfactory. Only 18.3% of them perceive that it is at the satisfactory and the above level. The mean value of the scale is 3.65 but scale's value of particularly satisfactory level is 5.

Table 4.3.1: Need assessment, stakeholder engagement, reviews feedback for curriculum development

Name of scale	Percent
Highly Unsatisfactory	5.0
Unsatisfactory	10.0
Moderately Unsatisfactory	23.3
Moderately Satisfactory	43.3
Satisfactory	13.3
Highly Satisfactory	5.0

N=60, Range = 1 – 6, Mean = 3.65 and Std. Dev. = 1.14

4.3.2 Structure and content of curriculum are adequate with vision, skills and outcomes

Curriculum should match required skills, credit hours, instruction of assessment methods, outcome based content and language. All of these factors should consider when HEIs develop curriculum for a specific program. The table 4.3.2 presents that 36.7% of the respondents tells that skills and outcomes of program consistent with curriculum are unsatisfactory; 63.3% perceive that it is satisfactory where 28.3% moderately satisfactory and 35.0% of the surveyed respondents thinks that it is at the satisfactory and highly satisfactory level. The mean value of the scale is 3.93.

Table 4.3.2: Structure and content of curriculum are adequate with vision, skills and outcomes

Name of scale	Percent
Highly Unsatisfactory	1.7
Unsatisfactory	6.7
Moderately Unsatisfactory	28.3
Moderately Satisfactory	28.3
Satisfactory	30.0
Highly Satisfactory	5.0

N=60, Range = 1 – 6, Mean = 3.93 and Std. Dev. = 1.10

4.3.3 Use different teaching-learning method and aids and motivates co-curricular activities

The table 4.3.3 indicates that in Bangladesh 25% of the university teachers perceive that to deliver the developed curriculum, department's using of different teaching learning methods, and aids and motivating co-curricular activities are at below the satisfactory

level and other considers it as someway satisfactory. The mean value is 4.15 and standard deviation is 1.07.

Table 4.3.3: Use different teaching-learning method and aids and motivates co-curricular activities

Name of scale	Percent
Highly Unsatisfactory	1.7
Unsatisfactory	5.0
Moderately Unsatisfactory	18.3
Moderately Satisfactory	33.3
Satisfactory	35.0
Highly Satisfactory	6.7

N=60, Range = 1 – 6, Mean = 4.15 and Std. Dev. = 1.07

4.3.4 Execution of program taking place with time-frame, handbook and resources:

The table 4.3.4 specifies that in Bangladesh 68.3% of the sampled university teachers perceive that smooth execution of program with requires time-frame maintenance and usage of student handbook and availability of resources for curriculum delivery are at below the satisfactory level., where 31.7% of them conceives it as unsatisfactory. Here the mean value of the scale is 3.92 and scale's value of particularly satisfactory level is 5.

Table 4.3.4: Execution of program taking place with time-frame, handbook and resources

Name of scale	Percent
Highly Unsatisfactory	3.3
Unsatisfactory	10.0
Moderately Unsatisfactory	18.3
Moderately Satisfactory	36.7
Satisfactory	23.3
Highly Satisfactory	8.3

N=60, Range = 1 – 6, Mean = 3.92 and Std. Dev. = 1.21

4.3.5 Relationship between course content and learning achievement

The Table 4.3.5 indicates that perception of 30% respondents on smooth execution of program with required time-frame maintenance and usage of student handbook and availability of resources for curriculum delivery is unsatisfactory; 70% perceive that it is satisfactory but among them 30% perceive that it is moderately satisfactory, where 40% of the surveyed population perceive that it is at the satisfactory and the above level.

Table 4.3.5: Relationship between course content and learning achievement

Name of scale	Percent
Highly Unsatisfactory	3.3
Unsatisfactory	6.7
Moderately Unsatisfactory	20.0
Moderately Satisfactory	30.0
Satisfactory	35.0
Highly Satisfactory	5.0

N=60, Range = 1 – 6, Mean = 4.02 and Std. Dev. = 1.15

4.3.6 Diversified assessment method used and well circulated

Statistics indicates in table 4.3.6 that 28.3% respondents (university teachers) perceive that usage of diversified assessment method, and circulation of related tools for assessment circulate among students are unsatisfactory; 71.7% perceive that it is satisfactory but among them 28.3% perceive that it is moderately satisfactory. It means that 43.3% of the surveyed population perceives that it is at the satisfactory and the above level.

Table 4.3.6: Diversified assessment method used and well circulated

Name of scale	Percent
Highly Unsatisfactory	0
Unsatisfactory	3.3
Moderately Unsatisfactory	25.0
Moderately Satisfactory	28.3
Satisfactory	26.7
Highly Satisfactory	16.7

N=60, Range = 1 – 6, Mean = 4.28 and Std. Dev. = 1.12

4.4 Facilities

This variable includes facilities of learning resources, infrastructural facilities and support service facilities etc. sub-variables.

4.4.1 Learning resources (class room, library, laboratory, ICT) adequate to quality education

The data indicates that 26.7% respondents think that learning resources (class room, library, laboratory, ICT etc.) adequate to quality education is unsatisfactory; 73.3% perceive that it is satisfactory but among them 30% perceive that it is moderately satisfactory. It means that 43.3% of the surveyed population perceives that it is at the satisfactory and the above level (Table 4.4.1).

Table 4.4.1: Learning resources (class room, library, laboratory, ICT) adequate to quality education

Name of scale	Percent
Highly Unsatisfactory	0
Unsatisfactory	8.3
Moderately Unsatisfactory	18.3
Moderately Satisfactory	30.0
Satisfactory	36.7
Highly Satisfactory	6.7

N=60, Range = 1 – 6, Mean = 4.15 and Std. Dev. = 1.07

4.4.2 Adequate Infrastructure (modern and well equipped building, spaces, auditorium)

The table 4.4.2 presents that 45% respondents tells that modern academic and administrative and building with adequate space, conference center and auditorium with audio-visual aids, seminar room with adequate space, and cafeteria that are essential requirements for quality education are unsatisfactory. Almost 55% of the respondents think that it is satisfactory, 15% perceive that it is moderately satisfactory and 40% of them perceive that it is at the satisfactory and the above the level.

Table 4.4.2: Adequate infrastructure (modern and well equipped building, spaces, auditorium)

Name of scale	Percent
Highly Unsatisfactory	1.7
Unsatisfactory	16.7
Moderately Unsatisfactory	26.7
Moderately Satisfactory	15.0
Satisfactory	35.0
Highly Satisfactory	5.0
Total	100.0

N=60, Range = 1 – 6, Mean = 3.8 and Std. Dev. = 1.27

4.4.3 Adequate supportive (scholarship, medical, sports, transport, security, etc.) facility

The table 4.4.3 illustrates that 48.3% respondents deliberates that adequate supportive (scholarship, medical, sports, transport, security, etc.) facilities are unsatisfactory. 51.7% of the respondents perceive that it is satisfactory, where 30% perceive that it is moderately satisfactory. It is found that only 21.6% of them think it as at the satisfactory and the above satisfactory level.

Table 4.4.3: Adequate supportive (scholarship, medical, sports, transport, security, etc.) facility

Name of scale	Percent
Highly Unsatisfactory	3.3
Unsatisfactory	23.3
Moderately Unsatisfactory	21.7
Moderately Satisfactory	30.0
Satisfactory	13.3
Highly Satisfactory	8.3

N=60, Range = 1 – 6, Mean = 3.52 and Std. Dev. = 1.30

4.5 Student

This variable includes student selection, student management, student support service and foster linkage with alumni etc. sub-variables.

4.5.1 Maintain entry level requirement, relation to learning outcome, ensure access in terms of merit

The statistics in table 7.5.1 indicates that only 3.3% respondents perceive that entry level requirement in relation to learning outcome and transparent and merit basis admission policy are unsatisfactory. 96.7% of the respondents perceive that it is satisfactory and above the level. No respondents perceive that it is highly unsatisfactory or unsatisfactory. Therefore, it is undoubted that incase of student selection, universities maintained the standard and it is consistent with the quality education.

Table 4.5.1: Maintain entry level requirement, relation to learning outcome, ensure access in terms of merit

Name of scale	Percent
Highly Unsatisfactory	0
Unsatisfactory	0
Moderately Unsatisfactory	3.3
Moderately Satisfactory	15.0
Satisfactory	38.3
Highly Satisfactory	43.3

N=60, Range = 1 – 6, Mean = 5.22 and Std. Dev. = 0.82

4.5.2 Student management efficiency, student council and alumni engagement

Descriptive statistics indicates that only 16.7% respondents (university teachers) perceive that student management, student council and alumni engagement are unsatisfactory. 83.3% of the respondents perceive that it is satisfactory and above the satisfactory level (Table 4.5.2). The mean value of the scale is 4.47 and scale's value of particularly satisfactory level is 5. The mean value is above the moderately satisfactory scale's value 4.

Table 4.5.2: Student management efficiency, student council and alumni engagement

Name of scale	Percent
Highly Unsatisfactory	1.7
Unsatisfactory	3.3
Moderately Unsatisfactory	11.7
Moderately Satisfactory	26.7
Satisfactory	43.3
Highly Satisfactory	13.3

N=60, Range = 1 – 6, Mean = 4.47 and Std. Dev. = 1.08

4.5.3 Student support service including career development

The table 4.5.3 indicates that 48.3% respondents observe that student support services including career development are unsatisfactory, 51.7% of them satisfactory and 31.7% perceive that it is moderately satisfactory. It is found that only 20% say that it is at the satisfactory and the above level. Perception of respondents indicates that it is another challenging factor for formal QAA process development in HEIs in Bangladesh.

Table 4.5.3: Student support service including career development

Name of scale	Percent
Highly Unsatisfactory	3.3
Unsatisfactory	11.7
Moderately Unsatisfactory	33.3
Moderately Satisfactory	31.7
Satisfactory	18.3
Highly Satisfactory	1.7

N=60, Range = 1 – 6, Mean = 3.55 and Std. Dev. = 1.08

4.5.4 Foster linkage with alumni, play role in building professionalism and alumni feedback

The table 4.5.4 reveals that 41.7% of the respondents distinguish that it is satisfactory but among them 30% perceive that it is moderately satisfactory. 58.3% of them perceive that foster linkage with alumni, play role in building professionalism and alumni feedback are unsatisfactory. It means only 11.6% of respondent think that it is at the satisfactory and the above level. Perception of respondents indicates that it is a more challenging factor for formal QAA process development in HEIs in Bangladesh.

Table 4.5.4: Foster linkage with alumni, play role in building professionalism and alumni feedback

Name of scale	Percent
Highly Unsatisfactory	5.0
Unsatisfactory	15.0
Moderately Unsatisfactory	38.3
Moderately Satisfactory	30.0
Satisfactory	8.3
Highly Satisfactory	3.3

N=60, Range = 1 – 6, Mean = 3.32 and Std. Dev. = 1.09

4.6 Staff (Teaching and Non-teaching)

This variable includes minimum qualification and selection process of staff, staff word load and monitoring, and training of the staff etc. sub-variables.

4.6.1 Minimum qualification, recruitment policy and staff appraisal

The table 4.6.1 shows that 31.7% respondents perceive that minimum qualification of the staff, transparent recruitment processes by following the recruitment policy and staff appraisal are unsatisfactory, 68.3% of them think it as satisfactory and 36.7% is moderately satisfactory. It means that 31.7% of the surveyed population perceives that it is at the satisfactory and the above level. Perception of respondents indicates that it is a more challenging factor for formal QAA process development in HEIs in Bangladesh.

Table 4.6.1: Minimum qualification, recruitment policy and staff appraisal

Name of scale	Percent
Highly Unsatisfactory	5.0
Unsatisfactory	5.0
Moderately Unsatisfactory	21.7
Moderately Satisfactory	36.7
Satisfactory	20.0
Highly Satisfactory	11.7

N=60, Range = 1 – 6, Mean = 3.97 and Std. Dev. = 1.24

4.6.2 Staffs work load (staff-student ratio), Job description by position and staff monitoring

The table 4.6.2 indicates that 53.3% respondents (university teachers) perceive that staffs work load (staff-student ratio), job description by position and staff monitoring are unsatisfactory. 46.7% of the respondents perceive that it is satisfactory but among them 25% perceive that it is moderately satisfactory. It means that only 21.7% of the surveyed population perceive that it is at satisfactory and the above level. Perception of respondents indicates that it is comparatively more challenging factor for formal QAA process development in HEIs in Bangladesh.

Table 4.6.2: Staffs work load (staff-student ratio), Job description by position and staff monitoring

Name of scale	Percent
Highly Unsatisfactory	3.3
Unsatisfactory	21.7
Moderately Unsatisfactory	28.3
Moderately Satisfactory	25.0
Satisfactory	20.0
Highly Satisfactory	1.7

N=60, Range = 1 – 6, Mean = 3.42 and Std. Dev. = 1.18

4.6.3 Training facility for the teaching and non-teaching staff

The table 4.6.3 that 86.7% respondents perceive that training facility for the teaching and non-teaching staff is unsatisfactory. 13.3% of them perceive that it is satisfactory and 8.3% perceive that it is moderately satisfactory. Only 5% of them perceive that it is at satisfactory and the above level. The mean value of the scale is 2.38 and scale's value of particularly satisfactory level is 5. Perception of respondents indicates that it is comparatively a more challenging factor for formal QAA process development in HEIs in Bangladesh.

Table 4.6.3: Training facility for the teaching and non-teaching staff

Name of scale	Percent
Highly Unsatisfactory	28.3
Unsatisfactory	23.3
Moderately Unsatisfactory	35.0
Moderately Satisfactory	8.3
Satisfactory	5.0
Highly Satisfactory	0

N=60, Range = 1 – 6, Mean = 2.38 and Std. Dev. = 1.13

4.7 Quality Assurance (QA) Process Development

This variable includes strategic policy of quality assurance as well as establishment of internal quality assurance unit and appointment of quality assurance staff, implementation of self-assessment process, and conducts peer review etc. sub-variables.

4.7.1 Strategic policy for quality assurance and internal quality assurance cell

The table 4.7.1 reveals that 86.7% of sampled university teachers are the opinion that strategic quality assurance plan with internal quality assurance unit is unsatisfactory. 13.3% of them perceive it as satisfactory, however, 10% find this moderately satisfactory and only 3.3% perceive that it is at the satisfactory and no one think it as highly satisfactory. The mean value of the scale is 2.25 and scale's value of particularly

satisfactory level is 5. The data indicates that it is comparatively more challenging factor for formal QAA process development.

Table 4.7.1: Strategic policy for quality assurance and internal quality assurance cell

Name of scale	Percent
Highly Unsatisfactory	26.7
Unsatisfactory	38.3
Moderately Unsatisfactory	21.7
Moderately Satisfactory	10.0
Satisfactory	3.3
Highly Satisfactory	0

N=60, Range = 1 – 6, Mean = 2.25 and Std. Dev. = 1.06

4.7.2 Self-assessment and its recommendation implementation

The table 4.7.2 indicates that 81.7% respondents perceive that self-assessment and its recommendation implementation are unsatisfactory. 18.3% of the respondents perceive that it is satisfactory but among them 13.3% perceive that it is moderately satisfactory. It means that only 5% of the surveyed population perceives that it is at the satisfactory and the above level. The mean value is 2.33, where scale's value of particularly satisfactory level is 5.

Table 4.7.2: Self-assessment and its recommendation implementation

Name of scale	Percent
Highly Unsatisfactory	30.0
Unsatisfactory	35.0
Moderately Unsatisfactory	16.7
Moderately Satisfactory	12.3
Satisfactory	1.0
Highly Satisfactory	5.0

N=60, Range = 1 – 6, Mean = 2.33 and Std. Dev. = 1.31

4.7.3 Faculty experience to conduct external peer review

The table shows that 63.3% respondents perceive that faculty experience to conduct external peer review is unsatisfactory. 46.7% of the respondents perceive that it is satisfactory but among them 21.7% perceive that it is moderately satisfactory. It means that only 15% surveyed population perceive that it is at satisfactory and the above level.

Table 4.7.3: Faculty experience to conduct external peer review

Name of scale	Percent
Highly Unsatisfactory	15.0
Unsatisfactory	30.0
Moderately Unsatisfactory	18.3
Moderately Satisfactory	21.7
Satisfactory	11.7
Highly Satisfactory	3.3

N=60, Range = 1 – 6, Mean = 2.95 and Std. Dev. = 1.38

5. Overall status of Six QA factors

The overall status of six quality assurance (QA) factors could be presented on the basis of average perception of the surveyed population (university teachers). Perception of the surveyed teachers may be presented through a Radar Chart, where average perception indicates the overall condition of each individual's QA factor. Overall status of the six QA factors is presented in the following figure 1.

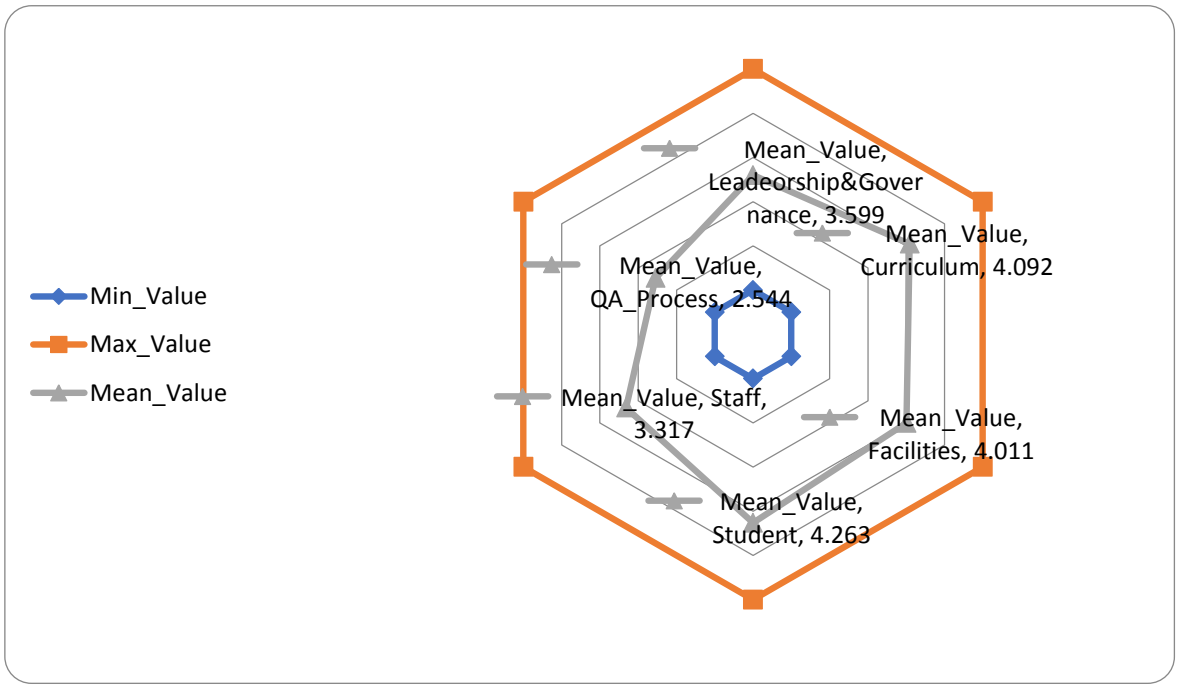

Figure 1: Status of six variables

The figure reveals that introducing formal QAA process in HEIs in Bangladesh the main challenge lies with quality assurance process development i.e. continuous quality improvement process. Leadership and governance is more challenging factor for formal QAA mechanism, and then staff, student, facility and curriculum are less challenging factors accordingly.

6. Correlation Analysis

Correlation among 6 variables is presented in table 9. Correlation table indicates that there are 15 significant coefficients of correlations. The dependent variable Quality Assurance (QA) process development has 5 significant correlations, highest one with Leadership and Institutional Governance variable (r = .458**), second highest with Student variable (r = .443**), third highest with Staff variable (r = .418**), fourth highest with Facility variable (r = .338**) and finally fifth highest with Curriculum variable (r = .312**).

Table 6: Correlation among dependent and independent variables

Variables	Leadership & Governance	Curriculum	Facility	Student	Staff	QA Process
Leadership & Governance	1	.718**	.692**	.813**	.600**	.458**
Curriculum		1	.538**	.749**	.430**	.312*
Facility			1	.645**	.639**	.338**
Student				1	.587**	.443**
Staff					1	.418**
QA Process						1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

From table 6 it is observed that all six variables were significantly associated with each other with positive coefficients. However, the strength of independence of variables pairs vary from minimum 0.312 (Curriculum and QA Process) to maximum 0.813 (Leadership & Governance and Student). From the correlation analysis of variables, it is obvious that all the factors are linked to each other which depicts that for the development of a congenial and conducive quality organization culture in universities all studied factors are pivotal. Secondly, positive values of Pearson correlation coefficient show that adoption of one factor ease and facilitate the adoption and performance of other factors. The highest Pearson correlation coefficient's value 0.813 (Leadership & Governance and Student) depicts that presence and prevailing of strong leadership and governance is essential to ensure efficient student management and support services.

7. Conclusion and Recommendations

Higher Education Institutions in Bangladesh face a number of issues in terms of formal quality assurance practices. The main problem is to find out the quality status within

the specific quality assurance framework so that it can address the challenging areas and finds an innovative solution. It is found that to introduce formal QAA process, the main challenge lies with quality assurance process development. The universities do not have any strategic plan for quality improvement or even not have any quality assurance unit. A few of the departments conduct self-assessment process but most of them do not follow the recommendation provided in the self-assessment report. However, expertise in this area creates additional challenges to expedite the implementation process. A few of faculties have the expertise on external peer review that is essential for accreditation purpose.

In staff quality area, status of training facilities both for the teaching and non-teaching staff is very poor; but it is one of the most challenging factors to the individual faculty's performance evaluation process. Monitoring the performance of the resources and support service unit is another challenging factor. Leadership knowledge about formal QAA process and its implementation is another challenges factor in this area. Compared to technical universities and private universities this is more challenging to general university. Besides, functional committees of courses are more challenging to the technical university.

The status of curriculum quality area is above the average level but in development process consultation with all stakeholders and reviews the feedback is still a challenging factor. It requires additional documentation to establish the best practice in this area. Same thing is applicable to student quality area. In facility quality area, learning resources, infrastructure and support services facilities are challenging areas to the general universities. Satisfaction about facilities is higher to the technical university as well as private university. There are still challenges in this area to the general universities. Overall, the study has demonstrated that many of the quality issues for adoption of formal QAA mechanism are missing in the context of Bangladeshi universities. There is a quality gap between the intended best practices and actual quality assurance practices, and quality of higher education, particularly teaching-learning is constrained by a multitude of interrelated problems. This calls for a closer attention to the existing quality education systems and practices. In accordance with the findings, the implications and recommendations for introduction of formal QAA mechanism in HEIs in Bangladesh are presented below.

1. Comprehensive and extensive seminars and workshops may be arranged exclusively for the leadership so that leadership can share knowledge about formal QAA mechanism and its implementation.
2. Inclusive training courses may be arranged for the faculties, especially for the young faculties so that they can get motivated to implement the formal QAA process.

3. Consultation and documentation may be maintained in every level of decision process. Performance indicators may be set for each and every formal activity. Besides, monitoring mechanism and incentives or reward must be based on performance evaluation.
4. Required budget allocation may be provided so that university can ensure facilities essentially required for the standard of quality education. Budget allocation for the general university may be increased so that they can be enhanced their facilities for improving quality education as technical universities.
5. A law stipulating the formulation of an independent body at the national level can be enacted so that every HEI can introduce this process in their own institution and there may be a specific time frame to introduce the process.
6. Since the nature and function of the university varies, the national body could have three wings, one for general university, one for technical university, and one for private university.

8. Limitations of the Study

The empirical focus of this study is limited to the analyses of systems and practices of assuring quality of education at program level of selected universities in Bangladesh. The degree under National University or affiliated colleges, or other institutions provide equal levels degree is not focused in this study. Another limitation of this study is that perception of different stakeholders such as employers, students, and guardians' regarding quality of the higher education is not engrossed here. Besides, only the role of university regarding teaching-learning system is focused, where other two roles of a university-research and community engagements-are overlooked.

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