

At the forefront of internal quality assurance: The effects on quality and employability at the American International University – Bangladesh



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The inclusion of the American International University – Bangladesh (AIUB) in the UNESCO International Institute for Educational Planning (IIEP) research project, Exploring Innovations and Effective Internal Quality Assurance (IQA) Systems in Higher Education, provided the university with an opportunity to assess its own internal quality assurance (IQA) system and to study the impact of IQA mechanisms on teaching and learning, graduate employment, and effective management.

We wish to convey our sincerest gratitude to all those who participated in the surveys and interviews. The candid responses of diverse stakeholders added value to the research and ensured it captured the real situation at the university.

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The research team was, thus, able to identify clearly not only the strengths of the university but also, more importantly, those areas which would require priority attention in designing actions to strengthen the IQA system of the university.

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Carmen C. Lamagna, Vice Chancellor, AIUB

This case study was edited by Michaela Martin (Programme Specialist, IIEP) and Jihyun (Jane) Lee (Consultant, IIEP).

List of abbreviations

AIUB	American International University – Bangladesh
AQAC	AIUB Quality Assurance Center
BANBEIS	Bangladesh Bureau of Educational Information and Statistics
BBA	bachelor of business administration
BOU	Bangladesh Open University
BSc	bachelor of science
CGPA	cumulative grade point average
EEE	electrical and electronic engineering
EMBA	executive master of business administration
FGD	focus group discussion
FPE	faculty performance evaluation
GDP	gross domestic product
HEI	higher education institution
HEQEP	Higher Education Quality Enhancement Project
IAB	Institute of Architects, Bangladesh
IAU	International Association of Universities
IEB	Institution of Engineers, Bangladesh
IQA	internal quality assurance
IQAC	institutional quality assurance cell
IQACF	Institutional Quality Assurance Cell Fund
ISO	International Organization for Standardization
IT	information technology
MBA	master of business administration
MOE	ministry of education
NEP	national education policy
NGO	non-governmental organization
OPA	Office of Placement and Alumni
PAASCU	Philippines Accrediting Association of Schools, Colleges and Universities
QA	Quality Assurance
QAACB	Quality Assurance and Accreditation Council, Bangladesh
QAU	quality assurance unit
SA	self-assessment
SAC	self-assessment committee
SAR	self-assessment report
SWOT	strengths, weaknesses, opportunities, and threats
TPE	teachers' performance evaluation
TSF	teacher schedule form
UGC	University Grants Commission

Introduction

Ensuring the quality of higher education is one of the Government of Bangladesh's main priorities. Demographic pressure and growing social demand for higher education have resulted in a tremendous increase in student enrolment and the number of universities over the last decade. The presence of private and international universities in the system has improved access to higher education in Bangladesh, but it has also created greater need for monitoring and regulating the quality of higher education services.

To address this need, higher education policy in Bangladesh is currently focused on the creation of a national accreditation body for higher education providers. To prepare for this, the Ministry of Education has established a Quality Assurance Unit (QAU) within the University Grants Commission (UGC), with support from the Higher Education Quality Enhancement Project (HEQEP), launched in 2009, with the financial support of the World Bank, to ensure rigorous quality control and assessment. As part of the project, which is run by the Ministry of Education through the UGC, individual universities are required to establish institutional quality assurance cells (IQACs). However, many higher education institutions (HEIs) in Bangladesh have already set up their own internal quality assurance (IQA) mechanisms to satisfy internal requirements for quality monitoring.

The American International University – Bangladesh (AIUB) is one of the leading private universities in Bangladesh. Its main focus is on academic training in the areas of engineering, technology, and business administration. AIUB is committed to ensuring the excellence of its academic offer through the continuous development of its internal quality assurance (IQA) system and procedures. In 2008, the university established the AIUB Quality Assurance Center (AQAC), which, in 2015, became an IQAC, in line with HEQEP's national requirements.

This case study is part of an international IQA project initiated by the UNESCO International Institute for Educational Planning (IIEP) to provide national and institutional higher education leaders with innovative and effective solutions for IQA systems in universities. AIUB was chosen because its IQA tools and processes are already well developed in a national context where both external and internal quality assurance is relatively new. The university is focused on employability of its graduates and reflects this in its academic offer, which means that its IQA tools aim to improve graduates' employment outcomes, as well as their teaching and learning. This enables AIUB to become a role model for other Bangladesh HEIs in terms of quality assurance.

In line with the general objective of the project, this case study aims to describe the IQA system at AIUB and highlight elements of both good practice and innovation. It also investigates the level of awareness and involvement of staff in IQA at the university, factors considered crucial to the effective functioning of an IQA system. Moreover, the study assesses the effects of IQA on teaching and learning, graduate employability, and management at AIUB. The aim is to identify the conditioning factors for effective IQA, as well as to highlight perceptions as to its effectiveness and benefits.

The case study is based on information collected from multiple stakeholders, including academic and administrative staff, students, and academic and administrative leaders. The views of academic and administrative staff were captured in two online surveys, adapted to reflect the IQA instruments with which these staff were familiar. Focus group discussions were conducted with senior academic leaders, senior administrative leaders, and student representatives in order to capture, in a more in-depth way, the perceptions of different stakeholders at AIUB. Secondary data sources, such as government documents and literature Bangladesh's higher education system, provided the national and institutional context for the functioning of AIUB's IQA system.

The case study is organized into five chapters. Chapter 1 describes the development of HEIs and the quality assurance system in Bangladesh, while Chapter 2 provides the institutional context, including AIUB's history, profile, and strategic orientation. An overview of the existing IQA system, documents and tools at AIUB is given in Chapter 3, with specific tools explained with reference to teaching and learning, employability, and management. Chapter 4 briefly illustrates the research methodology before presenting findings from the empirical study. These are organized in terms of (1) awareness and involvement; (2) effects on teaching and learning, employability, and management; (3) internal and external conditioning factors; and (4) overall appreciation of the effectiveness of IQA systems. Chapter 5 concludes the study with a synthesis of the findings and a discussion of the future development of AIUB's IQA system.

1. National context

This chapter presents the historical development of the higher education sector in Bangladesh, with a particular focus on external quality assurance. The background to the World Bank-funded Higher Education Quality Enhancement Project, implemented by the University Grants Commission and the Ministry of Education (MOE), is also discussed.

1.1 Higher education in Bangladesh

Bangladesh is a lower middle income country with a total population of around 159 million. In recent decades, Bangladesh has made significant economic progress, moving from an economy based on agriculture to becoming a more industrialized society with a better-developed service sector. Average growth in gross domestic product (GDP) reached a peak of 6.1 per cent in the period between 2011 and 2015. Economic development meant an expanded role for higher education institutions (HEIs), as demand for skilled graduates increased in a diversifying labour market. Training talented graduates became the key objective of HEIs in Bangladesh.

There has been a tremendous increase in both student enrolment and the number of universities over the last decade. The gross enrolment ratio for secondary education stood at 53.6 per cent in 2012. Total tertiary enrolment has almost trebled since 2000 and surpassed two million students in 2012, reflecting a 13.2 per cent gross enrolment ratio. The proportion of female students and teachers also increased in 2014 at 30.23 per cent and 25.24 per cent, respectively (see *Table 1.1* below). Although this represents a substantial improvement, the figure is still well below 2010's regional average of 17 per cent for South and West Asia in 2010.

The number of HEIs in Bangladesh has also increased considerably. In 2001, there were 39 universities in the country, 22 of them private. In 2014, there were 112 universities, 78 private and 34 public as shown in *Table 1.1*. This figure includes three international universities.

Table 1.1 Number of universities, teachers and students by type and gender, 2014

Type of university	Number of universities	Students			Teachers		
		Total	Female	% female	Total	Female	% female
Public	34	454,530	168,499	37.07	11,505	2,377	20.66
Private	78	399,182	106,629	26.71	12,522	3,684	29.42
Total	112	853,712	275,128	30.23	24,027	6,061	25.24

Source: UGC Annual Report, 2014.

During the 1990s, the Government of Bangladesh legislated to allow the private sector to establish and fund universities. The capacity of public universities was deemed insufficient to meet the increasing demand for higher education. In addition, public universities were unable to offer certain subjects because of the financial constraints under which they operated. The Private University Act was passed in 1992 and the first private university was approved by government that the same year. In 1998, the Act was amended to address deficiencies and introduce new conditions for setting up private universities. A new Private University Act was introduced by the Ministry of Education in 2010.

1.2 Admission criteria and types of institution

As shown in Figure 1.1, students entering higher education in Bangladesh must possess at least a certificate of higher secondary education. Higher secondary certificate holders are qualified to enrol on either a three-year degree pass course or a four-year honours degree course. Undergraduate degrees last three or four years, while master's degrees take an additional one or two years following completion of an undergraduate degree. M.Phil research degrees take two years to complete while PhDs require three or four years of study.

There are five types of higher education in Bangladesh: (1) general education, (2) science, technology, and engineering education, (3) medical education, (4) agricultural education, and (5) distance education. The higher education sector also provides vocational education. The Bangladesh Open University (BOU) offers non-campus distance education programmes of teacher education, in the form of bachelor of education (BEd) and master of education (M.Ed) degrees. The National University (NU) of Bangladesh operates as an affiliating university for postgraduate degree-level training in various disciplines at different providers and delivers part-time training to university teachers.

Figure 1.1 The educational structure of Bangladesh

THE PRESENT EDUCATIONAL STRUCTURE OF BANGLADESH												
Age	Grade											
26+												
25+	XX					Ph. D(Engr)	Ph.D(Medical)					
24+	XIX			Ph. D	PostMBBS Dipl			Ph. D (Education)				
23+	XVIII			M.Phil	M.Phil(Medical)							
22+	XVII	MA/MSc/MCom/MSS/MBA		LLM	M B S BDS	MSc(Engr)	MSc.(Agr)	MBA	M.Ed & M A(Edn)	MFA	MA(LSc)	
21+	XVI	Bachelor (Hons)	Masters (Prel)	LLB(Hons)	BSc.Eng BSc.Agr BSc.Text BSc.Leath	BSc.Eng	BSc (Tech.Edn)	BBA	B.Ed Dip.Ed & BP ED	Dip.(LSc)	Kami	
20+	XV		Bachelor (Pass)			Diploma (Engineering)						BFA
19+	XIV											
18+	XIII											
17+	XII	Secondary	Examination			HSC		HSC Voc, C in Ag	C in Edu.	Pre-Degree	Diploma in Comm	Alim
16+	XI	HIGHER SECONDARY EDUCATION										
e15+	X	Secondary Education	Examination			SSC		TRADE Certificate/ SSC Vocational		ARTISAN COURSE e.g. CERAMICS		Dakhil
14+	IX		SECONDARY EDUCATION									
13+	VIII		JUNIOR SECONDARY EDUCATION									
12+	VII											
11+	VI											
10+	V	PRIMARY EDUCATION								Ebtedayee		
9+	IV											
8+	III											
7+	II											
6+	I											
5+		PRE-PRIMARY EDUCATION										
4+												
3+												

Source: BANBEIS, 2006.

1.3 Main problems of higher education

As the number of private HEIs in Bangladesh increased, it became clear that there were a number of problems with the way in which they were run. First, most private universities did not follow the governance model of their public counterparts, which consists of a vice-chancellor, a pro vice-chancellor, and treasurers, all appointed by the chancellor. Second, most private universities employed part-time teachers recruited from public universities rather than appointing the required number of full-time faculty members. Third, the high tuition fees charged by private HEIs limited access to those who could afford to pay. And, last, the absence of a proper infrastructure meant that most universities were unable

to set up laboratories, as required, establish adequate logistic support or recruit skilled teachers. The Private University Act 2010 was introduced to regulate the activities of private universities. Most have failed to meet minimum quality requirements, in terms of both physical infrastructure and the number of full-time faculty members, despite monitoring by the UGC.

There are issues too in the running of public universities in Bangladesh, among them the mismatch between the skills of university graduates and the needs of the labour market, resulting in high graduate unemployment. Political disruption, leading to frequent unscheduled closures, is another factor affecting quality of public HEIs, as is teacher absenteeism. In 2014, 17 per cent of teachers in public universities (excluding the National University and Bangladesh Open University) were absent for one reason or another. A further issue for public universities in Bangladesh is the absence of quality-assurance mechanisms.

1.4 Quality assurance in higher education

The University Grants Commission acts as a buffer between government and the universities of Bangladesh. The lack of policy addressing quality assurance (QA) concerns in both the public and private universities was addressed by the UGC's *Strategic Plan for Higher Education 2006–2026* and by the government's 2010 *National Education Policy* (NEP). The NEP stipulated that a national accreditation council would be established to guarantee the quality of academic programmes offered by the HEIs. In anticipation of this, moves were made to prepare universities to meet the requirements of accreditation.

In response to a proposal in the UGC's *Strategic Plan*, the World Bank agreed to provide financial support through the Higher Education Quality Enhancement Project (HEQEP) in 2009. As part of this project, the UGC promoted the establishment of institutional QA units in universities in Bangladesh. The UGC's own Quality Assurance Unit (QAU) also initiated, supported and monitored the creation of institutional quality assurance cells (IQAC) in both public and private universities.

A number of key issues were common to both the UGC's *Strategic Plan* and the government's National Education Policy:

- **Creation of the quality assurance unit:** The *Strategic Plan for Higher Education* proposed the foundation of the UGC's Quality Assurance Unit and institutional quality assurance cells in both public and private universities. Thirteen universities participated in the first phase of this process in 2015.
- **Access to resources:** The poor quality of English language and IT skills was identified as a significant problem in the higher education sector. Access to books and resources on IT skills and English language learning were prioritized.
- **Enrolment:** With 78 private universities set up since the 1992 Private Education Act, the private sector now provides higher education for 52 per cent of all university students.
- **Financing:** In 2005/2006, Bangladesh invested approximately 2.3 per cent of public resources and 0.12 per cent of GDP in university staff training and tertiary instruction, respectively. Such low levels of government financing have resulted in low salaries for staff and the high tuition fees for students, as well as contributing to the poor physical infrastructure of Bangladesh's universities.

In 2016 the law creating the Accreditation Council Law was finally approved by the Bangladesh government. The Council will provide accreditation and confidence certificates for both public and private universities. According to this law, only those universities with the Council's approval will be able to grant degrees to students.

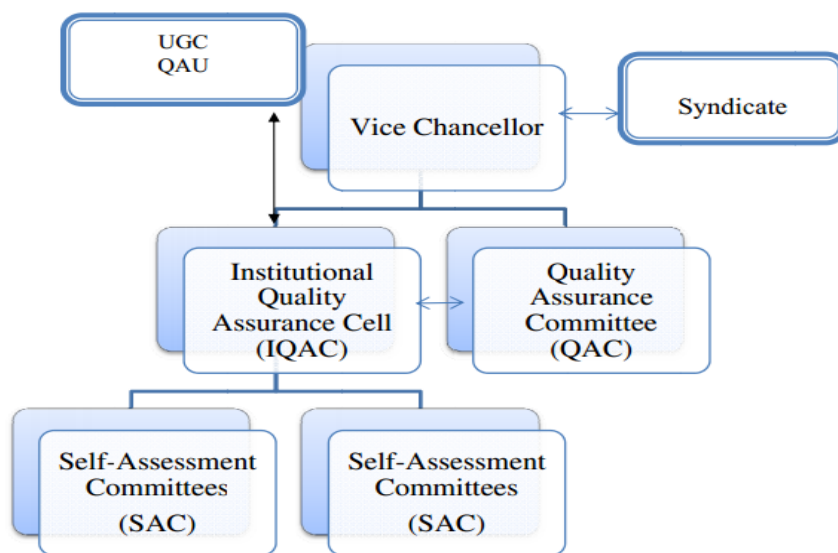
The role of the Higher Education Quality Enhancement Project

To address these issues, the Ministry of Education and the University Grants Commission set up the Higher Education Quality Enhancement Project in 2009, with support from the World Bank. The project aims to reinforce and enhance the quality of higher education in Bangladesh.

Functions of QAU at the UGC

The main function of the UGC's Quality Assurance Unit is to develop a quality assurance framework and establish standard systems and requirements for the HEIs in Bangladesh. The QAU encourages university leaders to establish IQACs and supports them in preparing the necessary quality assurance documentation, such as IQA operation manuals and self-assessment reports (SARs). The relationship between the UGC's QAU and the IQAC is illustrated in Figure 1.2:

Figure 1.2 The relational structure of the UGC-QAU and the IQAC



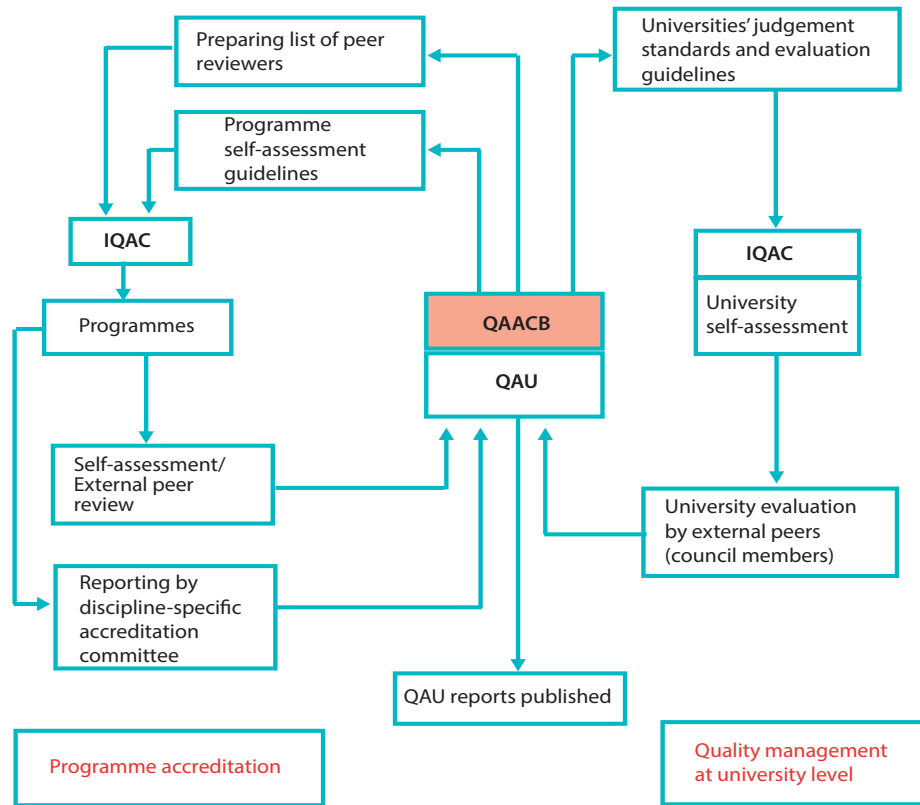
Source: UGC, 2014a.

The QAU also provides relevant training for staff at the university, arranging workshops for university officials to raise awareness of the importance of quality assurance and to build capacity for quality assurance in each HEI. A further function of the QAU is to monitor and evaluate a university's QA practices and processes through auditing. The coordination of QA activities at national level is another of its responsibilities, aligning the activities of external QA agencies with those of the UGC. The QAU will continue to lead on this work until the national quality assurance and accreditation council, Bangladesh (QAACB) is officially established. Figure 1.3 describes the activities of the QAU.

Functions of institutional quality assurance cells (IQACs)

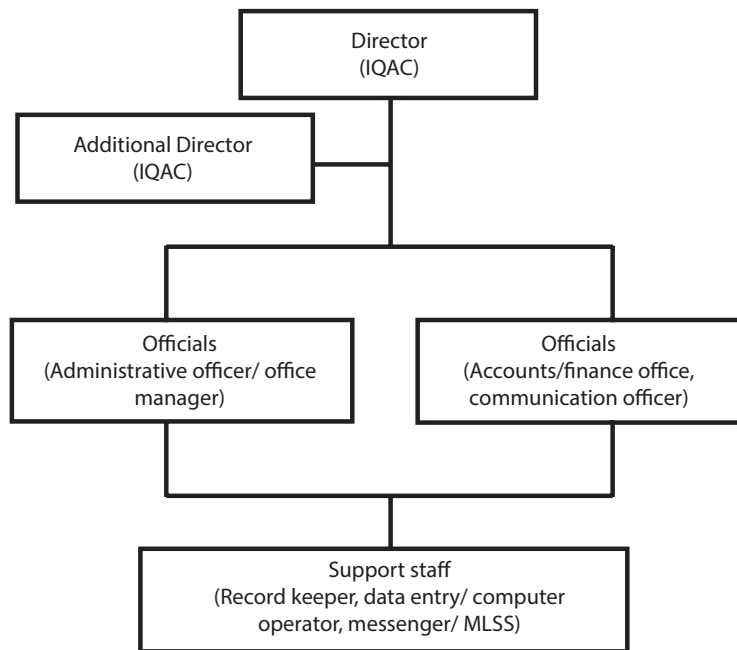
The aim of IQACs is to promote quality assurance within individual universities, in accordance with national and international QA guidelines and practices. Public and private university IQACs are expected to provide the institutional environment for quality assurance in higher education. Initially, IQACs were set up with the help of HEQEP. However, in 2015, the Institutional Quality Assurance Cell Fund (IQACF) was opened to public and private universities satisfying the qualification criteria in IQACF Operations Manual.

Figure 1.3 Activity chart of UGC-QAU



Source: UGC, 2014a.

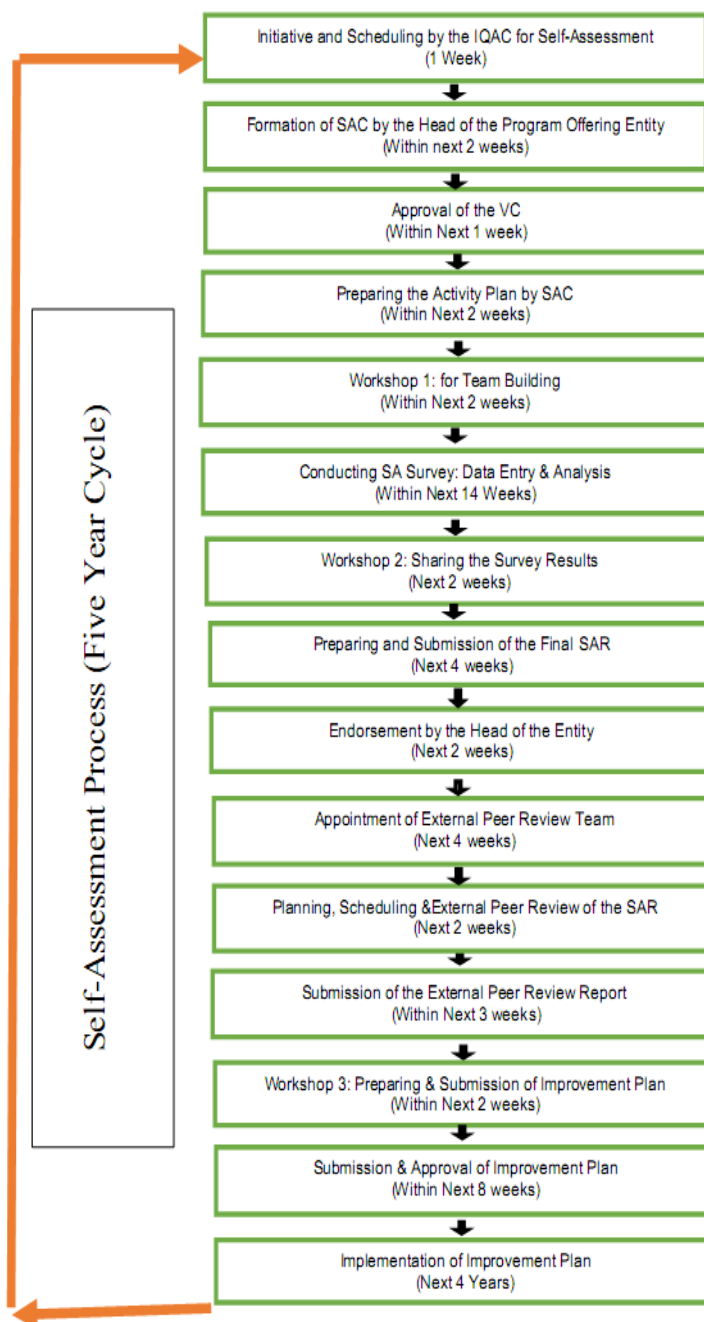
Figure 1.4 Indicative organigram of IQAC



Source: UGC, 2014a.

Figure 1.4 illustrates the general structure of IQACs in Bangladesh’s HEIs. IQACs are composed of at least two senior academics and suitably qualified support staff, though actual numbers vary depending on the size of the university. The director of the IQAC is supported by one or two additional director(s), selected from among senior academics qualified in managing quality assurance activities. The director and additional director(s) are appointed by the vice-chancellor every three years and are seconded to the IQAC on a full-time basis. They are, therefore, exempted from normal teaching duties for the tenure of their appointment. Non-academic personnel are appointed temporarily as technical/support staff (e.g. administrative/office manager, accounts officer, communications officer, record keeper, and data entry/computer operator). The director reports to the vice-chancellor.

Figure 1.5 Self-assessment process



Source: UGC, 2014b.

IQACs are expected to develop standards/benchmarks for the various academic and administrative activities of the university. They also provide necessary support for academic units in conducting self-assessment and external peer review. They help each unit to implement QA processes at a programme level. An example of self-evaluation procedures is provided in *Figure 1.5*.

In addition, IQACs provide guidance on quality assurance activities for administrative staff, helping them prepare QA documents and procedures along the lines set out in the *IQAC Operations Manual*. This enables institutions to provide all stakeholders with relevant information in the form of annual quality assurance reports, while further developing the database for the implementation of quality assurance at each university. The database, in turn, supports the preparation of institutional QA plans every five years.

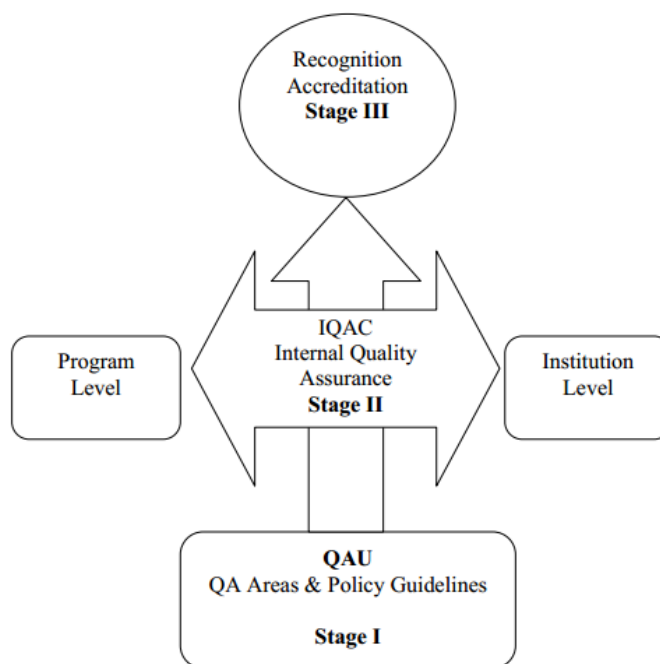
Moreover, IQACs facilitate institutional assessment as they monitor the implementation of QA policies, systems and procedures at individual universities on a regular basis. Their responsibilities include ensuring that all QA-related activities within the university are in line with the standards and procedures of the QAU and other external QA agencies.

IQACs also organize workshops, seminars, and training for capacity building with a view to promoting a culture of quality within universities. They prepare detailed budgets for quality assurance activities and conduct impromptu audits where necessary.

1.5 Envisaged future system for quality assurance at universities

The QAU is working as an interim body until the national Quality Assurance and Accreditation Council, Bangladesh (QAACB) is fully operational. QAACB will be in charge of the quality assurance activities in higher education. It will continue to support IQACs in universities as well as accreditation mechanisms. This will give HEIs a chance to compare their study programmes and principles with other quality models and set benchmarks for further improvements. *Figure 1.6* illustrates the development stages of quality assurance activities at national level in Bangladesh.

Figure 1.6 Stages of quality assurance activities at national level



Source: UGC, 2014a.

2. Institutional context

This chapter discusses the recent history of the American International University – Bangladesh (AIUB) and its strategic orientation, focusing, in particular, on the enhancement of the quality of education and the employability of graduates. It will also consider the key characteristics which make AIUB one of the leading private universities in Bangladesh.

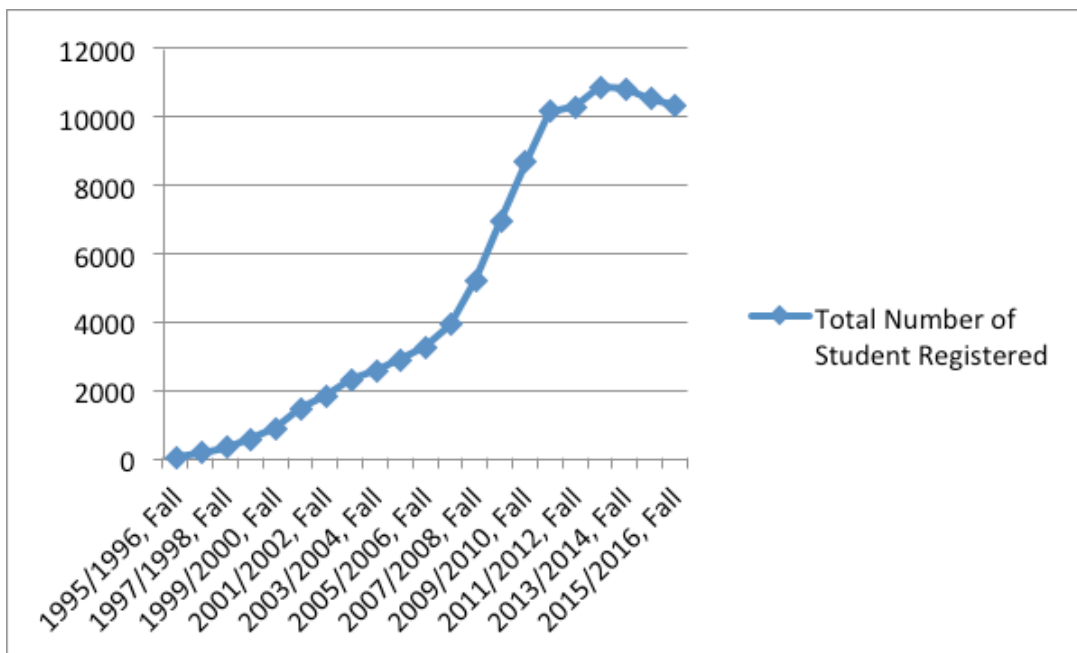
2.1 History

Prior to legislation permitting the establishment of private universities in 1992, provision of higher education in Bangladesh was insufficient to meet demand. Public universities were unable to find places for growing numbers of secondary school leavers, especially in the areas of engineering and business education. As a result, students were forced to leave Bangladesh to study abroad. Student migration resulted in brain-drain and financial loss to the country.

Dr Anwarul Abedin, a Bangladeshi expatriate, had the vision for a new university which would not only produce high-quality graduates, but also meet the demands of society and contribute to national economic development through research, education, and community services. His vision led to the foundation of AIUB.

In 1994, AIUB opened its doors with the intention of producing leaders and a mission to provide quality academic programmes. AIUB offered bachelor of science qualifications in computer science and in business administration to 70 students and full-time faculty positions to four staff members. As new challenges emerged, new programmes and faculties were established. Over time, the number of students has grown substantially, as has the number of academic and non-academic staff. In 2015, 10,588 students were studying on 13 undergraduate and in seven graduate programmes. Full-time and part-time faculty members numbered 298 and 51, respectively. *Figure 2.1* shows the rapid expansion of students enrolled in the university between fall semester 1994 and fall semester 2015.

Figure 2.1 Total number of students registered (1994–2015)



Source: AIUB-Registration Office, 2015a.

Over the past two decades, AIUB has produced thousands of outstanding graduates, many of whom have established themselves as leaders in their respective fields. The university’s academic offer has engaged the interest not only of prospective students and their parents, but also of private-sector organizations, government and non-governmental organizations, international and foreign universities, and foreign students.

2.2 Governance structure of the university

AIUB is managed by a team of officials experienced in academic management. Government approval is required for the appointment of vice-chancellors, pro vice-chancellors and treasurers to private universities. Nominations for these posts are submitted by the board of trustees to the Ministry of Education which makes recommendations to the chancellor’s office. Appointments are made on the basis of a four-year term.

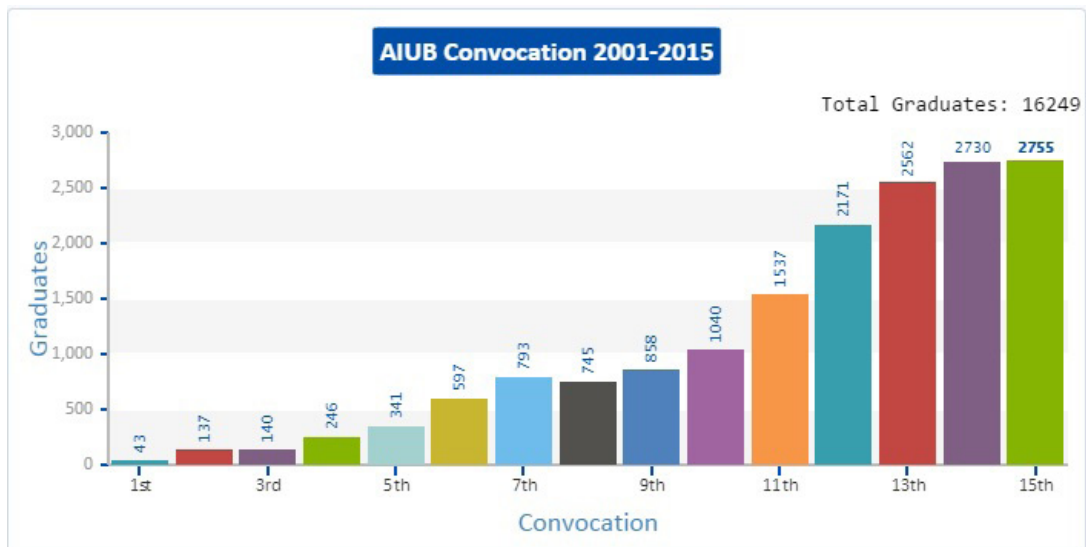
The chancellor of all public and private universities in Bangladesh is the President of Bangladesh. The vice-chancellor is the chief operating officer, assisted by the pro vice-chancellor and the vice presidents for academic affairs, administration, treasury affairs, human resources, student affairs and international affairs. The academic council and the university’s syndicate (or senate), chaired by the vice-chancellor, provide advice on policy, academic programmes, and issues for the board of trustees. The deans of the different faculties are assisted by associate deans and department heads.

2.3 Students and programmes offered in AIUB

The university currently offers 20 programmes across its four faculties in AIUB. *Table 2.1* presents the list of academic programmes in each faculty, noting also the respective number of students and faculty members, and the year of first enrolment in those departments.

Figure 2.2 illustrates the significant increase in the number of graduates from the university over the past 15 years. As of 2015, a total of 16,249 students had successfully completed programmes at AIUB.

Figure 2.2 Number of graduates in convocation ceremonies (2001–2015)



Source: AIUB website (www.aiub.edu).

Table 2.1 List of academic programmes, number of students and faculty members, and the year of first enrolment

Faculty	Department	Programme(s) (bachelor/master)	*Full-time faculty members	*Students	Academic year of first enrolment
Engineering	Electrical and Electronic Engineering	Bachelor of Science (BSc) in Electrical and Electronic Engineering		2,725	2000/2001
		Master of Engineering in Electrical and Electronic Engineering (MEEE)		87	2012/2013
		Master of Engineering in Telecommunications (MTEL)	81	19	2008/2009
	Computer Engineering	BSc in Computer Engineering	04	72	1995/1996
	Architecture	Bachelor of Architecture (BArch)	22	400	2005/2006
Science and Information Technology	Computer Science	BSc in Computer Information Systems	77	72	2005/2006
		BSc in Computer Science		39	1995/1996
		BSc in Computer Science and Engineering		1,970	1995/1996
		BSc in Computer Science and Software Engineering		380	2005/2006
		BSc in Software Engineering		153	2005/2006
		Master of Science in Computer Science (MSCS)		88	2007/2008
Arts and Social Sciences	Media and Mass Communication	Bachelors of Arts in Media and Mass Communication	04	74	2006/2007
	Business Administration	Bachelor of Business Administration (BBA)	79	2,943	1995/1996
		Master of Business Administration (MBA)		1,119	1998/1999
		Executive Master of Business Administration (EMBA)		113	2003/2004
	English	Bachelors of Arts in English	15	157	2006/2007
	Economic	Bachelors of Social Science in Economics	10	78	2009/2010
		Master in Development Studies		21	2013/2014
	Public Health	Master in Public Health (MPH)	03	58	2008/2009
	Law	Bachelor of Law	03	20	2014/2015

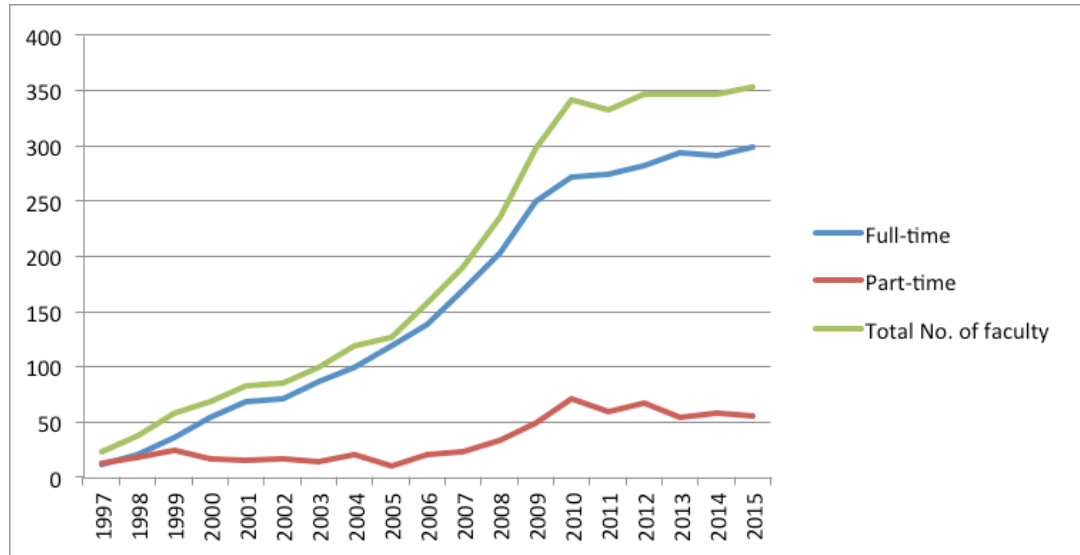
*Total number in Fall 2015/2016

Source: AIUB-Registration Office, 2015b.

2.4 Academic and non-academic staff at the university

As the student population increased, so too did numbers of academic and non-academic staff. Figure 2.3 describes the growth in full-time and part-time faculty members over the past 21 years.

Figure 2.3 Number of faculty members (1997-2015)



Source: AIUB-HR office, 2015c.

In 2015, there were 160 administrative staff, comprising 101 ‘non-academic’ staff, 44 IT officers, and 15 laboratory assistants. In addition, almost 550 support staff were employed to ensure a working environment conducive to teaching and learning. AIUB believes that strong academic and administrative support is essential to ensuring high-quality education.

2.5 Physical infrastructure of the university

The university is located in central Dhaka and can be easily accessed from the city’s major residential areas. In 2015, the university operated from seven buildings. The expansion in physical infrastructure has been accelerated by rapid growth in student numbers.

The university now runs 20 modern engineering laboratories and 10 architecture design studios. English language course students have the use of a modern language laboratory, and there are laboratories in the faculties of physics and chemistry. AIUB students also have access to a modern Macintosh lab for graphic design, a digital imaging studio, and a film studio.

The university has a well-stocked library, continually updated to meet the needs of different academic programmes. It is operated using the Library Management System, an integral part of the University Management System developed by the university’s IT department. There are numerous computer terminals from which students and faculty can search for books and improve the library’s service delivery. In addition to its central library, the university also has satellite libraries in two of its buildings.

Considerable investment has been made in the development of information and communications technology (ICT) facilities. The IT department is provided with the latest computer hardware and software. Its network comprises 20 powerful servers and more than 1,350 workstations in 18 state-of-the-art computer laboratories and offices. The network uses fibre-optic cable for optimum bandwidth, supporting more efficient information-sharing and data management.

2.6 Strategic orientation of AIUB

AIUB's strategic plan for the period between 2011 and 2020 sets out how the university will ensure its students gain the skills and knowledge the country's economy needs. The university's vision and mission statement have been widely disseminated within the university community and appear in every printed document it produces. It is also easily accessible on the university website (www.aiub.edu/about/information). Faculty members discuss the vision and mission statement with students during the first class of every semester.

Strategic plan 2011-2020

- **Vision**

The American International University – Bangladesh will produce skilled graduates in various fields and show excellent leadership in order to cater for the technological and development needs of the country.

- **Mission**

AIUB is committed to providing high-quality academic programmes, which make use of the latest computer technology. It is dedicated to producing competent professionals in the arts, business, science, social science, and technology, who are equipped not only with relevant skills and knowledge but also with a strong set of values.

- **Strategy**

Before drawing up its strategy, the university undertook a thorough study of existing strengths, weaknesses, opportunities, and threats (a SWOT analysis). The analysis generated management guidelines for short-, medium-, and long-term strategic planning. Some of the key findings of the analysis are set out in the following paragraphs.

A SWOT analysis carried out in preparation for the strategic plan yielded the following results.

Strengths:

- a. Faculty members have excellent academic qualifications, as well as up-to-date knowledge of their area of specialism.
- b. State-of-the-art modern classrooms and laboratories equipped with advanced technology.
- c. Modern curriculum and syllabus developed to meet the needs of society.
- d. Strong links with industry, corporate and business organizations, government and NGOs, and alumni of AIUB.

Limitations:

- a. As the university operates from rented buildings, there are not enough open and green spaces for its growing student population.
- b. Renovations to allow students to move more easily between classes are prevented by the terms of the university's rental agreement.

Opportunities:

- a. These limitations should be addressed when the university moves to a new, permanent campus, which is under construction. Better services will thus be provided to the students.
- b. Departments and programmes will be able to use the resources more fully on their move to the permanent campus.

Threats:

- a. Political unrest can cause disruption to classes, which, in turn, can affect the scheduled completion of the course syllabus. AIUB tries to overcome this problem by arranging extra classes during the weekend.
- b. An increase in rental costs could have a significant impact on university spending.

AIUB's management team prepared a detailed course of action and work plan, published as the *Framework of the Long-Term Strategic Plan 2011–2020*. The university also produced a set of key strategic goals and objectives:

Box 2.1 Strategic goals and objectives of the university

- Sustain the development and progress of the university.
- Upgrade educational services and facilities in response to the changing needs of society.
- Inculcate a professional culture among management, faculty, and other staff in pursuit of the institution's vision, mission, and goals.
- Enhance research consciousness in discovering new dimensions for curriculum development and enrichment.
- Implement meaningful and relevant community outreach programmes reflective of the available resources and expertise of the university.
- Establish strong partnerships with local and international education institutions and organizations concerning programmes, resources, and expertise.
- Encourage the participation of alumni, students, and professionals in the implementation of education programmes and the development of projects in order to improve global academic standards.
- Enrich curricular programmes to be more responsive to the needs and demands of stakeholders.

2.7 Quality enhancement at the university

AIUB is committed to providing high-quality education which meets international standards. Different quality enhancement processes have been used by the university to create an environment conducive to excellent teaching and learning. Extra-curricular activities have also been provided to help students develop their full potentials.

AIUB set up a virtual university management system to support quality assurance, as well as enhancing management operation and human resources capacity building (academic and non-academic). Systems and procedures are revised to reflect the emerging service needs of stakeholders. Partnerships with foreign universities and organizations have been strengthened and expanded to facilitate the sharing of resources and expertise in curriculum enrichment, teaching, and research.

2.8 Employability of graduates at the university

The enhancement of graduate employability is one of AIUB's strategic priorities. Given the private status of the university, and its academic offer, which is geared mainly towards engineering, technology, and business education, employment is a natural orientation for AIUB.

A number of structures and processes have been put in place to improve the employability of the university's graduates. For example, the university is making its curriculum more relevant to labour-market demand by forming a strong links with industry. The chief executives and human resource managers of selected companies contribute to the review of academic programmes through multi-sectoral committees organized by the business

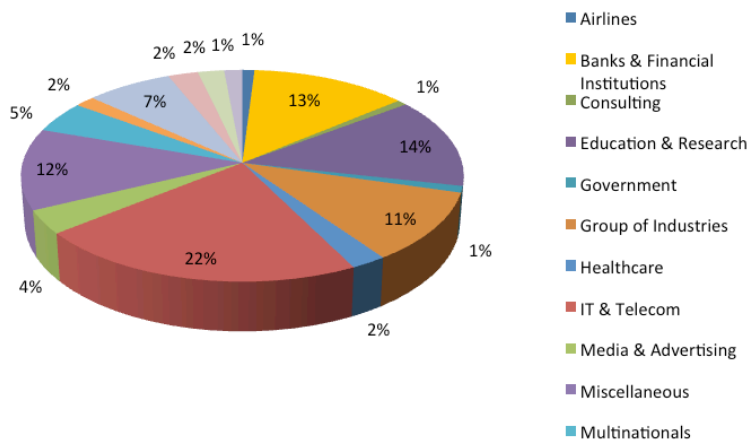
faculty. The issues raised in these committees inform the content of courses in business, computer science, the arts and social sciences, and engineering.

The participation of industry is also encouraged through university talks and seminars in which visiting speakers give students advice on how to boost their employability. The university, in turn, shares its expertise with private-sector partners in capacity building and recruitment. This reciprocal approach creates more opportunities for graduate employment or internship.

AIUB’s Office of Placement and Alumni (OPA), under the direct supervision of Vice-President for Student Affairs, plays an important role in building strong links between students/alumni and the labour market. It informs students of job market trends by providing them with details of job openings and internships, as well as through career counselling. The OPA also arranges career workshops and seminars attended by staff from professional bodies/organizations. OPA arranges an annual jobs fair, in which leading national and international companies in the fields of technology, science, business, and commerce participate. The fair provides an opportunity for students and alumni to have one-to-one discussions with potential employers. The OPA conducts regular tracer studies through which it tracks the professional trajectories of employed graduates.

Figure 2.4 illustrates the areas/sectors in which AIUB graduates presently work.

Figure 2.4 Employers of AIUB alumni (by sector)



Source: AIUB-Office of Placement and Alumni, 2015d.

Graduates of the university also have an opportunity to work for AIUB, provided they are as well qualified as external candidates for academic and non-academic positions.

3. IQA system at AIUB

This chapter outlines the development of the IQA system at AIUB. It describes the structure of IQA at the university, as well as the main documents and instruments used.

3.1 Establishing internal quality assurance at AIUB

AIUB has developed a system of internal quality assurance with a concrete structure and a set of interrelated instruments. University leaders were determined to develop IQA and had the support of national and international organizations in doing so. Interaction with foreign accreditation bodies helped the university to develop a structure and tools for internal IQA that would support existing processes.

An initial step was taken when the Asia Pacific Quality Network (APQN) hosted a conference on quality assurance, attended by heads of private universities and representatives of 11 South East Asian countries with experience of programme accreditation, in Bangladesh in 2007. The following year, the International Association of Universities (IAU) granted funds to AIUB to participate in a pilot project on Leadership Development for Higher Education Reform (LEADHER). The project provided opportunities for the university's senior officials and the chair of the UGC to visit organizations in the Philippines that were actively engaged in accreditation. As part of the project's partnership scheme, visits were made to Philippines Accrediting Association of Schools, Colleges and Universities (PAASCU), an accreditation agency for academic programmes, and Adamson University. A reciprocal visit of the Adamson University team to AIUB included a seminar on quality assurance and accreditation, attended by AIUB's senior faculty officers.

The university decided it would accredit its business administration undergraduate and graduate programmes through PAASCU. Preparatory steps included building staff awareness and understanding of the importance of quality assurance and accreditation. The process began in earnest with a preliminary visit from external assessors to formally assess the Faculty of Business Administration, following intensive internal assessment. After two years of follow-up work on the assessors' recommendations, the university was granted full accreditation for its BBA and MBA/EMBA programmes. It then subjected five supplementary degree programmes run by the Faculty of Science and Information Technology to the same process. All were granted full accreditation 18 months later.

While maintaining the accreditation status of its academic programmes, AIUB's leadership decided to submit its management system to certification under International Organization for Standardization (ISO) 9001:2008 standards. Certification was based on an internal audit conducted by the AIUB Quality Assurance Center (AQAC) team and other non-academic staff.

While the majority of AIUB's academic programmes and its management system were submitted for international accreditation, its engineering and architecture programmes were accredited by local bodies, the Institution of Engineers, Bangladesh (IEB) and the Institute of Architecture, Bangladesh (IAB), respectively. Only graduates of IAB- or IEB-accredited courses can enter these professions.

Since 2015, AIUB has been involved in the World Bank-funded HEQEP project, which has sponsored the establishment of the university's IQAC, including its personnel, infrastructure, additional equipment and operational expenses. Nine academic programmes conducted self-assessments as part of the project, over a period of three years. In 2015, several programmes in the Faculty of Business Administration and Architecture conducted self-assessments. They are expected to submit a report to UGC-QAU for external peer review by foreign and local peer reviewers.

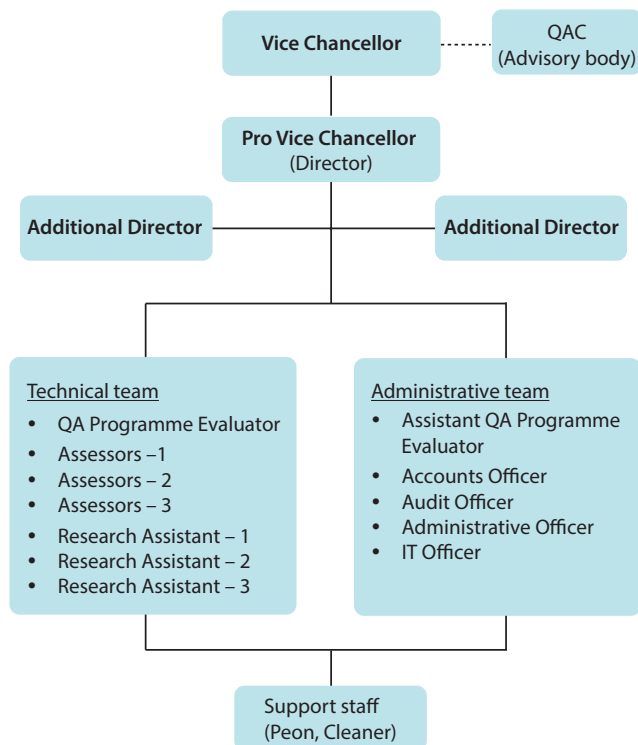
3.2 Structure for IQA at AIUB

Initially, AQAC supported accreditation processes conducted by international accreditation bodies. The UGC and the Ministry of Education, with funding from HEQEP, transformed AQAC into an institutional quality assurance cell (IQAC). Its basic objective, to promote a quality culture within the university, did not, however, change.

As Figure 3.1 shows, IQAC is a more developed version of AQAC and has a more complex structure. The vice-chancellor exercises overall supervision of the IQAC and appoints its directors from among qualified senior academics. The lead director is responsible for the overall administration of the IQAC unit, with two additional directors in charge of financial and quality matters, respectively. The Quality Assurance Committee (QAC) acts as IQAC’s advisory body. Technical and administrative teams, reporting to the two additional directors, support quality assurance activities at AIUB. Within the technical team, three programme assessors provide support for the internal assessment of programmes, while three research assistants assist in the cell’s data collection activities. Within the administrative team, an assistant programme evaluator supports data collection and processing. An administrative officer coordinates administrative work and prepares reports for the UGC and HEQEP. An accounts and audit officer maintains financial and accounting records.

A self-assessment committee (SAC), composed of three staff members from each academic programme, is responsible for conducting self-assessments of the respective programmes. Nine academic programmes will be assessed by the SAC between 2015 and 2017.

Figure 3.1 AIUB-IQAC organizational chart



Source: AIUB-IQAC office, 2015e.

3.3 IQA policy and manual

Quality policy

A quality policy was formulated to meet a requirement of the university's ISO 9001-2008 certification in 2013. A draft policy was presented to the syndicate (senate) for approval before being passed to the board of trustees. The university authorities approved the policy in 2014 and it was incorporated into the ISO quality manual. The AIUB policy document states:

Quality shall be adhered to in conformity with the prescribed national and international standards of quality and excellence including those provided by the professional bodies and organizations. The American International University – Bangladesh is committed to translate them into actions in the form of programmes, projects and activities. The students are the central focus of the university as valued customers. They shall therefore be provided with the utmost care and attention to meet their primordial needs and future career success. In view of this commitment, the university shall exert best efforts to harmonize its action through collaboration, cooperation and consultation with every unit and components of the university.

The following principles guided the formulation of the policy:

- a. Sustainability of quality standards from international accrediting/certifying bodies.
- b. Continuous capacity building of human resources within the organization.
- c. Participation of stakeholders (students, alumni, parents, and others) in strengthening leadership, management, and academic programmes and services.
- d. Regular updating of data and information, facilities, equipment, and physical resources to ensure they function properly in support of the overall university operation
- e. Ensure a supply of high-quality and skilled graduates for local and global markets.
- f. Promotion of a research culture for academic enrichment, discovering cutting edge-knowledge and identifying vital areas for improvement and development.
- g. Encouragement of university-community engagement through socio-civic, technical, and academic interventions.

Quality manuals

In line with the guidelines for ISO 9001-2008 certification supplied by auditing firm SGS-UKAS (Societe Generale de Surveillance, United Kingdom Accreditation Service), a quality manual was developed, describing the systems and procedures for quality management at AIUB. The manual also sets out the certification process. Its aim is to guide the university's departments/units in following the rules of quality assurance. The manual covers five major areas of operation: (1) the quality management system; (2) management responsibility; (3) the resource management system; (4) product realization and measurement; and (5) analysis and improvement. Below are the major quality manuals used by the university.

IQAC Operations and Lab Manuals

This *IQAC Operations Manual* consists of guidelines and processes to facilitate the activities of IQAC, as agreed by the Quality Assurance Unit, the UGC, HEQEP and the Ministry of Education. It covers the quality of teaching, learning, and research in all higher education institutions in Bangladesh. It includes every aspect of the operation of quality assurance processes within the universities and defines a comprehensive set of policy instruments and concepts for introducing an effective IQA system. The *IQAC Operations Manual* also includes useful QA tools and templates for the IQA. There is also a lab manual that sets out the guidelines for laboratory operation was developed by the departments of computer

science, physics, chemistry, and electrical and electronic engineering. The architecture department has also developed a manual for its design studios.

Self-assessment manual

The self-assessment manual describes the concept and objectives of self-assessment, as well as the processes to follow. It was developed by the QAU, the UGC, HEQEP, and the Ministry of Education, and includes guidelines and templates for conducting the data collection surveys which are part of the self-assessment process. The manual is periodically revised using feedback from practitioners to ensure it reflects changing circumstances. It is also open to further improvement using experience drawn from international good practice.

3.4 IQA instruments

Over the years, a number of instruments have been developed for internal quality assurance to provide stakeholders with the information on quality. These instruments can be broadly classified as relating to teaching and learning, employability, and management effectiveness.

IQA instruments for teaching and learning

The instruments related to teaching and learning concern course evaluation, programme evaluation, teacher supervision, programme self-assessment, and student workload assessment.

Course evaluation

Course evaluation is a regular activity of each academic department. It is based on feedback gathered through surveys, group discussions, interviews, and trend reviews from stakeholders (students, faculty, academic and administrative staff, employers, and experts). Courses must be carefully examined, considering the varying needs of stakeholders, and emerging national and international demands driven by technological development and the intense competition in jobs markets. The reviews focus on objectives, contents, teaching strategies, faculty competence, resources, tools, and enrichment activities. The outcomes of a review can include the revision of a course, the introduction of a new course, the improvement of the delivery system or a change of mode, the development of additional resources and sources of information, or changes to the way academic programmes are packaged. From this activity, students and teachers are informed of new developments and current trends in their chosen disciplines. The curriculum committee, which comprises members of the academic council and the student representative body, as well as alumni, and non-academic and employer delegates, reviews the course offer every academic year. Any new core course has to be recommended by the faculty to the academic council and, subsequently, to the University Grants Commission for final approval.

Programme evaluation

Degree programmes in each AIUB faculty undergo a review process. The reviews focus on programme relevance and responsiveness to the needs of students and employers, as well as to technological advancement, and national and global trends. Review committees, therefore, consist of academic and administrative staff, students, alumni, industry representatives, and professionals/practitioners. Consultation, interviews, and surveys are undertaken as part of the review process. Programme evaluation is usually conducted every two or three years or when a special need or demand arises. The UGC is responsible for final approval of a new programme, on the recommendation of the academic council.

Teacher supervision

Teacher supervision involves keeping track of the performance of teachers inside and outside the classroom. It measures the extent to which their work conforms to the standards and policies of universities. Teacher supervision at AIUB utilizes a range of instruments used to evaluate teachers' performance: (1) classroom observation, (2) the teacher schedule form (TSF), (3) teacher performance evaluation (TPE), and (4) faculty performance evaluation (FPE). Classroom observation is mandatory for new teachers. The results are made known to the teacher and, if deemed necessary, a post-observation conference will be held between the teacher and the observer. The teacher schedule form evaluates the class schedule and teacher counselling hours at the beginning of every semester. The TSF is posted outside the teacher's office and online for students. It is regularly checked, both by teachers and by departmental heads and building officers. Teacher performance evaluation is conducted after mid-term of each semester. Students evaluate their respective teachers anonymously on a scale of one to five for each item in the following areas: knowledge of the subject matter, instructional strategies; motivation techniques; personality traits; student-faculty relationships; and routine matters. Faculty performance evaluation covers nine areas using the same scales as TPE. However, while FPE is used by management, TPE is intended to be used in teacher self-evaluation. The results of FPE are consolidated with the overall performance rating of the teacher and used either to support teacher retention or to incentivize performance. Teacher supervision therefore enables teachers to identify areas for improvement in their performance.

Programme self-evaluation

Programme self-evaluation is conducted internally by the university and reviewed externally as a part of the accreditation process. Frequency varies according to the external accreditor's framework and ways of working. The following basic components of the programmes are measured by a standard questionnaire: governance, curriculum and instruction, faculty, student services, library resources, research engagement, infrastructures and facilities, and community outreach services. A sub-committee is responsible for each programme's self-evaluation. At AIUB, there are nine sub-committees, corresponding to nine programme entities. The results of programme self-evaluation are vital to the university's development, expansion, and ongoing improvement.

Student workload assessment

Student workload assessment measures the capacity of students to undertake the activities on offer at the university. It is designed to identify the types of courses and activities that students must engage in, in accordance with their respective career plan. The choice of major is critical, particularly where students do not have access to guidance and counselling before joining university. The teachers play an important role here, supported by human resources staff who take part in the career orientation programme organized by the faculty and the Office of Placement and Alumni. This happens every semester prior to students' enrolling on their major courses. Students who do not meet course requirements can be accepted on a probationary period during which their faculty offers guidance and academic assistance. It is expected that the student's academic performance will improve. Those whose academic performance is consistently poor will have to leave the university.

Table 3.1 IQA instruments for teaching and learning at AIUB

IQA tools for T/L	IQAC tools of AIUB	Process of IQAC tools	Responsible unit
Course evaluation Programme evaluation Programme self-evaluation Student workload assessment	Self-assessment (SA) process of each programme	Includes a questionnaire survey focused on nine areas of QA. The survey is conducted for five different stakeholders, once in a three-year cycle, and includes: Employers survey (employers of the graduates of that programme) Student satisfaction survey (current students from different years) Alumni survey (alumni of that programme) Academic staff survey (all academic staff on the programme) Administrative staff survey (all administrative staff related to the programme)	Self-assessment committee (SAC) member and IQAC
Teacher supervision	TPE and FPE	TPE: Bottom-up and top-down approach to performance evaluation via a survey questionnaire given to students in the class. FPE: General faculty members self-assess, followed by assessment by department heads, programme director, and dean.	Heads of department, programme director, and dean's office

IQA tools for employability

Graduate tracer study

AIUB's graduate tracer study is the first of its kind among universities in Bangladesh. This study is intended to track graduate employment and evaluate the relevance of course content. Graduates are asked, via an online survey, about the various requirements for entry-level employment, including job knowledge, communication, and interpersonal skills. Alumni from different parts of the world can access the online questionnaire and provide information for the university. This is one dimension of the university's current focus on graduate employability.

Employer satisfaction survey

The employer satisfaction survey is a means of securing the input from employers that is necessary in improving the quality of education. The questionnaire is administered directly to the heads of organizations and is returned to the research team at the university. Students are able to access the results and, so, keep informed of labour market trends in the respective sectors.

Employer involvement in study programme revision

Employers are involved, either formally or informally, in the revision of study programmes. As part of the official process of programme revision, the university creates a committee to review programmes and courses, composed of employers, faculty members, student alumni, and practitioners/professionals. Employers' suggestions help identify the knowledge, skills, and attitudes graduates need. Employers can also revise programmes for students who are under their supervision as interns. Their feedback on student performance is conveyed to the university and discussed by members of the programme review committee, supporting both the revision of existing courses and the introduction of new ones. Major new courses in marketing were introduced in the Faculty of Business Administration, for example, sponsored by an international NGO, while a new course in investment management received technical and financial support from the International

Finance Corporation (IFC-World Bank). This indicates active engagement from employers in the review of study programmes at AIUB.

Student competences assessment

Student competences are regularly measured during their courses through quizzes, assignments, projects, presentation in case studies, mock plan/design competition in the classroom, and software development and programming. Mid-term and final-term examinations are another instrument to assess student competences. The results of assessment are analysed to produce a cumulative grade point average (CGPA). Students who fall short of the required CGPA continue to be eligible for special assistance and counselling.

Table 3.2 IQA instruments for employability at AIUB

IQA tools for employability	IQAC tools of AIUB	Process of IQAC tools	Responsible unit
Employer satisfaction surveys	External peer review report prepared by external peer reviewer based on SAR and visit by external peer reviewer	The report evaluates nine areas of AIUB, once in a three-year cycle for each programme. It includes reports on: employer feedback student feedback alumni feedback academic staff administrative staff	External peer reviewer, self-assessment committee (SAC) member and IQAC
Student competences assessment			
Graduate tracer studies	Graduate tracer study	Graduate tracer study (continuous process)	IQAC
Employer involvement in study programme revision	Industry-university linkage	Corporate visit report (a prescribed form, filled out by the employer supervisor and collected by the university supervisor), internship affiliation report (prepared by students), intern performance evaluation report by organizations (a prescribed form, filled out by the employer supervisor, collected by the interns, and submitted to the Office of Placement and Alumni [OPA]) every semester (four months)	Heads of department, programme director, Dean's office and OPA

IQA tools for management

Unit self-evaluation

Unit self-evaluation is a process whereby each unit/department identifies their level of compliance with operational requirements. There are 16 committees within AIUB which carry out unit self-evaluation, each comprising staff from the unit/department, a representative of the IQAC, and two staff members drawn from other units/departments. The evaluation, which is conducted annually, focuses on the following areas: services, internal and external communication flow, facilities and equipment, management of documents, maintenance operation, staff performance, and capacity-building activities. The results are made known to heads of department and management.

Unit external evaluation

Unit external evaluation is conducted by external or peer evaluators/reviewers in order to validate the results of the internal evaluation. The evaluation assesses academic and non-academic processes in terms of international standards and practices. The instruments and processes used in external evaluation vary depending on the external accreditation body. The university has undergone two international external evaluations, by PAASCU and ISO, and two local accreditation processes, carried out by the Institute of Architects, Bangladesh (IAB), and the Institute of Engineers, Bangladesh (IEB). The university volunteers to take part in international evaluations, while local bodies are selected in response to the needs of graduates. The recommendations of these bodies/organizations must be complied with if the university is to sustain or improve the certification status of its programmes.

Certification

Certification is issued to universities only when they satisfy the standards and benchmarks of an external certification body. Academic programme operations in business, computer science and engineering have been certified, while architecture and engineering have been granted local accreditation by IAB and IEB. The management operations of AIUB have been certified against ISO's 2008 standards. In the absence of national quality assurance requirements, AIUB entered into these certification processes voluntarily to conform to its own quality assurance standards.

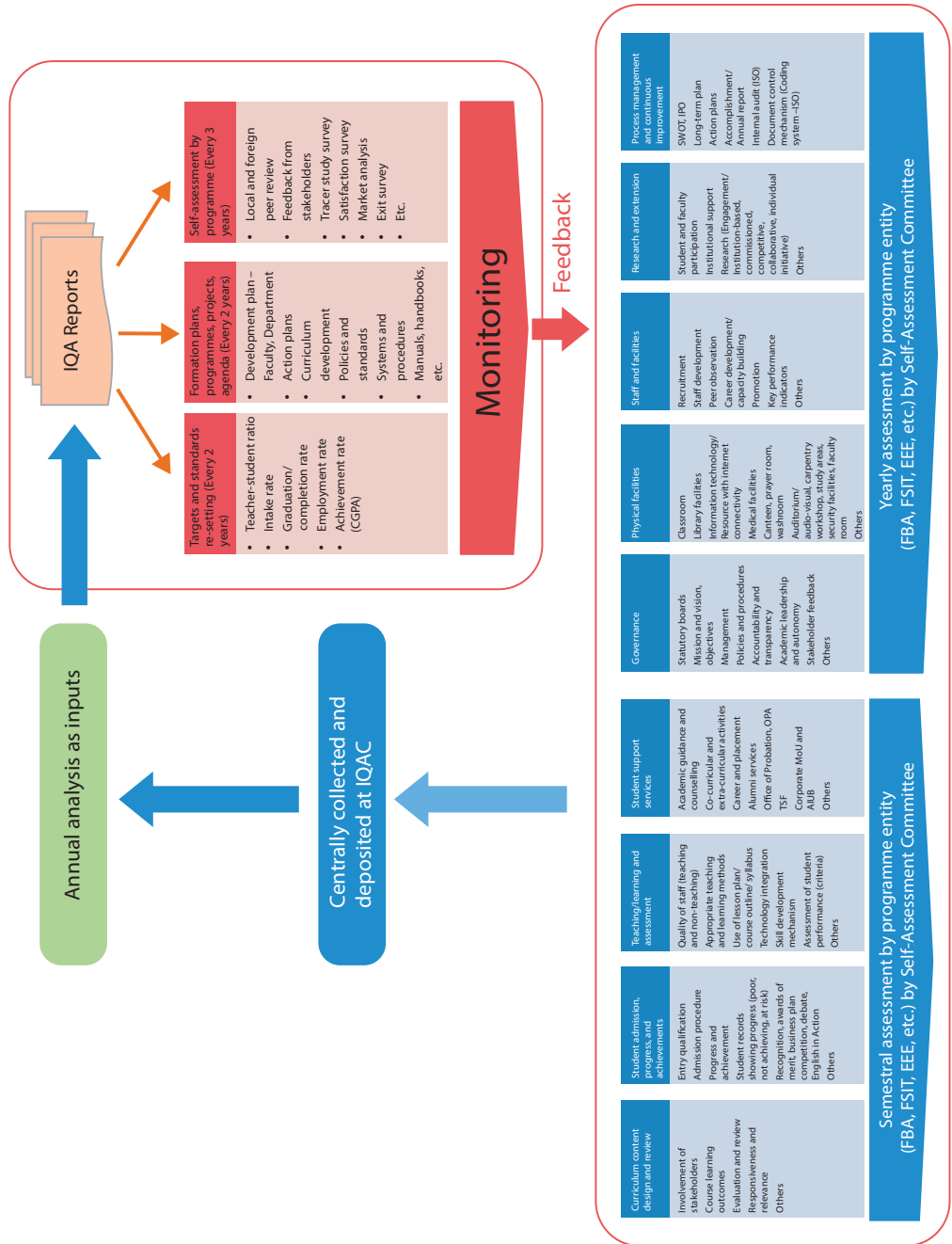
Service-level agreements

Service-level agreements confirm the terms and conditions of university employment. The university has an employment agreement handbook and manual, providing specific job descriptions for each position. The employee (whether academic and administrative) must sign this agreement before starting work for AIUB. This agreement is intended to protect the interest of both the university and the employee.

Table 3.3 IQA instruments for management at AIUB

IQA tools for management	IQAC tools of AIUB	Process of IQAC tool	Responsible unit
Unit self-evaluation	The self-assessment (SA) process of each unit	The assessment includes questionnaire survey regarding nine areas of QA. The survey is conducted once in a three-year cycle and includes an administrative staff survey (all administrative staff related to the programme).	Self-assessment committee (SAC) member and IQAC
Unit external evaluation	An external peer review report for each administrative area and for staff by an external peer reviewer based on the SAR and a site visit	The report evaluates nine areas of AIUB, once in a three-year cycle for each programme. It includes a report on the administrative staff of that programme.	External peer reviewer, SAC member, and IQAC
Certification	External quality assurance/certification activities	ISO, PAASCU, IEB and IAB	External accreditation agency and IQAC
Service-level agreement	Action plan, accomplishment reports of the offices	For each unit office, once a year, the plan and report is prepared by administrative staff and collected by IQAC.	Offices and IQAC

Figure 3.2 Structure of IQA at AIUB



Source: AIUB-IQAC office, 2015f.

4. Findings of the empirical study

This chapter presents the research methodology and findings of this empirical study of the IQA system at AIUB. The findings emerge from an analysis of: (1) the awareness and involvement of both academic and administrative staff in the IQA system; (2) the effects of the IQA system on teaching and learning, employment orientation, and management; (3) the conditioning internal and external factors; and (4) an overall appreciation of the effectiveness of IQA systems. These areas of focus were chosen in order to assess both the overall effectiveness of the IQA system at AIUB and the factors that condition it.

4.1 Research methodology and limitations

A multi-stakeholder approach was adopted in order to meet the objectives of the study. The stakeholders include academic and administrative staff, students, and university leaders. The approach enabled AIUB to triangulate perceptions and present differences in opinion.

The research used both quantitative and qualitative methods. Perceptions of academic and administrative staff were investigated by two online surveys, as shown in *Table 5.1*. The surveys were adapted to the IQA instruments with which AIUB academic and administrative staff were typically familiar.

The surveys were sent to 298 academic staff, 193 (64.76 per cent) of whom responded, and 160 administrative staff, 69 (43.13 per cent) of whom provided responses. The number of academic and administrative staff respondents was sufficient to draw reasonable conclusions.

In order to capture the perceptions of different stakeholders at AIUB in a more in-depth way, 14 academic and administrative heads were interviewed individually. In addition, 24 department heads and programme directors and 40 students participated in focus group discussions (FGDs) of the effectiveness of the IQA system and procedures at AIUB.

Table 4.1 The tools and the number of respondents for the research

Tools	Number of respondents	Fields/working area of respondents	Remarks
Questionnaire survey (academic staff)	193	Academic staff	Quantitative analysis
Questionnaire survey (administrative staff)	69	Administrative staff	Quantitative analysis
Individual interview	14	Head of Programmes and Directors from Academic and Administrative fields	Qualitative analysis focusing on T/L, employability, management, and the overall IQA process
FGD with programme heads	24	Head of programmes/ departments, and directors from academic and administrative fields	Qualitative analysis focusing on T/L, employability, management, and the overall IQA process
FGD with students	40	Students from different disciplines, faculties, and club members	Qualitative analysis focusing on T/L, employability, management, and the overall IQA process

The research was organized into three phases. First, a workshop for selected academic and administrative staff was held in December 2014 to explain the purpose of this study. The workshop group also took part in a pilot survey. Second, the questionnaire was

distributed to all the academic and administrative staff through the university web-mail, with a note explaining the importance of the study. Third, a group of students, drawn from every AIUB programme, and a group of department heads, were selected to participate in focus group discussion.

Two limitations were identified in the course of data collection:

- a. Some respondents did not answer all the questionnaires due to a lack of understanding. Interruptions due to semester breaks and vacations, student unrest, and respondents taking leave of absence also hampered the smooth running of the research process.
- b. The findings of the study could be influenced by the fact that the quality-assurance professionals in charge of the IQA system were also responsible for measuring the effects, the conditioning factors, and overall effectiveness.

The research team developed ways and means to overcome such limitations:

- a. To create awareness of the research project and to increase the response rate, the research team conducted a series of workshops and seminars in different academic and administrative units. This enabled actors in different parts of the university to understand the purpose of the study.
- b. To ensure greater objectivity in the analysis, the perspectives of various stakeholders at AIUB were taken into account and given equal weight, with the different data sources (e.g. survey questionnaires, interviews, and focus group discussions) triangulated. This helped prevent bias in favour of those in charge of the IQA system at AIUB.

4.2 Participation statistics

This section provides general descriptions of the respondents to the online survey, and the participants in the interviews and focus groups.

Survey questionnaires

Academic staff

Table 4.2 shows the disciplines of academic staff who took part in the online survey. The majority of participants were from engineering (37.82 per cent) and business and management (32.98%), followed by science (15.71 per cent) and the social sciences (7.33 per cent).

Table 4.2 Disciplines (academic staff)

Topic	Number (percentage) of respondents
Social sciences	14 (7.33%)
Humanities (e.g. philosophy, religion, philology)	5 (2.5%)
Science (e.g. mathematics, informatics, statistics)	30 (15.71%)
Business and management	64 (32.98%)
Engineering (e.g. materials engineering, logistics)	73 (37.82%)
Life and health (e.g. medicine, psychology, nursing)	1 (0.52%)
Law	1 (0.52%)
Economics	5 (2.62%)
Total number of respondents	193 (100%)

Table 4.3 illustrates the positions held by academic staff. Interestingly, lecturers and assistant professors were dominant among the respondents, accounting for 51.60 per cent and 38.94 per cent, respectively, of the total. In contrast, full professors comprised only 3.15 per cent of total respondents. This is largely explained by the lower representation of full professors at AIUB compared to other categories of academic staff.

Table 4.3 Academic positions (academic staff)

	Full professor	Assistant professor	Lecturer	Assistant	Other: Associate professor (7), senior lecturer (2), instructor (3)	Total
Number (percentage)	6 (3.15%)	74 (38.94%)	98 (51.60%)	0 (0%)	12 (6.31%)	190 (100%)

As Table 4.4 indicates, the vast majority of academic staff (84.46 per cent) opted not to declare their leadership role. Some academic staff (10.88 per cent) reported that they belonged to a committee or board. Only few of the academic participants indicated that they held a top-level leadership position, again in line with their presence at AIUB.

Table 4.4 Leadership positions (academic staff)

	Head (or deputy head) of programme	Head (or deputy head) of department	Dean (or vice dean) of faculty	Member of a committee or board	I do not want to answer	Other	Total
Number (percentage)	2 (1.04%)	4 (2.07%)	3 (1.55%)	21 (10.88%)	163 (84.46%)	0 (0%)	193 (100%)

More than half of academic respondents had worked at AIUB for less than five years (60.21 per cent). A third of academic respondents (33.51 per cent) had worked at AIUB for between five and 10 years.

Table 4.5 Length of experience (academic staff)

	Less than 5 years	Between 5 and 10 years	Between 11 and 20 years	More than 20 years	Total
Number (percentage)	115 (60.21%)	64 (33.51%)	11 (5.76%)	1 (0.52%)	191 (100%)

Administrative staff

Administrative staff participants mostly worked in student services (27.54 per cent) and financial management (23.19 per cent). Those from academic staff development accounted for 11.59 per cent of the total.

The majority of administrative respondents were qualified to master's degree level (79.71 per cent), while 13.04 per cent were qualified to bachelor's degree level (13.04 per cent) and 7.25 per cent to doctoral level. Respondents, therefore, are predominantly drawn from the more educated segment of AIUB's administrative staff cohort.

Table 4.6 Fields (administrative staff)

Topic	Number (percentage) of respondents
Strategic/academic planning	2 (2.90%)
Financial management	16 (23.19%)
Quality assurance/quality enhancement	3 (4.35%)
Institutional research	4 (5.80%)
Facility management (including transport services)	1 (1.45%)
Human resource (administrative) management	1 (1.45%)
Academic staff development	8 (11.59%)
Student services (registration, assessment, counselling)	19 (27.54%)
IT services	1 (1.45%)
Public relations/marketing	3 (4.35%)
Research service	1 (1.45%)
Institutional leadership	1 (1.45%)
Others, namely: administration (3), Dean's office management (1), real estate (1), office of records (3), office of sports (1)	9 (13.03%)
Total number of respondents	69 (100%)

Table 4.7 Highest educational achievement (administrative staff)

	Secondary school diploma	Vocational training	Bachelor	Master	PhD/ Doctorate	Other	Total
Number (percentage)	0 (0%)	0 (0%)	9 (13.04%)	55 (79.71 %)	5 (7.25%)	0 (0%)	69 (100%)

Only a few administrative staff participants (13 per cent) categorized themselves as holding top-level leadership positions (see Table 4.8). The majority of participants (87 per cent) indicated that they undertake administrative work, such as IT and student support, on campus. Some administrative staff reported that they were in charge of a programme or department: programme director (two) and head of department (seven).

Table 4.8 Leadership positions (administrative staff)

	Head (or deputy head) of administration	Head (or deputy head) of unit	Head (or deputy head) of section	Other*	Total
Number (percentage)	2 (3%)	5 (7%)	2 (3%)	58 (87%)	67 (100 %)

*Note: Advisor (1), Real estate manager (1), assistant QA programme evaluator (1), QA programme evaluator (1), senior executive (14), junior executive (13), executive (6), assistant director (3), campus officer (1), head of IT operations (1), department head (8), officer (2), office of student affairs (OSA) (1), programme director (2), no leadership role (3).

As with academic staff participants, most administrative respondents had worked at AIUB for fewer than five years or between five and 10 years (see Table 4.9). Around a third

(34.78 per cent) of administrative staff had worked for fewer than five years, while almost half of the participants (46.38 per cent) had worked at AIUB between five and 10 years.

Table 4.9 Lengths of experience (administrative staff)

	Less than 5 years	Between 5 and 10 years	Between 11 and 20 years	More than 20 years	Total
Number (percentage)	24 (34.78%)	32 (46.38%)	13 (18.84%)	0 (0%)	69 (100%)

Interviews and focus group discussions

Table 4.10 gives descriptions of interview and focus group discussion participants. Individual interviews were conducted with 14 people in academic and administrative leadership positions, i.e. programme heads and directors from academic and administrative departments/offices. Focus group discussions were held with 24 programme heads and 40 students, drawn from different faculties. The majority of students belonged to the faculties of business administration (12), engineering (12), and science and information technology (10). Six of the participants studied the arts and social sciences.

Table 4.10 Interview and focus group discussion participants

Tools	Number of respondents	Fields/working area of respondents
Individual Interview	14	Vice-Chancellor, Vice-President (Academic Affairs), Vice-President (Administration), members of governing board representative (2), Dean of Faculty (Science and IT), Dean of Faculty (Arts and Social Sciences), Dean of Faculty (Business), Dean of Faculty (Engineering), Head of Administration/Programme Director (Sciences), Head of Administration/ Programme Director (Business), Head of Administration/ Program Director (Social Science), Head of Administration/Programme Director (Engineering)
FGD with programme heads	24	Heads of department for business administration (three heads of department and two directors), heads of department for English language, social science, economics, MMC and law (six heads of department), heads of departments for EEE, Architecture and Computer Engineering (five heads and one director)
FGD with students	40	Students from the Faculty of Business Administration (12), the Faculty of Engineering (12), the Faculty of Science and Information Technology (10), and the Faculty of Arts and Social Sciences (6), plus the Head and Director of Continuing Education

4.3 Awareness and involvement

Internal quality assurance concerns everyone employed by a university. Staff engagement with internal quality assurance is a major factor conditioning the effectiveness of IQA in establishing a culture of quality at a university. The awareness and involvement of academic and administrative staff in the IQA system at AIUB were investigated through the survey questionnaire and the qualitative interviews.

Quality policy and manual

First, the survey questionnaires investigated the extent to which academic and administrative staff were, in general, aware of and involved in quality policy and the quality manual.

Survey questionnaire data (academic and administrative staff)

Table 4.11 shows that most of academic and administrative staff at AIUB were aware of the quality policy and manual of the university and felt involved in it. More than 90 per cent of administrative staff knew that these documents existed and found them useful in their work. The numbers for academic staff were lower, with 71 per cent aware of quality policy and 63.68 per cent aware of the quality manual. Although most were aware of the existence of these documents, some academic staff seemed detached from quality issues, compared to administrative staff. Only 3 per cent of administrative staff said they were aware of the quality policy and manual but did not have to deal with it. However, almost 20 per cent of academic participants said they did not have to deal with the quality policy (18.24 per cent) and manual (17.37 per cent). There were also more academic respondents who answered 'I don't know' to questions about quality policy. Overall, administrative staff at the university appear to be more aware of and involved in quality policy and documentation than academic staff.

Table 4.11 Academic and administrative awareness of quality policy and manual

		Quality policy	Quality manual
Yes, this document exists and is useful for my work	Academic staff	71.35%	63.68%
	Administrative staff	94%	91%
Yes, but this document is not useful for my work	Academic staff	1.56%	1.58%
	Administrative staff	0%	2%
Yes, it exists but I do not have to deal with it	Academic staff	18.24%	17.37%
	Administrative staff	3%	3%
No, my university does not have such a document	Academic staff	0%	1.05%
	Administrative staff	2%	1%
I don't know	Academic staff	8.85%	16.32%
	Administrative staff	1%	3%
Total	Academic staff	100%	100%
	Administrative staff	100%	100%

Interview and focus group discussion data on quality policy and manual

According to AIUB's administrative staff, there is one official document on quality assurance, which is the quality manual, designed in accordance with the requirements of ISO 9001:2008 certification. The manual, which is accessible to all administrative staff in their day-to-day activities, describes AIUB's mission, vision, policy, and strategies for quality enhancement.

Respondents also note that the quality policy was centrally organized, designed, and developed by AQAC (now IQAC), with some senior administrative staff involvement. Senior administrative staff were also involved in ISO certification, which may, in part, explain why AIUB's administrative staff are more aware of quality policy and documentation, and feel more involved in it.

The response from the student focus group was, however, different from that of either academic or administrative staff. The students report that the quality manual has not been

made available to them and that they were not involved in the development of either the quality policy or the manual. Quality policy was, however, conveyed to them through noticeboards, banners, and posters, they said, with AIUB's mission, vision, and quality policy displayed prominently around campus.

Respondents were aware of the following policies and manuals (described earlier in the report).

- Quality policy and strategies (for all of AIUB)
- ISO manual (for administrative staff)
- IQAC Operations and Lab Manual (for quality assurance activities)
- Self-Assessment Manual (for self-assessment activities of all programmes)

Comparative analysis on the awareness of the quality policy and manual (by different stakeholder group)

The questionnaire data showed that most of AIUB staff were aware of and involved in the quality policy and manual. However, a difference was identified between academic and administrative staff in terms of the level of perceived accountability. Academic staff seemed to have a lower sense of accountability with regard to quality documents, with a higher percentage of them claiming that they did not have to deal with quality policy or the quality manual as a part of their work. This was supported by interview data, which suggested that the quality manual is centrally developed by members of IQAC and senior administrative staff. Students were also excluded from the development process for such documents. The lack of involvement of academic staff and students in development helps explain their lower awareness of and involvement in quality policy and documentation more generally.

IQA tools

The survey questionnaires also investigated the extent to which academic and administrative staff were aware of and involved in IQA tools at AIUB. Unlike the quality documents, the specific IQA instruments were presented in the questionnaires. The instruments for teaching and learning were: (1) course evaluation, (2) programme evaluation, (3) teacher supervision, (4) programme self-evaluation, and (5) student workload assessment. The tools for employability were: (1) the graduate tracer study, (2) employer satisfaction surveys, (3) employer involvement in study programme revision, and (4) the student competences assessment system. Lastly, the following management tools were presented: (1) unit self-evaluation, (2) unit external evaluation, (3) certification, and (4) service-level agreements. The interview and focus group discussion participants chose to focus on different IQA tools to those featured in the questionnaires.

Survey questionnaire data (academic and administrative staff)

According to Table 4.12, academic staff felt most involved in programme self-evaluation (with an average of 3.12). This was followed by programme evaluation, teacher supervision, and student workload assessment. Although academic staff were least involved in course evaluation, they perceived it to be the most used of all the IQA tools for teaching and learning (with an average of 4.18). Academic staff also reported that they received feedback most often from course evaluation. Academic staff felt that programme evaluation was most useful tool, followed by course evaluation.

In terms of IQA tools for employability, they were most engaged in the student competences assessment system, and least involved in graduate tracer studies. Similar trends could be observed in terms of feedback, use, and usefulness. Academic staff reported that they received most feedback from the student competences assessment. They also said that this instrument was frequently used and very useful. Overall, graduate tracer studies were less familiar to academic staff, hence their low involvement with this tool.

Table 4.12 Academic staff involvement in IQA tools on T/L and employability

	Academic staff			
	Involvement	Feedback	Use	Usefulness
Course evaluation	1.95	4.24	4.18	4.15
Programme evaluation	2.93	3.84	3.82	4.27
Teacher supervision	2.76	3.85	3.78	3.85
Programme self-evaluation	3.12	4.00	4.01	3.35
Student workload assessment	2.72	3.54	3.29	1.74
Graduate tracer studies	1.95	2.91	2.89	2.25
Employer satisfaction surveys	2.14	3.15	3.15	2.56
Employer Involvement in study programme revision	2.54	3.40	2.84	3.34
Student competences assessment	3.38	3.88	3.85	4.09

*Note: Averages were calculated as follows: 1. A numerical value was attributed to response categories with, for instance, 5 = very much and 1 = not at all. 2. Averages were then calculated in the following way: (number of responses x 5) + (number of responses x 4) + (number of responses x 3) + (number of responses x 2) + (number of responses x 1) / the total number of responses.

Administrative staff were most involved in certification and unit self-evaluation of the IQA instruments for management at AIUB. *Table 4.13* shows that service-level agreement was another IQA management tool in which administrative staff were heavily involved. They were least engaged in unit external evaluation (with an average of 3.83). Administrative staff appear to receive regular feedback across the different IQA instruments, with all averages above 4.00. Similarly, their perception was that such IQA tools were frequently used. Unit external evaluation and unit self-evaluation were the highest, with averages of 4.50 and 4.49, respectively. When it comes to their usefulness, all IQA tools for management were deemed useful, with unit self-evaluation viewed as the most useful, followed by unit external evaluation and certification.

Table 4.13 Administrative staff involvement in IQA tools for management

	Administrative staff			
	Involvement	Feedback	Use	Usefulness
Unit self-evaluation	4.30	4.62	4.49	4.68
Unit external evaluation	3.83	4.44	4.50	4.55
Certification	4.30	4.29	4.39	4.54
Service-level agreement	4.28	4.44	4.44	4.28

*Note: All figures are averages (see *Table 4.12* for calculation formula).

Interview and focus group discussion data (awareness of and involvement in IQA tools for T/L and employability)

Interview and focus group discussion data supported the survey questionnaire data. Academic staff reported that they were engaged in some of the IQA instruments regarding teaching and learning. The heads of department of the different programmes mentioned, in particular, that they were involved in developing FPE and communicating the information

from FPE to the concerned faculty member. Teacher's performance evaluation (TPE) by students, FPE by supervisors, classroom observation by heads, and teacher supervision by deans provided heads of department and directors of programmes with the feedback necessary to make improvements. For example, each teacher was required to develop action and accomplishment plans and submit them to the heads of department. The heads of departments and programme directors also mentioned that heads developed reports based on those plans every semester to consolidate the information collected for future follow-up and improvement. In the interviews and focus group discussions, they reported that they regularly received feedback on their teaching and learning activities through semester-based reports and action plans from teachers, self-assessment reports from the SAC, and external peer review reports from the external peer reviewer.

Administrative staff reported that they were aware of and involved in the IQA tools. They mentioned ISO standardization/certification as a tool to generate reports and improvement plans for their offices. In terms of feedback from IQA activities, the heads of the departments and programme directors noted that departmental and committee meetings were held on a regular basis, providing an opportunity to follow up the IQA process. They also mentioned that feedback on operational issues was regularly provided by their immediate supervisor, with feedback on more special issues given by programme heads or deans.

The students reported that they participated on a regular basis in TPE, student satisfaction surveys, library satisfaction surveys, job fair, and other job recruitment activities on campus. They were also involved in the formal accreditation processes of PAASCU, IEB, IAB, and ISO, and the self-assessment process of SAC and IQAC, as survey respondents. Students mentioned their participation in local and international competitions, seminars, workshops, and exhibitions, which provided them with a platform for improving their skills, recognition, and, thus, their employability. Less positively, the students noted that feedback was not always properly communicated to them. However, they did receive feedback relating to different events and announcements through SAC-arranged workshops and the Virtual University Expert System, which features events, announcements, instructional materials, student materials, and others resources.

Comparative analysis of the awareness of and involvement in IQA tools (by different stakeholder group)

Although academic staff reported using course evaluation regularly and finding it useful, they noted that they were more involved in programme self-evaluation, programme evaluation, and teacher supervision, among IQA instruments for teaching and learning. This was supported by the interview and focus group data which showed that departmental heads and deans were actively engaged in teacher supervision. The students mentioned their active participation in course evaluation during the focus group discussions. Academic and administrative staff were familiar with the IQA management tools, such as certification and unit self-evaluation. However, none of the students mentioned any IQA instruments for management during the focus group discussions, suggesting a low level of awareness of the IQA management tools on the part of students.

4.4 Effects on teaching/learning, employability, and management

This section examines the effects of IQA tools on teaching and learning, employability, and management through a triangulated analysis of different data sources. An analysis of survey questionnaire data is followed by analysis of the interview and focus group discussion data. The comparative analysis on the effects on teaching and learning, employability, and management is also presented in terms of different stakeholder groups.

Effects on teaching/learning

In this section, the IQA tools for teaching and learning and employability are investigated to measure their effects on teaching and learning processes. The different kinds of effects were assessed by academic staff via the online survey. Academic and administrative leaders were interviewed, while department and programme heads and students responded to questions submitted for focus group discussion.

Survey questionnaire data (academic staff)

Table 4.14 shows the effects AIUB's various IQA instruments have on teaching and learning. The IQA tools for teaching and learning seem to have more positive effects on teaching and learning than the tools for employability.

Although most IQA tools at AIUB had a positive effect on the overall coherence of a study programme, programme evaluation, and teacher supervision were the most helpful, with both averaging 3.99. Programme evaluation and teacher supervisions also significantly improved the content coverage of courses and study programmes, teaching performance, and learning conditions. Academic staff regarded course evaluation as the most effective IQA tool for developing the student assessment system. In general, programme evaluation and teacher supervision had the clearest impact on the coherence and content coverage of a study programme and/or course. In particular, teacher supervisions seemed to be closely associated with the actual practice of teaching and learning, delivering significant improvements in teaching performance and learning conditions.

In terms of IQA instruments for employability, graduate tracer studies made the most positive contribution to the overall coherence of study programmes. Student competences assessment and employer involvement in study programme revision also helped improve study programme coherence, with the averages of 3.53 and 3.52, respectively. The content coverage of study programmes was also enhanced through employer involvement in programme revision, as well as through employer satisfaction surveys. Student competences assessment had the most impact on teaching performance, the student assessment system, and learning conditions. In summary, while employer involvement in study programme revision was helpful in the development of content at both course and programme level, student competences assessment was effective in enhancing teaching and learning in actual classroom contexts. Although they improved the coherence of study programmes, graduate tracer studies had little effect on teaching and learning.

Interview and focus group discussion data

Department heads and programme directors for business, engineering, science, and social science said that previous course curricula had been evaluated and new course outlines developed accordingly. The department heads and programme directors for EEE, architecture, and business noted that programme evaluation and programme self-evaluation helped identify strengths, weaknesses, opportunities, and threats (the SWOT analysis) for their respective programmes. All department heads and programme directors regarded teacher supervision as a very strong and effective IQA tool for teaching and learning as it had positive impact on teacher performance development.

Table 4.14 Effects of IQA tools on T/L (academic staff)

	Course evaluation	Programme evaluation	Teacher supervision	Programme self-evaluation	Student workload assessment	Graduate tracer studies	Employer satisfaction surveys	Employer involvement in study programme revision	Student competences assessment
Overall coherence of a study programme	3.73	3.99	3.99	3.79	3.46	3.85	3.17	3.52	3.53
Content coverage of courses	3.85	4.05	4.02	3.76	3.04	2.90	4.21	4.47	3.55
Content coverage of study programmes	2.68	3.95	3.98	3.89	3.41	2.89	3.15	3.55	3.51
Teaching performance	2.77	4.03	4.09	3.85	3.64	2.26	3.16	3.52	3.62
Student assessment system	3.78	2.77	3.74	3.63	3.52	2.05	3.03	3.32	3.59
Learning conditions	3.82	3.89	4.01	3.79	3.55	2.89	3.11	3.42	3.60

* Note: All figures are averages (see Table 4.12 for calculation formula).

Comparative analysis on the effects of IQA tools on T/L (by different stakeholder group)

In terms of the IQA instruments for teaching and learning, most AIUB stakeholders agreed that programme evaluation and teacher supervisions had the most impact on teaching and learning. With regard to the IQA instruments for employability, graduate tracer studies were found to have little effect, while employer involvement in study programme revision and student competences assessment had the most impact on teaching and learning. The focus groups and interviews revealed that programme self-evaluation, programme evaluation, teacher supervision, and course evaluation significantly improved teaching and learning processes.

Effects on employability

The IQA tools for teaching and learning and employability were investigated to assess their effect on employability. This section presents the survey data, followed by the interview and focus group discussion data. A comparative analysis of the effects on employability in terms of different stakeholder groups is provided below.

Survey questionnaire data (academic staff)

Interestingly, IQA tools for teaching and learning appeared to have a more positive impact on employability than tools designed specifically to promote it. *Table 4.15* shows that teacher supervision was viewed by academic staff as most effective means of enhancing the employability of graduates, with an average of 3.60. This was followed by programme self-evaluation and programme evaluation. Graduate employability was also thought to be increased through course evaluation. Student workload assessment was considered to have the least impact on employability, with an average of 2.34.

Turning to IQA instruments for employability, student competences assessment was thought to have the biggest impact on the employability of graduates, with an average of 3.44. This was followed by employer involvement in study programme revision and graduate tracer studies. Employer satisfaction surveys were not considered as effective as other instruments in enhancing employability.

Table 4.15 Effects of IQA tools on employability (academic staff)

	Enhanced employability of graduates
Course evaluation	3.36
Programme evaluation	3.45
Teacher supervision	3.60
Programme self-evaluation	3.46
Student workload assessment	2.34
Graduate tracer studies	2.94
Employer satisfaction surveys	2.43
Employer Involvement in study programme revisions	3.16
Student competences assessment	3.44

*Note: All figures are averages (see *Table 4.12* for calculation formula).

Interview and focus group discussion data

According to the deans of the faculties of science and information technology, social science, business, and engineering, the effect of AIUB's IQA tools on employability has

been highly positive. Most interviewees considered the graduate tracer study, which allows AIUB to track the progress of its graduates, to have positively contributed to improved employability outcomes. This tool also helped to generate information and practical knowledge about the jobs market.

Employer involvement in study programme revision was also mentioned as a means of enhancing the employability of students. In focus group discussion, heads of department and programme directors identified a number of changes that had resulted from such employer engagement. Courses in biomedicine, rural marketing, investment management, and human resource information systems were introduced in response to market demand, while the contents of existing courses were significantly modified. The computer science course curriculum was updated to include a programming language and courses on management information systems were redesigned and restructured. Students in their focus group discussions reported that their capacities had been increased in terms of subject knowledge, English language skills, physical and mental fitness, ethical behaviour, and community spirit. They also identified changes to course curriculum, such as the inclusion of more case studies (to increase analytical ability) and presentations (to increase communication skills), as an output of curriculum development.

Course evaluation was reported to have improved employability. For instance, new criteria for assessment were introduced, such as the evaluation of presentations and communication skills. Teaching methods were enriched by the introduction of interactive teaching styles into classrooms.

AIUB's faculty deans noted that unified/national jobs market analysis was necessary in order to measure the effects of AIUB's IQA tools on employability. According to the Dean of Engineering and Architecture, an outcome-based education model was being followed to produce more competitive graduates for national, regional, and global markets.

Comparative analysis on the effects of IQA tools on employability (by different stakeholder group)

A striking difference was observed among stakeholders when it came to perceptions of impact on employability. According to the academic staff survey questionnaire, IQA instruments for teaching and learning, including teacher supervision, programme self-evaluation, and programme evaluation, were the most effective in improving graduate employability at AIUB. In the interviews and focus group discussions, on the other hand, graduate tracer studies and employer involvement in study programme revision were more frequently mentioned. This suggests some differences of understanding of IQA tools for employability between academic staff, university leaders, and students.

Effects on management

The IQA tools for management were investigated to assess their impact. The survey data are presented first, followed by the interview and focus group discussion data. A comparative analysis of the effects on management, in terms of different stakeholder groups, is provided below.

Survey questionnaire data (administrative staff)

Table 4.16 illustrates the effects IQA tools have on management. Certification is regarded as having the greatest effect on the improvement of strategic planning, with an average of 4.43. Unit external evaluation and service-level agreements are also thought to have significantly improved strategic planning at AIUB. Unit self-evaluation, on the other hand, was reported to have had little effect on strategic planning. However, administrative staff pointed out that unit self-evaluation resulted in a greater service orientation in their work compared to the other three IQA tools. As decisions are usually made at the level of units, only unit self-evaluation and unit external evaluation were said to be effective,

with averages of 4.28 and 4.12, respectively. Although all of the IQA tools for management at AIUB support more effective administrative operations, certification and unit self-evaluation were said to contribute most to the effectiveness of administrative operations.

Table 4.16 Effects of IQA tools on management (administrative staff)

	Unit self-evaluation	Unit external evaluation	Certification	Service-level agreements
Improved strategic planning	1.22	4.28	4.43	4.24
More evidence-based decision-making	4.28	4.12	-	-
More service orientation	4.32	4.16	4.22	4.13
Effectiveness of administrative operations	4.35	4.26	4.39	4.21

*Note: All figures are averages (see Table 4.12 for calculation formula).

Interview and focus group discussion data

Most respondents mentioned that ISO certification had improved AIUB's capacity for strategic planning since it provided a formal standardised structure of operation in most offices of the university. All the forms used in internal operational activities were coded and the tasks made consistent with the standard operating process observed by the university. The Vice-President for Administration and the administrative directors noted that certification improved decision-making processes, and that resources, therefore, became more easily accessible. Staff training and development activities were also introduced. The performance and coordination of different departments were said to have increased considerably due to ISO certification.

Comparative analysis on the effects of IQA tools on management (by different stakeholder group)

Overall, IQA tools had a considerable impact on management at AIUB, with certification having the greatest effect. According to the survey questionnaire data, it was particularly effective in terms of improving strategic planning and administrative operations. The benefits of certification were also highlighted during the interviews and focus group discussions. Participants felt that the main effect of certification was to standardize management processes and, thus, facilitate resource allocation to the required areas or departments.

4.5 Conditioning factors

This section presents the internal and external conditioning factors responsible for the success, or otherwise, of the IQA system at AIUB. Internal conditioning factors were investigated by the triangulation of data generated from the survey questionnaire, interviews, and focus group discussions. The internal factors considered by both academic and administrative staff were: (1) leadership support, (2) financial incentives for staff to contribute, (3) support of students, (4) visibility of measures taken from internal quality assurance procedures, (5) a solid data information system, (6) transparent information on internal quality assurance procedures, (7) scientific evaluations of internal quality assurance procedures, and (8) active participation of all stakeholder groups in internal quality assurance procedures. As for external conditioning factors, their analysis was entirely based on qualitative data from the interviews. The interview guidelines emphasized the role of external quality assurance and university autonomy.

Internal conditioning factors

The academic and administrative survey questionnaires were used to investigate both the existence and the importance of internal conditioning factors for the IQA system at AIUB. This information was then triangulated with the interview and focus group discussion data. A comparative analysis of the effects on employability in terms of different stakeholder groups is provided below.

Survey questionnaire data (academic and administrative staff)

Table 4.17 shows that both academic and administrative staff appreciated the importance of all of the internal conditioning factors for the IQA system at AIUB. However, the perceived importance of the different factors varied depending on staff type. Academic staff viewed financial incentives and transparent information on IQA procedures as the most important factors, both having an average of 4.42. Administrative staff, on the other hand, reckoned leadership support (4.72) the most essential internal factor for sustaining the IQA system at AIUB, followed by transparent information on IQA procedures (4.58). Both staff groups put significant emphasis on transparency of information.

Administrative staff were more likely to acknowledge the existence of external conditioning factors within the university than were academic staff. Despite this difference, both academic and administrative staff groups acknowledged leadership support above all other factors at AIUB (with an average of 3.88 and 4.61, respectively). However, while academic staff placed the active participation of all stakeholder groups second, administrative staff emphasized a solid data information system. Another striking difference in the survey data concerned the support of students and the active participation of all stakeholder groups in IQA procedures. Only a few of academic staff felt that student support existed in the university. They nonetheless claimed that all stakeholder groups actively participated in IQA procedures. In contrast, administrative staff reported that students greatly supported the IQA system, although of the participation of stakeholder groups was more limited.

Table 4.17 Importance and existence of internal conditioning factors

	Academic staff		Administrative staff	
	Importance	Existence	Importance	Existence
Leadership support	4.59	3.88	4.72	4.61
Financial incentives for staff to contribute	4.42	3.49	4.21	4.19
Support of students	4.37	3.40	4.25	4.43
Visibility of measures taken from internal quality assurance procedures	4.15	3.50	4.21	4.26
Solid data information system	4.22	3.70	4.55	4.44
Transparent information on internal quality assurance procedures	4.42	3.66	4.58	4.36
Scientific evaluation on internal quality assurance procedures	4.28	3.60	4.46	4.13
Active participation of all stakeholder groups in internal quality assurance procedures	4.09	3.76	4.46	4.05

*Note: All figures are averages (see Table 4.12 for calculation formula).

Interview and focus group discussion data

The importance of these factors was acknowledged by deans, academic and administrative programme heads, and directors during the focus groups, where feedback was reviewed according to level and category of position. According to heads of departments and faculty deans, a significant level of leadership support exists at AIUB. Top-level management is committed to supporting the IQA system through leadership training and financial incentives.

The deans of the faculties of science and information technology, social science, business, and engineering pointed out that the university had allocated funds to those engaged in IQA operations. These funds were not only used for operational purposes but also as financial incentives for IQAC staff, in addition to their regular salary. Academic and administrative staff were also given incentives through their participation in seminars and in self-assessment activities, in accordance with the UGC-QAU guidelines.

The management information system was considered transparent by the academic and administrative staff who took part in the interviews and focus groups. Their access had been classified to maintain transparency and confidentiality. The Virtual University Expert System (VUES), together with other sub-systems, supported the effectiveness of all the university's operations.

The involvement of students in the IQA system was recognized by heads of department and programme directors taking part in the interviews and focus group discussions as another important internal conditioning factor. This was supported by the students themselves in their focus group discussions. They suggested raising awareness of the importance of IQA through the university website and personal accounts in the university management system.

Comparative analysis on the internal conditioning factors (by different stakeholder group)

Although staff attached different weight to the various conditioning factors, common internal conditioning factors were identified in the survey questionnaire and interview data, namely leadership support, transparent information, financial incentives, and student support. Academic staff regarded financial incentives as most important, while administrative staff thought leadership support was more significant. Both staff groups agreed that transparent information on IQA procedures was necessary. Academic and administrative staff were also in agreement in recognizing leadership support as the most prevalent existing factor at AIUB.

Leadership support, transparent information, financial incentives, and student support were also commonly mentioned in the interviews and focus group discussions as important internal factors that condition the effectiveness of the IQA system at the university. Students argued that there should be a student body to disseminate information related to the university's IQA system and to raise awareness and participation among students. This was in contrast to the perceptions of administrative staff, who, through the survey questionnaire, reported that student support was already present at AIUB. Academic staff, on the other hand, felt that the support of students was the least prevalent conditioning factor at AIUB. This suggests that the university should make efforts to promote communication between the different stakeholder groups, and, in particular, among students as to the importance of IQA.

External conditioning factors

Interview and focus group discussion data

Heads of department and deans of faculty reported in the focus group discussions that feedback from evaluations conducted as part of accreditation processes and audits had

improved the quality of education within the concerned programmes. Over the past six years, programmes in business, information and technology, and electrical and electronic engineering (EEE) had undergone the different stages of external evaluation by PAASCU before achieving full accreditation. The EEE and architecture programmes were also externally evaluated by the relevant national professional bodies, with both receiving very satisfactory ratings. The recommendations/suggestions of the external accreditation bodies led to actions which have improved the quality of these programmes and services considerably.

The students said that their capacities, competences, confidence, and social outlook had all been developed through participation in inter-university competitions organized by professional and business organizations in the areas of engineering, architecture, information technology, sports, arts, and English. They felt that awareness of local and international accreditation exercises at the university, management system operation certification, and affiliation with international bodies and institutions gave them a competitive advantage in the jobs market.

Comparative analysis on the external conditioning factors (by different stakeholder group)

The external conditioning factors were also reviewed by both academic and administrative staff and students. While students emphasized participation in activities outside of the university as a key conditioning factor, academic and administrative staff recognized the importance of university-industry linkage through research collaboration, curriculum review, and sharing expertise and resources. Students and staff alike acknowledged that the faculty and student exchange programme was a valuable external conditioning factor for IQA at the university with a significant impact on the development of respondents.

4.6. Overall appreciation of the effectiveness of IQA systems

Survey questionnaire data (academic and administrative staff)

As Table 4.18 shows, both academic and administrative staff reported that IQA instruments and processes at AIUB seemed to comply with external standards. More than a third (39.36 per cent) of academic staff and over half (50.72 per cent) of administrative staff felt that AIUB’s IQA system was modelled on compliance with external standards. A quarter (25.53 per cent) of academic staff identified enhanced organizational learning as another dominant paradigm of the IQA system, while improvement was recognized by 26.09 per cent of administrative respondents as the second main paradigm. Only a few administrative staff felt that the IQA paradigm at AIUB was focused either on accountability to stakeholders (11.59 per cent) or enhanced organizational learning (10.14 per cent). More academic staff associated the IQA paradigm with accountability (13.30 per cent) and control (4.26 per cent compared to 1.46 per cent for administrative staff).

Table 4.18 Main paradigm of IQA instruments and processes

	Academic staff	Administrative staff
Compliance with external standards	39.36%	50.72%
Accountability to stakeholders	13.30%	11.59%
Enhance organizational learning	25.53%	10.14%
Improvement	17.02%	26.09%
Control	4.26%	1.46%
Other	0.53%	0%

Table 4.19 indicates that the majority of staff agreed that IQA procedures at AIUB were either ‘very much’ or ‘much’ based on information and evidence. More than half (55.08

per cent) the administrative staff said procedures were ‘very much’ evidence-based, while the largest proportion (39.90 per cent) of academic staff said that IQA procedures were ‘much’ based on information and evidence. While none of the administrative staff chose ‘I do not know’, 7.25 per cent of academic staff acknowledged not knowing the extent to which IQA procedures were based on information and evidence. This suggests, again, that academic staff are less involved in IQA procedures than administrative staff. Only staff with experience of IQA processes can assess whether those procedures are based on information and evidence.

Table 4.19 Extent of IQA procedures being based on information and evidence

	Academic staff	Administrative staff
Very much	33.68%	55.08%
Much	39.90%	34.79%
Moderately	15.54%	5.79%
Little	3.11%	2.89%
Very little	0.52%	1.45%
Not at all	0%	0%
I do not know	7.25%	0%
Total	100%	100%

Table 4.20 shows the overall workload involving IQA instruments and processes among academic and administrative staff at AIUB. More than half of academic and administrative respondents regarded their IQA workload as high or very high. However, administrative staff appear to feel more burdened than academic staff. More than a third (36 per cent) of administrative staff chose ‘very high’, compared to 17.62 per cent of academic staff. Some academic staff (5.70 per cent) reported having no IQA workload whatsoever, while 8.29 per cent answered ‘I do not know’. No administrative staff responded ‘none at all’ or ‘I do not know’.

Table 4.20 Overall workload with IQA instruments and processes

	Very high	High	Moderate	Low	None at all	I do not know	Total
Academic staff	17.62%	43%	21.76%	3.63%	5.70%	8.29%	100%
Administrative staff	36%	41%	22%	1%	0%	0%	100%

The majority of academic and administrative staff viewed the overall benefits of IQA instruments and processes as ‘very high’ (see Figure 5.21), at 43.01 per cent and 57.97 per cent, respectively. A substantial proportion also rated the benefits as ‘high’ (37.82 per cent of academic staff and 28.99 per cent of administrative staff). No staff chose ‘low’, ‘none at all’, or ‘I do not know’, indicating that both academic and administrative staff were aware of the benefits of IQA instruments and processes.

Table 4.21 Overall benefits of IQA instruments and processes

	Very high	High	Moderate	Low	None at all	I do not know	Total
Academic staff	43.01%	37.82%	19.17%	0%	0%	0%	100%
Administrative staff	57.97%	28.99%	13.04%	0%	0%	0%	100%

IQA also seems to have contributed to improving management decision-making at AIUB. Table 4.22 shows that both academic and administrative staff consider the contribution of

IQA to improved university management decisions to be either ‘high’ or ‘very high’. The majority of administrative staff (60.87 per cent) rated its contribution as ‘very high’, while more than two-thirds of academic staff thought its contribution to be either ‘high’ or ‘very high’ (38.54 per cent and 34.38 per cent, respectively).

Table 4.22. Contribution of IQA to improved management decisions

	Very high	High	Moderate	Low	None at all	I do not know	Total
Academic staff	34.38%	38.54%	27.08%	0%	0%	0%	100%
Administrative staff	60.87%	39.13%	0%	0%	0%	0%	100%

Table 4.23 describes perceptions of the contribution of IQA to the overall improved effectiveness of the university. Most university staff acknowledged that the IQA system improved the overall effectiveness of AIUB. Almost two-thirds (63.77 per cent) of administrative staff said IQA had contributed ‘very much’ to overall improved effectiveness, while the rest (36.23 per cent) chose ‘much’. Although fewer academic staff thought IQA contributed ‘very much’ to overall effectiveness (35.75 per cent), 40.93 per cent still chose ‘much’ to describe the extent to which IQA had contributed to the overall effectiveness of the university.

Table 4.23 Contribution of IQA to overall improved effectiveness

	Very much	Much	Moderately	Little	Not at all	I do not know	Total
Academic staff	35.75%	40.93%	23.32%	0%	0%	0%	100%
Administrative staff	63.77%	36.23%	0%	0%	0%	0%	100%

Comparative analysis on the overall effectiveness of IQA systems (by different stakeholder group)

Appreciation of the overall effectiveness of the IQA system was investigated with different stakeholders at AIUB. The main paradigm for IQA within the university was recognized by both academic and administrative staff as compliance with external standards. Furthermore, both academic and administrative staff agreed that IQA procedures at AIUB were heavily based on information and evidence. Administrative staff seemed to be more involved in the IQA instruments and processes, with more than half of them rating their IQA workload as either ‘high’ or ‘very high’. They also had a higher opinion of the overall benefits of IQA instruments and processes. It seems likely that the prominent place of IQA in their workload has made administrative staff more aware of its overall benefits. Although administrative staff also rated the contribution of IQA to improved management decision-making more highly, both academic and administrative staff thought the IQA system contributed to the university’s increased overall effectiveness. Academic and administrative staff also cited different benefits during the focus group discussions, with academic staff emphasizing benefits in improved teaching and learning as well as in pedagogical approaches, and administrative staff pointing up strong management and improved competitiveness of the service.

5. Conclusion

Since the American International University of Bangladesh opened its doors in 1994, it has been steadfast in its commitment both to the continuous enhancement of quality and to improved employability. Processes and tools related to internal quality assurance developed over a number of years. IQA became formalized through voluntary accreditation exercises undertaken with accreditation organization PAASCU and through the ISO certification process. These exercises were supported by AIUB's quality assurance cell, set up in 2008. Since 2015, IQA at the university has been further consolidated with support from HEQEP, a quality enhancement project implemented by the UGC and the Ministry of Education. At present, IQA at AIUB takes place through a series of interrelated tools and processes which together form the university's IQA system.

AIUB was chosen to be one of the case studies for IIEP's research on internal quality assurance in higher education in recognition of its relatively well-developed IQA tools and processes, and, in particular, their orientation towards enhancing the employability of graduates. The case study allowed the university to detail its IQA structure, key documents, and tools. The study also set out to compare the opinions and appreciation of different stakeholder groups, such as academic and administrative staff, university leaders, and students, on the above issues. This multi-stakeholder perspective helped give a fuller picture of the variation in perceptions within the university community.

With this intention in mind, and using surveys, interviews, and focus group discussions, the study investigated, first, the awareness and involvement of staff in IQA. The effects of IQA instruments were examined in terms of teaching and learning, employability of graduates, and managerial effectiveness. The study also explored internal and external conditioning factors and the overall effectiveness of the IQA system at AIUB.

The main finding of the study was that administrative staff at AIUB are more aware of and involved in the IQA system than other stakeholder groups. This finding is closely related to those concerning the uneven participation of different stakeholders in the quality documents and the IQA instruments. Although both academic staff and students were aware of these documents, it emerged that quality policies and manuals were mainly developed by senior administrative staff and the members of IQAC. This suggests the importance of involving academic staff and students in the development of quality documents.

Turning to the IQA instruments, while most stakeholder groups were involved in these and received feedback as a result, only a limited range of instruments were employed. Academic staff were highly engaged in programme self-evaluation, while certification and unit self-evaluation were the IQA tools most familiar to administrative staff. Although academic staff said they were most involved in programme self-evaluation, many also thought that course evaluation was widely used and very useful. Students noted their participation in course evaluation, but added that feedback was not always adequately communicated to them. Measures should, therefore, be taken to allow different stakeholder groups to take part in the various IQA tools available at AIUB.

The effects of the IQA instruments varied depending on both purpose and stakeholder. Overall, IQA instruments for teaching and learning had the greatest impact on university teaching and learning, while those for management were most effective in improving university management. According to academic staff, the most effective tool for teaching and learning was teacher supervisions. Certification was viewed by administrative staff as more effective in improving the quality of management than any other IQA management tool. This indicates that the effects of IQA instruments were broadly in line with their original purposes.

The evaluation of such effects also varied according to the actor group. Academic staff felt that teacher supervision, programme self-evaluation, and programme evaluation were effective in terms of increasing graduate employability. However, students and university leaders thought graduate tracer studies and employer involvement in study programme revision were more relevant to the employability of graduates. Students, in particular, felt that employer involvement in study programme revision introduced more practical knowledge into the curriculum.

Three internal conditioning factors were commonly identified by the different stakeholders as important to the IQA system at AIUB: leadership support, financial incentives, and transparent information. Accreditation and certification were identified as the key external conditioning factors by both academic and administrative staff. Administrative staff placed particular emphasis on leadership support, while academic staff stressed the role of financial incentives. Both groups, however, agreed that transparent information was essential to ensuring quality at AIUB. Academic and administrative staff demonstrated different understandings of the extent of student support as a conditioning factor. The students themselves felt that their participation in the university's IQA system should be enhanced. This, again, suggests a need for more opportunities for communication between staff and students, especially when it comes to providing feedback to students on course evaluation.

According to the survey data, the main paradigm for the IQA system at AIUB was compliance with external standards. Overall, administrative staff had a more positive appreciation of the effectiveness of the IQA system, perhaps owing to their greater involvement in terms of workload. Administrative staff tended to acknowledge the overall benefits and improved effectiveness resulting from IQA more readily than their academic counterparts. The following changes were noted in the interviews and focus group discussions: (1) the institutionalization of national and international standards of quality and (2) a proper documentation of the university management system. This finding was in line with the survey questionnaire results, which suggested that management decision-making was significantly improved and that the IQA procedures were based on information and evidence.

The following conclusions can be drawn from the findings of this study. First, the university needs to promote greater awareness and involvement among students and academic staff in its IQA system. Furthermore, the feedback and valuable information generated from IQA should be more transparent and made available to the different stakeholders, not merely to administrative staff responsible for IQA activities.

Considering the positive effects on employability, an advisory board of employers from different sectors should be formed to review both the curriculum and IQA activities. IT facilities need to be expanded in terms of Wi-Fi coverage and structure to give students and faculty better access to the university intranet. The areas recognized as important, such as the management operation system, the accreditation and certification of programmes, teacher supervision, and student services, should be sustained and improved further to meet the increasing and emerging demands of stakeholders.

Finally, the IQA system should be internationalized in order to keep abreast of new trends in internal and external quality assessment. The participation of industry and other sectors concerned with employment should be continuously secured in order to generate relevant inputs in terms of skills requirements and work culture. It is important too that the IQA structure is expanded and strengthened to enhance technical expertise and promote collaboration with other relevant academic and professional bodies.

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