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Disruptive Factors in Implementing Outcome-Based Education Curriculum at Tertiary Business Education: A Focus on Institutional Readiness

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ABSTRACT

Higher education in Bangladesh has undergone a rigorous transformation from traditional teacher-centred education into a student-centred outcome-based educational system. Implementing an outcome-based education curriculum at the tertiary level is a great challenge in Bangladesh. This study aims to determine the impact of key disruptive factors on institutional readiness to adopt the OBE curriculum at the tertiary level of business education in Bangladesh with reference to the OBE curriculum policies of the Bangladesh accreditation council. A quantitative study was conducted to investigate the research objective. Quantitative data were collected by distributing questionnaires to the sampled faculty members from different private universities in Bangladesh. A closed-ended questionnaire was used to obtain respondents' views on the impact of the OBE curriculum structure and design, institutional factors, and faculty members' personal factors on the university's readiness to adopt the OBE curriculum. Pearson's correlation and multiple regression analyses were performed to evaluate the impact of disruptive factors in implementing the OBE curriculum on the institutional readiness. The OBE curriculum structure, design factors, and faculty members' personal factors were significantly related to institutional readiness to adopt the OBE curriculum. However, institutional factors have opposite signs. Although the authors identified key challenges in implementing the OBE curriculum in Bangladesh, institutional factors need to be investigated in the future. This study was conducted on a limited sample of 120 business faculty teachers; hence, the results may not be equally significant in other faculties/disciplines. The findings of this study have demonstrated that institutional readiness to adopt the OBE curriculum successfully requires continued development in the field of OBE curriculum structure and design, as well as faculty members' personal factors.

Keywords: Outcome-based education, Curriculum design, Faculty members' factors, and Institutional readiness.

INTRODUCTION:

Owing to remarkable changes in educational frameworks worldwide, it has become imperative to transform traditional curricula into an outcome-based education (OBE) curriculum at the tertiary education level in Bangladesh. Moreover, drastic changes in the business environment in the twenty-first century require professionals to be skilled in adaptability, critical thinking, and decision-making on their own (Longmore *et al.*, 2018). Toufique, (2014) found a large skill

gap in the Bangladeshi job market, indicating that 62% of young workers were not as educated as required to do their job. This implies the ineffectiveness of the existing objective-based, traditional curriculum. In the traditional curriculum, there was less emphasis on recognising jobs that required soft skills, such as communication skills, interpersonal skills, analytical skills, and working attitudes. The OBE curriculum on the other hand, shifted the focal point from "teaching to learning," "skills to thinking," "content to process,"

and “teacher instruction to student demonstration” (Spady, 1994; Hassan, 2012). The term outcome-based education (OBE) has often been remarked upon as many other names in the earlier decades, such as performance-based education, result-based education, transformation education, competency-based education (Harden, 2002; Gieseen-Hood, 1999). Currently, it is a well-accepted and successful educational system in 47 countries, including the USA, the UK, Australia, New Zealand, South Africa, Malaysia, and the Philippines (Tam, 2014; Midraj, 2018; Rao, 2015; Baguio, 2019). The OBE curriculum for higher education has recently attracted considerable attention in Bangladesh. The process was invigorated rigorously just after the university Self-Assessment program under the World Bank patronised the UGC’s HEQEP project for institutional quality enhancement.

The OBE curriculum focuses more on organising such an educational system by which every essential would be provided to the students to be able to achieve the designated outcome at the end of their learning experience (Spady, 1994). OBE learning has been considered one of the most successful approaches that enables a teacher to create a unique classroom atmosphere where students have the opportunity to participate actively in classroom activities which in turn is linked to its theoretical foundations with the other finest contemporary approaches such as lifelong learning, student-centred learning, active learning, and discovery learning, and ensures that institutions reach their pre-set goals and objectives, where all the teaching-learning methods are clearly defined in the curriculum (Harden *et al.*, 1999; Midraj, 2018; Baguio, 2019). The recent global trend at the tertiary level of education has been driven by a shift from a traditional teacher-centric model to a modern student-centric one (Tam, 2014). Under the Fourth Industrial Revolution, the major change in the 21st century job market was fuelled by the requirements of modern job-oriented soft skills along with the threshold level of hard skills. Thus, an individual’s ability to adapt to technological and global challenges is a vital characteristic that graduates must achieve in order to enhance their employability.

This result can be observed in the world-wide educational paradigm change for the purpose of being aligned with the current requirements of the century. This global shift has affected Bangladeshi higher

education system. The Ministry of Education and the University Grant Commission (UGC) of Bangladesh have emphasised the need for the transformation and implementation of the OBE curriculum to build future skilled human capital by issuing the Bangladesh National Qualification Framework (as per the Bangladesh Accreditation Council Act, 2017, 15) entitled, “Bangladesh National Qualifications Framework (BN-QF) Part-B Higher Education Level 7-10” in 2021 (BAC, 2017). In response to the obvious requirements of the Bangladesh Accreditation Council (BAC) standard, many universities in Bangladesh have shifted their focus and efforts toward implementing the OBE curriculum at the National Qualification Framework (NQF) level of seven. BAC has determined four learning outcome domains- fundamental skills, social skills, thinking skills, and personal skills- to minimise the future employment-based skill gap (BN-QF 2021).

The Bangladesh Accreditation Council Standards for Accreditation of Academics also high-lighted ten internationally accepted and internationally recognised standards for institutional quality enhancement, among which the standard for the development of curriculum intends to illuminate some critical factors of the framework with the expectation of explicating the concepts that will ensure proper implementation of an OBE curriculum (BAC, 2019). Among 138 universities, 69 have established their own institutional quality assurance cell (IQAC) to conduct self-assessment and implement the Post Self-Assessment Improvement Plan (BNQF, 2021). Hence, it can be acknowledged that 50% of the universities have already started the transformation and development of OBE Curriculum as one of the most critical standards for quality assurance. However, non-participating universities may hinder the overall progress of development in the implementation of the OBE curriculum throughout the country.

Therefore, prior to the institutional accreditation process, evaluating the challenges of implementing the OBE curriculum at the tertiary level of business education in Bangladesh was perceived as one of the most demanding issues at that time. It has also been observed that most previous studies have been based on either life or applied sciences, and a few studies have considered business education. This study finds a gap in including higher levels of business education to analyse how several disruptive and challenging factors

have an impact on institutional readiness to implement the OBE curriculum.

Owing to the continuously changing demands for skills and the nature of teaching, learning, and assessment in every discipline, the way education has been provided has evolved over the last few decades. These changes are much more apparent in business education, where students must be exposed to real-world business management experiences (Senaratne & Gunarathne, 2019). Moreover, OBE curriculum adaptation has a positive impact on teachers' and learners' attitudes (Alimyar, 2020). Despite the increasing demand for the OBE curriculum by the UGC, Ministry of Education, Bangladesh Accreditation Council, and universities, its implementation of the OBE curriculum is still in its initial stages. The ongoing endeavour to implement the OBE curriculum requires more attention to move forward in the way to successful implementation of the OBE curriculum at a higher education level. In this context, implementing the OBE curriculum at a higher level in business education has become an important issue. Regardless of the facts that there have been a sizable number of researches conducted on the implementation of OBE curriculum at abroad whereas, a very few studies were carried out in Bangladesh. The OBE curriculum is new in Bangladesh, owing to its newly administered educational policy. Therefore, it is necessary to investigate the disruptive factors that might hinder the implementation of the OBE curriculum.

This study is particularly important when there is heavy criticism of existing management education for not being able to produce quality business graduates who can meet the expectations of the global business world (Thomas & Cornuel, 2012). The shortage of skilled workers can be a major impediment to socio-economic development in developing South Asian countries such as Bangladesh. Hence, there is no alternative but to upskill the younger generation to maximise demographic dividends and reap the full economic growth potential of Bangladesh (Economist, 2015). A series of studies indicate that outcome-based education is crucial in defining learning outcomes that students must demonstrate at the end of their graduation (Bloom, 1973; Franc, 1978; Glaser, 1963). The move toward implementing an outcome-based education curriculum for teaching and learning at the tertiary education level has been propelled rigorously because of its worldwide acceptability and applic-

ability. Moreover, the recent changes in the business world led by the Fourth Industrial Revolution and technological development, globalisation, innovation demographic changes, and complexities in business have resulted in a rising necessity for changes in business and management education to cater to the ultimate needs of the business community (Zhao and Ferran, 2016; Gazi, 2020; BNQF, 2021).

The implementation of the OBE curriculum in business education models worldwide reflects the changes embraced by business schools as part of their adaptation to market demand. This global trend for the implementation of the OBE curriculum has also created a need for universities in Bangladesh to move away from the traditional teacher-centred model towards a learner-centred model. Tam, (2014) mentioned the teacher centred pedagogy model, in which the prime concern is what teachers can provide, whereas the learner-centred model focuses on what learners learn, obtain, and become. Akhmadeeva *et al.* (2013) signified the positive role of reshaping the traditional content-based curriculum into an outcome-based curriculum to satisfy the needs of 21st century learners, teachers who intend to transform.

Objectives of the Study

Although the demand for the OBE curriculum is growing rapidly worldwide, it is a new and pragmatic orientation in business and management education in Bangladesh, indicating the importance of implementing the OBE curriculum across the business faculty of universities in Bangladesh. This study attempted to assist in the successful implementation of the OBE curriculum by discovering the relationship between several variables, such as the OBE curriculum structure and design factors, institutional factors, faculty members' personal factors, and institutional readiness to adopt the OBE curriculum. Therefore, this study investigates the impact of influential and disruptive factors on institutional readiness to adopt an OBE curriculum at the business education tertiary level. The central objectives of this study are as follows:

- 1) To identify the disruptive factors that might hinder the implementation of the OBE curriculum at the tertiary level of business education in Bangladesh.
- 2) To examine the impact of these factors on institutional readiness to adopt an OBE curriculum.

Significance of this study

Limited research has been conducted on OBE curriculum implementation at a tertiary level in business education in Bangladesh. Consequently, this study undoubtedly contributes to the existing knowledge base in this area. Universities, independent researchers, and policymakers should conduct further research to enhance their credibility in the same or other disciplines of education. This research may assist course teachers in testing the effectiveness of their way of teaching and assessment and will facilitate the university to evaluate the worth of shifting from an instruction-based traditional approach to a learning-based approach. Since the inception of the Bangladesh Accreditation Council (BAC) in 2017, the UGC and Ministry of Education of Bangladesh have continued efforts to establish the Bangladesh National Qualification Framework (BN-QF) 2021 for the implementation of a harmonious education system in higher education in Bangladesh. During this transition period, the required implementation of the OBE curriculum must overcome many challenges which the policy-makers have yet to encounter. This study's suggestions will support policy-makers in establishing suitable policies for the development of business education in Bangladesh. This study will also contribute to future employers by assisting in minimising industry-based skill gaps with the appropriate directions provided to the university to facilitate industry-aligned quality education. This study aimed to evaluate the disruptive factors responsible for creating barriers to successful implementation of the OBE curriculum at a higher level of business education. It should be acknowledged here that 50% of the total universities in Bangladesh are yet to be involved in the quality enhancement pro-gram through the IQAC, even though the BNQF has already instigated a quality framework as a part of the quality enhancement and development program for institutional accreditation. Since limited studies were carried out on the disruptive factors in implementing OBE curriculum and the institutional intention to adopt it, the necessity for such a study has turned out to be an imperative issue at this moment.

Literature review

Definitions of outcome-based education

Outcome-based education has been widely defined in literature. Spady, (1988) defined this educational approach as designing, developing, and documenting instruction, in which objectives and outcomes must be

defined at the beginning of curriculum design. In this system, the curriculum must be developed based on what teachers wish their students to achieve after their graduation. Giese-Hood, (1999) defined OBE as an educational approach in which the focal point is what students learn and how they learn. Midraj, (2018) and Tam, (2014) explained that OBE is an education system in which teachers and learners are both aware of the educational standards and learning outcomes which students expect to gain and perform practically at the end of their learning experience. Gurukkal, (2020) emphasised the determination of appropriate learning outcomes and the alignment of these learning outcomes with curriculum content. Similarly Rao, (2020) focuses on determining achievable and measurable outcomes aligned with the cognitive, affective, and psychomotor domains of Bloom's taxonomy. Malan, (2000), however, believes that it is the successive model of the previous approaches of teaching and learning (i.e. mastery learning, competency-based learning, active learning, etc.), but is represented in the form of a reinvigorated and visionary educational system in which the needs of the students are pre-determined and allows stakeholders with socio-constructivist beliefs to take part in curriculum design by providing input for adapting to new demands. Similarly Davis, (2003) showed that OBE is an educational method in which the outcomes should be determined first. The main purpose of outcome-based education is to prepare students for global employment (Mitra and Gupta, 2020). OBE education can be an ideal approach for facing the current challenges of increasing market demand for skills such as communication, problem solving, technical, research, social, and other skills. Yusof *et al.* (2017) states that, the OBE curriculum is the best solution for overcoming such critical situations. Therefore, to remain competitive globally, shifting from the traditional curriculum to the OBE curriculum has become imperative.

OBE curriculum versus traditional curriculum: the shifting paradigm

Researchers have stated that the OBE model is an adapted approach in which learner integrity and positive motivation are considered the most significant factors for teachers. The journey of the OBE approach began with Tyler's proposed 'Achievement of Desired Outcomes' educational model in the early 1950s, which passed through several stages and evolved into different systems and models that are currently in prac-

tice all over the world. In this model, education is seen as a three-dimensional interrelated process that includes educational objectives, learning experiences, and assessment of achievement. Bloom *et al.* (1956) developed taxonomy of the learning domain and considered the educational objectives during the early development of the OBE approach. Lewy, (1977) discovered that both cognitive and affective outcomes draw attention to Tyler's model. Wheeler, (1969) further developed Tyler's model and included components, such as aims, objectives, learning experiences, content, and assessment. The principal difference between the traditional and OBE curriculum is that the OBE curriculum is more 'Student Centric' and focuses more on what a learner will be able to learn, not what a teacher teaches (Sawant, 2016). Traditional education primarily focuses on the resources required for study and is often referred to as an input. OBE implementation includes a bundle of pedagogical models and does not require any teaching or learning styles. Instead, it requires what students can demonstrate after learning certain skills and contents (An, 2014). Traditional education is more likely to be teacher-centric and inflexible, based on objectives, standards, and instruction, whereas the OBE curriculum is much more flexible and directed toward educational reform. In the OBE curriculum, the focus is on what a learner can perform at the end of a particular course (An, 2014; Midraj, 2018; Spady, 1993). In a traditional objective-based curriculum, more weight is given to what a student can learn at the end of a course. Harden *et al.* (1999) described the OBE curriculum as a backward model, where one determines graduates' attributes first, followed by ways to achieve them.

The paradigm for the institutional accreditation model has shifted from being teacher-centred to learner-centred, where students are expected to play the role of active participants in the education process. In the OBE model, the faculty is merely a facilitator of the learning process as opposed to the role of an instructor in traditional teaching methods (Cuseo, 2015). Biggs, (1996) theory of constructive alignment is intricately linked to the OBE curriculum design and structure.

OBE curriculum design, structure, & development

The development of the OBE curriculum, teaching, learning, and assessment of an educational program should be guided by learning outcomes that are deter-

mined in line with the graduate skills suggested by institutional stakeholders (Spady, 1994). Learning outcomes are that things which a student can do now but cannot do before, and thus indicate the changes of a student because of the learning experience (Watson, 2002). Learning outcomes must meet the needs of all stakeholders at the university. Bloom, (1977) outlined three broad categories of graduate attributes, namely cognitive, affective, and psychomotor, as the key domains of learning outcomes. Designing the OBE curriculum indicates a process that contributes restructuring the curriculum, evaluation, and reporting in education (Tucker, 2004). Towers, (1996) and Harden, (2009) discovered the following activities that are crucial to making OBE implementation successful: (i) identifying what the learner is ought to learn; (ii) evaluating students' progress based on their demonstrated achievement; (iii) incorporating several teaching, learning, and evaluation strategies to meet the needs of each student; and (iv) facilitating sufficient time and guidance to help each student obtain their maximum potential level. In addition Acharya, (2003) suggested addressing questions, such as what the teacher wants learners to learn? Why do the teachers want them to learn? How can teacher's best help them learn this? How does the teacher know what the students have learned? The development of the OBE curriculum requires consistency among the intended outcomes and teaching, learning, and assessment strategies.

The benefits of implementing OBE curriculum

McNeil *et al.* (2006) and Wong and Cheung, (2011) found a positive relationship between OBE implementation and the learning process, with special attention paid to boosting students' capabilities, motivation, active learning, and the overall success of the program. Kaliannan and Chandran, (2012) observed that OBE not only promoted the active learning of students, but also helped teachers improve their teaching. Students were able to measure their level of understanding and compare their efforts to their achievements. Teachers can also assess the students' academic performance and provide corrective feedback. Rao, (2015) found multifaceted benefits of implementing an OBE curriculum. It not only provided students with global opportunities, but also helped stakeholders, parents, employers, and governments tackle the unemployment problem. Deepak and Venishri, (2018) found that an outcome-based education model was the most suitable for engineering education as they focused more on the

outcomes of student and teacher participation and collaboration. Borsoto *et al.* (2014) observed a positive link between the OBE educational model and academic achievement, attitude, and instruction in the engineering departments. While investigating the usefulness of the OBE model in Asian universities, Macatangay *et al.* (2016) and An, (2014) found that it worked positively for student productivity. In their study of the Faculty of Civil Engineering, Isa *et al.* (2017) found that the OBE model increased students' technical, communicative, and lifelong learning skills. Senaratne and Gunarathne, (2019) studied the impact of OBE implementation on the Sri Lankan University of Sri Jayewardenepura. Research shows that this model worked successfully in the Department of Accounting, especially with regard to graduates' employability.

Challenging factors towards OBE curriculum implementation

Implementing the OBE curriculum has been viewed as a complete transformative process of shifting from traditional teacher-centred structures and methods into learner-centred education philosophy and practice. This shifting paradigm in education has incorporated the principles of Spady, (1994), "what the students are expected to be able to do at the end of the learning experience" leaving the principles of "teachers-centred traditional objective based curriculum design, teacher's inputs and assessment in terms of how well the students can absorb the material taught in the class".

This outcomes-based approach focuses on what knowledge a learner has achieved and what skills and abilities he has developed through the teacher's involvement as facilitators who assess the student's learning level to monitor and improve further (Tam, 2014). Despite the benefits of the OBE curriculum, the challenges and drawbacks of its adoption are significant.

The OBE curriculum implementation may be negatively affected if such disruptive factors cannot be properly handled. Davis, (2003) pointed out that the chances of defining outcomes in favour of ill-defined values and skills may work as major constraints on learners' learning attitudes and values. McKernan, (1993) claimed that the OBE curriculum may reduce learners' learning attitudes through discovery and enquiry as it is led by pre-determined outcomes. Eldeeb and Sharakumari, (2013) view the OBE curriculum as a closed-ended approach to education. Many scholars believe that education should be open-ended.

Furthermore Mogashoa, (2013) found that lack of teacher training, poor understanding of OBE, failure to align assessment methods and out-comes, lack of adequate resources, and teachers' in-ability to conduct classroom activities based on the OBE curriculum resulted in the negative impact of implementing the OBE curriculum. Hassan, (2012) and Lui and Shum, (2012) observed the revision of curricula by defining program educational objectives (PEOs) and program learning outcomes (PLOs) and mapping the assessment and evaluation with the defined PEOs and PLOs as the most critical factors in formulating and implementing the OBE curriculum. Asim *et al.* (2021) identified learning objectives and evaluation strategies based on complexities, students' preferred learning styles, competency in English, and employers' demand as the most critical success factors in formulating and implementing an OBE curriculum. Yasmin and Yasmeen, (2021), however, identified the lack of faculty training, teachers' reluctance to shift to a student-centred approach, institutional decisions on teaching and evaluation, and classroom size as the most challenging factors in implementing the OBE curriculum. Additionally, Akhmadeeva *et al.* (2013); Akramy, (2021) reported that faculty members' personal characteristics, understanding, perceived role, and motivation are often considered core issues that assist teachers in shifting from a traditional content-centred approach to student-centred learning. Class size, interactive classrooms, and teaching-learning resource sufficiency have significant impacts on the transition from content-driven to outcome-based curricula (Akhmadeeva *et al.*, 2013; Akramy, 2021; Pepito, 2019; Akramy, 2021) acknowledged that faculty members' knowledge, attitudes, perceptions, and perspectives are the most critical challenges in implementing the OBE curriculum. Providing an improved learning infrastructure to achieve the intended learning out-comes has also been considered a key institutional factor in the implementation of the OBE curriculum (Valdez, 2012; Pepito, 2019).

However, the findings also revealed that the OBE approach implementation is now at a low level of practice. Katawazai, (2021) conducted mixed-mode research on the implementation of outcome-based education and its challenges. Similar to previous research, this study also identified infrastructural scarcity, a lack of facilities, and excessive teacher workloads as basic challenges.

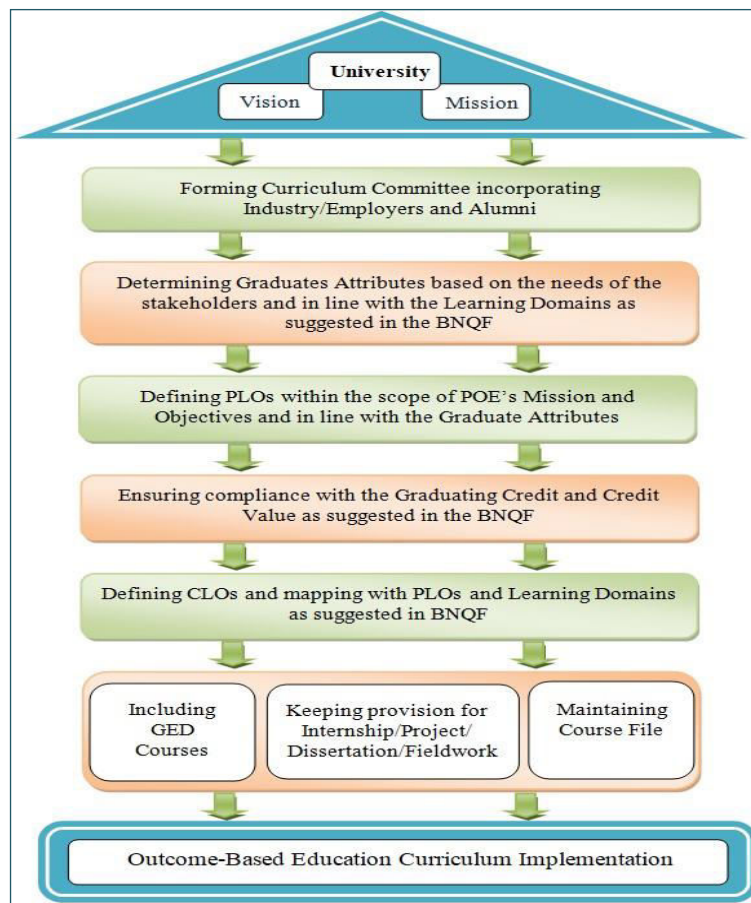


Fig. 1: The BAC suggested OBE Curriculum Design and Development Structure
(Source: prepared by authors and adapted from the BAC, 2019)

Institutional readiness to adopt OBE curriculum

Even though the intention to adopt the OBE curriculum from the teachers' point of view is quite promising and positive (Katawzai, 2021), the intention of top management towards the same is quite unidentified. The role of a university's higher authority in implementing an OBE curriculum is immensely important. Isa *et al.* (2017) recommended that the authority emphasise the effectiveness of the OBE curriculum through its quality and continuous monitoring mechanism. Furthermore, BAC (2019) suggested the OBE curriculum design and structure to be pursued by universities for institutional accreditation as well as for the implementation of a harmonised curriculum at a higher education level in Bangladesh. This framework was designed to highlight what learners could do after completing the course (Fig. 1). The alignment of the university's vision with the vision and mission of the program offering entity (POE), program learning outcomes (PLOs), program educational objectives (PEOs), course learning outcomes (CLOs), teaching and learning strategies, and assessment strategies are highly

required (Fig.1). Therefore, the success of implementing outcome-based education is strongly related to institutional readiness to adopt an OBE curriculum.

Conceptual model and hypothesis development

The above context reveals that the implementation of OBE curriculum is not a simple process as the colossal level of changes are required all through the curriculum design, structural development, institutional infrastructure, logistic support, and the last but not least, faculty member's knowledge, beliefs, readiness, attitudes, feelings and so on. A conceptual model was designed based on the reviewed literature, as illustrated in Fig. 2.

The following hypotheses were tested to achieve the research objectives of this study.

- H₁: OBE curriculum structure and design factors have a positive impact on the institutional readiness to adopt the OBE curriculum
- H₂: Institutional factors have a positive impact on the institutional readiness to adopt the OBE curriculum

H₃: Faculty members’ personal factors have a positive impact on the institutional readiness to adopt the OBE curriculum

The following linear multiple regression equation was used to test our hypotheses:

$$Y = \beta_0 + \beta_1 \text{OBECSDF}_1 + \beta_2 \text{INSTF}_2 + \beta_3 \text{FMPF}_3 + \varepsilon$$

Where: Y_i = Dependant variable (IRAOBEC-Institutional readiness to adopt the OBE curriculum).

β_0 = Estimates of the regression intercept

$\beta_1, \beta_2, \beta_3$ = Slope coefficients

OBECSDF₁ = Independent variable 1 (OBE curriculum structure and design factors)

INSTF₂ = Independent variable 2 (Institutional factors)

FMPF₃ = Independent variable 3 (Faculty members’ personal factors), and

ε = error

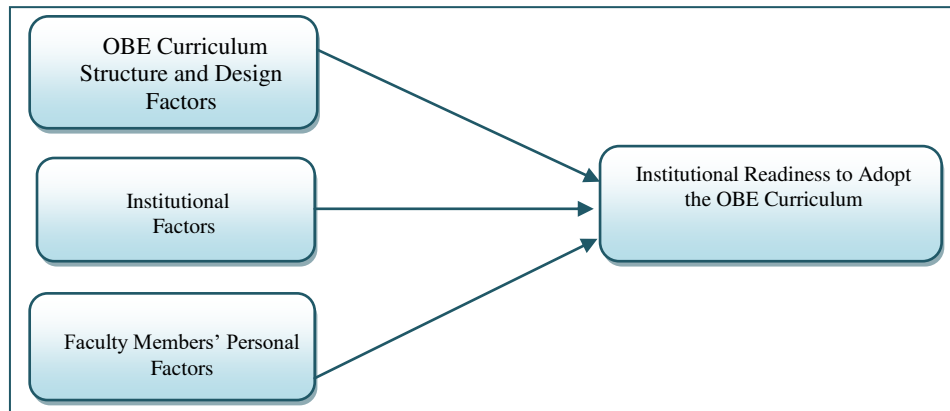


Fig. 2: Conceptual model (Source: Compiled by authors).

METHODOLOGY:

This study is a positivist research philosophy oriented and used a deductive reasoning approach. Therefore, this study employs both empirical and descriptive analyses to establish the relationship between disruptive factors: a) the OBE curriculum structure and design factors; b) institutional factors; and c) faculty members’ personal factors and institutional readiness to adopt the OBE curriculum at the tertiary level of business education. This study hypothesises that disruptive factors affect institutional readiness to implement an OBE curriculum. Quantitative data were analysed to evaluate the link between disruptive factors and institutional readiness to successfully adopt the OBE curriculum. This study relied mostly on primary data sources, although secondary sources were also used to review relevant literature. A conceptual model (Fig.2) was developed based on relevant literature.

Research instruments and process

Based on the research problem that prevails in the traditional system of teaching and learning in the Bangladeshi context, this study attempted to determine what academia thinks about the disruptive factors in transforming into an outcome-based curriculum. Therefore, the researchers conducted a quantitative study to investigate the research objectives. Quantitative data were gathered by distributing questionnaires to 130 faculty

members at various levels at private universities in Bangladesh. Creswell, (2014) suggested using an electronic questionnaire as an easy tool to collect quantitative data. Therefore, some questionnaires were electronically distributed. The questionnaire consists of two sections. One contained items on the demographic aspects of the participants, whereas the other contained items on three broad categories of the investigated factors: the OBE curriculum structure and design, institutional factors, and faculty members’ personal factors. The items were adapted and modified from (Baguio, 2019; Loreto, 2018; Ortega and Cruz, 2016; Valdez, 2012). Structured closed-ended questionnaires were used in this study. A five-point Likert scale was used, ranging from 1 (strongly disagree) to 5 (strongly agree). The respondents were able to indicate their level of agreement or disagreement with each statement. All questions were asked to represent how respondents felt about disruptive factors that might hinder the successful implementation of the OBE curriculum in their faculty. Pearson’s correlation and multiple regression analyses were performed to investigate the relationship between the three independent variables (OBECSDF, INSTF, and FMPF) and dependent variable (IRAOBEC). IBM SPSS Statistics version 22 and Microsoft Excel were used for the data analysis.

Sampling methods

The population of interest was all faculty members of the Faculty of Business Administration/School of Business, which established the institutional quality assurance cell (IQAC) as well as going through the OBE curriculum transformation and implementation process. In this study, a convenience sampling technique was used. The sample was selected from private universities located in the Chattogram district of Bangladesh. The sample size included 130 faculty members

at different levels. This number is manageable for achieving the research objectives (Chuan & Penyelidikan, 2006). The questionnaire was administered to university faculty members, particularly to those who belonged to the Faculty of Business Administration. Respondents' experiences with the OBE curriculum are primarily considered in this regard. A total of 130 questionnaires were distributed to the respondents, and 120 were collected, indicating a response rate of 92.31%

RESULTS:

Demographic data of respondents

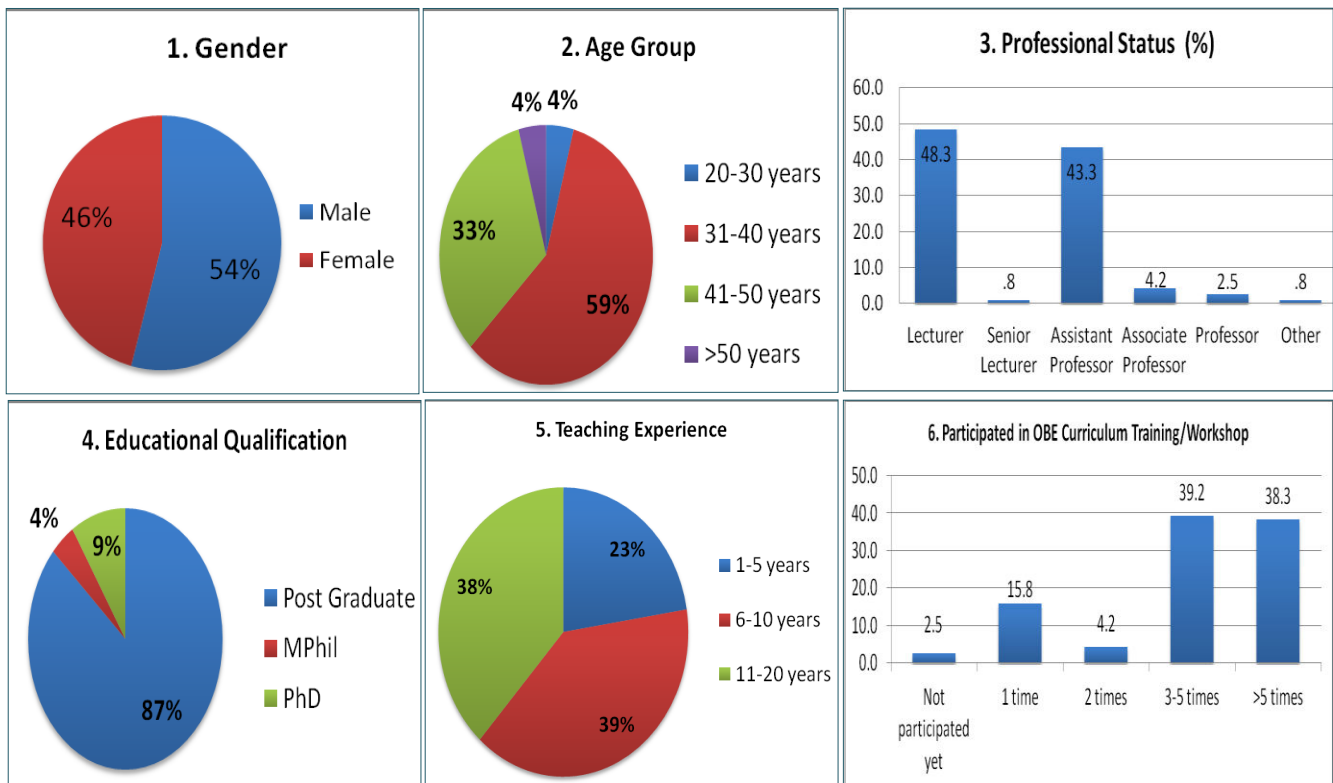


Fig. 3: Demographic data of respondents (Source: survey data).

The survey included 54.2 percent of male and 45.8 percent of female participants. Most faculty members were aged between 31 and 40 years (58.3%) and very few (4.2%) were older than 50 years. In the profession, 48.3% of the respondents served as lecturers and 43.3% were assistant professors in their respective universities. In terms of educational qualifications, most were postgraduate degree holders (86.7%) followed by PhD holders (9.2%). None of the participants had obtained a post-doctoral degree. Most faculty members (39.2) had 11-20 years of teaching experience, and 38.3% had 6-10 years of teaching experience. Regarding participation in the OBE curriculum workshop/training, the majority (39.2% and

38.3%, respectively) participated three to more than five times. Very few participants (2.5%) did not participate in the workshops.

Reliability testing and descriptive statistics analysis

Cronbach's alpha coefficient was used to measure the internal consistency of each variable, with a higher value (ranging from 0 to 1) indicating greater reliability (Pallant, 2016). As shown in **Table 1**, all Cronbach's alpha values in this study were above 0.8, which is greater than the recommended minimum level of 0.7, suggesting particularly good internal consistency reliability for the scales (Nunnally, 1978, as cited in Pallant, 2016).

Table 1: Reliability Coefficient and Descriptive Statistics of the Variables.

Variables	Mean	Std. Deviation	Item	Cronbach's Alpha
OBECSDF	4.2333	.56348	10	.888
INSTF	4.4250	.52394	5	.856
FMPF	4.19	.63962	10	.853
IRAOBEC	3.9783	.47534	10	.867

Note: n=120 (Source: SPSS data).

The mean value ranges from 3.98 to 4.43, indicating that the responses of the faculty members of different universities fell within an agreeable level. The standard deviation values indicate the same consistency for each variable (less than 1).

Correlation analysis

The correlation matrix in **Table 2** shows that all values are positive, indicating that the items measure the same underlying characteristics (Pallant, 2016). The INSTF shows a weak positive correlation, whereas the OBECSDF and FMPF are strongly correlated with IRAOBEC (Dancy and Reidy, 2007). The p-values for both the OBECSDF and FMPF were less than 0.05, indicating a significant correlation with IRAOBEC. The p-value for INSTF on the other hand, is greater than 0.05, suggesting insignificant correlation.

Table 3: Standardized regression.

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Collinearity Statistics	
	β	Std. Error	β				Tolerance	VIF
(Constant)	0.017	0.258			0.066	0.948		
OBECSDF	0.756	0.080	0.703		9.497	0.000	0.403	2.478
INSTF	-0.090	0.046	-0.102		-1.952	0.053	0.814	1.229
FMPF	0.276	0.092	0.233		3.014	0.003	0.369	2.707

^aDependent Variable: IRAOBEC, R²: 0.744, F-Value: 112.168 (Sig: 0.000) (Source: SPSS data).

Table 3 shows that the impact of the OBECSDF and PMPF variables is significant, as the p-values of both the independent variables are less than 0.05. It is also observed that the OBE curriculum structure and design factor (OBECSDF) indicates high positive sensitivity as far as its institutional readiness is concerned, followed by faculty members' personal factors (FMPF). However, the institutional factor (INSTF) suggests an opposite scenario. The estimated p-value of INSTF is greater than 0.05 and has negative sensitivity to the dependent variable IRAOBEC.

Hypothesis testing

As the p-values of the OBECSDF and FMPF variables

Table 2: Pearson's Correlation matrix for the disruptive factors and IRAOBEC.

	OBECSDF	INSTF	FMPF	IRAOBEC
OBECSDF	1	.334**	.772**	.849**
Sig. (2-tailed)		.000	.000	.000
INSTF	.334**	1	.431**	.233*
Sig. (2-tailed)	.000		.000	.010
FMPF	.772**	.431**	1	.732**
Sig. (2-tailed)	.000	.010	.000	
IRAOBEC	.849**	.233*	.732**	1

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

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

(Source: SPSS data)

Multiple regression analysis

Table 3 indicates that no multicollinearity problem exists in this study, as neither are the tolerance values less than 0.10, nor are the VIF values greater than 10 (Pallant, 2016). The estimated adjusted R-squared value suggests 73.7% variability in institutional readiness to adopt the OBE curriculum. The F-value of 112.168 and p-value 0.000 indicate that all disruptive factors in implementing the OBE curriculum are strongly associated with institutional readiness to adopt the OBE curriculum.

are less than 5%, it can be concluded that they OBECSDF and FMPF have a statistically significant effect on institutional readiness to adopt the OBE curriculum.

Thus, the null hypotheses for H₁ and H₃ were rejected. Therefore, both the independent variables, OBECSDF and FMPF, have a positive impact on IRAOBEC and a significant relationship with IRAOBEC. However, the estimated p-value for INSTF was greater than 5%, indicating a statistically insignificant effect on the dependent variable IRAOBEC. Therefore, it can be mentioned here that the null hypothesis for H₂ is accepted.

Table 4: Summary of Implications of the study (Dependent Variable: IRAOBEC (Source: SPSS data)).

Hypothesis	Independent Variables	Correlation Analysis		Decision	Regression Analysis		Decision
		r	P		β	p	
H ₁	OBECSDF	0.849	0.000	Accepted	0.756	0.000	Accepted
H ₂	INSTF	0.233	0.010	Rejected	-0.090	0.053	Rejected
H ₃	FMPF	0.732	0.000	Accepted	0.276	0.003	Accepted

The sensitivity of the OBECSDF is remarkably high, implying that universities are overly concerned with this factor. While adopting outcome-based education, the formulation and construction of the OBE curriculum are highly significant because they increase institutional readiness to adopt the OBE curriculum.

This is because a well-balanced and properly constructed OBE curriculum can assist universities in moving forward with other requirements. The sensitivity of FMPF was also not negligible. This implies that faculty members’ personal attitudes, knowledge, and readiness will enhance institutional readiness to implement the OBE curriculum. Institutional factors such as the availability of educational logistics, classroom facilities, incentives, and technology have been found to be insignificantly related to institutional readiness to adopt the OBE curriculum, which contradicts (Valdez, 2012; Mogashoa, 2013; Pepito, 2019; Katawazai, 2021; Akramy, 2021).

This may be due to the lack of experience and knowledge of newly introduced student centric outcome-based educational concepts in Bangladesh. Therefore, this phenomenon should be investigated further in the future, especially when examining the after-effects of adopting an OBE curriculum at the tertiary level of education.

CONCLUSION AND RECOMMENDATIONS:

The potential of outcome-based education in a global context is enormous (Gurukkal, 2020). Therefore, to remain competitive at the pace of global change, there is no alternative for universities to implement OBE curricula. The implementation of the OBE curriculum in Bangladesh is undergoing massive transformation. Approximately 80 percent of the respondents' participation in the OBE curriculum training and development programs at least three times indicates how well it has been carried forward. As true facilitators of the OBE curriculum, faculty members’ readiness, knowledge, experience, and attitudes were also incredibly positive. Now, it is the turn for the government and universities to provide the right guidelines, policies,

and directions to drive the ongoing development program through the right path. Jansen, (1998) suggested providing sufficient time for faculty members to enable them to manage classroom tasks on the OBE model appropriately. Despite the positive attitudes and knowledge of OBE, training programs should be continued to keep them aware of not only the theoretical framework of outcome-based education, but also real-world practice; otherwise, the whole effort may become unsuccessful over time (Mogashoa, 2013; Rao, 2020). Teachers should understand the basic philosophy of the OBE model to align the outcome, delivery, and assessment procedures, and ensure the successful implementation of the OBE curriculum. Universities should consider the optimal classroom size to support the best implementation of the OBE curriculum (Ortega and Cruz, 2016; Jansen, 1998). In today’s competitive business era, business graduates must acquire basic technological, communication, language, lifelong learning, and teamwork skills. Therefore, the outcome-based education system should start at the secondary level of education to provide better orientation to students prior to joining the tertiary level of business education, as supported by Katawazai, (2021). The education ministry of Bangladesh and the UGC should determine balanced policies for teaching obligations, responsibilities, teacher-student ratios, credit hours, notional credit hours, involvement in research, industry collaboration, technological adaptation, teacher incentives, and other OBE supportive factors, and make the universities follow accordingly. The industry should come forward with its demand for skills to the university under the industry and university collaborative program for human capital development and skilled workforce hunting. University authorities should come up with a full commitment to adopt the OBE curriculum through the achievement of their vision and mission by keeping ethical, social, and economic matters up front. Sufficient autonomy and freedom should be provided to the institutional quality assurance cell (IQAC) and faculties to follow up on the development of OBE implementation and to track problematic areas

to get things resolved on time. A dedicated multidisciplinary team should be developed to formulate develop, implement, and evaluate OBE curricula in universities. An incentive package should be offered to front-line people to achieve high motivation and dedication. Finally, universities should strive to enhance the overall commitment and dedication at top managerial, teaching staff, support service staff, and student levels to ensure the successful implementation of the OBE curriculum to create world-class teaching and learning environments across the business faculty of universities in Bangladesh.

Abbreviation

BAC: Bangladesh Accreditation Council; CLOs: Course learning outcomes; IQAC: Institutional quality assurance cell; OBE: Outcome based education; PEOs: Program educational objectives; PLOs: Program learning outcomes; UGC: University grant commission.

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CONFLICTS OF INTEREST:

The authors declare that there is no conflict of interest.

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