

# Quality of Higher Education: Improving the Well-being through Humanizing Digital Entrepreneurship Program\*

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## Abstract

This paper describes the intent of learners to acquire university education, the basis for selecting study courses, the means to assess the quality of higher education, what the challenges faced by the learners are, as well as suggestions for improvement. The design and system thinking approach has been adapted to address the well-being issues of B40 young people in Bangladesh, through understanding their need, followed by building conceptual business models using modeling tools, i.e., Business Model Canvas (BMC) and Value Proposition Canvas (VPC) model. The main objective of this paper is to investigate the contribution and the role of a Malaysian University to solve problems of quality of higher education in Bangladesh and what initiatives should be taken to overcome this problem. This paper offers a validated conceptual Malaysian University of the Future (UotF) business model with the focus on international community engagement programs to help Bangladeshi students to acquire knowledge, abilities, skills, and values toward developing a harmonious and sustainable society. The contribution of this paper is the presentation of a conceptual, validated business model in both BMC and VPC formats. This conceptual business model can further be applied to civic engagement operations by other universities.

**Keywords:** Humanizing Digital Entrepreneurship Education, University of the Future, Business Model Canvas (BMC), Value Proposition Canvas (VPC), Bangladesh

**JEL Classification Code:** I21, I23, O15, O33

## 1. Introduction

Education plays an integral part in the development of a balanced person. It increases individual productivity

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and output and thus creates a skilled workforce capable of moving the economy down the direction of sustainable economic growth (Ocampo & Taylor, 1998). Unlike many other developing countries, Bangladesh's educational sector situation is not very promising. The low enrolment rates at the primary level, broad inequalities between regions and gender, lack of trained teachers, lack of adequate teaching materials, and poor physical school infrastructure indicate the low efficiency of this sector (Kazmi & Quran, 2005; Le, 2020). Training establishes the basis for poverty reduction and social growth. Poor quality education system might be one of the vital reasons for poor countries not to be developed. The standard of education in Bangladesh is on a decreasing trend. Education for all and quality education are the primary priorities of government in the Republic of Bangladesh (Rahman et al., 2010; 2020). In the era of globalization, with people and nations increasingly appreciating intellectual resources, higher education has become dramatically important. Higher education will create independent thinkers and innovators as well as people who are well educated and enthusiastic (Chaudhary et al., 2009).

The amount of intellectual capital depends on the quality of education, teaching, research facilities, laboratory facilities, library facilities and curriculum enhancements, etc. Higher education would struggle to achieve its goal of producing educated, highly trained, skilled, enabled, and morally committed individuals if it fails to offer comparable quality to the developed world. Therefore, the country will be unable to attain its sustainability goals. Higher education favors social mobility and a high standard of living (Chaudhary et al., 2009; Nguyen & Nguyen, 2020).

Academics, educational expert educational scholars, educational policymakers and other stakeholders generally accept that the quality of higher education in Bangladesh has gradually deteriorated over the last two decades, in some areas very troubling. Higher education in Bangladesh was imparted through public institutions until the 1990s up to which its supply situation was much slower (Alam et al., 2009). As such, the reasons for the fall in quality of higher education need to be better assessed and discussed. Higher education costs are lower in developing countries like Bangladesh compared with developed nations (Bhuiyan & Hakim, 1995). But quality is higher than the cost. To ensure quality in higher education, sufficient budgetary allocation and effective utilization are essential.

Higher education has tremendous potential for facilitating development in developed countries. But in practice, the academic standard of Bangladeshi universities is very weak and as such they have measurably failed to bring any positive change (Monem & Bainamin, 2010). There are 156 universities in Bangladesh, from which 46 are public, three are international and the rest 107 are private (UGC, 2020; Rahman et al., 2020). Public as well as private universities offer different programs. They have classrooms, housing and other physical facilities on their own campus. National University (NU) and Bangladesh Open University (BOU) are special type of universities in Bangladesh. Neither public nor private universities are growing day-by-day, but compared to developing countries, the standard of education is not growing (Alibekova et al. 2019). The world universities are ranked based on their academic and research performance every year by some reputable centers such as the Institute of Higher Education. The result of this ranking, published annually as Academic Ranking of World Universities (ARWU), is of international importance (ARWU, 2011). No university in Bangladesh is on a list of the top 400 best universities in the world. On the other hand, Bangladesh University of Engineering Technology's web ranking of world universities July-2012 place was 2398 and BUET is the first Bangladesh University in ranking. A large number of students graduated from these universities every year. They can not obtain their dream job after graduation and some students can not succeed in the

labour market. The unemployment rate is rising sharply in Bangladeshi labour market to 4.19% in 2019 (Macrotrends, 2020). According to the latest BBS Labor Force Survey (LFS), the unemployment rate for people with tertiary level education has risen considerably. Approximately 46% of the total unemployed young people are university graduates. So, this is the time to identify different obstacles and challenges that hold back the quality of higher education in Bangladesh

The report "2017 Global Youth Wellbeing Index" by International Youth Foundation (2017), stated the world today has a larger generation of youth than ever before. Half of the global population is now under the age of 30, which is having a dramatic impact on every aspect of the society. When these youths are educated, engaged and empowered, they can become effective agents of change, shaping the world for a better place to live. Kew et al. (2013) states that running a business helps young people achieve economic independence thereby reducing their reliance on state welfare. The basic question to be address by this conceptual paper is: "are we creating a world in which B40 youth in Bangladesh can enhance their wellbeing and become balanced person - as adults, parents, entrepreneurs and citizens?"

Despite education is every mankind basic right in certain countries, it is difficult to get access. As mentioned in the introduction, education plays a vital role in human capital formation, resolving and overcoming the daily issues and problems. In today's world, a society that lacking educated people goes through a high rate of unemployment, which then cause poverty. Bangladesh still has an abundance of obstacles it needs to overcome in higher education sector (Alam, 2009). With the modern economy advancing at its current pace and automation ominously looming over the horizon, the need for quality higher education has never been more pronounced. There are four major pillars upon which the current problems of Bangladesh higher education sector such as 1) lack of quality education, 2) low research output, 3) inequitable access to higher education, and 4) inadequate financing options (Light Castle Analytics Wing, 2009).

Certainly, education is essential in the growth of a society. To survive in the era of globalization and technology quality of education is must. However, there are many developing countries, which are deprived of access to education and learnings. Bangladesh is one of the where people are having a hard time to achieve higher education. This study will add to the existing stock of information by presenting new thinking on especially high-quality dimension of higher education and higher education budgetary provision. This study shows all of the key factors that can affect the standard of Bangladesh's higher education. The study results will encourage educational policymakers in Bangladesh to take effective policy steps for higher education. Thus, the main objective of this paper is to investigate the contribution and role of Malaysian

University-of-the-Future in the digital era and international community engagement for improving the wellbeing of B40 youth in Bangladesh through humanizing digital entrepreneurship program. Lastly, the study will promote the effective implementation of higher education quality policies.

## **2. Literature Review**

### **2.1. Quality of Higher Education**

Quality of education can be defined as how students are educated, rather than what the students know their interpretation reflects the views of both academic and managerial staff (Longanecker & Blanco, 2003). Those two perspectives were later identified separately by Juckel et al. (2006) that academic staff are more likely, according to his research, to define the higher education quality in terms of resource rather than performance, such as individual reputation, number of publications and number of courses taught (Nguyen & Nguyen, 2020). On the other hand, administrators define it as teamwork problems that are important in many operational objectives and responsibilities (De Wit, 2020). Each year, huge number of students register for various courses in these universities. The growth has been haphazard and the quality is both unsatisfactory and uneven (Agarwal, 2009). Juckel et al. (2006) described higher education quality as (1) 'transcendent quality' because of the prestige and expertise of the academic staff, (2) 'manufacturing-based quality' because the service meets the specifications and is appropriate for use in the manner in which it was designed, (3) 'product-based quality' as an improvement in student learning provided by the curriculum and academic staff, (4) 'Value-based quality' as acceptable production at a fair price; and (5) 'user-based quality' as the students wishes and desires (ARWU, 2011; Gerged & Elheddad, 2020). However, both of these studies sought to conceptualize the quality of higher education from the viewpoint of either employees or managers, which ignores the student experience and external quality assurance agencies. From four perspectives Mitchell (2010) defined it perceptions of the stakeholders, quantifiable elements, elements of course design, and external standards. She suggested that the concept of the quality of higher education be matched with the recognition expected by outside agencies. Still, her research has not been able to satisfy the student's viewpoint. In addition, a recent analysis subjectively defined the quality of higher education, which is measured not by quality status, but by peer group status (Bertolin, 2011). This study argues that previous studies did not have a comprehensive view of the quality of higher education and highlights the competitive understanding of higher education for better segmentation and target marketing purposes (Akareem & Hossain, 2012; 2016).

According to the competitive view, higher education quality dimensions are represented by student efficiency, faculty qualifications, academic features, and administrative support (Akareem & Hossain, 2012; 2016). Firstly, according to Akareem and Hossain (2016) the qualification and history of the students contribute significantly to the concept of the standard of education. Person characteristics such as age, research interests, prior performance, and pattern of perception, family history, and income are important contributors to the perception of quality of education. These authors demonstrate that aspects of the environment such as technological, economic and cultural forces may also play critical roles. Children's education is influenced by the parents' education, their jobs, attitude and present system of exams (Lyu et al., 2019; Rahman & Uddin, 2009). Bangladesh's private universities charge a high tuition rate that is higher than the public university fees (Al Helal, 2012; Monem & Bainamin, 2010). Although the universities offer a large number of scholarships, the main beneficiaries are the top students (Akareem & Hossain, 2012). Sarpkaya (2010) found students focus more on factors such as job prospects and individual satisfaction, and are less influenced by marketing factors such as media coverage and publicity (Nguyen & Nguyen, 2020).

Secondly, qualifications for teaching workers is seen as one of the most significant factors affecting the perception of quality in education. Arnon and Reichel (2007) find that students see two types of images of teachers: an ideal picture of teachers, and a self-image of a teacher. Their study showed that students view personal attributes and technical expertise as the most essential qualities that an ideal teacher needs to have. The personal qualities include general human values, compassion, leadership and professional attitude; and professional values include subject matter expertise and didactic skills. They also noted that other attributes are considered to be less significant, such as general knowledge, teacher as a socializing agent and an individual with a distinct social purpose (Skapinaki & Salamoura, 2020). Ingvarson et al. (2007) have identified a set of features for successful teacher education programmes those are: opportunities to learn during the pre-service course, opportunity to assess student results, opportunity to plan a program unit and ability to receive feedback. Teaching staff in developing countries such as Bangladesh does not always have sufficient training to ensure successful teaching and rely on job experience. This is therefore important to address the problem of educating current and potential teaching staff, which would eventually result in higher quality education.

Thirdly, academic considerations define a significant part of the standard of education within the universities.

Panayiotou et al. (2019) examined that understanding of the university learning environment leads to academic performance, while previous academic achievement does not affect that interpretation. According to Walker (2008), the standards of the students can be calculated by describing three broad categories: career consistency, teaching staff, and grades. The study revealed that the students' responses had a wide range of variations between the three categories: university-studied academic content; required work skills at or outside college; and useful life skills in all aspects of post-higher education. The author found that students frequently suggest that learning is incompatible with the course design and instructor; what students actually learn is not often reflected in their grades, but noted that student teaching evaluation is considered one of the widest literature of applied psychology research (Marsh et al., 2019). Contradicting this Buchanan (2011) claimed that assessment of students is not the only way of assessing the success of teachers, and this may be used for internal purposes, but is not appropriate for disclosure to wider audiences.

Finally, the management processes of a university will also decide how effectively to put in motion a proposed program to ensure the quality of the education. In their research, Adekiya et al. (2019) have tried to investigate the perceived service quality rendered by the administrative units, such as services offered by the registrar, library, teachers, rector's office, dormitory, sports, and health center. They identified two fundamental parameters for measuring the quality of service, tangible and intangible. Both tangible and intangible variables have positive impacts on student success. Roscoe et al. (2019) indicated that human resource management services play an important role in teacher development, encouraging changes for higher education institutions in organizational culture and training managers, staff, and academic personnel. All those four dimensions measure the efficacy of higher education.

## **2.2. Recent Expansion of Higher Education Sector in Bangladesh**

Although forty-nine years have elapsed since Bangladesh became a free country, there has been no implementation of an Education Policy (Bangladesh National Education Policy, 2010). Available studies show multiple commissions and reports on education, i.e. Dr. Quadrat-e Khuda Education Committee 1971; Shamsul Haque Education Committee 1997; Dr. M. A. Bari Commission 2002; Mohammad Moniruzzaman Mia Commission 2003; Prof. Kobir Chowdhury Commission 2009 appointed to improve the overall education system standard. Yet, the tragedy of Bangladesh was that the recommendations submitted by these committees were kept in the shelves mostly because of

the politicization of recommendations. In 2006, the University Grants Commission (UGC) of Bangladesh prepared a 20-year long plan for higher education growth with World Bank assistance. Public institutions offered higher education to Bangladesh until the 1990's, when its economic condition was much slower (Alam, 2008). In 1992 the government of Bangladesh sponsored the Private University Act (PRUA), which enabled private investors to create private universities in Bangladesh. In Bangladesh there are currently 46 public universities and 105 private universities. Too much socio-political control can be blamed for declining quality higher education in Bangladesh to teachers, students and other actors who have turned public universities into a field of policy rather than producing professionals and innovators according to country needs (Alam, 2008). Research findings also show that, while the Bangladesh-based apex policy-making body, the Ministry of Education (MoE), with the assistance of University Grand Commission (UGC), oversees and manages various public and private higher education plans and programs. Public universities in Bangladesh are governed by senate, union headed by vice-chancellor, faculty deans, academic council and finance committee. This style of public university management in Bangladesh has absolutely undermined higher education performance and quality control (Osman & Saputra, 2019). To date, there is no legislative body, but inadequate regulation, such as UGC, the reporting of Bangladesh to government, to improve the standard of higher education in private universities as private universities do not receive government funding. The study also claimed that faculty in both public and private institutions lack qualifications, the standard of students is so small, a large number of private universities have limited physical facilities, full-time employees, libraries, teaching aids, etc. Relevant discussion of quality management in public and private higher education is restricted to a number of areas: student entry, approval of courses, examiner's courses and committees, setting up new divisions and sanctioning additional teaching positions etc (Alam, 2008). Telford (2019) concentrated on nine critical factors for reinvigorating the quality of higher education including student quality, program and material, peer quality, direct facilities, indirect facilities, administrative performance, political climate, gender effects and expected satisfaction in higher education.

Higher education in Bangladesh comprises two classes of institutions: a degree awarding affiliated universities and colleges to the National University (NU); at the time of its independence in 1971, Bangladesh had only four universities, which were publicly supported autonomous entities. Private universities in this country form a fairly new trend. Private sector came forward in the early 1990's to create universities. Since the country has witnessed

phenomenal growth in private universities – mainly in and around Dhaka and some other major cities. There are actually over 100 private universities. Approximately 1,400 colleges offer higher-level education. However, access to top-level education is still very poor in Bangladesh.

### **2.3. Higher Education System in Bangladesh**

The University Grants Commission (UGC) is responsible for funding public universities as the highest level of higher education for the country. Although private universities do not receive any government funding assistance, they must seek UGC approval for operating and awarding degrees. Tertiary institutions fall under the National University (NU). Nevertheless, the duty of the NU is limited to developing curriculum and to organizing and conducting examinations. The teachers are hired into the nationally competitive review of the Public Sector, called the BCS test. The Ministry of Education (MoE) is responsible for teachers being appointed, moved, and promoted.

### **2.4. Sustainable Development Goals (SDG4)**

The Sustainable Development Goals (SDGs) contains 17 universal goals, which were adopted in 2015. It is formulated for achieving a more sustainable and better future for all. SDG4 is aimed at education. Higher education is set out in objective 4.3 of the SDG4, which seeks to achieve educational outcomes by 2030, ensuring that all young people and a large proportion of adults, both men and women (SDSN, 2020). So, the program ensures that the quality of education is essential for everyone. Training frees the mind, activates the imagination and is key to self-respect. It is the secret to growth, and it opens up a world of possibilities, allowing each one of us to contribute to a prosperous, safe society. Each human being should benefit from learning and be accessible to all. Higher education also forms a significant part of other non-poverty goals (SDG1); health and wellbeing (SDG3); governance of gender equality (SDG5); decent jobs and economic development (SDG8) (UNSD, 2020). The SDG4, which has a purpose to focus on ensuring inclusive and fair quality education, and promote opportunities for lifelong learning for all. It offers an opportunity for the global higher education community to evaluate how universities contribute, to step up and demonstrate that building a sustainable future depends on both knowledge creation and collaboration.

### **2.5. Humanizing Digital Entrepreneurship Education**

The goal of humanizing education is the development of the whole individual by acquiring knowledge, skills,

interpersonal skills, virtues, and mental behaviors. Therefore, the consequence of a humanistic-oriented educational method is that it encourages personal autonomy so that in any case, students can apply their expertise and skills creatively. Humanist education focuses on the overall needs of the child and community where all those who work in education have a sense of duty towards themselves, towards others and towards the wider world in which we live. Students benefit most from teachers who are professionally competent, but more importantly who simply pay attention, try to improve students' work, and take the time to talk with them—in a word, teachers who care about the subject and the students. Therefore, IR 4.0 has changed our everyday lives in many respects, one of which is a shift in the landscape of educational advancement in addition to providing skills and good deliberate way-based education, universities of the future will find preparing students for future life and work achieved through IR 4.0 where more intelligent robots can replace people in many branches of operation (Dzulkifli, 2015).

Researchers, academics and policymakers have put a lot of emphasis on entrepreneurial education in recent years. Faced with corporate world crisis and increased unemployment, many governments are emphasizing entrepreneurship as an alternative way out. In addition, it also observes unprecedented enthusiasm from the demand side. Educated youths as well as dropouts from high schools or colleges are interested in equipping themselves with knowledge and skills about entrepreneurship, considering it as a lucrative alternative career. Thus, intervention in the form of education and training in entrepreneurship has become a common scenario in almost all countries, either developed or developing (Azim, 2013). Based on the observation that the entrepreneurial function may obviously be learned culturally and experientially point out that it could also be affected by interventions in education and training. It has long been the common wisdom that certain people are born entrepreneurs and will succeed with or without education, while no amount of education can bring business success to those who lack the “entrepreneurial spirit” (Av & Dinesh, 2019) However, experience shows that people enter business schools to learn about entrepreneurship, and there is increasing recognition that entrepreneurship elements can be taught and learned (Gottlieb & Ross, 1997). Entrepreneurship education is provided with multiple goals ranging from personal skill development to innovative venture creation and target audiences are drawn from diverse backgrounds and educational levels resulting in multiple definitions (Kurilova et al., 2019). There is also some semantics ambiguity about the word used in different places to mean entrepreneurship education. For example, Haase and Lautenschläger (2011) points out that the term “entrepreneurship education” is

commonly used in Canada and the United States, but is much less commonly used in Europe. In the UK and other European countries, the common word is “enterprise education/ training” rather than “enterprise education.”

## 2.6. The Business Model of the University of the Future

Modern universities should be locations where colleges and business co-locate and work together on projects addressing real-world problems. They will become innovation precincts, which effectively apply society influence research. And they’re going to broker relationships among young entrepreneurs and mentors, supporters and funders. When industry and universities develop deeper alliances, you can benefit faster from university-based accelerator programs and incubators that generate innovations and turn them into commercial enterprises. The university degrees and learning programs will also be planned and implemented with business partners so you can be confident that the skills you are gaining will be important to potential jobs. According to Faizan et al. (2018) it is the nature of higher education that will need to keep changing due to the change in the public eye, economy and industry demand. It is undeniable that many of the universities have adopted today’s changes such as using modern technology, but technology working as a support to the education system alone is not enough. It should be at the core of the universities. Therefore, the institutes of higher learnings should be aware of the digital transformation. To elaborate, Universities are in need to know the need of the societies and offer relevant humanized education.

## 2.7. International Community Engagement

Bangladesh’s moderate economic growth intertwined with economic liberalization and trade linkages with Malaysia are expected to strengthen the Malaysia-Bangladesh relations. Institutionalization of this relationship between Malaysia and Bangladesh fosters investment and trade flows, social and cultural exchanges, foreign policy, education policy as well as technical cooperation to cope with the challenges of 21<sup>st</sup> century stemming from global economic recession and other transnational forces worldwide. The recent trends and future prospect of Malaysia-Bangladesh relations taking into consideration the policy options within a trans-regional context evolving under the framework of economic realism.

Bangladesh aims to become a middle-income nation by 2021 and Malaysia aspires to be developed by 2020. Malaysia already appears on the Upper-Middle Income Country list (Oliver et al., 2012). Bangladesh wants to get to where Malaysia is right now in 2021. Comparative study in

various areas will provide an insight into what steps should be taken within this time frame to position Bangladesh as a middle-income country. Bangladesh’s current role in the education sector is unsatisfying compared with Malaysia. This comparison was made in the area of higher education since there are some common agenda to be followed such as ‘Education for All,’ ‘Compulsory Free Primary Education,’ ‘Millennium Goal’ and ‘Inclusive Education.’ Both countries have the same philosophy as regards inclusive education, which aims to eliminate social exclusion from attitudes and responses to race, social class, ethnicity, religion, gender and ability (Moe, 2008; UNESCO, 2009). To accomplish this purpose, a universal agendum was created to integrate students with special needs with the mainstream of higher education. Therefore, Bangladesh is a developing country can get many benefits from Malaysia by following their education systems and to implement in Bangladesh. Malaysia have many world-class universities where they provide quality education. Indeed, study in Malaysia would be a very good decision for international students from Asian countries, due to affordable tuition fees and low living expenses with a humid tropical climate, like Bangladesh, which is easy to adjust. Moreover, there are lots of Bangladeshi worker staying in Malaysia those who doing job under different companies. These workers may contribute to the development of economic growth in Bangladesh by sending money to Bangladesh consider as remittance, which will help the wellbeing of the country.

## 2.8. Digital & IR4.0 Era

Industrial Revolution 4.0 represents the movement towards smart industry and manufacturing goals. ASEAN countries are experiencing industrial transformation on an unprecedented scale with 9 interrelated pillars of IR4.0: automation, data exchanges, cloud computing, cyber-physical systems, robots, Big Data, Artificial Intelligence(AI), Internet of Things (IoT) and semi-autonomous industrial techniques and the breadth and depth of these changes herald the transformation of entire systems of production, management and human resources (Bakhshi et al., 2018).

Industry 4.0 can be summarized by six key features such as 1. Industrial Success Skills, 2. Industrial Equipment and Technology, 3. Smart Sensors and Devices, 4. Control System, 5. Connectivity and Networking, 6. Inform-Actionable Data (Kirchner, 2017; Nguyen & Nguyen, 2020). Addressing each in appropriate complexity at progressive levels of education becomes integral to producing a career-ready individual who possesses the right combination of skills and abilities needed by today’s advanced manufacturing companies. The digital consumer, who enjoys more interactive and personalized experiences thanks to SMAC (social, mobile,

analytics and cloud) technologies; the digital enterprise, which leverages SMAC technologies to optimize the cost of corporate functions and to transform enterprise collaboration for greater productivity. The emerging digital operations wave –the companies are revolutionizing their business with the use of artificial intelligence, robotics, cognitive computing and the Industrial Internet of Things (IOT).

## **2.9. Education to Near Future and the Challenges**

Traditional education has contributed greatly to the current levels of industrial evolution and technological advancement. Role of university: shaping future technology by being the test-beds for innovation and educating future generations. As of now, education is being connected to mobile devices through applications in the cloud and is no longer limited to knowledge, but extended to skills acquisition. With the expansion in networking services nationally and globally, physical boundaries are no longer barriers to education (Abu Mezeid, 2016). Everybody has too many sources of distractions. New generation of students, constantly changing. Indeed, our brains are constantly being rewired; as a result of reduced attention spans. What will we learn during our education won't last for our entire career (since progress is accelerating). Schools are often not very helpful in choosing a career path.

## **3. Methodology**

This paper adopted the design and system thinking approach to develop a conceptual business model of a Malaysian-based UotF – focusing on implementing relevant international community engagement programs and activities. The value proposition of the conceptual business model is to enhance the wellbeing of B40 youth in Bangladesh through humanizing entrepreneurship education, and by harnessing on the use of digital/IR4.0 capability and platform. The conceptual business model is developed through understanding the needs of B40 youth by using business modeling tools, i.e., Business Model Canvas (BMC) and Value Proposition Design Canvas (VPC). The approach involves carrying out a literature review and interviews to identify key challenges and issues of various CS, formulating and devising an initial conceptual business model – in the form of BMC and VPC, and value proposition to enhance the wellbeing of B40 youth in Bangladesh. The initial VPC is validated by interviewing CS like Poor Community, Students and B40 youth, Parents, Donors, Sponsors and Volunteers. Design thinking is a methodology that this paper will use. The analysis is based on basic and secondary data. Considering the venue, establishment time and quality of the education, some public and private universities were intentionally selected. The primary data were collected using a semi-structured

questionnaire schedule via face-to-face interview with the university's teachers, students and staffs. The responses were thematically organized and presented from the viewpoints of the students, and explored by presenting context information from in-depth interviews and document analysis. The responses of the students were the basis for compiling findings since they are the key stakeholders, they are consciousness, interest. Their involvement always surpasses the University's four walls and the world over, there is a wide and positive attitude towards the student presence in governance of higher education. The business model canvas and value proposition canvas have been used. The focus in this paper is mostly on the understanding and formulating various possible solutions, which enhanced the quality of higher education in Bangladesh.

## **4. Initial Business Model**

### **4.1. Initial Business Model Canvas (BMC)**

Business Model Canvas (BMC) is a strategic tool for structuring the business model in a lean and structured way. BMC is a chart that describes a firm's values proposition, the customers to be served, the cost structure and how the program (business) makes money. The step-by-step business model including its provided value proposition is discussed in this paper (Osterwalder & Pigneur, 2010; Osterwalder et al., 2014).

#### **4.1.1. Customer Segment**

For building an effective and efficient business model, this section identifies the stakeholders to be served. This business model is designed for serving B40 youth and Bangladeshi students, teachers, poor community, donors, sponsors and the Bangladesh government. These customers are to associate with each other for the establishment of quality education in Bangladesh. This will help to introduce modern teaching methods to universities. Using more productive teaching methods that encourage problem-solving and critical thinking will go a long way towards making graduates employable.

#### **4.1.2. Value Proposition**

This is the main and focused part of this project because the point of this BMC is to deliver values for the customer segments. The aim is to improve and enhance the quality of higher education, eradicate poverty and remove hunger from the society. To create a society where higher education can take part in developing the Bangladesh economic, education and other needed changes. Due to the poor economy in Bangladesh, the first value this business model offers for

Bangladeshi students for free education. This free education will improve literacy programs regarding technology build life skills and other value propositions include entrepreneurship, job opportunities from home, and helping the Ummah. Furthermore, students are future of our society. Therefore, they will have to deal with all issues of society whether these may be evils or assets so all students must know about society in which they are living and learning as well as they should try to contribute as much possible. The value proposition will be further explained in the Values Proposition Canvas (VPC) table.

#### 4.1.3. Key Partner

This program will be led by higher education institutions. Because it is comprehensiveness, the program will need many various partners in delivering the promised Value Propositions to the various Customer Segments. Bangladesh's government is one of the main partners that will help the students in Bangladesh resolve the issues and provide facilities for higher education institutions to help deliver humanized and entrepreneurial education. Besides that, the Ministry of Education is to be the key partner of educating and building the skills of Bangladeshi students. It is expected to play a vital role in facilitating the education system for students by providing educational centers, collaborating in the curriculum and so on. Private sectors, NGOs, Alumni, other organizations and universities are also expected to participate in facilitating education and building the skills of the Bangladeshi students. The Bangladesh government provides free education, reduces poverty and hunger for poor community. The Ministry of Education ensures quality education for students and helps them to build their life skills during student life. University and Alumni can play different role together for the development of poor community and B40 youth for instance, empower B40 youth to contribute for the development of society and can provide them some training to enhance their employability.

#### 4.1.4. Key Activities

In order to deliver the proposed value propositions for the customers, there will be various key activities to be conducted and executed. Amongst the key activities are humanizing educational program that includes online and physical classes that will be teaching core subjects such as Islamic studies, entrepreneurship, life skills. Besides that, there will be also facilities management, conference events, responsible innovation and research as part of the key activities for humanized and entrepreneurship education as well as mentoring and coaching. Enhancing digital platform capabilities will be one of the key activities.

#### 4.1.5. Key Resources

The key resource includes competent staff and a digital platform that will help in delivering humanized education online remotely. Besides that, the Bangladesh Alumni of higher education institutions and students are also important key resources that would help during their vocation to educate the community in Bangladesh. Students and B40 youth are to be trained and nurtured in e-marketing on-line capabilities for various business areas on products and services such as food business, book stall, provide online training and organize different workshop for student's welfare.

#### 4.1.6. Customer Relationship

The relationship is another integral block of the BMC. Fortunately, with the advancement of technology, there will be connection with involve parties from anywhere and at any time. Based on the proposed BMC, there are various ways to get the staff, partners and customers connected. Some of these are face to face and online community buildings. For digital communication, there is a different affordable platform available such as e-learning and social media. Digital platforms is a collective term associated with technologies such as mobile devices and applications, cloud computing, in-memory technologies, and social media. They have been widely recognized as revolutionary, innovative, and at the same time cost-effective. The key applications are offered for e-learning like web-based learning, computer-based learning, virtual classrooms, and digital collaboration. E-learning as including the use of all digital resources, systems, computers, and electronic communication in the support of education.

#### 4.1.7. Channels

The channels are used for awareness and communication with the customer segments. In order to deliver the proposed values to the customers, there will be various physical as well as digital platforms has been utilized. In terms of physical channels, delivering the values through physical infrastructure such as Masjids. For the digital channel, there will be digital platforms such as websites, Televisions, social media, publications, e-Learning and so on. The function of e-learning is to help Bangladeshi students get education remotely from various lecturer. Nowadays digital platform are very popular in education and business sector. The key features of DP that can deliver to various customer segment in many ways like web-based learning, computer-based learning, virtual classrooms for students via e-learning, social media or face to face. University and Ministry of Education can play the role together. Private organization

can play important rule for the B40 youth and students to provide some carrier development workshop using social media and face to face learning.

#### **4.1.8. Cost Structure**

Based on the key activities, key partnership and key resources identification. The cost will need to be incurred for staff salary, digital platforms and its tools such as laptops, Internet, websites, mobile applications, cost of facilities management and event, operational and maintenance cost. These costs will be covered from income generated identified in the Revenue Stream BMC block.

#### **4.1.9. Revenue Stream**

This is the amount of many collection to higher education institutions via various activities. The revenue stream will provide from the grant of government of Bangladesh, donation, NGO, sponsor, zakat and sadaqah. The aim of this segment is to cover cost for providing quality education in Bangladesh.

### **4.2. The Validated BMC and VPC**

#### **4.2.1. Background of the Interviews & Survey**

This business model canvas is specifically developed by higher education institutions to educate and most importantly, to ensure quality of higher education in Bangladesh. In order to validate the initial BMC, interviews have been conducted with university lecturers from Bangladesh, who understand business model, EDC. After collecting and analyzing the interview data, the BMC has been updated, which is shown in Table 1. Some participants were selected from the organizer side for interviewing on validating the business model canvas. Regarding validate VPC sample, 15 students in Bangladesh were interviewed online as well as face-to-face with some Bangladesh immigrants living in Malaysia. For Bangladeshi students, there are two different age categories been considered, students from age 20 to 30 years old and adults from age 31 to 45 years old.

#### **4.2.2. Key Findings**

A nation's growth depends on an educated workforce and the same applies to a developing country like Bangladesh, which has made significant progress in delivering high-quality education through the establishment of many non-governmental universities, mainly private. Such universities have risen significantly, making the education sector more competitive and yet many of this university have been unable to provide the required educational standard. Research and expert opinion tend to suggest that the educational standards of these many universities are below par; several of them

depend on inexperienced, part-time faculty members. On the other hand, as with numerous facilities, modern teaching aids, library facilities, availability of books and journals, laboratory facilities, research laboratories and of course standard curricula are not sufficient. The online education program was not common to most students, such as Internet-uploaded courses, home server attendance, online library facilities, etc. The University Grants Commission (UGC) is responsible for funding public universities as the apex for higher education body of the Government, whereas private universities do not obtain government funding. private universities have made an impressive contribution to higher education over the past few years. Several recommendations are given, based on the findings that would be of interest to both governmental and non-governmental universities to improve the quality of higher education they wish to provide. It is evident from the above discussion that the major challenges for Bangladesh's standard of higher education are the limited resources and insufficient facilities.

#### **4.2.3. Recommendations**

Higher education is a much discussed subject in Bangladesh nowadays. The study successfully identified major issues and core elements of quality higher education in Bangladesh. It is noted that the quality of higher education in Bangladesh has been affected by insufficient budgetary arrangements for the principal elements. Comparatively, the newly founded general universities are suffering more from low budget funding than the older technical universities. Bangladesh as a developing country needs to establish and maintain higher education facilities of minimum quality, without prejudice, in both public and private universities. Higher institutions of learning are the most important level of education in any country because they develop the manpower that leads the nation in giving insight into future ideals, resources and solutions to problems. Education quality in any tertiary institutions is considered as one of the major elements that guarantee sustainable economic and social development in any country. This study identified suggestions for improving the standard of higher education, for instance: 1. Provide humanizing education; 2. Empower B40 youth to contribute for the development of society and enhance employability of B40; 3. Support students to access technical and vocational training through their universities according to their needs and ability; 4. Provide life skills training to support students to reach their aspirations and become responsible citizens; and 5. Provide training for teachers and other university professionals to create a positive environment in education sector. Recommendations were made based on these findings.



**Table 1: Validated Business Model Canvas (BMC)**

<p><b>Key Partners</b></p> <ul style="list-style-type: none"> <li>- Bangladesh Government</li> <li>- Ministry of Education</li> <li>- Universities</li> <li>- Alumni</li> <li>- Private Sector</li> <li>- NGO</li> </ul>	<p><b>Key Activities</b></p> <ul style="list-style-type: none"> <li>- Teaching</li> <li>- Workshop</li> <li>- Create Partnership</li> <li>- Entrepreneurship</li> <li>- Build up Technical Skills</li> <li>- Provide Training</li> <li>- Provide Scholarship</li> </ul>	<p><b>Value Propositions</b></p> <ul style="list-style-type: none"> <li>- Free Education</li> <li>- Reduce Poverty</li> <li>- Reduce Hunger</li> <li>- Well being Society</li> <li>- Build Life Skills</li> <li>- Humanizing University</li> <li>- Connect University to Society</li> <li>- Empower B40 to contribute for the development of society.</li> <li>- Enhance Employability of B40</li> <li>- Provide Online Service</li> </ul>	<p><b>Customer Relationships</b></p> <ul style="list-style-type: none"> <li>- Social Media</li> <li>- Face to Face</li> <li>- E-learning</li> <li>- Masjid</li> </ul>	<p><b>Customer Segments</b></p> <ul style="list-style-type: none"> <li>- Poor Community</li> <li>- Students</li> <li>- B40 Youth</li> <li>- Parents</li> <li>- Donors</li> <li>- Sponsors</li> <li>- Volunteers</li> </ul>
<p><b>Cost Structure</b></p> <ul style="list-style-type: none"> <li>- Technological cost</li> <li>- Staff salary</li> <li>- Cost of facilities management &amp; events</li> <li>- Operational cost</li> <li>- Maintenance cost</li> <li>- Cost of Digital Platform</li> </ul>	<p><b>Revenue Streams</b></p> <ul style="list-style-type: none"> <li>- grant from BD Govt, ADB, IDB, UNESCO</li> <li>- Donation</li> <li>- Zakat</li> <li>- Sponsors</li> <li>- Fund Establishment</li> </ul>			

**Table 2: Validated Value Proposition Canvas (VPC)**

Customers	Product & Service	Gain Creators	Pain Relievers	Customer Job	Gains	Pains
Bangladeshi Students	Skillful & competent in delivering humanizing educational program	- Educational program and awareness. - Events, workshop and conferences	- Competent staffs - Technology - Investment - Research	- Learn knowledge - Attend the education center - Use technology	- Gain basic knowledge & skills - Bright future - Knowledgeable society	- Lack of knowledge - Poverty - Missing basic right - Unemployment
B40 youth	Skillful & competent in delivering humanizing educational program	- Attention to participate in interventional programs - Engaged with Community Development	- Responsibility of long term planning to tackle social ills among today's youth.	- Enhancing youth employability - Internal skills training or on-the-job training at their work place.	- Enhance hard and soft skills - Nurtured during the earlier part of their education.	- Lack of knowledge - Poverty - Missing basic right - Unemployment
Donors	Skillful & competent in delivering humanizing educational program	- Helping the students - Resolving financial problems	- Investing - Expanding business.	- Giving charity and zakat - Making a contribution to society's wellbeing	- Developed society - Producing balanced graduate	Spend money
Volunteers	Skillful & competent in delivering humanizing educational program	- Professional volunteer - Encourage students attend different voluntary activities - for social development	- Help remotely - Allocate free training and part-time job - Help during vocation	- Teach students with modern and professional way. - Prepare study materials - Research	- Serve the students - Society well-being - Bright future - Branch in self-knowledge	Free teaching Spend time and energy
Bangladesh Government	Skillful & competent in delivering humanizing educational program	- Universities, College and School - MOHE	- Universities buildings during vocations and - Communication channel	- Help IIUM in reaching the students goal. - Prepare curriculum for students with IIUM - Improve educational policies	- An educated and balanced society - Developed economy - With balanced graduate	- Imbalanced society - Poverty - Lack of teaching materials

#### 4.2.4. Validated Value Proposition Canvas

Value Proposition Canvas (VPC) is a great tool for ensuring that a service or product is positioned within the customer needs and values (What is the Value Proposition Canvas?). After conducting interviews, the VPC has been validated, which is shown in Table 2.

### 5. Conclusions

This study indicates that the environment generated by higher education institutions is affecting the students' perception of quality. Establishing a field inspection procedure to assess the environmental support available at various universities will increase awareness of these features and could be implemented by quality control authorities, such as country-specific agencies or regions. This method of practice could be more effective if universities in different developed countries set their own standards for the education system. Under the UGC a control board may be set up to ensure teachers' consistency, recruitment and performance. Rewarding the good teachers, internet facilities, modern libraries and resource centers, and setting up human resource development centers may boost the Bangladesh higher education quality.

This paper proposes a business model for higher education institutions to include community engagement activities. The community engagement activities can be leveraged in helping to overcome the Bangladeshi student's challenges and problems. The contribution of this paper is the presentation of a conceptual, validated business model in both BMC and VPC formats. This conceptual business model can further be applied to civic engagement operations by other universities. For future work, the proposed conceptual model in this study can be implemented by preparing a business plan as well as project and change management plan for the program. Besides that, higher representative authority of Bangladesh in Malaysia can be taken initiatives for further process with the program and real-time implementation to integrate with Malaysian University of the Future (UotF) business model.

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