

Delivering Higher Education in the Future: A conceptual business model

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Abstract—The important method of current educational research is that education developments are required to achieve higher quality of education. As things present, Skills to prepare for the study as part of the development of higher education in the universities of the future, it is no easy task to keep pace with the rapid growth of education. In the discourse on education competitiveness, the notion that strategy or model is critical to university sustainability has proved much the cases. In consequence, it falls to higher education institutions to be responsive to those skills which constitute work-preparedness and the way forward is through internationalization of higher education. In the same meaning, great-university model will serve as results in shift towards substantive skill formation. This paper presents an approach, creating a model which have found as one of the suitable method of developing university and higher education for the university in the future. The paper delves into the research concern largely through critical synthesis of published literature.

Index Terms— Higher Education, University of the Future, Transformation, Innovation, BMC, VPD

I. INTRODUCTION

We are living in a rapidly changing world which is everything ready to be changed in every time. One of industry segment which got impact from those changing world is education. Higher education is responding to globalization. The President of Harvard University, [1] has given point about the important of higher education as essential for a thriving society: it is the strongest, sturdiest ladder to increased socio-economic mobility. This is because higher education can lifts people up. It gives them a perspective on the meaning and purpose of their lives that they may not have developed otherwise. So, it is possible to get this experience, to communicate its value through a set of higher education.

However, the implementation of education in nowadays mostly be seen only one direct method which is teaching and learning style. Since teaching and learning in classes is not enough, university has to provide more opportunities to their students. Higher education should provide a path to employment opportunities and economic well-being. Students who graduate from university earn more in their lifetimes than other university, and they tend to be more engaged citizens and best outcomes of higher education.

Moreover, technology also plays an important role for higher education in the future. As we know that currently

and the year after, technology is changing our world, it supports virtually every aspect of higher education. It can drive education to the higher standard and become more efficient and very useful for everyone in university. So, it will bring a lot of benefits to both university and stakeholders if they can take advantages from technology and implemented to their education. Yet, in actuality, there are many challenges for university in the future such as changing shape of knowledge, the dynamic of technology and competitors increased. As a result, education institutes should prepare and transform their strategy for the next generation to be as their guides understanding on the study and possible adapt to the society changes. Also, university should given great experiences to students in order to get more opportunities for employment in the market labor and increase strength individually. Hence, in this study, we put priority on the issue of university in the future and have given some example of future planning by using BMC and VPD involved.

II. PROBLEM STATEMENT

Higher education is one important factor to measure students for success in life such as in the workplace, in communities, and in their personal lives. While this purpose may have remained constant for centuries, the world around colleges and universities is undergoing significant change. It has been seen that, universities have faced with many challenges. These have resulted in significant transformations in the scope of their mission, governance, knowledge production and circulation, relations with wider national, economies and societies. These transformations are part of a wider 'paradigmatic transition' facing all societies and universities around the world [2].

Besides that, technology plays a significant challenge for higher education in this era and will be key factor for future education. For all of its benefits, new technologies are affecting other areas of campus administration for example, social-networking tools are helping to build connections with alumni and support career service activities, E-marketing campaigns expand the reach and success of recruiting and fundraising effort which can drive down the cost of direct-mail campaigns. Also provide automated, self-service programmes reduce administrative requirements, streamline course registration and enhance academic life. These systems are very helpful and make it easy for everyone in the university.

In addition, Service quality and student satisfaction are important factors in student retention. It is important that universities measure service quality and use the tools of continuous improvement. It is recommended by this study

that higher education authorities should maintain their level of service delivery to keep the students satisfied. So, higher education needs appropriate methods and strategies to meet the current students' needs, keep them happy, and attract more recruitment.

As a result, university has to be ready for transformation because it is a process, not a destination. It requires ongoing innovation and systemic change. This work is complex and challenging, necessary and unavoidable [3]. Thus, education in the future university has to focus on the student experience and a drive for innovation and entrepreneurship will ensure that higher education continues to meet society's needs [1].

III. LITERATURE REVIEW

There are many literature review which relevant to this study. It can usefully be brought us for analyzing the selected case of university in the future. By the first part, this study has reviewed the literatures about generally higher education and information technology development. Next, discussing about external scanning which impact education in the future, and the last part is a bit literature about the business model canvas (BMC)

Genç, K.Y.[4]. had presented that The university is as a premier institution of learning, widely recognized for leadership in research and innovation or are focusing on their own duties will be more efficient as a result of specialization and strive for excellence to all the members, both student and members of staff, share the responsibility of strictly adhering to the demands of the University's vision and goals. Also, a university should be interested in many sides of social life, the problems of the public and the needs of societal life. This situation makes the universities to have broad range of activities and operations with a wide outlook. Consequently, it can be expected that university will have a mission statement regarding control mechanism with a higher organizational performance.

Moreover, the number of people associated with higher education has increased dramatically over the last thirty years, this is because societies have recognized the need to be more competitive, learn precise skill sets and utilize research. For all this, higher education have to work a great-connected system of institutes, firms, research bodies and educational establishments inclusive of all levels of education [5]. Quality teaching has to be thought of dynamically, in light of contextual shifts in the environment of higher education. Studies are becoming internationalised, higher education is being asked to contribute to new areas as innovation and regional development so on. Furthermore, higher education will become an increasingly important theme in order to produce an appropriately skilled workforce to meet the challenges of the new century or it leads to becoming a major driver of economic competitiveness in an increasingly knowledge-driven global economy. Thus, quality teaching within educational institutions becomes the imperative for countries to improve employment skills [6].

In recent years, in parallel with improvement in information technologies (IT) and process development (PD) techniques, IT is becoming increasingly important. [7] had done a research on process development and information technology of time-based supply chain performance. They

has summarized that they ware consider with the benefits of IT systems in internal and external process integration, existence of mutual relationship between application of IT and PD efforts as they expected supports the expected positive effects of these two factors on time-based supply chain performance collaboratively. So, after performing moderator effect analysis, our research findings support these expectations in regard of two dimensions of application of IT and PD factors. Now, with the use of IT as applications being effective solutions to gain competitive advantage, and also firms benefit from them to create cost advantage and customer satisfaction.

DRIVERS OF CHANGE

It is simple that transforming is always dealing with drivers of change or the external environment impacting. According to [8] has defined environmental scanning as "the acquisition and use of information about events, trends, and relationships in an organization's external environment, the knowledge of which would assist management in planning the organization's future course of action". Moreover, Hughes & Beatty as cited in [8] suggest that the first step to change strategy at any organization is to "assess where we are now" which includes environmental scanning in order to gain an understanding of what factors present opportunities or threats to the survival of the group's enterprise.

Basically external scanning factors depends on Social and Culture (demographics, lifestyle, education), Economic, Technology, Political, and Environmental. Since the world in nowadays is globalization, everything grows rapidly. Even education in the future, it has to deal with education revolution, teaching methods have to change. Here are some external environments which impacting higher education sector [9];

- **Economic Forces**, Economic forces include the general condition of the economy, the economic value of a college degree, the price and affordability of higher education and similar factors. they can exert a powerful influence over markets.
- **Demographic Changes**, The growth, decline and changing characteristics of various demographic groups present both opportunities and challenges as colleges and universities seek to identify viable markets and serve students.
- **Technological Innovations**, Inexpensive, powerful computer technology, the expansive reach of the Internet, mobile computing, educational software and other technological innovations all have the ability to disrupt the status quo.
- **Global Trends**, The rise of a global knowledge society, worldwide technological innovation, collaborative programs, global student markets and international educational experiences are shifting education from a local to a global enterprise.
- **Government Policies**, States and the Federal Government have a profound impact on higher education through tax support to public universities, student financial aid, funding university research, and regulatory decisions.

- **Educational Practices**, Accepted practices in higher education shape the environment and constrain institutional decisions by establishing norms of operation such as accreditation, shared governance and tenure policies.

Meanwhile, business models have become a popular topic in research and practice. This popularity is based on their manifold applicability as a tool for the analysis and design of value creation and value capturing in companies. Business models also offer a possibility to support the analysis and development of a specific logic for value creation and value capture.

In order to exploit the opportunities of service, new service-based business models have to be developed. The Business Model Canvas is a prominent stream of a system-level holistic view on the business logic of an economic entity or offering. [10] had described that the Business Model Canvas (BMC) is a tool which was created by Alexander Osterwalder to change the way people design, test, and build strategies and businesses. It is a best of conceptual tools and making them so useful, practical and attractive.

IV. METHODOLOGY

The data was conducted through interviews which has selected respondents consists of local students and international students (both Undergraduate students and Postgraduate students). The interview was conducted to 10 international students and 10 local students. (5 UG, 5 PG for local students, and 5 UG, 5 PG for international students) The interview designed to determine the aspect of university of the future from students which enhance us to answer our BMC and VPD. From the interview, the result has shown that both international and local students support the idea of transformation which believe that university has to deal with environmental challenges, they have to keep developing quality of education and improving technology for mediating learning. Moreover, in order to get aspect for working experiences, they believe that university should integrate with external industries, and enhance entrepreneurs for creating activities in university. However, there are 6 out of the 10 local students, and 5 out of the 10 international students are not support the idea of using only technology as a main teaching methods in classes. They believe that lecturers are still needed for being mediator in classes.

The Business Model Canvas (Initial)

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
1. Students 2. Professors 3. Government	1. Education Research 2. Employment services 3. Establish and implement consultation and business activities, as an intermediary and a coordinator between external parties. 4. Magazine papers	1. Education... - Recruit students - Teach - Develop teaching programs - Assess - Graduate / transfer 2. Research... - Develop research projects - Publish - Conduct research 3. Science and information technology... - Facilitation 4. Sales and products - Good customer service	1. Dedicated Personal Assistance as service centers. 2. Marketing activities 3. Co-creation through internet network such as Facebook etc.	1. Students 2. Other universities
Key Resources		Channels		
1. Knowledge 2. Professors 3. Financial 4. Technology infrastructure		1. Websites 2. Advertisement 3. Face to face		
Cost Structures		Revenue Streams		
1. Fixed cost 2. Outsourcing cost		1. Tuition fees 2. Distribution 3. Government fund		

The Business Model Canvas of University in the future: UotF

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
1. Students 2. Professors 3. Parents 4. Retailers 5. Government 6. Industries	1. Vocational education and training 2. Higher education Research 3. Creation of network academic cooperation with academic institutions and research institutes both domestic and international 4. Develop curriculum, teaching, and learning to a modern and strong academically 5. Reform management system on research in university 6. Employment services 7. Establish and implement consultation and business activities, as an intermediary and a coordinator between external parties. 8. Enhancing entrepreneurial to university 9. Provide training for external customers	1. Excellent Education... - Recruit students - Teach - Develop teaching programs - Assess - Graduate / transfer 2. Research... - leadership in research and innovation - Publish - Develop research projects - Conduct research - Commercialization 3. Science and information technology... - Facilitate university development in the new millennium. 4. Integrating with Industry - Opportunity from entrepreneurs - Investment funds - Increase reputation	1. Dedicated Personal Assistance as service centers. 2. CRM 3. Marketing activities 4. Creating communities 5. Career centres 6. Acquisition retention	1. Students (Domestic, International) 2. Retailers 3. Clients 4. Industries 5. Other universities
Key Resources		Channels		
1. Knowledge management 2. Staff 3. Intellectual 4. Financial 5. Digital learning		1. Advertisement 2. Face to face 3. Alumni 4. Research papers 5. Social networking		
Cost Structures		Revenue Streams		
1. Fixed cost 2. Outsourcing cost		3. Services cost 4. Maintenance cost 1. Tuition fees 2. Research and books publishing 3. Intellectual properties fees 4. Academic services 5. Research centres 6. Government fund		

A. The Business Model Canvas Analysis

Business Model Canvas is a simple graphical template describing nine essential components: Customer segments, value propositions, channels, customer relationships, revenue streams, key resources, key activities, key partnerships, and costs structures. Now we would like to discuss what are the nine blocks have been set.

- **Customer segments**

This section can consider being a key factor for every business. Since without customers, we cannot make profit, without profit, lead the company gets loss. Some company has to be closed because they cannot target the customers' satisfaction. Basically, this section answers "For whom are we creating value, and Who are our most important customers." Based on our BMC above, our customer target for UOTF is not only on students like the past, but also allowing other industries to make their business in our university. This group of industries can provide alternative to students, and also giving profit to university. Moreover, we can consider other universities as our customer too. Since in order to get our publish research, they need to access and pay for that.

- **Value propositions**

In simple terms, a value proposition makes a case for why a customer should pick one product over another, citing the unique value the product provides over its contenders. This section answers “What value do we deliver to the customer?, Which one of our customer’s problems are we helping to solve?, What bundles of products and services are we offering to each Customer Segment?, Which customer needs are we satisfying?” With increasing competitors in the market, we realize that in order to being high level from our competitors, creating value for our UOTF is very important. So, in our UOTF model, we put excellent services either on education, technology, and facilities which will provide to our customers. Moreover, these value adding will enhance university to produce excellent graduates which can be one reason for customer decision making.

• Channels

A company can deliver its value proposition to its targeted customers through different channels. Effective channels will distribute a company’s value proposition in ways that are fast, efficient and cost effective. An organization can reach its clients through its own channels. Based on our UOTF model, we create new channels for our customers which are; advertisement, Internet networking such as Facebook, Instagram, and alumni. This is because, to target customers for recruitment through various ways and, it easy for customers in term of searching information.

• Customer relationships

To ensure the survival and success of any businesses, companies must identify the type of relationship they want to create with their customer segments. Our UOTF model has various forms of customer relationships; Dedicated Personal Assistance as service centers, CRM, Marketing activities, Creating communities, Career centre, Acquisition retention. These centres have set to provide a good relationship with our customers and increase customer satisfaction.

• Revenue streams

The way a company makes income from each customer segment. There are several ways to generate a revenue stream. Since HE in future will become more globalization and alternative providers so, we can increase our revenue stream through many ways such as academic services, research and books publishing, research centres, intellectual properties fees. These are the additional from our initial model.

• Key resources

Key resources are the main inputs that the company uses to create its value proposition, service its customer segment and deliver the product to the customer. Key resources deal with the operational end of the business spectrum and define what kind of materials you need, what kind of equipment is required and the types of people you need to employ. According to our UOTF model, we add intellectual resources, human resources, financial resources, and IT resources.

• Key activities

The Key activities building block creates a bridge between your value propositions and the customer

segments’ needs. Our UOTF model, we have created many activities to require customers’ needs. Significantly, we added developing curriculum, teaching and learning to a modern and strong academically. This is because students come to study because to increase their knowledge, so we have to provide them by keep developing and up to date our academic.

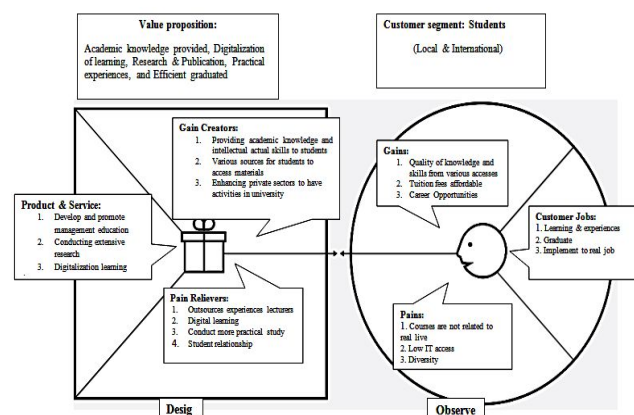
• Key partners

This building block refers to the network of suppliers and partners that make the business model effective. A company can optimize its resource utilization, create new resource streams or mitigate risks behind major business decisions by taking on a partner before starting a new course of action. It is important to note here that an organization maybe partnering with a number of organizations for various reasons, but not all their relationships will be critical to a business [11; 12]. So, besides students, professors, and government which currently being our key partnerships, we would like to stress on students’ parents, retailers, and industries to participate with our university in the future.

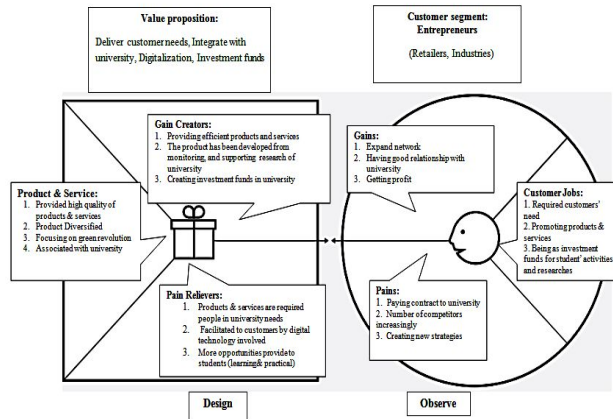
• Cost structures

This block represents all the costs that a business can or will incur if it opts for a particular business model. For our model, besides fixed cost, outsourcing cost, and services cost, we would like to highlight to maintain the cost because Costs will always remain a major concern for all businesses

The Value Proposition Design (VPD) Canvas: (For Students)



The Value Proposition Design (VPD) Canvas: (For Entrepreneurs)



B. Value Proposition Design Canvas Analysis

Generally, a value proposition is a promise of value to be delivered. It's the primary reason a prospect should buy our products. The Value Proposition zooms in on only two blocks: Value Proposition and Customer Segment, in order to describe them in more detail. It helps the entrepreneur to project in the best way the business Value Proposition to solve problems, difficulties and needs of customers.

Customer Jobs: In this box, we identified all the customer needs, the problems that they are trying to solve and the tasks they are trying to perform or complete. For our UOTF we have highlight on providing a high academic standard and always support with a modern academically. It is a key factor for producing excellent graduates and fit to the market.

Customer Pains: We gather all the negative emotions and undesired costs, situations and risk which the customer could experience before, during and after getting the job is done. Our UOTF model has stressed on three main factors which are; IT management, Education system, and diversity.

Customer Gains: In this box, we gather all the customer's benefits and desires, and may span personal, functional, or economical etc. So, we think our tuition fees will not be a barrier to our customer since it is affordable. Moreover, we will increase knowledge and skills by using world class technical services support it. So these benefit to our students to gain the value and opportunity for employment.

Product & Services: In this box, it will be list all the products and services which our value proposition is built around. This includes the services that offer or the help the customer receives. So, we provide library designed to support students' learning and research activities. Also many departments to cater to the increasing demand, and industrial counseling since in the future, many industries participate their business with university.

Pain Relievers: In the box of Pain Relievers, we describe how our products addresses the challenges needs and the pains of the customer, how we have to eliminate negative emotions, undesired costs or avoidable situations. This box we eliminating our weakness by outsources admin division, digital learning, conduct more practical study

Gain Creators: In the box of Gain Creators, we describe how our product creates customer gain, how it offers an added value to the customers. The cost of living for international students studying at University is relatively low

compared to international standards, many job opportunities, students convenient access the latest research materials and information Own sales and service network for the global customer base

The Value Proposition Canvas helps us to challenge, design, and build our company's Value Proposition in a structured and thoughtful way, just like the Business Model Canvas, it assists us in the business model design process.

V. CONCLUSION

The paper presents system approach, creating a Business Model Canvas as one of the suitable educational technology in developing university and higher education for the university in the future. As has been discussed in this article, the advantages of university development and higher education in a globalized world are manifold and cannot be overstated. The university in the future must stay abreast of the developments in academics, research, technology, recruitment in other countries, collaborate internationally, and the ability to meet the needs of partners. Those all can be transmitted as a Business Model Canvas and the Value Proposition Design Canvas to serve as a model for the management and development of the university in the future.

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