

A Conceptual Model to Digitally Transform UTAR

¹Mohammad Nadimul Haque, ²Nafis Nibras, ³Abdul Rahman Ahmad Dahlan

^{1,2,3} Faculty of Information & Communication Technology, International Islamic University Malaysia (IIUM),
Kuala Lumpur, 53100 Malaysia

Abstract: Higher Education in Malaysia has gained popularity across the globe as students from all over the world are coming to study in universities of Malaysia nowadays. There are multiple universities in Malaysia that have higher positions in university rankings. This shows the high quality of the higher education facility of the country. With the advancement of technology in today's world, the standard of education is changing every now and then. The future is now and the universities need to adapt certain changes to go with this technological flow. This paper is discussing about one of the Malaysian universities, UTAR and identifies the changes the university needs to bring along in order to become a leading university and develop a business model that would help them to sustain in this competitive market. The drivers of changes are being discussed for a clear idea and the game changers and their implications are also provided. The proposed ideas can be used by UTAR in the long run.

Keywords: Digital, transformation, online, technology, campus, resources, entrepreneurship, student, vocational.

I. INTRODUCTION

The recent education system has been burdened with lots of exams, a huge load of things to memorize and what not. Whereas, practical and vocational learning has been overlooked time and again which is ultimately making the education received from the institution less effective. Storytelling, discussion, training and research should be integrated with the existing system in order to keep up with the pace of the progress of the education system in future. Having great number of graduates every year and the rise of unemployment rate boldly points to the fact that the job sectors are concentrating on skill based employment. In this era of technological advancement such as, Artificial Intelligence, Machine learning, augmented reality etc, the education system is becoming outdated. For years now, the world has been depending on the same education system which is clearly failing to cope with the demand of present time. So it is about time reforms are being brought so that it can fulfil the potentials of the students and also support the job sectors adequately. Within 15 years having Professors or lecturers to teach would become an irrelevant concept. Intelligent machines will take over most of the professional jobs which students today prepare themselves for. Within the next decade technological impact will have an increment by thousand times.

In this paper, discussion will be done about a Malaysian university called University Tunku Abdul Rahman (UTAR). The university is established with the vision of becoming a global university of educational excellence with transformative societal impact. In the year of 2002, the university was launched. This is one of the fastest growing private universities in Malaysia. The number of students that have graduated from this institution is more than 50 thousands. The university has 2 campuses across Malaysia. To fulfil the vision of the university in the coming years and sustain, UTAR has to transform itself digitally to cope up with the technological advancements. As changes are taking place every now and then, with time the university needs to bring up new things and conceptions in order to attract students to receive education from this university. The university needs to work on a foresight plan to have an assured future and maintain its pace with the universities both in the local and the global platforms and also achieving their visions. Thus, this concept paper will provide a layout of the drivers that will effectively contribute in the transformation of the university, a new Business model Canvas and Value Proposition Model that will illustrate what the university requires to perform and excel in the ground of creativity, innovation and competition. Ultimately in the process, the university will have a sight of the foreseeable future and a plan to work on over the time.

II. PROBLEM STATEMENT

It is anticipated that Artificial Intelligence will take over 800 million jobs by the year of 2030[6]. Richer countries will look forward involve automation because of greater investment. In order to produce skilled graduates in the future, Malaysian universities should stay updated about the current technological advancements. Jack Ma warned that machines can replace several humans in future. With the existing prospects that are being used, it will be tough to sustain the progress of the university in near future. The quality of education will eventually decline. The usage and accessibility of Artificial intelligence, Machine learning for education purposes has increased in the present years and has been adopted by many universities around the globe[7]. In order to keep up with those universities, both academically and financially, it is a crying need for the universities to adopt those measures to make education much more accessible. Students these days have multiple courses in their outline which ends up being of no use in the future. Those courses are often a source of distraction from their original field of study. There are stereotypes existing in the society which differentiates between the status of jobs and lines of work. The current education system functions in a way that hampers the creative personality and personal initiatives in favor of standardizing people and their mind in order for them to fit better in to the factories of 200 years ago. Whereas, the outcomes of creativity are personal and/or economic, but can also be spiritual, social, environmental and political[8]. There are now a lot of online universities through which the students can get educated whenever they want and wherever they are. Such prospects are meant to rise with time and creates a possibility of ending the necessity of attending a physically existent university. Those online universities are turning out to be major competition to the conventional ones. The students get admission, studies in the university, pay tuition fees and so on. This is why universities are losing attraction of the students and students choose those universities that have interesting tricks up their sleeves. Education solely cannot attract the students at present times. Because, that causes the dilemma of not producing skilled students, which is why the students face difficulties in finding jobs after graduating. UTAR, like most of the universities in Malaysia lacks in vocational education. This sort of skill sharpening education is far more important than the so called crying need of a bachelor degree. MOOC and the ranking of the universities are not alone the factors that drives the student towards a university. It is the will of landing a good job that actually motivates the students to get into a university at the first place. For UTAR, although they have been taking students of low SES and attempting to develop them into a strong candidate for future is a praiseworthy step, they should further enhance this conception in order to develop way more students than usual which will help the university to excel their reputation. This brings in light the online education system that is not existent at UTAR, which to some extent is depriving them from spreading their quality education beyond the border and globally. All these issues point towards one direction and that is change. Change is what this university need and change is what this university should thrive for in order to survive in this world of technology.

III. LITERATURE REVIEW

The main role of a institution is to provide the students with skill-sets to perfectly match with the current demands and depending on that, they can survive the whirlwind that they will be facing whilst standing on the job market. And these students not losing their credibility and performing well would go on to excel the reputation of the university. In order to play their role accordingly, the drivers of change are being discussed that would bring the change in the university.

A. Global availability of knowledge:

In this era of online, it is possible to find any and every sort of knowledge with ease. In order to gain knowledge about anything or develop a skill, everyone has the option to take resort of the internet at any time. Although it is a fact that every sort of knowledge is available online, it is hard to sort out which ones are genuine. Research in the universities are one of the most powerful means of conveying the knowledge in a wider sense. The researches done for educational purposes are actually providing the societies with information that they are in dire need of to know. So, the university needs to focus more on developing a research based approach towards knowledge and dispense guidelines in order to motivate more students to go for that option. And the researches that are being done by these students and staffs should be made available to the world so that they can contribute to a better future for the society in terms of business and information. Fostering inter-disciplinary research is critical to research excellence. Increasingly, new scientific and technological breakthroughs and solutions to global problems reside in inter-disciplinary domains[1].

B. Digital technologies:

From the moment we wake up till the time we go to bed, it is the digital technologies that are keeping our lives in a proper manner. The field of education has been brought to life after a stale period of same old techniques, and that happened due to the introduction of online education. MOOC is something the students around the world has been turning to these days due to the fact that it is easily accessible and does not keep the students bound within the four walls of a classroom. It is usually not possible for a lecturer or a Professor to deliver perfectly regarding each and every matter. Even if they do, there is always an option of more knowledge and information regarding a specific matter. So, these lecturers can go on to design MOOC that can have everything he wants to deliver and with an option of improvising and introducing new things every now and then to make a topic more and more enriched. There are no constraints while conveying knowledge through MOOC, which cannot be said about the physical classes. Then there is augmented reality that should be infused to transform higher education as its benefits will take learning opportunities to another level[2]. Although the university is aware of the innovation that has been taking place in the world that is around the university, the university is actually taking more time than expected to maintain their pace with these changes. So it is a must for the universities to update themselves with those changes to make a difference.

C. Integration with Industry:

The university needs to maintain association with different industries in order to get on with the practical resources the company has to offer to the group of jobbers. This will help the university to get an idea about what they actually need to teach their students so that they become more skillful in the process. When the link is established, the university will have the ability to reach those who are in top level and can have them come over to the university or conduct webinars or design a MOOC which will contribute in teaching the students about the practical knowledge so they can link it with the theoretical knowledge delivered by the university. This way the students will be equipped with every possible apparatus to excel themselves and make themselves useful to the future world. The existence of industrial education programs have been found in multiple colleges and different units of the institution[3]. This is overall contributing to the education field and it will keep on growing.

D. Global mobility:

In search of higher education, the students these days don't hesitate travelling to other countries. They target higher ranked universities or good universities at least to earn quality education[2]. Their initial approach is to reach the universities that they are familiar with. In this prospect, it can be said that UTAR should go on to create more links globally, instead of locally. This would spread their word to the students in other countries. Moreover, the university should search for more affiliations with better ranked universities in other countries and create opportunities for the students of the present and the future[4].

E. Competitive economic landscape:

Global economy is not a matter of consistency these days. One moment it crashes, the other moment it recovers. Same is the case for Malaysia for the past few years, which is the reason why we have seen budget cuts in the education sector of the country. The funding had been in the process of reduction since the year 2007 by the Malaysian government. At present, the university needs to generate 30% of their expenditure through the income they generate all by themselves. That is because, the allocation for the public universities has been cut down to 70% and the rest is taken care of by the university. The rate of reduction of the allocation has been substantial in the past few years. In 2017 alone, the budget allocated for the public universities was set to be RM 6.12 billion, which is a significant drop from the RM 7.57 billion that the universities received in the year of 2016. The drop is nearly 19.23 percent which can be considered drastic for the education sector of a country[5]. But, the overall education system has been struck with a wind of change of negativity. Measures should be taken in order to deal with such situations. The university will always have a running stream of asset, and that is the students. The students can be utilized to generate revenue and bring stability to the revenue stream of the university. Universities can design platforms like blog-spots, video sharing and so on where the students can easily contribute to with the knowledge they get from the universities. These platforms will act as an interesting mean of sharing knowledge and contents which can help the students in the university and those around the world, if the quality is maintained and assured properly.

IV. METHODOLOGY

For acquiring information and justification for the proposed concept, one to one interviews were organized with the students and alumni of UTAR. There were interviews with the people who are in higher education and university related business since they have a clear experience about what or what not can be done to a university for its improvement. Moreover, in order to have a clear idea about the current job sector in Malaysia, we ran a survey with questionnaires related to the jobs of modern days. Through this survey, we tried to compare the skills earned from the learning procedure of the university with the skills required to survive in the job market. After processing the information acquired from the interviews, a developed BMC and VPC have been proposed in the following section.

V. CONCEPTUAL MODEL FOR UTAR AS A UNIVERSITY OF THE FUTURE

To transform a university to a university of the future, the changes that are to be made are both dynamic and complex. A university usually has to deal with multiple complex problems and in order to analyse those problems, it is necessary to have proper business modeling tools. Business Model Canvas (BMC) and the more recent, Value Proposition Canvas (VPC) are state of the art tools being used by industry to design, evaluate alternative business, models and value propositions[10]. To transform UTAR into a university of the future, this paper suggests developed Business model canvas which can be found at the figures section.

A. Business Model Canvas:

1. **Key partners:** In order to accelerate and implicate the plannings for a business model, the associations with other businesses or non consuming entities are the key partners. Here, UTAR will have investors from different businesses and IT companies as the number one key partner. In order to transform the university this is vital have IT companies as investors. This will create a bridge from the inside to the outside world. Secondly, donators will be the next key partners. These donations can be collected through an platform created for the Islamic purpose of serving ummah and also for the welfare of the students. The resource supplier companies will also act as the key partners since they will be providing the university with the necessary resources, starting from the table, chairs to the computers the students will be using for serving the purpose of education. Lastly, the IT developing companies will also be a part of this segment which will help to develop personalized system for the university which will be used for delivering learning and teaching purposes.
2. **Key resources:** Any basic university will have the resources as teachers and campus. However, UTAR to be a digitally transformed university, digitized education, website based operations and skillful courses will be the major key resources.
3. **Key activities:** Modernization is a concept widely accepted in any and every field of the world. So should the case for education and universities of these days in order to sustain themselves in the world of massive competition should also go for bringing in modernized education for their students in order to bring better output. Besides conveying education the university should keep an eye on its way of teaching if it is quenching the thirst of the students and fulfilling the respective gaps towards his/ her career. The education must be digitized which will create a platform for the students enrolled or not into the university to access the the study contents from anywhere around the world. Online platforms should be set up for teaching, learning and training purposes. Students should be encouraged to come up with business ideas and to have entrepreneurship thinking. Among the key activities, the most significant would be the the training of the teachers. The lecturers should know what to teach, who to teach, and how to teach. The training should include digital transformation of the teacher's minds. Workshops and training programs should be organized by staffs, students or outsourced mediums to discuss and exchange knowledge about the technological advancement of the world. Entrepreneurship festivals should be arranged as more and more start ups are necessary to survive this modern time.
4. **Value Proposition:** The current educational system and the teaching qualities should be improved and digitalized. Online and offline education should have a smooth synchronization. Entrepreneurship experiences and skilled teachers will deliver towards a skillful output in the form of well taught students. Vocational education should also be looked upon apart from the generic form education.
5. **Customer relationship:** The relationship with the customer will be maintained via social media. Facebook, twitter, Instagram and Youtube accounts should be well maintained and kept updated. Outsourced consultancy agencies will be hired for customer service. The customer should be provided with a proper system to regularly get feedback as reviews and ratings.

6. Channels: Website is always the main the channel of any university in today's world. However, UTAR should have a very user friendly mobile application having all the resources of the website in an optimized manner. Any future university means having an online optimized online courses. MOOC is getting widely spread all around the world. Not only online courses, but also the daily classes within the classrooms can be recorded and uploaded into the website. Therefore, the students who are enrolled as part of the online customer segment will also be a part of the offline education process. Moreover, any student can always go back and listen to the lectures online for the better understanding.

7. Customer segments: Our primary customers are the students who gets themselves enrolled into the university by paying the tuition fees. But as a university of the future, UTAR will target students who will prefer practical learning. The other customers will be the students who cant afford a college degree or cannot travel to Malaysia though they have the desire to study in UTAR. In this way, the revenue stream will not be having a boundary and anybody and everybody can be part of the UTAR experience with a minimum amount of charge.

8. Cost structure: Online platform maintenance will incur a good amount of budget from the university allocation. Workshop and training would also cost the university a significant amount. Another thing that the university will be spending on is the maintenance and the salary of the staffs and lecturers of the campus and keep it looking up to the mark. Marketing events will also be part of the expenditure and so will be the case for the webinars.

9. Revenue stream: Unlike other universities, massive amount of revenues can be collected from the online education platforms. Revenues can also be generated from the entrepreneurship acts of the students and the tuition fees paid by the students.

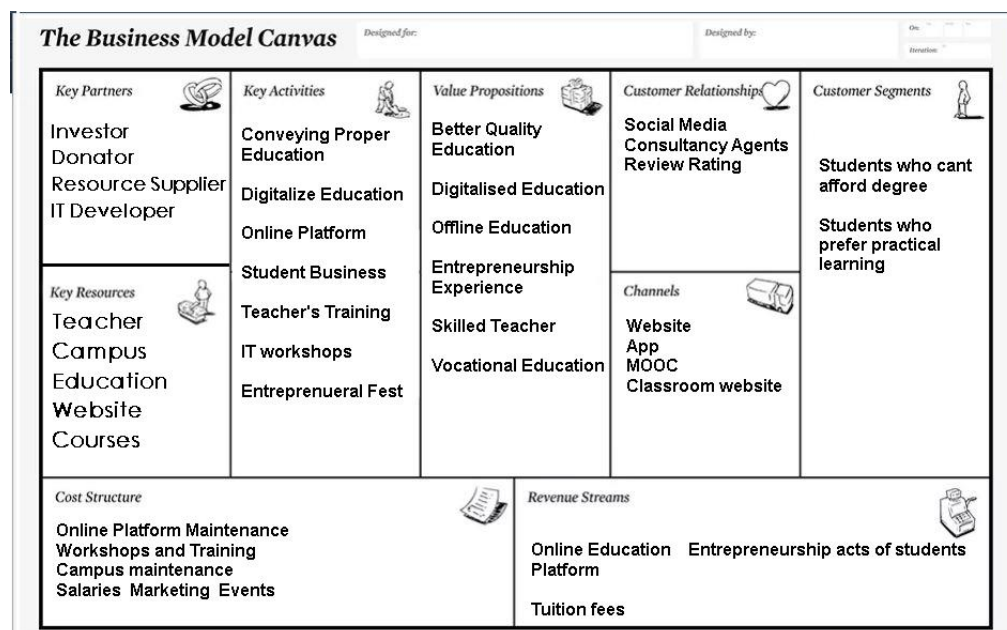


Fig 1: Improved Business Model Canvas for UTAR

B. Value Proposition Canvas:

This is basically a business or marketing statement that outlines the factors of a product that will attract the potential group of customers that the product is meant for. There might or might not be similar product or prospect and the VPC is there to help the customer to deal with the dilemma of which product to be picked. The VPC of a product usually provides the information about how it adds value to the life of the customer and also the services that are provided which eventually acts as a better solution than those who are in the same platform.

The figure of the value proposition Canvas can be found below. Here, a detailed discussion has been provided regarding the VPC.

1. Products and services: Among the product and services, online platforms and MOOC are vital. Unlike other universities, online classes will be well structured and organized. The lecturers has to be skillful and properly trained respectively. The education has to be digitalized and the library has to be digitally transformed.

2. Customer jobs: Practical education along with the proper deliverance of education are what the customers which is the students of UTAR, will focus into. There will be opportunities to earn money as students as entrepreneurship activities and festivals will be organized. Students need to be regular in classes and can make up for missed classes going through the recorded classroom sessions.

3. Gains: Education will cent percent productive and teachers will be trained and will have necessary skills. The knowledge will have relation with the practical world. The university will provide entrepreneurship opportunities.

4. Gain creators: Online classes can be attended by both online and offline tools. The education is vocational so it will fulfil certain skills that will be required in the job fields. Classroom will have recording facilities, so the videos of the lectures can go online. This will improve the lectures and delivery of the teacher as well. Entrepreneurship acts will enrich students to deal with the situations they will be facing in the real field of jobs and businesses. This will enable them to deal with incoming strikes of any types and make them more insusceptible.

5. Pains: Most of the students today cannot afford a good college degree. Even if they can afford, the teachers, in most cases does not provide value for money although they are well educated and no less educated than those who are teaching in other universities. A problem that persists is the lack of enough training provided by the university which in result deters the quality of the teaching facilities provided by the teachers. Normally if classes are missed for any legit excuse, students do not get any opportunities to make up for those classes. Students, being jaded up by the education system do not get to nourish their business skills on field which hampers their growth.

6. Pain relievers: Education has been made easier and highly accessible for both online and offline students. It will be affordable for those who are in a state of being deprived from education. Business opportunities are available for students to brush the practical knowledge.

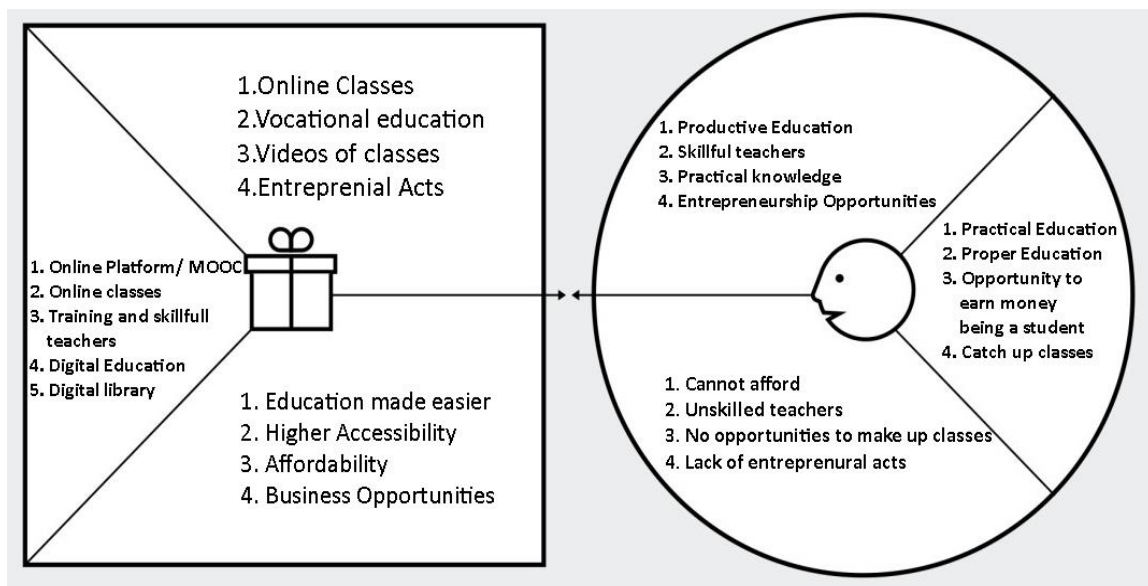


Fig 2: Value Proposition Canvas

C. Proposed Game changers:

This section include the ideas which will facilitate the university to admire and adopt with the gifts of the technological advancements and come up with rational ways to be applied into its overall system and in the process, bring revolutionary changes to the entire prospect of learning.

1. Artificial intelligence: The administrative structure of the university includes a huge number of staffs working day in and day out to keep it up and running. But with the help of Artificial Intelligence, the very basic jobs of the administrative sector can be dealt with in a much easier way. The use of AI will cause a displacement effect by replacing the staffs. This does not mean it is a negative factor as it can bring much more positivity[9]. Through this, the staffs can be actually used to create something much more innovative and new that can help the university in multiple ways. The intellect of the staffs can be invested in designing and maintaining platforms that can help in ameliorating the student experience in the

university. Moreover, an integrated AI system of the university can contribute in making the learning experience a better one. Such system can act as a tutoring or guideline providing platform that will be capable of understanding the learning style of the students and answer their common concerns which will help developing the students with a better basic of a course or a topic.

2. Integrated online learning aid Platform: Through such a platform, UTAR can facilitate maintenance of the connection between the students and the lecturers. The students will have a common place to reach out to any teachers at any given time and converse with them regarding any issues. All the students of UTAR can stay in a common ground and look up for each other if need be. They can seek for any sorts of help from any students. It will help as a knowledge sharing platform. Be it class notes or better understanding of a topic, it can be posted here. The lectures in class can be recorded and uploaded. So the students can come back and review the lectures at any time. Moreover, those who miss classes will not be deprived of the knowledge. These lectures will be organized in a way so that it is easier to find and the lectures can also be used to design MOOC for students who wants to subscribe to the online version of the university.

During the interviews conducted, these game changers had been proposed and the the authority of UTAR have considered the options that were provided and acknowledged them for the growth of the university.

D. Implications:

The plans that are proposed in this paper needs to be implicated in certain ways. And, in this section the factors of implication are discussed.

1. Students: Students will be nourished in such a way so that they can contribute to the betterment of the university. They will be given proper guidelines and prospects for conducting researches on specific topics. They will be given enough related resources which will make their research work easier and effective. The students have to have skill-sets to be accepted in the job market of modern times and also contribute in spreading quality knowledge in the society.

2. Alumni: The university should have planned facility for the alumni to engage directly and indirectly and contribute in the process back to the university. They will be given the opportunity to share the practical view of the life after the university with the currently enrolled students. The alumni can share their links with the students to make their after graduation experience a little more smoother than usual.

3. University: The university plays as a influential portion of a students' life both physically and mentally. It is the institution that builds the person day in and day out. The university will introduce the students with the changes that have been occurring in the current world and will actually assist them to adopt with those changes with time. Moreover, the trends and new conceptions of education and lifestyle will also be taught to the students in order to standardize their way of living and help them create a better mindset and personality to deal with the outer world.

VI. CONCLUSION AND FUTURE WORKS

This paper is well researched and the solutions that are provided can be considered innovative enough. Although the paper is based on UTAR, still it can be used in order to turn many universities into a university of the future. If these measures are implemented, universities can go on to survive in the competition and stay unsusceptible in the competitive university platform. The education conveyed by a university is a treasure which if cannot be delivered in an organized manner might not bring the expected outcomes from the students. The challenges that UTAR is dealing with in order to survive in the world market of competitive universities, are common issues and most universities are facing those. That is the reason why the universities all over the world are having to bring in a massive amount of change to the way they have operating the functions of the university. The conventional methods are being proven flawed as time is passing and needs to dealt with accordingly for the betterment of both the university and the students. Considering the revolution that has been taking place in the education field all over the world, the method of education should be brought across a disruptive change with the courtesy of the modern technological advancements. Partnerships, associations, assistance, transformations etc. are the terms that the universities need to acquaint themselves with in order to keep the drive active. The improved BMC that has been proposed in the paper does have some drawbacks and there are some key issues that will be tough for the universities to achieve abruptly. But transformation and change is a slow concept, which at times would give a feeling that its not worth it. But as long as the process is well conducted, the changes can end up providing outputs that can be beneficial for the institution in the long run.

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