Redesigning University of the Future in the Digital Era: Humanising Education and Mental Health

Adis Nabawi Azizan[1], Abdul Rahman Ahmad Dahlan[2]

Kulliyyah of Information Technology, International Islamic University Malaysia, 53100 Gombak, Selangor, Malaysia

[1]adisazizan@gmail.com, [2]arad@iium.edu.my

Abstract: **Mental health has been a rising problem in the current era and the cases reported are increasing every year. Thus, this issue needs to be addressed before it became a cancer to the societies. Many people do not think highly regarding the mental issues, but it was the root cause of any crimes and suicides. This paper tries to offer a new business model for a Malaysian-based university, named Malaysia – University of the Future (MY-UotfF), in providing humanising education as well as strengthening its role in community engagement and transformation activities. This study adapted the design thinking and system thinking approach that involve conducting literature review and interviews in understanding problems; analysing and formulating of business model options using business modelling tools such as Business Model Canvas (BMC) and Value Proposition Design Canvas (VPCs); and validation of the business model options via interviews with stakeholders. This programme is developed based on the BMC approach which looks at the customer segments, value propositions, channels, customer relationships, revenue streams, key resources, key activities, key partnerships, and cost structures. The key contribution of this paper is a conceptual business model for Malaysia – University of the Future – in the form of validated BMC and VPCs, for implementing and realising the humanising education programmes in MY-UotF. This paper also contributed on how to educate students in MY-UotF to become balanced graduated with healthy mental health and hence contributing to a harmonious and well-being of the community.**

Keywords: **University of the Future, Business Model, Humanising Education, Mental health, Well-being.**

I. INTRODUCTION

The fourth Industrial Revolution (IR4) brings changes in the industries and the economy globally, Malaysia must take up the challenges of rapidly changing world or overtaken by more progressive nations. As with the basic education sector, the Government is deeply committed to higher education, and the annual total expenditure on higher education is equivalent to 7.7% of annual Government expenditure (where the Ministry's expenditure on higher education alone is 5.5% of annual Government expenditure) [1]. This shows that Malaysia is very serious in transforming their education and mostly their higher education. The question that should be ask is what are the categorization of the success in higher education? Does it involve more journal publish? Or employability rate once graduates. All the universities in Malaysia are struggled to run this race. It is proven in the (Summary, 2015), five of Malaysia's universities currently rank among Asia's top 100 universities and University Malaya is included in the top 100 globally. The race for the ranking has already begun since 2005. At the same time, the Star said that the Malaysia world happiness ranking has gone down from 35 to 80 in one year. Does this worth it? [2] reported that depression and current depression were 2.4 % and 1.8% respectively and the attempted suicide which reflect the mental health status of adolescent was reported by 6.8% which was apparently high. University should play a bigger role in humanising education by nurturing balanced graduates and harmonious communities including addressing the mental health challenges.

II.   PROBLEM STATEMENT

Today, it is found out that 40% people in Malaysia have mental health issues. A research conducted by National Health and Mobility Survey (NHMS), Malaysia in 2017, one out of five adolescents was suffering for symptoms of depression, two out of five suffer from anxiety disorder, 11.2 percent was suffering for suicidal ideation and 10.1 percent had attempted suicide. If we observed carefully, this figure is huge, and it suppose could not be taken lightly as it will give large impact either to the individual or to the society specifically. Mental Health Promotion Advisory Council Member Tan Sri Lee Lam Thye said that there are insufficient number of psychiatrists in Malaysia in order to help people dealing with mental issues. He also added that, mental disorder will be the second biggest health issues after heart disease affecting Malaysians by 2020. Nearly all higher education institutions offer counselling services to students. A recent survey indicated that across the UK approximately 4% of university students are seen by counsellors each year for a wide range of emotional and psychological difficulties [3]. Counsellors working in higher education offer their professional skills and can also utilise their understanding of the connections between psychological and academic difficulties, their knowledge of the educational context and their integration with the wider institution [3].

The purpose of this paper is to develop and offer a new business model for a Malaysian-based university, named MY-Uotf, that provides humanising education in nurturing well balanced graduates as well as strengthening its community engagement roles in the building up of harmonious and caring community. This includes addressing the mental health issues in Malaysia. The rise and prevalence of mental health disorders and their detrimental effects on academic outcomes are why addressing student mental health is important for the academic missions and economic well-being of institutions [4]. The measure of mental health issues also important. Thus, this paper needs to address the indicator that the university of future can work on. Measuring quality of healthcare has increasingly become a focus in the provision of healthcare. The proper choice of indicators to measure and benchmarking the healthcare performance is quite a major [2].

III.   LITERATURE REVIEW

University is a place that matters to everyone in the society. University in other words is educational institutions and it is enough to be understand (Wan, Sirat, & Razak, 2015). Long time ago, those who got an offer to enter the university will be celebrated and it is one of the news that make the family proud and the news will spread all over the village. It is an honour for the parents if their children got an offer to enter the university. University belongs to the Latin word *Universitas* and it is actually an acronym from the sentence "community of teachers and scholars"(Giuffré & Ratto, 2014) and it refers to the first university in Italy which is developed in 1088 and because of this the university, was the first institutions being called as university, later some claimed it to be the first university in the world.

By referring to the Ministry of Higher Education (MOHE) vision [1] Malaysian education system aimed to be the centre of higher education excellence by the year 2020. In this Transformative Age, people should be expecting the changes in terms of not just how people work, play and live but people also must expect the fundamental shift in how people learn ("Can the universities of today lead learning for tomorrow? Executive summary," n.d.). Students enrolling at university transition to an education system that requires more independent learning than the teaching they experienced at school or college and students who move away from home to attend university acquire financial and domestic responsibilities and pressures. Some might also be experimenting sexually for the first time, having relationships and experiencing breakups [5].

Higher education institutions have long established systems for students support such as counselling, personal tutoring, financial advice as well as services for international students and those with disabilities [3]. Healthy Minds Study (HMS) data show that approximately one in three students meet criteria for a clinically significant of depression, anxiety, eating disorders, suicidality, and other concerns in student populations over the past decade [4]. In Malaysia, depressive illness and anxiety disorders became among the top 10 of diseases [2]. It also found that there are still very low density of psychiatrist serving the population (0.52 per 100,000 population) and the density ranges from 0 to 2.41 per 100,000 population [2].

Humanizing Education

According to [6], Humanizing education is depends on the method and practice of teaching from a teacher who are planning, exist at the same time or conform to the sociopolitical practices of their schools. Education make man better and gives greater impact on one personal and social development [7]. The essence of education must be understand by the

teacher and they must have greater educational awareness to lead healthy and fulfilling lives of the students [7]. In 20th century, Paulo Freire the most influential Educational thinkers taught that "to transform the world is to humanize it" [8]. The vision of humanizing education is to become a model university characterized by high quality education and humanitarian values aimed at empowering underprivileged and disadvantaged students [9].

Digital Era / IR4.0

Digital Era or Industrial Revolution 4.0 is part of Digital Transformation. Industrial Revolution has undergone 4 phases of transformation. The first phase is when the revolution is in term of power of steam and water. This revolution making the productivity of human labor increased. Next, in the second phase, involved mass industrial production and the electricity is the main key driver to this production. Third revolution is where the revolution of the Information Technology where most of the industry used computing systems in their work progress. Lastly, there comes Industrial Revolution 4.0 where in the era of Information Technology it combines technological and human capacities where things such as self-driving cars and human-machine interconnections evolved.
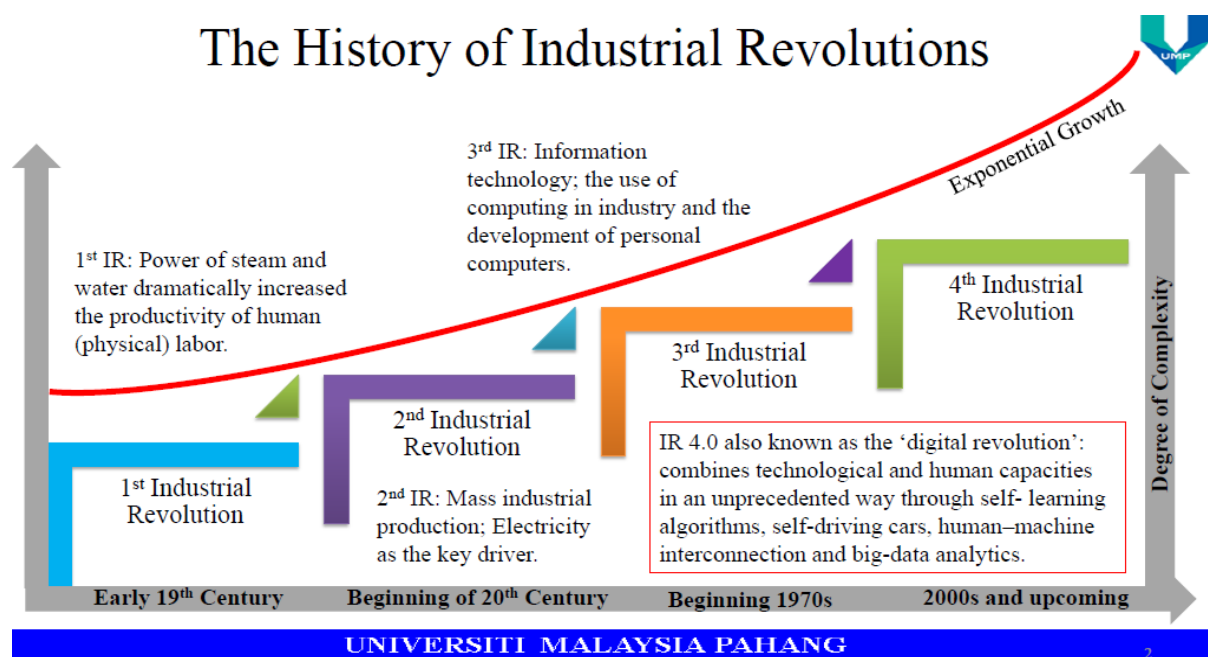

Fig. 1 : The History of Industrial Revolution [10]

Industry 4.0 concept comes from Germany which the government themselves are seriously stressed out the development of the industrial sector. The main idea of the first basic concepts is to exploit the potential in terms of internet IoT, technical process and business processes, digital mapping and virtualization, and 'Smart' factory [11].

Role of IR4.0 in Humanizing Education

Long time ago, Information is just used to equal knowledge and it is still possible to be handle. As time passed by, Information has changed tremendously, it changes in shapes and sizes and become more impossible to be control [12]. Therefore, education nowadays must be in line with the advancement of the technology itself. As what has been apply in most of the school, teaching and learning now must be towards 21st century education. 21st century education must be towards students centered and teachers only act as the facilitators where most the teaching and learning process in the class were depends on the participation of the students and teacher only be the guidance to explain any wrong doings make by the students.

Teachers must use all the technology to ace the teaching and learning. Computerized educational such as flipped classroom, MOOCs, and chatroom must be adapted by the teachers to sustain the learning in this digital era [12]. Today, because of this rapid changes in Information Technology and social change teachers have to prepare their students for the job, technology and problems that might not been created yet or might not know it will arise yet [13].

University of the Future Business Model

Business model canvas (BMC) is a tool to formulate and analyse University of the Future business models and subsequently use the framework to generate enhanced business models for the University of the Future [14]. There are many techniques in generating alternative business models and one of it is the "Epicenter of Business Model Innovation" [14]. Traditional business model will need to be integrated with the new emerging business model that present the opportunities that enhance traditional model.

The idea of University of the future is basically comes from the current situation which is influenced by Industrial Revolution (IR) 4.0 with the aims to develop institutions of higher learning as a hub that provides social interaction between students, management, university, and industry [15]. Next would be to gather evidence verifying the business model canvas and the value proposition canvas, which would progressively achieve problem-solution fit, market-product fit and then Business Model fit [14].

IV. METHODOLOGY

This research was conducted to develop a new business model for a Malaysian-based university, named MY-Uotf, that provides humanising education in nurturing well balanced graduates as well as strengthening its community engagement roles in the building up of a harmonious and caring community. The focus of this community engagement is on addressing the mental health issues in Malaysia. Qualitative methods were employed to collect data from the source in order to obtain in-depth information. This would enable the researchers to formulate, design and validate the business model before embarking on it. The researchers choose one-on-one interview as the method to carry out the research. The initial business model will be validated by interviewing a counsellor and students. It would provide students and counsellor with the occasion to describe their experience in their own words. One-on-one interview was conducted in length from 20 to 30 min. The information from the interviews was then taken out to classify as the findings for this research. In this study, the Design Thinking approach is adopted to understand the problems, ideate solution alternatives, and to establish the conceptual solution. Literature review, interview, business modelling tools such as the BMC (Business Model Canvas) and VPC (Value Propositions Canvas) was used by the researchers to represent the conceptual solution and validation of the BMC and VPC.

V. SUSTAINABILITY DEVELOPMENT GOAL

There are 17 Sustainable Development Goals that are made by the United Nation in 2015. These goals were built to improve human lives and protect the environment which includes zero poverty, quality education, good health and wellbeing. This paper focuses on SDG 3 which is Good Health and Well Being and SDG 4 Ensure inclusive and equitable education and promote lifelong learning opportunities for all. Ensuring healthy lives for all requires a strong commitment, but the benefits outweigh the cost. Healthy people are the foundation for healthy economies [16]. There is major progress improvement have been made in 2019, among it is to improve the health of people, to increase the hope to live, decreasing the death of mother and child and to destroy the high-ranking transmitted disease. However, the improvement has not happening fast because almost half of the world population does not have the ability to get the health services. Therefore, there must be some efforts to achieve this objective of being good health and wellbeing.

VI. BUSINESS MODEL CANVAS (BMC)

One of the developments of a business model was business model canvas (BMC) and it was used in this project by the researchers. The main focus for developing a BMC is, it focusses on the value contribute to the customer. It visualises and describes all components in the business model. There are 9 values in the Business Model Canvas that cover 4 main fields in a business, namely, infrastructure, supply, customers and financial sustainability. While, the division consists of Customer Segments, Value Propositions, Channels, Customer Relationship, Revenue Stream, Key Partners, Key Activities, Key Resources, and Cost Structure.

In order to validate the BMC and VPC, interview was conducted with a counsellor of IIUM. The key activities should be focus on the main curriculum and co-curriculum plus the support group and the volunteers. The volunteer for the support group will help planning an event that are reducing stress for others and support from each other's. Based on the counsellor's feedback and beneficial instruction the following business model canvas have been formulated for this programme.

THE BUSINESS MODEL CANVAS

i. *Validated Business Model Canvas*

TABLE 1: Validated Business Model Canvas

Key partners	Key activities	Value proposition	Customer relationship	Customer segments
• Industries • Institutes • Public universities • Hospitals	• Cultural activities • Startup • Research • Conferences • Networking • Consultants • Support groups • volunteers	• Humanising education • Open Learning • Industrial based learning • Broaden graduates experience • Promote and train support group • Stress Management • Alumni networking.	• Conference • Career Portal • Events • News • Forums • Alumni/reunion • Support group	• Students • Alumni • Staff • Society • Mental health patients
	Key resources • Student Affairs and Development Division (STADD) • IIUM Students Counselling Unit. • Portal for students, staffs, alumni and societies. • Fund for Startup • Hospital/Clinic • Support group trained by IIUM Counselling Unit		**Channels** • Websites • Open sources • Social media • Alumni • Support Group • eLearning • Mosque • Musolla	
Cost structure • Salary • Cultural activities • Lab • IT Infrastructure		**Revenue streams** • Tuition fees • Alumni annual giving • Endowment • Investment • Donation		

1. Customer Segment

Customer segments is referring to a group that are different from people or organizations of MY-UotF that the research aim to go through and serve. Strong understanding of customer needs must be apart from the design of the business model. In this research the objects that will be involved are students, alumni, staff and the society.

2. Value Proposition

Value Propositions can also be interpreted as a reason for customers move from one company to another. This value proposition is the most important gain creator or/and pain-reliever to customers. If this value proposition is not attractive or does not exist, then Malaysia – University of the Future could not operate and exist in the long run.

In this study the unique value that will be given is humanising education, nurturing balanced graduates, building up harmonious community, Open Learning, Industrial based learning, broaden graduates' experiences, promote and support start-up and alumni networking.

3. Channels

Channels are the reasons that make University of the future is to connect with their customers. In this study the Channels used is websites, open sources, social media, alumni, and support group which are used to find mental awareness and support group information.

4. Customer Relationships

The purpose of Customer Relationships (CR) is to get new customers, maintain the existing customers, and offer products and services to new customers. CR in this study includes conference, career portal, events, news, forums and alumni/reunion.

5. Revenue Stream

Revenue Streams explain get the source of income from each customer segment. This source of income allows on how MY-UotF organizations to operate and sustain in the long run. The potential revenue stream includes from tuition fees, alumni annual giving, endowment, investment and donation from the society.

6. Key Resources

Key resources are very important element that enable MY-UotF to carry out key activities to offer value propositions, reach markets, maintain relationships with customer segments, and generate revenue. In this project the Key Resources used are Student Affairs and Development Division (STADD), which help Counselling Unit to develop support group. Portal for students, staffs, alumni and societies to refer on and fund the support group.

7. Key Activities

Key activities are the activities that must be done very well by Malaysia – University of the Future. This activity is the most important things that must be taken to operate the MY-UotF successfully. In this project the activities that will be carried out are cultural activities, start-up, research, conferences, networking, consultants, support groups and volunteers.

8. Key Partnerships

Key partnerships can be explained as a cooperative agreement that is built between two or more companies to create value for customers. In this project the Key Partnerships involved are industries, Institutes, public universities, and hospitals. Once the students graduate, the continuity of the support group must remain in the industries as well. The pressure in working places is far greater than in the University. With the partnership the support group can continue to exist. Institute and hospitals play a role to study the student's mental health. There are different type of mental health and it very challenging to deal with different type of students. A follow up of the state of student mental health must be done to make sure the stability of the students that have chronic mental health.

9. Cost Structure

Cost structure also one of the important things in BMC. Business model will look on a low-cost structure which is more important than the other business models. Usually, MY-UotF should be minimized in each business model. In this project there are several types of Cost Structure, that should be minimized which are costs incurred for Salary, Cultural activities, Lab and IT Infrastructure.

VII. VALUE PROPOSITION DESIGN CANVAS (VPC)

After BMC, Value Proposition Design Canvas (VPC) are constructed. The value proposition is a strategic management and execution tools, thus the VPC shown below are the way MY-UotF to execute. By helping the societies and have support group will help the student to be more appreciative what they have own and have people to support if they are feeling down. The university or college is seen not only as a place of education but also as a resource for promoting health and well-being in students, staff and the wider community [3]. Table 3 below shows the validated VPC.

1. Customer Jobs

Customer Jobs give meaning to explain things related to the work or life of the customer they are trying to complete. A task that they are trying to do or solve, the problems they are trying to solve, or the needs they are trying to fulfil is what a customer's job refers to.

2. Gain

Customer Gain is what benefit that customers get, something that they impress of and the advantage of describing the results. Among the benefits include functional utilities, social benefits, positive emotions, and cost savings.

3. Pain

Customer pains is the negative experience that customers received either before, during, and after they get the service or product provided.

4. Product & Services

Product & Service help customers functionally, emotionally, socially or help meet basic needs.

5. Gain Creators

Gain Creators is a method to explain on how the products and services are accepted and can create values for the customers such as profits and satisfaction.

6. Pain Relievers

Pain Reliever is a solution for companies to cope with negative experience received by customers before, during, and after they get the services or products provided.

VALUE PROPOSITION CANVAS						
Customer Segments	**Customer Jobs**	**Gains**	**Pains**	**Gain Creator**	**Pain Relievers**	**Product and Services**
Students	Networking with Alumni, Helping society Improve soft skills and leadership Support group	Certificate of completion Alumni of university. Network of people. Excellent leadership and soft skills. Help others. Stress Management Empathic to the others	Expensive to enrol Stress in class. Time consuming in class. No support from others.	Ability to decide the courses and time spend. Create a networking that can further career. Able to pay without to worry late fees. Create a leader with a great soft skill. Have support group	Flexible payment monthly Able to find network to start new things / create a start-up. Can focus on career while learning Have support group.	Networking with successful Alumni Agile courses and finish by student phases Monthly payment Activities to help society Project to help improve soft skill and leadership.
Alumni	Network with students and other alumni Helping society Volunteer in support group	Network of people Help others Stress Management	Time consuming	Company CSR projects Further career on network	Have support group to relieve stress A good mental strength	Networking Activities to help societies Support group Help improve soft skills

Staff	Network with students and alumni Helping society Help students Volunteer in support group	Stress Management Help others Network of people	Time consuming	University department CSR/Flagship projects Understand student difficulties	Have support group to relieve stress A good mental strength	Networking Support group Activities to help societies Help improve soft skills
Society	Network with people Donation on the support group cause	Community that are caring Less case of suicide/crime	Time consuming No support from others	Have community support group Networking with people Beneficial activities in communities	Support group to do activities together	Networking Activities to help societies Support group
Mental health patients	Support group Share experience	Stress Management Help others Network of people	Time consuming No support from others	Have community support group Networking with people Beneficial activities in communities	Support group to do activities together	Networking Activities to help societies Support group

VIII.   CONCLUSION AND FUTURE WORKS

This paper tries to offer a new business model for a Malaysian-based university, named Malaysia – University of the Future (MY-UotfF), in providing humanising education as well as strengthening its role in community engagement and transformation activities. To quote [5] to avoid longer-term personal, social and economic consequences, these needs should be addressed early and students should be included in the ambition to create a stepped pathway between educational settings and mental health services. Thus, the support group for the student is required. No one can understand what the new generation has face unless their own generation. Think back in 90s the students face many manual works but now with the gadget all around us the students face cyber bullying and others that are very different on what the 90s kids think. Higher education settings are often the first and only time in young adults' lives in which work, leisure, healthcare and social support are provided in the same place. This provides the perfect setting for universities and health services to embed positive mental health, strengthen protective factors, work to reduce risk factors, and take opportunities to intervene early in mental illness or distress [5] and we can conclude that the universities are the perfect place to start and become the caring community.

In the future work, the programme needs to be tested and get the real feedback and data from the students. The mental health is very subjective and the programmes ned to be monitored not just by the support group but the hospital and the counselling units as well. Working with the hospital also need to be plan and construct as only the certified doctors that have facing the issues can help in the matter of mental health. In this paper we have highlighted the need of the support group and the role of the university in bringing this ideology. This support group is needed outside of the university too. With the training in the university, the student that are part of this support group now can create the support group in their work environment and thus help decrease their co-worker stress and support mental health of each other as well. The university is a platform where the student learns and embrace their life, with the finding in this paper, the university can be part of the solution and not the problem.

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