

# The Roles of Malaysian University-of-the-Future in Digital Era: Engagement in Community to Improve B40 Youth Wellbeing through Urban Farming Programme and Digital Entrepreneurship

<sup>1</sup>Irmane Mze Ali, <sup>2</sup>Mohd Wajdi Bin Mohd Feham, <sup>3</sup>Yahia Siddique,  
<sup>4</sup>Abdul Rahman Ahmad Dahlan

KULLIYAH OF INFORMATION & COMMUNICATION TECHNOLOGY  
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

---

**Abstract:** This article signifies one validated solution of many solutions on the way to improve youth wellbeing aligned with Malaysian University-of-the-Future UotF in place. The value proposition for improving youth wellbeing by Normalizing the norm offered in Urban Farming Programme and expanding economy through modernized methods through Digital Entrepreneurship. Approaches taken for creating a solution to improve youth wellbeing in a written article utilized Literature Review and Business model canvas (BMC). Additional approaches include Value proposition design canvas (VPC) and surveys taken to have feedback from their understanding, knowledge, and condition. The reasons for the method taken is to formulate Initial and validated for Business model canvas (BMC) and Value proposition design canvas (VPC).

**Keywords:** Youth Wellbeing, Urban farming, Digital Entrepreneurship, Job creation Economy.

---

## I. INTRODUCTION

Indoor Farming in this project focuses on vegetables and herbs based. These types of plant are mentioned best for this project due to fewer space required. Growth of projects then accompanied by digital means being as supplementary to genuine products. Exposure is channel through information delivery and discussion with inclusion internal and external parties. Internal party will be from a club within the university while the external part will be an expert and government agency. Additional activity should offer the opportunity of selling crops and potential in farming projects.

In countries, the population of middle and, or bottom represent the main part of the nation. Indeed, lower class people are the most concerned as their job salary cannot assure them to feed their family for the whole month. Their salary does not permit them to eat good quality food daily. The citizens of a country face many challenges to fight against food, health, and economy challenges. Thus, in this article, we are offering one solution that will help the citizens to save and smoothen their money and food issues with the hope to ameliorate quality life in the future.

## II. OBJECTIVES

This study has objectives to find solutions for the people regarding the economy as good as lack of food and the health of the population of countries. In developing countries, it will help fight against hunger and also open new opportunities to the citizens for a great business as mentioned in World's future food security "in jeopardy" due to multiple challenges

from the Food and Agriculture Organization of the United Nations (FAO), “For this, a twin-track approach is needed which combines investment in social protection, to immediately tackle undernourishment, and pro-poor investments in productive activities — especially agriculture and in rural economies — to sustainably increase income-earning opportunities of the poor.”, whereas in developed countries it is more a civic demand for better access to healthy food and to quality life as said "Major transformations in agricultural systems, rural economies and natural resource management will be needed if we are to meet the multiple challenges before us and realize the full potential of food and agriculture to ensure a secure and healthy future for all people and the entire planet," [World’s future food security “in jeopardy” due to multiple challenges, Food and Agriculture Organization of the United Nations]. The study will start first in a region of Malaysia to test before spreading it in all the cities.

### III. 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 community engagement programmes and activities. The value proposition of the conceptual business model is to enhance the wellbeing of B40 youth in Malaysia through humanising entrepreneurship education, and by harnessing the use of digital/IR4.0 in Urban Farming Programmes. 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 Customer Segments (CS), formulating and devising an initial conceptual business model – in the form of BMC and VPC, and a value proposition to enhance the wellbeing of B40 youth in Malaysia. The initial BMC is validated by interviewing and taking responses from the people related to the project. Design thinking is a methodology that Documentation is done through literature review to get hold of the suggestion for Urban Farming project. Explored literature review must align in the direction of United Nations Sustainable Development Goals (SDGs) through digital platforms. The emphasis is on a local Malaysian “University-of-the-Future (UotF)” business model term where the project growth will expand from the institution area. Support was then earned from revision completed by university lecturer as the intel gathering and phase practicality in matter.

### IV. LITERATURE REVIEW

#### *Growing Greener Cities: Urban Agriculture and the Impact on SDG 11*

SDG 11 is sustainable cities & communities. To reach a solution for the challenge, organic and cultivation tactics are adapted. Community will carry plantations in the form of indoor and vertical farms, as well eatable green fences. Activities performed not only better in tackling SDG 11, it can build strong bonds in neighbourhoods and produce a decent environment for living physically and mentally. Sentence in Hernandez and Manu (2018) “...must collaborate to adopt policies that benefit both communities”. Collaboration with local authority is essential to enhance the community while preserving a good quality ecosystem. Nur Huzeima (2012) research regarding more people living in cities with high rise homes: “However, with the regards to the dense area in cities, producing a sufficient resource will be challenging. Every single dwelling and space are shrinking. Therefore, the only option to increase self-production is made possible by searching for a potential new land capacity.” With no land issue, urban farming is needed to enable selling of vegetables and via digital platforms. The sdg perspective on poverty and zero-hunger in Malaysia, Zakri Abdul Hamid (2020) interviewed reported “Malaysia modestly improved its ranking from 66th last year to 60th this year, but major challenges remain. ...We are on track to achieve SDG 1 (No poverty) ...We are stagnating in SDG 2 (Zero Hunger);.. From here poverty can be reduced in urban areas through urban farming is needed to support their hunger through income as well food resources. Statement regarding unemployment earned by Datuk Seri Mustapa Mohamed (2020): “ON June 15, the Department of Statistics (DoSM) announced that Malaysia’s unemployment rate stood at five per cent at the end of April. The last time we had a figure above the 4.0 per cent mark (which denotes full employment) was in 1993. ...We expect the unemployment rate in May to slightly increase when the figures are released in mid-July.” Prediction of more unemployment is frightening especially with pandemic covid-19 ongoing with people still in search of vaccines. Practicing urban farming should open to more job opportunities such as self-employment and service employment.

#### *How 16 initiatives are changing urban agriculture through tech and innovation*

Innovative method intensifying in the field of agricultural. Integrating digital was invented to the conventional technique in agriculture. Varying of products generated from renting for service in planting and harvest to distribution of goods for

seller or customer. One example Oyuela(2020) listed:”Farmizen is a mobile-based platform renting farmland to city residents to grow locally grown, organic produce. “There happens to be an informative based system to guide users in their exploration to agricultural fields. Partnership among chefs at home or culinary established through supply of fresh crops provided by farmers around creation of trade and dine platform combined.

### ***MCO boosts demand for seeds, gardening tools***

In March, movement control order (MCO) was initiated to combat covid-19 disease. Time has been prolonged which gets people to develop a creative way to spend in their home. According to Bernama, requests for vegetable seeds and gardening tools soared due to consumer care for home gardening. Some herbal seeds ordered corresponding to Plant in Pot nursery owner Farhana Mohamed are pegaga, Brazilian spinach, daun kesum and turmeric. Also written on the star (2020): “According to Nurseries For Mama owner Muhamad Syafiq Osman, his hydroponic sets and other products that fit the urban lifestyle are also in high demand online.” This due to Hydroponic technique is simpler to maintain and quicken the plants growth when compared to soil-potted plants. Plants can serve as good therapy and bring in great behaviour to cultivators as they recycle items for plant space and fertiliser.

### ***Agriculture 4.0: How digital farming is revolutionizing the future of food***

The growth of agriculture led to more advances in producing crops from the techniques and enhancement directly to seed. Usually technology known from transport and facilities. Now the trend of IoT rise made some experts call the changes it did to the farming world as Agriculture 4.0. Later used by the World Govern Summit. Iot sensor is said to help assess plants by molecular. In large numbers it can be the role of data in farming. Maddox (2018) in her writing: “At Purdue, on a 1,408-acre research farm, IoT sensors assess what the plants are revealing by their molecular responses and how it impacts growth and colour.” It was done by Wi-fi connectivity across the field. Indicator and drone also stated in use for increased crop while reduced cost. Izwan Ismail (2018) found out how digitalisation could work in Malaysia based on this part of writing: “Meanwhile, Azzam Ramli, marketing specialist at Google Malaysia, said many Malaysians are choosing to shop online, and with the smartphone adoption being close to 100 percent, people are now even shopping on the go.” Wide use of smartphones and how near the internet have been among users, digitalisation of urban farming should be implemented for modernising change for business and self-interest.

## **V. THE PROPOSED BUSINESS MODEL**

### **1. Initial Business Model – Initial Business Model Canvas (BMC)**

<b>Key Partner:</b> <ul style="list-style-type: none"> <li>• Delivery service</li> <li>• Agriculture department/ FAMA</li> </ul>	<b>Key Activities:</b> <ul style="list-style-type: none"> <li>• Research &amp; innovative</li> <li>• Education</li> <li>• Coaching</li> <li>• Enhance Digital Platform</li> <li>• Manage Key Activities and Customer relation</li> </ul>	<b>Value Proposition</b> <p>Buyers</p> <ul style="list-style-type: none"> <li>• Reliable platform</li> <li>• Anytime service</li> </ul> <p>Sellers</p> <ul style="list-style-type: none"> <li>• Extra income</li> <li>• Supervisors disposition</li> </ul> <p>Planter:</p> <ul style="list-style-type: none"> <li>• Gathering and sharing idea in urban farming for new and experience planter</li> </ul>	<b>Customer Relationship:</b> <ul style="list-style-type: none"> <li>• Face to face program such as “The Tarik”</li> </ul>	<b>Customer Segment:</b> <p>Buyers</p> <ul style="list-style-type: none"> <li>• IIUM community</li> <li>• B40</li> <li>• Restaurants</li> </ul> <p>Sellers</p> <ul style="list-style-type: none"> <li>• Vegetables producers</li> <li>• People who want to start fruits and vegetables business</li> <li>• Agriculture tools sellers</li> </ul> <p>Planter:</p> <ul style="list-style-type: none"> <li>• People who is new to urban farming</li> <li>• People who is interested in adding new method</li> <li>• People who is liked to share their discovery</li> </ul>
<b>Cost Structure:</b> <ul style="list-style-type: none"> <li>• Cost to cover Key Partner, Activities and Sources</li> <li>• Self-transport</li> <li>• Farming Needs such tools, seed, fertilizer, Space and water</li> </ul>		<b>Revenue Stream:</b> <ul style="list-style-type: none"> <li>• Donation</li> </ul>		

**Figure A: Initial Business Model Canvas (BMC)**

2. Initial Value Proposition- Initial Value Proposition Canvas (VPC)

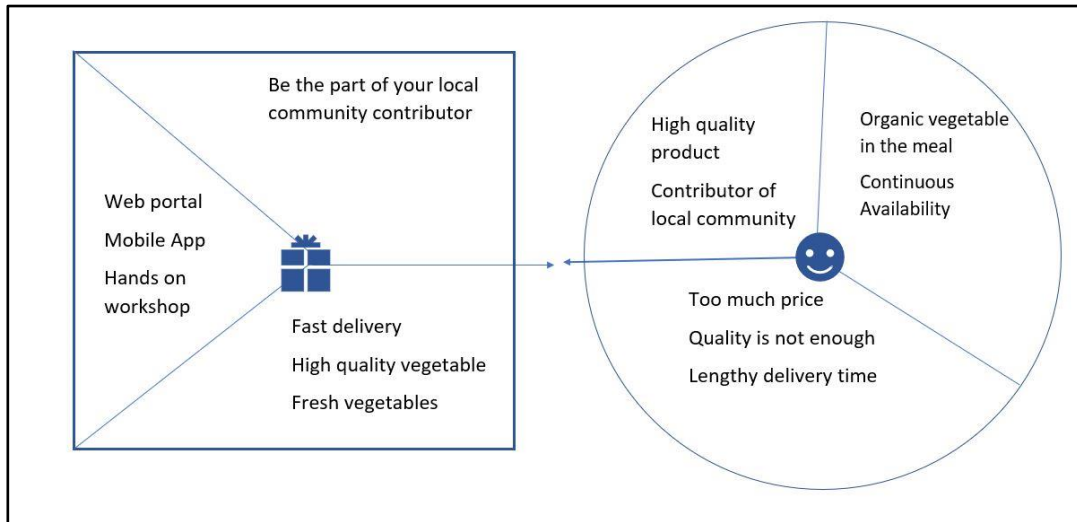


Figure: Buyer VPC

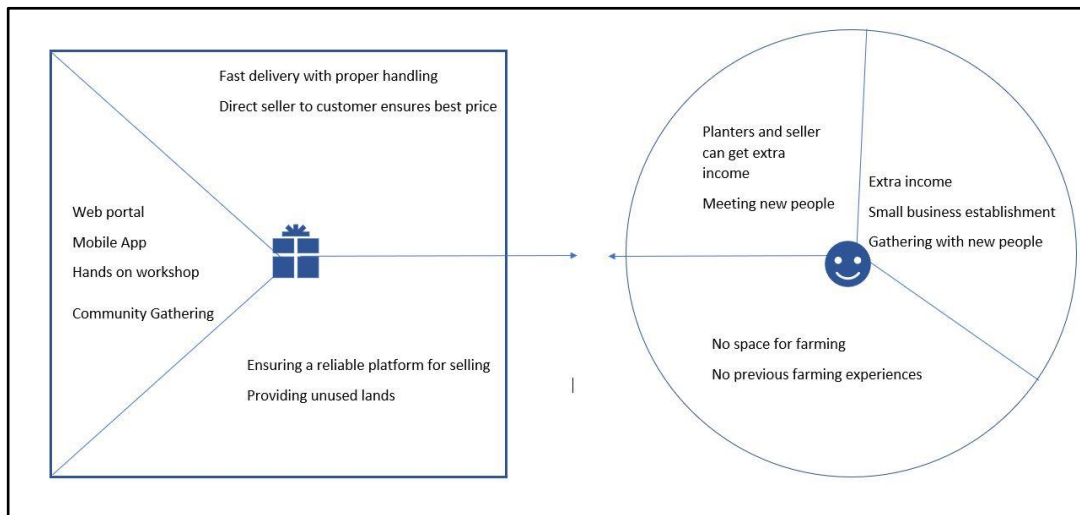


Figure: Seller and Planter VP

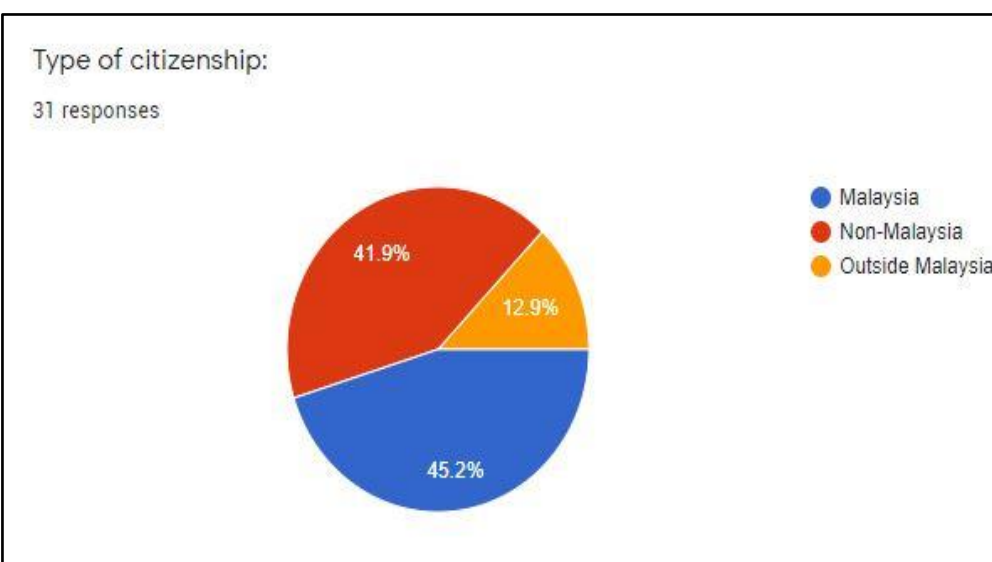
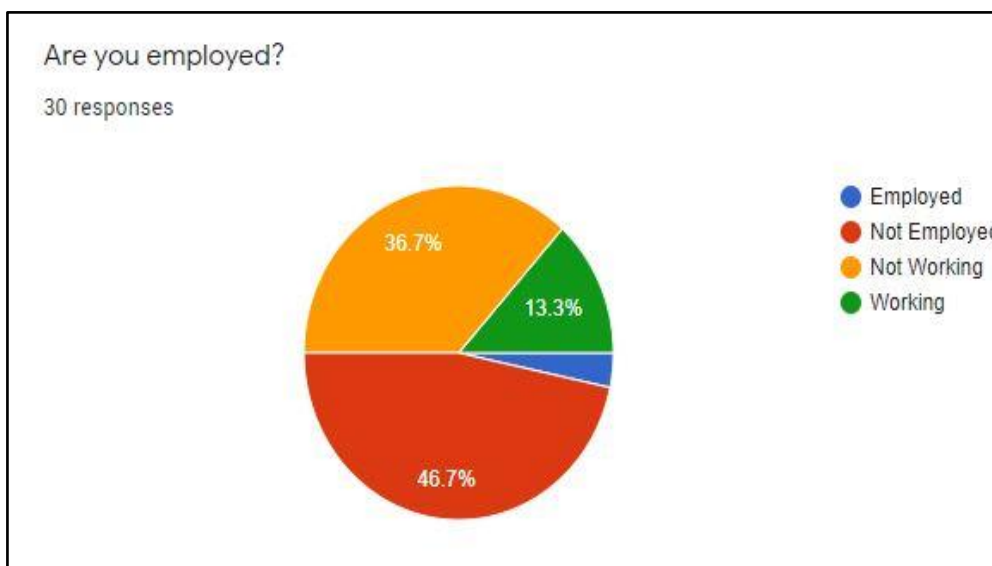
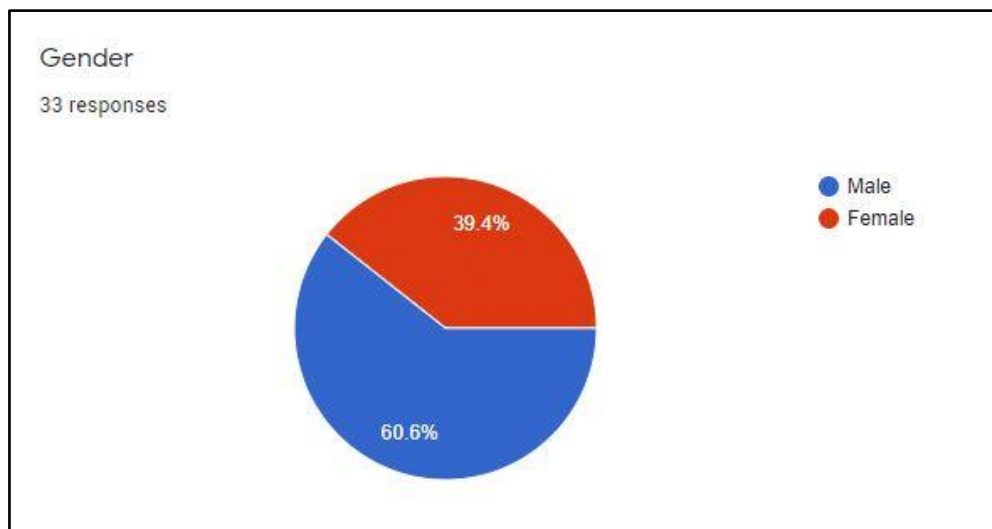
VI. VALIDATION OF INITIAL BUSINESS MODEL

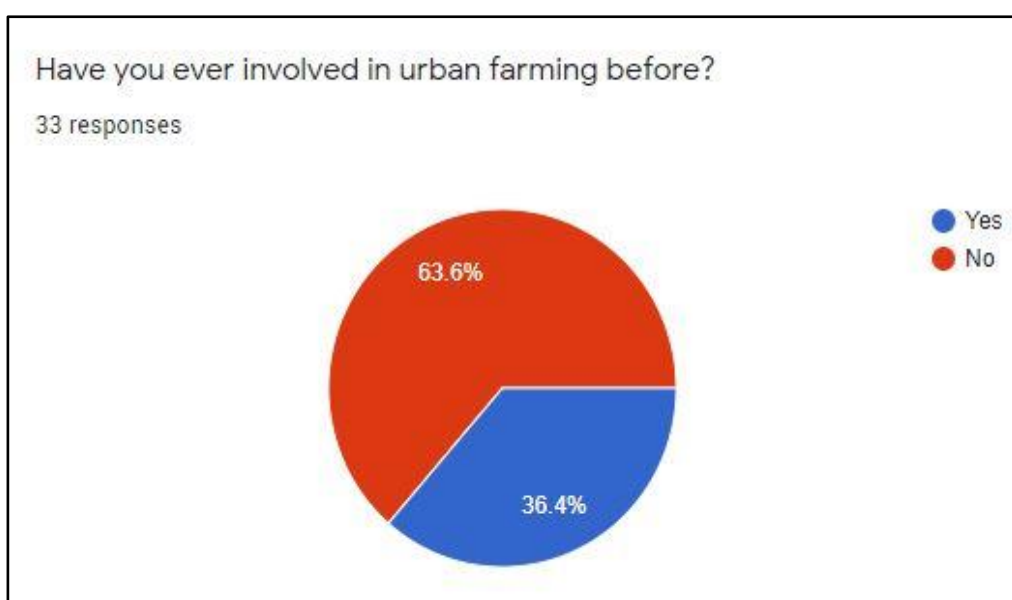
Methodology:

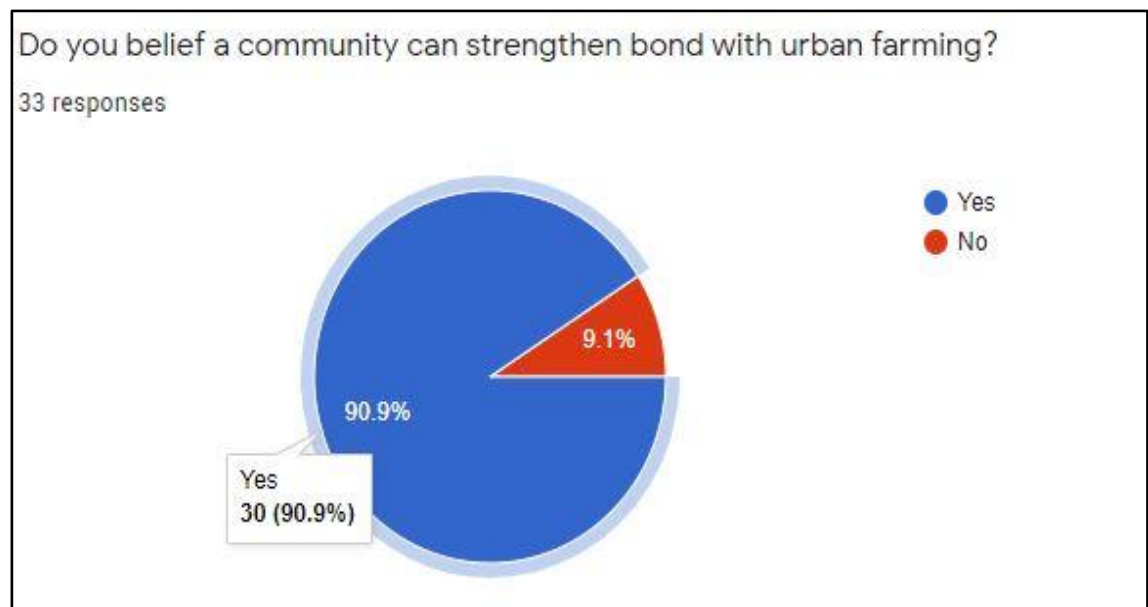
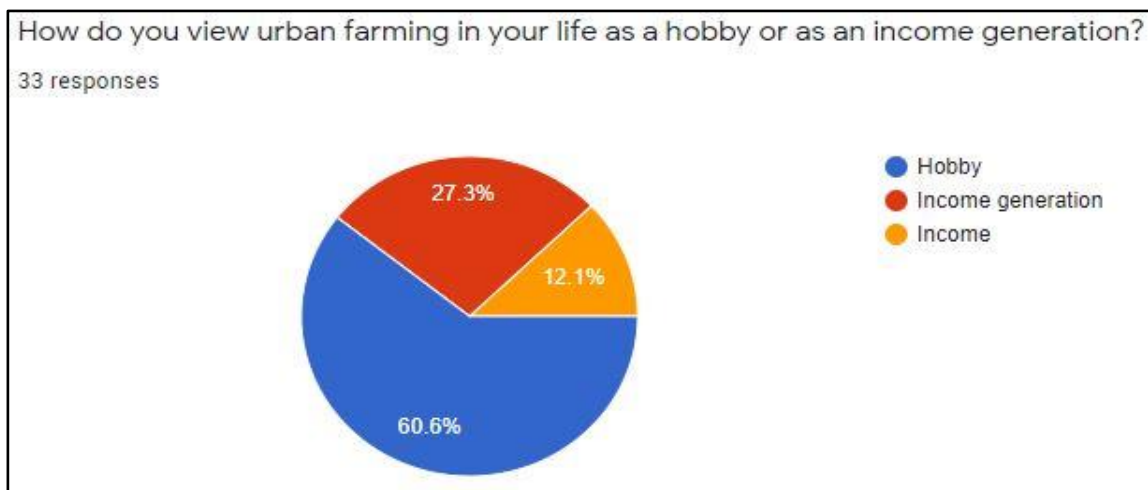
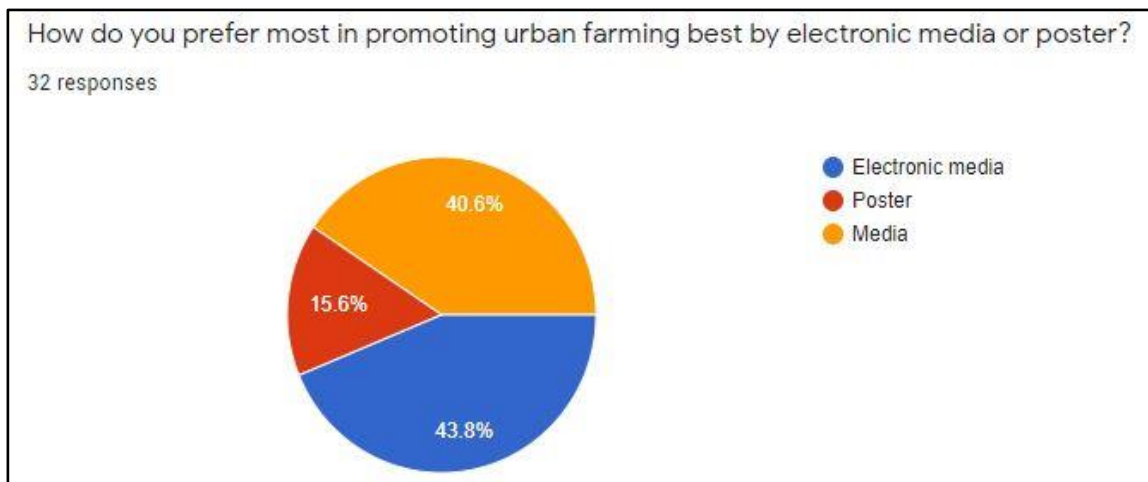
Customer segment for this project has been divided into 3 categories: buyer, seller and planter. We have created google form to take responses from the mentioned customer segments. This survey has set on the needs of the customers. At least 1 person from each segment of customer has been shown BMC and VPC to get a clear picture for the project. Some issues have been identified by them which have been included in the enhanced BMC and VPC.

Findings:

The survey is filled up by the customer segment of the project It was distributed through social media. Shockingly almost 70% respondent are not working or not employed due to covid-19 impact. Both male and female are eager to work in urban farming. Maximum responded preferred face to face training rather than online. Regardless of citizenship people wanted to do urban farming they have found it an excellent factor of extra income. The respondents believe the community can strengthen urban farming. The survey is made using a google form to analyse the responses we get.





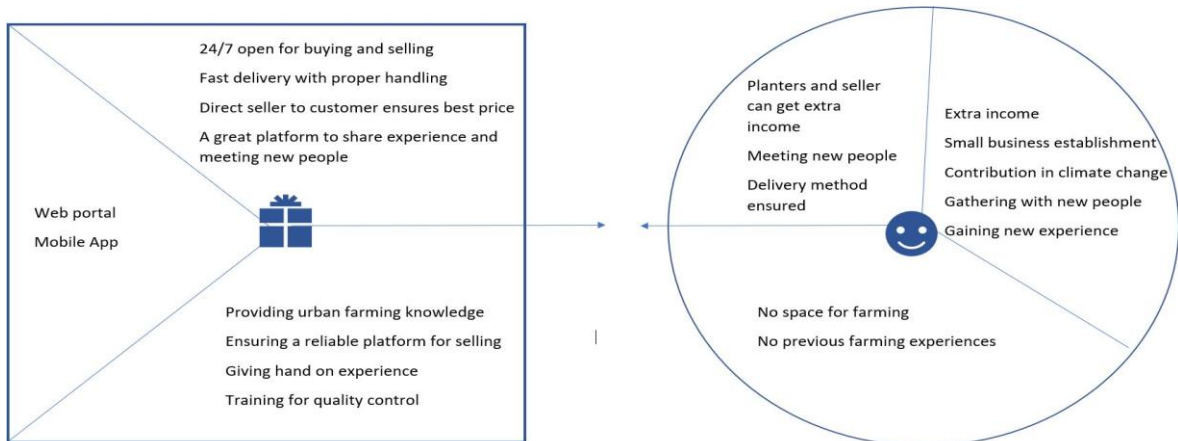


**Enhanced BMC**

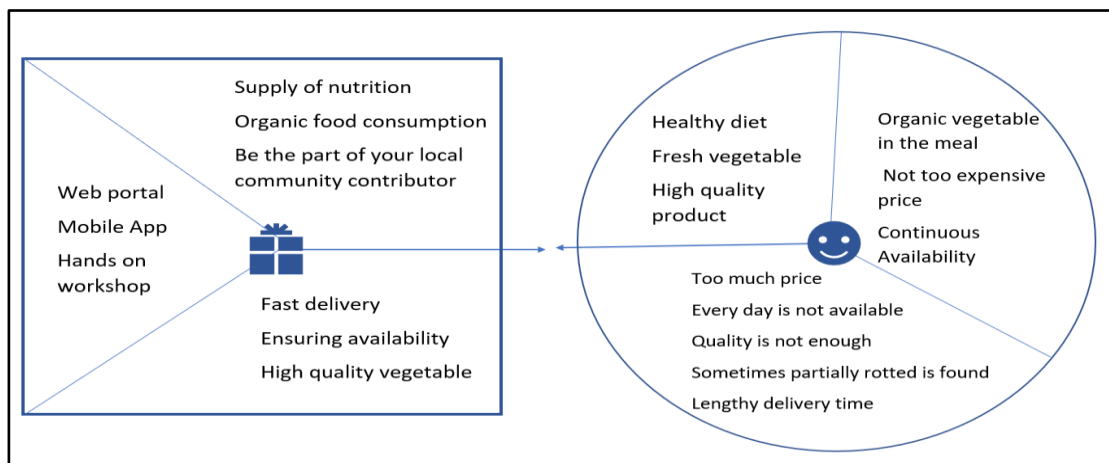
<b>Key Partner:</b> <ul style="list-style-type: none"> <li>• Delivery service</li> <li>• Government Agriculture department/ FAMA</li> <li>• Farm owners &amp; Farmers community</li> </ul>	<b>Key Activities:</b> <ul style="list-style-type: none"> <li>• Research &amp; innovative</li> <li>• Education</li> <li>• Coaching</li> <li>• Community engagement</li> <li>• Enhance Digital Platform</li> <li>• Manage Key Activities and Customer relation</li> </ul>	<b>Value Proposition</b> Buyers <ul style="list-style-type: none"> <li>• Reliable platform</li> <li>• Anytime service</li> <li>• Controlled quality &amp; best-priced vegetable and fruits</li> </ul> Sellers <ul style="list-style-type: none"> <li>• Extra income</li> <li>• Supervisors disposition</li> <li>• Anyone can sell vegetables and fruits</li> </ul> Planter: <ul style="list-style-type: none"> <li>• Meeting new and gaining new experience</li> <li>• Maximum utilization of their limited space</li> </ul>	<b>Customer Relationship:</b> <ul style="list-style-type: none"> <li>• Face to face program such as "The Tarik" &amp; coaching</li> <li>• Digital platform</li> </ul>	<b>Customer Segment:</b> Buyers <ul style="list-style-type: none"> <li>• University-of-the-Future (UoF) community</li> <li>• B40</li> <li>• Groceries</li> <li>• Restaurants</li> </ul> Sellers <ul style="list-style-type: none"> <li>• Vegetables and fruits producers</li> <li>• People who want to start fruits and vegetables business</li> </ul> Planter: <ul style="list-style-type: none"> <li>• People who is new to urban farming</li> <li>• People who have limited space like rooftop, balcony etc</li> </ul>
<b>Cost Structure:</b> <ul style="list-style-type: none"> <li>• Cost to cover Key Partner, Activities and Sources</li> <li>• Creating and maintaining app and web portal</li> <li>• Farming Materials such tools, seed, fertilizer, Space and water</li> </ul>		<b>Revenue Stream:</b> <ul style="list-style-type: none"> <li>• Donation</li> <li>• Sales of Project based vegetables and fruits</li> <li>• A very small amount from each selling transaction</li> </ul>		

**Figure: Enhanced business model canvas**

**Enhanced VPC**



**Figure: Seller & planter enhanced value proposition canvas**



**Figure: Buyer enhanced value proposition canvas**



### ***1.1 Value Proposition***

We are going to create a platform which will be reliable as both customer and seller will be verified. Chance of fraudulence is merged to zero. Controlled quality will ensure the quality of the agro products. Since it is an online platform, customers will be able to purchase 24/7. Our initiative will facilitate sellers and planters for extra income. We are creating an opportunity to meet new people and discover new experiences through shared knowledge.

### ***1.2 Customer Segments***

Our customers are divided into 3 segments which are Buyers, Sellers, and Planters. Our buyers will be UotF community, Malaysian citizens in the bottom 40% household income range, small and medium groceries, and Restaurants. Our sellers' segment will be existing vegetable and fruits producers and people who want to start fruits and vegetable businesses. Our last customer segment is planter. Who are new to urban farming and have limited space?

### ***1.3 Customer Relationship***

Our target is to maintain a sustainable relationship with the customers with various activities and campaigns. Such as "The Tarik". Workshops via Network-of-Mosques (Habiba et al., 2013; Abdul Rahman et al., 2014).

### ***1.4 Channel***

We will provide 24 hours service through digital platform (DP) initially by an app then will be extended with a web portal. We will be using a digital platform like Facebook WhatsApp so that planters, sellers, and buyers can be connected 24 hours. Also, direct contact between planter, seller and buyer Workshops via Network-of-Mosques (Habiba et al., 2013; Abdul Rahman et al., 2014) will make the platform more reliable.

### ***1.5 Key Activities***

To deliver the value propositions we hold to our customers we are going to conduct continuous research and innovative programs. Also, we will be educating and coaching both our seller and planters so that they will be able to handover the best agro products to the customers. Also enhancing the digital platform is our key activity. Each month we will be organizing a hands-on community gathering in nearby kampung and cities.

### ***1.6 Key Resources***

Our vital resources will include University-of-the-Future (UotF) staff, UotF eco club, UotF go green and digital platforms including Facebook, telegram, WhatsApp etc.

### ***1.7 Key Partners***

Our external partners who will be collaborating with us to execute the values that our company holds will be delivery service Lala move, PosLaju and Ninja Van. Another key partner will be the agriculture department/FAMA where they will provide various training including farming quality control, organic farming training to the planters and sellers. Also farm owners and the farmers community will help and guide new planters in urban farming.

### ***1.8 Cost Structure***

Covering Key partners, activities and resources are our major cost. Another cost is creating and maintaining our urban farming app and web portal.

### ***1.9 Revenue Streams***

Our revenue will be coming from donation, project-based sales of vegetables, fruits, and a small percentage from each selling transaction through the app and web portal.

## **VII. CONCLUSION AND FUTURE WORK**

In conclusion, the Urban farming project is relevant to be commenced intended for university future in conjunction with digital usage and green implementation. The benefits improve not only limited new generation from student and societies lifestyle instead set off more economic gains and reduce unexploited areas. Awareness among citizens is broadened to move further involve making discovery just how much advantage they can gain from participating in this program. Making the project achievable, the Project Management Plan (PMP) will be drafted and conducted for the realisation of Urban Farming Programme and Digital Entrepreneurship.

## REFERENCES

- [1] Marc Hernandez,Rosemary( 25 January 2018). Growing Greener Cities: Urban Agriculture and the Impact on SDG. 11 .From <https://sdg.iisd.org/commentary/generation-2030/growing-greener-cities-urban-agriculture-and-the-impact-on-sdg-11/>
- [2] Brad Plumer(Oct 12, 2016). The real value of urban farming. (Hint: It's not always the food.). From <https://www.vox.com/2016/5/15/11660304/urban-farming-benefits>
- [3] Andrea Oyuela(January 2, 2020). How 16 initiatives are changing urban agriculture through tech and innovation. From<https://www.greenbiz.com/article/how-16-initiatives-are-changing-urban-agriculture-through-tech-and-innovation>
- [4] thestar(Apr 9, 2020)MCO boosts demand for seeds, gardening tools.From <https://www.thestar.com.my/news/nation/2020/04/09/mco-boosts-demand-for-seeds-gardening-tools>
- [5] New Straits Times(March 26, 2020)10 ways Malaysians spend their time under the MCO. From <https://www.nst.com.my/news/nation/2020/03/578321/10-ways-malaysians-spend-their-time-under-mco>
- [6] Teena Maddox(December 12, 2018). Agriculture 4.0: How digital farming is revolutionizing the future of food. From<https://www.techrepublic.com/article/agriculture-4-0-how-digital-farming-is-revolutionizing-the-future-of-food/>
- [7] Habiba Hamid, Nur Dini Khairuddin, Yousra Al-amodi, Y., Abdul Rahman Ahmad Dahlan, Osman, Rahmah Ahmad H. Osman (2013). MyMosqueNet2Cloud Collaborative System: A network of mosques towards eradicating poverty in Malaysia, American Academic & Scholarly Research Journal, Vol. 5, No. 5, pp.169-179.
- [8] Abdul Rahman Ahmad Dahlan, Jamaludin Ibrahim, Noor Sakinah Zakaria, Aniza Ishak, Iryani Rahim, Nur Nazihah & Abd Malek, NurAzrin (2014). “eSoulKitchen Program - Enhancing Societal Wellbeing and Wealth Creation for Orang Asli Community at PosSelim, Perak”, 5th International Conference on Information & Communication Technology for the Muslim World (ICT4M), 17-19 November 2014
- [9] Nur Huzeima Mohd Hussain (2012).Malaysia, Urbanization and De-industrialization: Does Malaysia have the Land Capacity for De-urbanization? From [https://www.researchgate.net/publication/311985134\\_Malaysia\\_Urbanization\\_and\\_De-industrialization\\_Does\\_Malaysia\\_have\\_the\\_Land\\_Capacity\\_for\\_De-urbanization](https://www.researchgate.net/publication/311985134_Malaysia_Urbanization_and_De-industrialization_Does_Malaysia_have_the_Land_Capacity_for_De-urbanization)
- [10] Zakri Abdul Hamid (2020).Sustainable development: Malaysia must put words into practice.Ffrom <https://www.nst.com.my/opinion/columnists/2020/07/606452/sustainable-development-malaysia-must-put-words-practice>
- [11] Datuk Seri Mustapa Mohamed(2020). An opportunity to prepare Malaysians for jobs of the future. From <https://www.nst.com.my/opinion/columnists/2020/06/601374/opportunity-prepare-malaysians-jobs-future>
- [12] Izwan Ismail (2018). Equipping entrepreneurs with digital skills. From <https://www.nst.com.my/lifestyle/bots/2018/10/424251/equipping-entrepreneurs-digital-skills>