NEWSLETTER

Brief Background on Speaker

Dr. Seah Choon Sen is an Assistant Professor at Universiti Tunku Abdul Rahman (UTAR) and obtained his Doctorate in Information Technology from Universiti Tun Hussein Onn Malaysia (UTHM). Formerly running his own tech company, he specializes in Data Science, Digital Entrepreneurship, Financial Technology, Precision Farming, and Information Systems. Other than that, Dr. Seah Choon Sen has successfully secured approximately RM550 thousand in research grants and projects as a principal investigator.

The technologies and issues discussed in the talk.

Problem statement : During MCO, the shortage of fresh vegetables further exacerbates the situation during the MCO. In supermarkets, there are long queues and limited choices due to social distancing. The exemption of wholesale markets from Enhanced Movement Control Order (EMCO) results in poor-quality vegetable options. Traders struggle without enough help to carry heavy crates, especially as they rely on migrant workers. Interstate logistic issues make it difficult for retailers to get the fresh produce. Even if MCO lifted, citizens need to adapt to a new normal, practice self-control and avoid crowding.

Proposed Solution : Due to the poor quality of food, especially raw and healthy foods such as vegetables and fruits, we have designed this solution for our customers by building an online system called fresh-ecommerce. With this system, customers can purchase food items that are directly distributed from farmers and incorporate specially designed technology to refresh the vegetables, thereby preventing harmful bacteria for the customers.

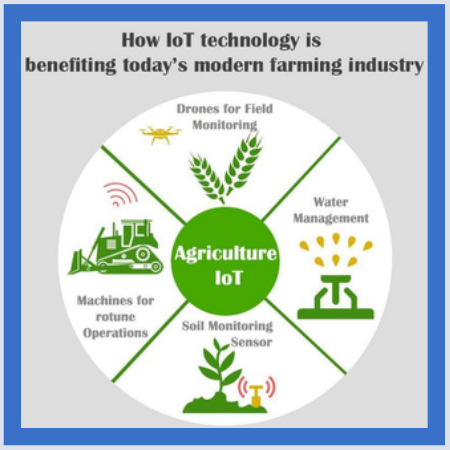
Business Model: i-farm is formed with a dual-sided business model. Firstly, i-farm establishes a dedicated team to examine which system can monitor plant growth with high quality, utilizing the i-farm system and IoT to assess the development of plant quality, particularly in local residents. With the technological design developed by i-farm, plants tested by the system can be sold to customers. Farmers will adhere to this system to sell vegetable ingredients. With this e-commerce system, plants can be distributed through logistics, supplied to local retainers, and delivered to customers.

Social Impact : With the existence of this system, it can have an impact on the environment, economy, and society. In terms of the environment, this system can reduce energy consumption over the long term. Plants can be developed to withstand adverse weather conditions. The community is significantly affected by this system in creating a balance in the food chain supply, reducing food waste, ensuring food quality, and achieving high labeled security. High economic activity, designing consumption and production structures, and resilience to infrastructure can propel the economy to its peak.

Value Proposition : i-Farm offers a unique and convenient shopping experience for fresh vegetables. The ordering and selling process is hassle-free, requiring just a few clicks on the platform. Real-time information is provided through IoT solutions and Alibaba Cloud services, ensuring transparency. It also provide a wide variety of fresh vegetables within a broad coverage area."

Market Segmentation, Validation : I-Farm produces a limited amount of fresh vegetables thus is priced higher but has more quality. Therefore, in order to have a sustainable business, they have studied the target customers of this product. Potential customers are determined based on stable income, willingness to spend on quality products, lives in an urban area, enjoys cooking and prefers a healthy lifestyle. In a survey they have done, out of 290 respondents, 190 people are living in residential area where 160 of them are interested to buy vegetables from their neighbourhood micro-farm.

Cost Structure : The total costs running I-Farm is around RM 638,500 on their first year which includes farming materials, operation, administration, marketing and R&D. Each month, the total expenses is RM 14,144, while the income is as stated earlier, which is RM 122,988. When calculating the return of investment, ROI, I-Farm boasts a 17.05%, which is quite high in the agriculture industry.



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Go-to Market Strategy: I-Farm has developed a market strategy, where they assigned residents in residential area or condominiums as first tier customers and implement same day delivery. They also conducted big data analysis to study customer's preference.

Competitor Analysis : The competitor analysis for I-Farm involves examining other companies doing similar things to help I-Farm understand its strengths and areas for improvement. By comparing itself with competitors, I-Farm can identify what makes it unique and discover opportunities to stand out. According to the analysis, it is evident that the prices per kilogram (KG) of coriander and pea sprout offered by I-Farm are the most competitive among all. Additionally, in comparison with other companies, I-Farm provides a 24-hour self-collection service whereas other companies only offer this service during their operating hours.

Revenue Stream : The suggested structure of micro-farms included in I-Farm included 72 racks with 6 layers which they claim allows as much as 23,328 vegetables to be planted. Since each plant is around 0.1 kg, the production of each plant each month goes up to 2333 kg. When factoring in 5% losses dues to uncontrol reasons, the final production is around 2216 kg. If the vegetables, let's say Coriander and Pea Sprout are planted equally on those racks, the total income would be up to RM122,988 a month.

Reflections from the talk

Ivor Barrie Jaffery

After hearing about the innovation behind I-Farm, I understand that providing quality products goes a long way, where there are a lot of people are willing to spend on them no matter the price. Such innovation not only helps to support micro-farms in residential area, but also encourage a more healthy lifestyle among people.

Tegar Insan Tohaga

Farming industry is the most needs for everyone supply , but several of industry neglect all of the several healthy protocol . This is great community to support wasting foods and make the environment cleaner and healthier, otherwise it would create negative impact for us and make us harm for quality of plant.

Liow Jia Feng

Through this industrial talk, I understand the Tech-driven innovation has profoundly impacted human life by efficiency improvements and transformative advancements in various sector especially in agricultural sectors. Overall, the innovation can making a positive impact on the quality of human life.

Koo Xuan

From this innovation talk, I realize how important technology is. It makes things easy for us and ensure the quality, quantity and security of our life. It's not just about cool gadgets; it's a big part of our everyday life, making things better and ensuring our security.

Muhamad Danish Aiman Bin Muhamad Irwan

Based on the industrial talk, I have learned the importance of thinking of a solution to a problem by making use of the current technology to help improve the solution that has been made. At the same time, make sure the solution does not cause any harm to others or the environment.

SUMMARY

To conclude, the industrial talk contains a proposed solution that can act as an alternative way to approach a problem. In this case, Ifarm is the solution embedded with technology such as the Internet of Things (IoT) that can solve the problem of limited vegetable resources during the COVID-19 pandemic. This solution also considers aspects of the Sustainable Development Goals of the United Nations Development Programme while maintaining the quality of the product. Finally, this solution can also generate profit through a well-planned marketing strategy that has been developed by the tech company itself.

REFERENCES

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