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UNLEASHING THE POWER OF EMERGING TECHNOLOGIES FOR BUSINESS GROWTH IN URBAN FARMING SOLUTION

SUMMARY

Dr. Seah Choon Sen, an Assistant Professor at UTAR, noticed a problem during the Covid-19 pandemic – a shortage of fresh vegetables due to movement restrictions.

This led him to create I-Farm, a solution involving vertical farming racks in residential areas, using IoT technology and data analytics. I-Farm allows residents to grow and monitor their vegetables, addressing the challenges of buying groceries locally.

I-Farm's model includes online platforms for user control and options to buy ready-to-harvest vegetables or grow them personally. It promotes environmental sustainability, reduces the carbon footprint, and ensures fresh, pesticide-free vegetables for communities. Economically, I-Farm encourages sustainable consumption, repurposes empty spaces, and boosts agricultural productivity.

Targeting customers aged 25 and above in urban areas, I-Farm competes with companies like AEON and Jaya Grocer, offering lower prices, convenience, sustainability, variety, and digital solutions.

Currently operating in Kulim, Kedah, I-Farm's future vision includes collaborating with local farmers and expanding to other regions. The business has a promising performance, generating revenue from coriander and pea sprout sales. The plan is to expand to five countries, accumulate millions of users, and become a leading food supply solution in Asia.

TECHNOLOGIES

Internet of Things (IoT) :
Dr. Seah emphasizes the integration of data analytics with the IoT. The proposed solution involves having IoT devices and sensors to monitor the growing process of crops. This technology helps in identifying suitable environmental variables for specific vegetable species, thereby improving efficiency and profitability.

Climate-Controlled Environment:
While not explicitly mentioned as a technology, the concept of a fully enclosed and climate-controlled environment for I-Farm suggests the use of technology to regulate temperature, humidity, and other environmental factors within the vertical farming racks.

Cloud Computing (Alibaba Cloud):
The use of Alibaba Cloud is mentioned, indicating that cloud computing services are utilized for running machine learning and storing data. Cloud computing provides the flexibility and scalability required for handling large amounts of data generated by IoT devices.

BUSINESS MODEL

I-Farm uses smart technology like IoT to grow veggies in each neighborhood. It makes growing faster and more profitable. People pick the veggies they want to grow and watch them grow on an online platform. You can either buy ready-to-harvest veggies or plant your own. If there's no I-Farm nearby, you're directed to the closest one. They focus on short-distance delivery and, if there's too many veggies, they sell to local shops. It's about tech, choice, and local farming for everyone.

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NGU YU LING

Through this inspiring talk, I'm able to visualize the real-life application of the knowledges in technological and agricultural fields which serve as a problem solver not just for the everyday life of an individual but for the world citizens as a whole. Dr. Seah and his partners have shown incredible passion in developing and continually improving the system of I-Farm through the integration of IoT and research. At the same time, the technopreneurship of I-Farm has also play a crucial role in sustaining the survival of I-Farm in the cruel business environment.

Upon delving into Dr. Seah Choon Sen's innovative talk about I-Farm, i find myself inspired by the intersection of techonology, sustainability, and community empowerment. I was particularly intrigued by the inlcusion of a climate-controlled environment within the I-Farm model. Though not explicitly labeled as a technology, the idea of utilizing a fully enclosed system suggests a sophisticated approach to optimizing crop growth. The incorporation of cloud computing, specifically Alibaba Cloud, further underscores the technological backbone of I-Farm, providing scalability and efficiency in managing the vast amount of data generated by IoT devices. In essence, I-Farm is more than just a response to a crisis; it's a blueprint for a future where technology, choice, and local farming converge to create a sustainable and resilient food ecosystem. Dr. Seah Choon Sen's vision exemplifies the kind of innovative thinking that our world needs, especially in the face of complex challenges.

RYAN SEGAL

ADLINA NARISYA

Dr. Seah Choon Sen's I-Farm innovation is a game-changer, especially during Covid-19 pandemic. By combining technology like IoT with precision farming, I-Farm offers a practical solution to the shortage of fresh vegetables. What's cool is that it's not just about getting veggies – it's about making the whole process transparent and environmentally friendly. People also get fresh and pesticide-free produce right at their doorstep, and the community becomes more self-sufficient. Thus, I-Farm goes beyond solving the immediate problem of vegetable shortages. It's about creating a sustainable, transparent, and efficient way of growing and distributing food, making life better for everyone involved.

I can see that Dr. Seah Choon Sen's I-Farm initiative serves as an inspiring case study in innovation, blending technology with a profound sense of social responsibility. The journey from identifying a critical problem such as the shortage of fresh vegetables during the pandemic can be solve by proposing a comprehensive solution showcases the power of creative thinking. I can draw insights from the strategic elements, such as market segmentation, IoT integration, and collaboration with local farmers, as we reflect on the project's holistic approach. Dr. Seah's venture not only addresses a pressing issue but also offers valuable lessons in sustainable business models and the potential positive impact of technology on societal challenges.

AINA SYAFINA

KAREN YAM

Getting insights from Dr. Seah was eye-opening. His journey from a tech entrepreneur to an Assistant Professor highlighted the practical side of technology. Dr. Seah's interest in areas like Data Science and Precision Farming stressed how technology can make a real impact. Seeing his achievements, from research grants to helping startups, showed the importance of a well-rounded approach to tech that benefits both academics and real-life solutions.

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