



Ushering in the Age of Endemic

**THE 11TH INTERNATIONAL INNOVATION,
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EXTENDED ABSTRACTS BOOK



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BENTOWARE

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ABSTRACT

The paper introduces BentoWare; an electronic lunch box developed by a team of young entrepreneurs aiming to promote healthy eating habits and reduce food waste. The objective of BentoWare is to create an eco-friendly container that keeps food fresh, helps individuals maintain their daily nutrition, facilitates easier food transportation, and contributes to environmental sustainability. The findings of the research revolve around four perspectives: attractiveness, durability, benefits, and timeliness.

Keywords: BentoWare, lunch box, eco-friendly

1. INTRODUCTION

BentoWare is an electronic lunch box driven by our young generation team of freshers with a passion for business. The objective of this idea is for people to have healthy eating, not only for the elderly but also for the younger generation. Therefore, our idea is to create an eco-friendly container to store food, keep food fresh and warm, help people in maintaining their daily nutrition, let them transport food in an easier way, and reduce food wastage. In short, it can protect the environment and help people to save money, time, space, energy, and food.

2. FINDINGS

BentoWare was created from four perspectives which are attractive, durable, beneficial, and timely.

2.1 Attractive

Firstly, the World Health Organization has stated that the Corona virus outbreak is a Public Health Emergency of International Concern; the outbreak has led to lockdowns in several parts of the world and sudden changes in people's lifestyles. The survey reported changes in people eating habits during the global pandemic. This survey said that 33.5 percents of participants suffered a 5-20 percents impact, while 26.1 percents of participants suffered a 20-50 percents impact. In order to ensure good nutritional status during the lockdown, it seems necessary to examine individual eating habits and recommend corrective diets (Luana, 2021).

2.2 Durable

Secondly, the government establishes a long-term strategy called Agenda Nasional Malaysia Sihat (ANMS) to lead the nation away from the COVID-19 epidemic and promote healthy living as a norm. ANMS would be implemented for 10 years starting in 2021, based on four thrusts, increasing the promotion of healthy living, empowering personal health, promoting environmental cleanliness, and expanding health services (Nuradzinmah, 2021).

2.3 Beneficial

Thirdly, Malaysia is reported to have more than 30000 metric tonnes of plastic waste dumped into the sea yearly (Bernama, 2022). Therefore, our team aims to produce environmentally friendly products as well as working hard for the Roadmap Towards Zero Single-use Plastics 2018-2030 introduced by the Malaysian government. Meanwhile, our idea always focuses on creating value and positive impact on the environment and humans.

2.4 Timely

Lastly, World Population Review 2019 said that Malaysia had the highest obesity rate among Southeast Asian adults (15.6%), followed by Brunei (14.1%), Thailand (10.0%) and Indonesia (6.9%) (NHS, 2020). Our team will promote multifunctional lunch boxes to obtain calories and various kinds of data on their food.

3. METHODOLOGY

Our team uses two methods to discover the idea of BentoWare which were finding gaps in the marketplace and observing trends internationally.

3.1 Finding Gaps in the Marketplace

As we know, most of the older generation are not tech savvy. Based on statistics, in 2021 only approximately 5.5 percents of people aged 65 or older represented all internet users worldwide (Statista Research Department, 2022). Therefore, we will introduce an easy mode specifically designed for the older generation, featuring a simplified operating system with additional language choices, a larger font size for screen display, and a longer touch-and-hold delay to prevent accidental actions. It is hoped to encourage and help the older generation to use a lunch box which is equipped with new digital technology without leaving them behind.

3.2 Observing Trends

According to the International Food Information Council's Food and Health Survey findings echo Stripf's COVID era analysis and prediction; people started to eat healthier. 54 percents of all consumers and 63 percents of those 50 years old and above care more about the healthfulness of their food and beverage choices in 2020 than they did in 2010. Therefore, our product can

help consumers detect any nutritional deficiencies or excesses, aiding in maintaining their overall health (Murugesan, 2021).

Besides, an increasing number of people are showing interest in green products. Through surveys, more than 59 percents of shoppers are making it a priority to live a more environmentally conscious lifestyle. According to the Retail Industry Leaders Association, 93 percents of global consumers expect the brands they use to support local social and environmental issues. Consumers are willing to pay more for sustainable products.

4. CONCLUSION

According to the statistics in 2019, diabetes mellitus and hypertension ranked among the top five causes of death in Malaysia, with 1997 and 2393 reported cases, respectively. Based on the numbers, we may conclude that individuals should begin to be concerned about health issues. Therefore, this can be an opportunity for our team to promote the product, BentoWare. Our idea is focusing on people's health and eco-friendly products, for example, products focusing on calorie counts to ensure people maintain a balanced diet.

REFERENCES

- Bernama (2022). Tough for Malaysia to meet zero single-use plastic target by 2030. *News Straits Times*. <https://www.nst.com.my/news/nation/2022/05/794093/tough-malaysia-meet-zero-single-use-plastic-target-2030>
- Luana, I. (2021). An Italian survey on dietary habits and changes during the COVID-19 lockdown. <https://www.mdpi.com/2072-6643/13/4/1197/htm>
- Murugesan, M. (2021). Start the new year on a healthy note. *News Straits Times*. <https://www.nst.com.my/lifestyle/health/2021/12/757096/start-new-year-healthy-note>
- NHS. (2020). What should my daily intake of calories be? <https://www.nhs.uk/common-health-questions/food-and-diet/what-should-my-daily-intake-of-calories>.
- Nuradzinmah, D. (2021). 10-year wellness plan to guide Malaysia towards healthy living. *News Straits Times*. <https://www.nst.com.my/news/government-public-policy/2021/11/744442/10-year-wellness-plan-guide-malaysia-towards-healthy>
- Statista Research Department (2022). Distribution of internet users worldwide as of 2021, by age group. <https://www.statista.com/statistics/272365/age-distribution-of-internet-users-worldwide/>

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