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International Teaching Aid
Competition 2023

Reconnoitering Innovative Ideas in Postnormal Times

iTAC

2023

iTAC 2023
INTERNATIONAL TEACHING AID COMPETITION
E-PROCEEDINGS

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PREFACE

iTAC or International Teaching Aid Competition 2023 was a venue for academicians, researchers, industries, junior and young inventors to showcase their innovative ideas not only in the teaching and learning sphere but also in other numerous disciplines of study. This competition was organised by the Special Interest Group, Public Interest Centre of Excellence (SIG PICE) UiTM Kedah Branch, Malaysia. Its main aim was to promote the production of innovative ideas among academicians, students and also the public at large.

In accordance with the theme "Reconnoitering Innovative Ideas in Post-normal Times", the development of novel ideas from the perspectives of interdisciplinary innovations is more compelling today, especially in the post-covid 19 times. Post-pandemic initiatives are the most relevant in the current world to adapt to new ways of doing things and all these surely require networking and collaboration. Rising to the occasion, iTAC 2023 has managed to attract more than 267 participations for all categories. The staggering number of submissions has proven the relevance of this competition to the academic world and beyond in urging the culture of innovating ideas.

iTAC 2023 committee would like to thank all creative participants for showcasing their innovative ideas with us. As expected in any competition, there will be those who win and those who lose. Congratulations to all the award recipients (Diamond, Gold, Silver and Bronze) for their winning entries. Those who did not make the cut this year can always improve and join us again later.

It is hoped that iTAC 2023 has been a worthy platform for all participating innovators who have shown ingenious efforts in their products and ideas. This compilation of extended abstracts published as iTAC 2023 E-Proceedings contains insights into what current researchers, both experienced and novice, find important and relevant in the post-normal times.

Best regards,

iTAC 2023 Committee
Special Interest Group, Public Interest Centre of Excellence (SIG PICE)
UiTM Kedah Branch
Malaysia

INNOVATION OF SLEEVE PACKAGING WITH HOLDER USING THE IMPLEMENTATION OF AUGMENTED REALITY TECHNOLOGY AND BRAILE SYSTEM

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ABSTRACT

Pulut Kuning was founded by Puan Zarina Zainuddin Dan Dato' Sri Abu Raihan. Starting of pulut kuning business in 2015 from a small kitchen to a Central Kitchen. Its successful break into Singapore and Brunei markets then make distribution to Petronas petrol stations across Selangor and Federal Territory. Pulut Kuning Zarina Zainuddin actual sleeve packaging has a

few problem which is the product safety that required to be improve with a best way and method needed to produce a protection to this sleeve packaging. The problem statement is focusing on customer satisfaction which is there was a complaining because the packaging does not have holder because hard to hold also no protection on the product. The objective is to ease the customer to carry this product after purchased it from Mesra Petronas because there are no plastic bag provided. Pulut Kuning Zarina Zainuddin actual sleeve packaging doesn't have a holder so the creative ideation of making a holder make it easier to hold so the product are able to grow out with the new invention with holder. Thus, the researcher also came out with the advanced technology innovation added which is Augmented Reality (AR). Not only that, the braille system also was introduced to the packaging which is to help blind or who have low vision to identify the product name on the packaging. This also can teach people to learn about Braille and further increase the widespread use of Braille system.

Keywords: packaging, augmented reality, braille

INTRODUCTION

Packaging sleeves with holder or belly band packaging refer to a piece of paper that wraps around an object with holder that helps you brand it without necessarily putting your product in a custom printed box. A packaging sleeve with holder is like a box without ends or closing tucks, similar to a cylinder. Pulut Kuning was founded by Puan Zarina Zainuddin Dan Dato' Sri Abu Raihan. The starting of Pulut Kuning business was in 2015. In 2018, Pulut Kuning business from a small kitchen to a central kitchen. Then, successful break into Singapore and Brunei markets on year 2017. In 2019, came out the distribution selling into Petronas petrol stations across Selangor and Federal Territory. Customer also can walk in at the HQ Pulut Kuning Zarina Zainuddin located at Addura Marketing (M) Sdn Bhd) at 43, Jalan Bulan U5/167, Bandar Pinggiran Subang. This Pulut Kuning have a variety of Rendang flavor which is rendang ayam, rendang daging, rendang kerang and rendang bilis petai. This new sleeve packaging with holder also can be customized just like any other box and there's also part for branding elements, product & nutritional information, and added a new design to make it look special.

INNOVATION DEVELOPMENT

The ideation of creating this sleeve packaging with holder has been search on the website where there are so many type of sleeve packaging with holder. Not only that, research from another companies also has been done to make as examples and references as improvements to this sleeve packaging. The technical process needed to make sure the quality control is being kept an eye on such as the material selection, preflight, output of plate before printing process. Thus, the specific requirement of printing processes needs to be considered to ensure printing efficiency and minimized wastage. The use of this packaging material suitable for the product

on this sleeve packaging with holder which is 270gsm Art Card material paper. This packaging is printed on one side print using one die cut block only. Based on the actual packaging product, they only use normal sleeve packaging and do not have any plastic bag if customer buy it from Mesra Petronas. To improving this packaging to be more better can actually give variety and uniqueness to the innovation of packaging. To create the innovation, researcher need to think outside box to find solutions that met or exceeded needs through innovation in materials, graphics, structure, new uses, extended shelf-life and sustainability. The innovative of the packaging also need to allows the consumer to be able bring the product after purchased it.

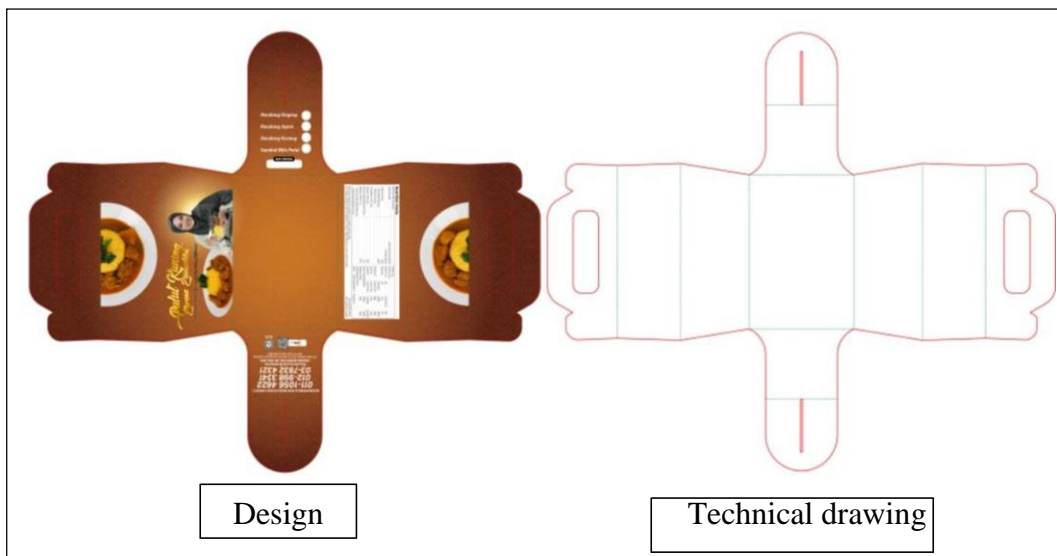


Figure 1. Sleeve Packaging with Holder technical drawing

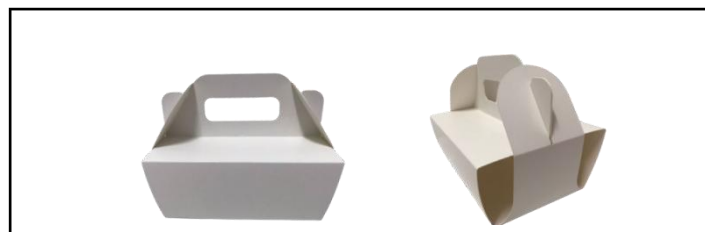


Figure 2. Sleeve packaging with holder innovation mockup

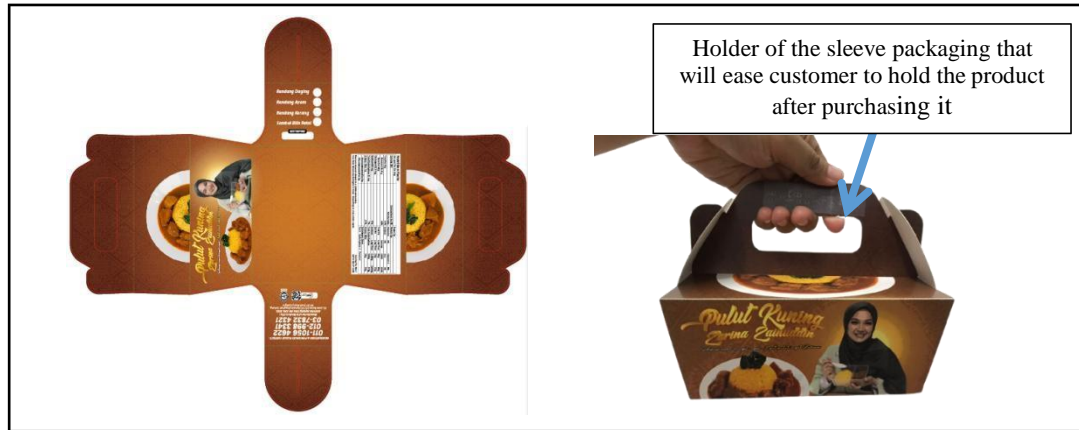


Figure 3. Sleeve packaging with holder innovation

Hence, the application of augmented reality technology provides an opportunity for any packaging design innovation to provides ideas that can enhance the experience of packaging design, and adds interaction between packaging design and users as well, thus making the product more interesting. So, in this sleeve packaging with holder, researcher introduced Augmented Reality (AR), a technique that shows video on image for customers can scan with interesting experience with 3D objects.

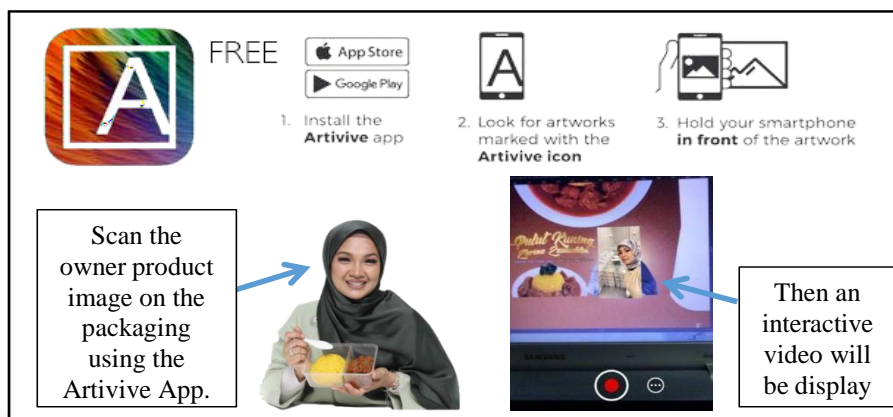


Figure 4. Creation innovation of Augmented Reality Technology (AR)

Not only that, researcher also introduced Braille system at the packaging holder using transparent sticker. The useful of the Braille system is to help blind people to identify the product name on the packaging. This also can teach people to learn about Braille and further increase the widespread use of Braille system.

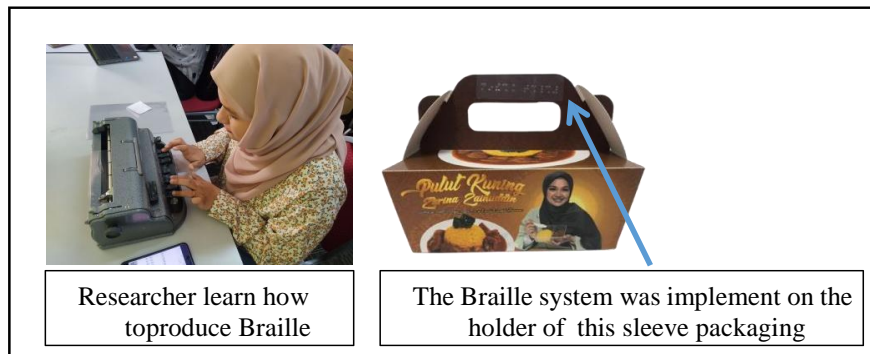


Figure 5. The innovation with Braille system

COMMERCIAL POTENTIAL

The commercialization potential of this sleeve packaging with holder is it could help protect the product. The packaging created using good and strong material which is Art Card 270gsm material paper suitable with net weight 400g. So the packaging is a presentation or enclosing of material used in protecting products for distribution and storage. The design on packaging is important to brand itself. Also the new innovative concept of sleeve packaging combined with a holder can attract customers through the creation of different and unique packaging. It also ease customer to hold the product after purchased it. Thus, the researcher also came out with the latest technology innovation added which is Augmented Reality (AR). With the new technology served, customers can scan the image of product's owner on the packaging design to watch a video. Customer can downloaded the Artivive application, with any smartphone with a camera and internet capabilities it will allow user to access. Hence, researcher also added Braille system on this packaging holder. This easier those blind people to identify the product name on the packaging holder. This also can teach people to learn about Braille and further increase the widespread use of Braille system.

CONCLUSION

In conclusion, every packaging design is as important as the brand itself. The product packaging also plays a very important role in branding items in the retail environment. Hence, the new innovative concept of sleeve packaging design combined with holder can attract the customers through the creation of different and unique of the product packaging. Not only that,

the researcher came out with the latest technology innovation as value added to make a huge impact which is Augmented Reality (AR) and also Braille system.

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