



# V - MIEX BOOK 'ROAD TO COMMERCIALISATION'

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ASSOC. PROF TS. DR MOHD RASDI ZAINI Rector Universiti Teknologi MARA (UiTM) Cawangan Melaka

Welcome to Virtual-Melaka International Intellectual Exposition 2022 (V-MIIEX 2022). It is an honour for me on behalf of UiTM Melaka Branch to thank all of you for joining the programme and we are proud to inform you that this is the 12th year consecutively, UiTM Melaka Branch is organizing this exposition.

V-MIIEX 2022 is a platform to improve the commercialization collaboration among industries and communities and at the same time, we also give the opportunity to academicians and students to share ideas and increase their potential innovation products with the industries and communities through their projects. This exposition also serves as a platform to cultivate and upload the nation's innovation culture by presenting new ideas and research by young people, especially from academia, universities, college, high schools, and primary school students.

The economy and development of the country faced a challenging phase in 2021 due to the Covid-19 pandemic. We faced changes in business, education, society, and lifestyle. However, the pandemic proved to be a blessing in disguise as it somehow gave people ideas which would be beneficial to improve their lifestyle and solve problems that might occur in the future. Besides, the new digital landscape also inspires more innovation and new ideas that contribute to various activities such as business and industries. As a university that encourages the "Research, Innovation and Commercialization", this exhibition is organized to encourage more commercialization of products that are beneficial to scholars, industries, and communities to tackle such issues to improve our present and future life.

Since 2009, UiTM Melaka Branch has successfully become the organizer for this innovation exposition. We are not only successful in organizing the exposition, but I would proudly say that we have also successfully embarked on commercialized products. With the number of participants for this year's exhibition, we believe that more commercialized products will be produced in line with the theme for this year, "Road to Commercialisation".

This exposition would never happen without dedication, teamwork, and commitment. A round of applause should be given to the committee teams as the backbone of this exposition. Their hard work, effort, and time made this exposition possible.

Finally, I would like to conclude this brief remark by thanking all the participants and stakeholders for joining the exposition, we hope that this collaboration never ends here.

Thank you.

road to commercialisation ...





DR. NUR HAYATI BINTI ABD RAHMAN
Deputy Rector Research & Industrial Linkages
Universiti Teknologi MARA (UiTM) Cawangan Melaka

It is a great pleasure to welcome all the participants and presenters to the Virtual Melaka International Intellectual Exposition (VMIIEX 22). I am delighted that through this periodic event, we managed to bring together scholars and professionals from various fields to engage through this virtual platform where ideas and breakthrough are discovered and leveraged for commercialization potential.

Since 2009 UiTM Cawangan Melaka has held twelve Invention and Innovation Design competitions and this year we are very honoured to have the second year of VMIIEX organized in digital platform. This has proven that despite the global challenges due to the recent pandemic, it is never an issue for UiTM Melaka to continuously organize this yearly prestigious event and to support the ministry's aspiration in leveraging creativity and innovation in the new norm.

VMIIEX 22 is organized with no sole objectives of accomplishing the University's KPI but instead we are determined to make this programme as the place to help heighten commercialization collaboration in research and innovation with the industry and community through joint exhibitions from various external organizations.

Our aspiration is to also provide exposure and opportunities to academic staff as well as students from public and private universities to engage in direct excellent scholarly activities with the industry and community through activities that can be measured and assessed. As for the Research and Industrial Linkages Office of UiTM Melaka, this exhibition is seen as the platform that can encourage active collaboration and knowledge transfer with industries; objectively to support various activities that will benefit all stakeholders from the various government agencies, local and international universities, industries and communities.

Through the theme of "Road to Commercialization" this year, V-MIIEX 22 is committed to have this event as a boulevard to inspire and cultivate creativity and innovation to the numerous levels of inventors through exposure on latest technologies, astonishing ideas and creative designs with great potential to be commercialized. For this year, we proudly introduce a special category which is the "Endemic Challenge" as the provision to the government of Malaysia's goal of moving towards the endemic.

To ensure that the competing products in this exhibition is not exclusively for the purpose of competition, V-MIIEX 22 is dedicated for the commercialization of highly potential innovation products, which is attained through its active collaboration with tailored needs industries. The commercialization effort was not for income generation purpose only but it aimed to spearhead the development of quality products in line with industrial needs and community benefit.

Therefore, it is a great honour for me on behalf of the Research and Industrial Linkages Office as well as the organizing committee to have all participants in this competition and I would like to express my highest gratitude especially to the Rector of UiTM Melaka and all strategic partners and sponsors for supporting the event.

To finish, I sincerely wish VMIIEX 22 a remarkable success. I believe that this will not be the only collaboration between UiTM Melaka and the respective partners and linkages, but a beginning of a long and fruitful cooperation in future.

Thank you very much.

roal to commercialisation ....





WAN HASMAT WAN HASAN Project Director V-MIIEX 2022 Universiti Teknologi MARA (UiTM) Cawangan Melaka

Assalamualaikum and Warmest Greetings.

It gives me an enormous pleasure, on behalf of the organizing committee to welcome all participants and presenters to the Virtual -Melaka International Intellectual Exposition 2022 (VMIIEX '22) with the theme "Road to Commercialisation". We are honoured and glad to welcome all participants to this biennial event.

This is the second time that we have organized this biennial event virtually. V-MIIEX 22 is an innovation competition, in which, innovation products, ideas and systems related to various science and technological fields are exhibited as a solution for the presented problems.

V-MIIEX22 expectantly will be a platform that gathers experts from academies, scientists, and researchers, locally and internationally, to contribute towards the growth of scientific and technological knowledge in each participant's specialisation and expertise.

The competition also serves as a platform to give fresh exposure to the various level of inventors, as well as to encourage the culture of innovation design focused on latest technologies and related to new norms technologies and inventions due to COVID-19.

V-MIIEX 22 is also hoped to be an avenue for gathering and disseminating the latest knowledge on ideas and acquisition of innovation among the participants. It is hoped that the competition will be able to open the mind of the participants towards latest technologies and design. It is also in line with the government's aspiration to encourage innovation activities in Malaysia.

As a final note, I would like to congratulate my fellow committee members for their tremendous effort, which have been critical to the event's success. In addition, I would like to thank our co-organizer, event sponsors and supporters. Optimistically, we wish that all new knowledge that is discovered, invented, or innovated will drive towards our future sustainability.

Thank you.



The world after COVID-19 is unlikely to return to the world that was. Despite the challenging pace during the pandemic, the strong rebound is expecting in this exciting year 2022. Malaysia is welcoming the great prospects ahead with positive impact on the country's economy and development. Hence, the hope for greater opportunities motivates for more creative thinkers to come up with innovative ideas that can be put forward to be harnessed to overcome similar problems in the future. V-MIIEx 2022 is one of these platforms which contribute relevant ideas that could help communities of all walks of life cope with this pandemic.

UiTM has identified research, innovation, and commercialization to be among the core components and strategic effort towards becoming a well-known and prominent university. Aside from realizing this goal, with these components and efforts, fostering the development of knowledge, generating financial stability of the university, and producing knowledgeable academicians are also potentially achievable.

By having invention and innovation competition yearly, UiTM Cawangan Melaka is confident that it could further enhance creative and innovative abilities among staff and students. In support of the government notion which upholds the importance of innovation, UiTM Cawangan Melaka has taken the initiative of organising the Virtual Melaka International Intellectual Exposition (V-MIIEx).

In instigating and nurturing the continuous culture of inventing and innovating, this event is an ideal platform for lecturers, administrative staff, students, and the public to showcase and commercialize their products or prototypes as well as novel ideas. The first IID which was held nationally in UiTM Cawangan Melaka in 2009, has successfully gathered and displayed more than 37 inventions and innovations. Accordingly, to continue this strong passion towards inventing and innovating, the IID competition should be continued and celebrated.

With that, the Division of Research and Industrial Linkages will be organising its 12th IID competition, the Virtual - Melaka International Intellectual Exposition (V-MIIEx 2022) with the theme, 'Road To Commercialisation'. V-MIIEx 2022 hopes to welcome 200 competing products to be showcased and commercialized, at the same time, attract attention of related and matching industry.

#### **Objectives**

- 1. Encourage and instill passion towards inventing and innovating among UiTM Cawangan Melaka staff, students and academicians of local and international higher education institutions;
- 2. Highlight distinguished talents of skillful inventors and exhibit intellectual products, inventions and innovations among local and private tertiary institutions, government and private agencies, including international participants;
- 3. Become an effective Business Matching platform for participating research products, matching industries and partnering government agencies;
- 4. Recognise, inspire and promote invention and innovation products to be patented and commercialized;
- 5. Increase passion towards inventing and innovating through research and boost interests of government and non-government agencies to obtain consultancy services from a line up experts of higher education institutions and UiTM Cawangan Melaka.

# **Cushy Tote Bag**

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#### Abstract

Cushy tote bags are different types of bags that exist nowadays, the improvement and innovation not just based on daily problems, it's also referred to current trend market products' problems. There are a lot of current bag problems such as the design, material, colour and the convenience of the bag. This summary of the innovation has two objectives: to drastically prevent environmental pollution from plastics and build an environment free from waste. for example, the purchase of a regular bag day by day. Novelty that we produced in our product is the size zip that allows it to be enlarged and the QR code that we put on the bag's tag. With that innovation, our customers can use it to put so many items such as groceries, books etc, and if we lost their Cushy bag. People who found the bag can scan the QR. So that the location of the bag will pop up on the owner's bag notification on their mobile phone. This product will be the highest product that will be commercialised. It is because of the fashionable design, the modernise improvement just for a bag and the most important that every customer wants is about the quality of the bag.

Keywords: Tote bag, QR code, innovation.

#### 1. INTRODUCTION

The Tote Bags Market research report provides an in-depth study which is one of the most nitty-gritty and precise ones that exclusively centre around the worldwide market. It reveals insight into essential factors that affect the development of the worldwide market on a few fronts. It also includes attributes about the size of the global Tote Bags market in terms of revenue and production.

A tote bag is a fashion product, whose demand changes rapidly according to changing fashion trends and customer preferences. Tote bags are made of a variety of materials from fabric to leather to plastic to even paper. Packaging is an important aspect of the product and a tote bag is a kind of secondary packaging. It is a strapless bag that has a parallel handle for easy carrying. Thus, the increase in the packaging industry and the retail industry has had an impact related to the growth of the tote bag market. The reusability of tote bags and the convenience of consumers increase their prices.

#### 2. OBJECTIVE

The goals and objectives of Cushy are not only to sell tote bag to make money and make a

profit, they are to expand as a business whether that's to be a world wide business or just to open up a few more Cushy store around the country to provide a better and faster service for the customer, to beat competitors such as *Calvin Klein, Gucci, H&M, Uniqlo* etc.

Cushy attempts to provide an innovative product that customers will enjoy and return to buy the upcoming designs. In this context, providing quality material, building a hygienic environment, and a positive and dynamic customer experience is central to Cushy's objectives. In terms of their overall corporate strategy, Cushy wants to increase the profitability of its outlets to attract more investors and franchisees. The ultimate goal is to grow its business and withstand pressure from other designers' competitors, although these are goals set by most commercial entities. Cushy has a number of ambitious aims and objectives:

- To increase its percentage share of the quality bag market.
- To improve profit margins year-on-year to fund the growth of the company.
- To return profit on investments to owners and franchisees. The way that Cushy reaches these targets is decided by the company's internal strategy and objectives.

#### 3. NOVELTY & INVENTIVENESS

Our company tote bag is a bag that is fastened with a sturdy handle, it comes in a variety of designs and sizes. First of all, a tote bag can be used as a fashion accessory. The tote bag is stylish and also functional. Our tote bags are quality and look stylish and make great everyday handbags. Next, it has a size zip that allows it to be enlarged and reduced. The tote bag is large and roomy and can hold a lot of stuff. It can hold everything you need for a day at work or be scaled down for easy carrying anywhere. In addition, tote bags have a million uses. It can be used as a shopping bag, gym bag, work bag, beach bag, travel bag, laptop bag and has many more uses.

In addition, the tote bag is very durable and long lasting, if taken care of it will last for many years and can be reused over and over again. The tote bag is not designed for something specific so you can use it for whatever you choose.

#### 4. PRACTICALITY & USEFULLNESS

There are many businesses and stores that follow fashion trends. Tote bags, for example, are one of the most specialised businesses in line with fashion. However, we may be wondering about the target market of this tote bag product. This tote bag business was chosen as a trend because most consumers prefer specialised, personalised, and detail-oriented items.

All walks of life are one of the targets. These tote bags are known to have a huge variety of uses for especially fashion and everyday convenience. Our tote bags come in a variety of colours and designs. The market for tote bags is relatively on the rise when the world without plastic is introduced has reached the maximum level of promotion and advertising.

Chusy Tote Bags Enterprise's target markets are people who want a unique and multipurpose tote bag. For example one of our target markets is traveller, this is because Chusy Tote Bags Enterprise offers tote bags that can expand and reduce its size using zip on the side of the bags. Other than that, our target market is also to older people. Our tote bags are using material that can heal itself. We are using bipyrazole organic crystals, this material has the ability to fully or partially recover its original set of properties. Women from the age of 20-40 are one of the targets. Women are known to have a huge penchant for fashion and they think of everything as colour-coordinated. They can also use the tote bag as a bag of kitchen items. The tote bag is also easy to match with their wear when out. The market for tote bags is relatively growing as

the fashion world reaches its maximum level of promotion and advertising. Boe tote is also considered in the fashion world.

On the other hand, apart from reaching higher markets, we can also target small -scale ones. The public is also one of the target markets that can bring maximum profit to us. It's not just for the elite. People can buy tote bags if they want. Design should not be limited to those who have more life, as everyone has the same right to buy any goods or products they want. The masses can be a very large target market that can grow and grow as long as they are satisfied with the product. Our company also provides custom painting on the tote bags according to our customer taste. Hence, we will try to make our target market become much bigger and widespread to world-wide level.

# 5. CONCLUSION

Cushy focuses on producing tote bags that are both distinctive and modern. Customers are enticed to purchase one. This is one of the benefits of embracing this chance to build a tote bag in the market for our company (Cushy Enterprise). For the market competition, we provide the best price and sale for every celebration in Malaysia. Our tote bag is distinctive in that it includes an enlargement feature as well as a tracking function. Also, the material we select is environmentally friendly. This distinguishes our goods from our rivals. The material we supply for the product is of good quality and brand new, therefore the customer is pleased with it. We will be able to compare this new product to other items in Malaysia in terms of price, quality, and originality thanks to the marketing we created for it. We may deduce that we can make a lot of money based on the graph analysis in the financial plan. We aim to maintain positive cash flow based on our goals, which we can analyse and see in the financial plan that makes one of our goals a success. As a result, we expect that our product will capture Malaysians' attention, and that the tote bag, with its unusual and original idea, will be warmly welcomed and remembered. We think that in the future, our product will be the most popular tote bag in Malaysia and throughout the world.

## **REFERENCES**

Edelman Berland. Date: May 2014. "Reusable Bag Study" Home Questions Answered. Retrieved April 24, 2022, from https://www.slideshare.net/EdelmanBerland/reusable-bag-study-results

Edwards, Chris; Meyhoff Fry, Jonna. Date: February 2011. *Life cycle assessment of supermarket carrier bags*. from *UK Environment Agency*, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_d ata/file/291023/scho0711buan-e-e.pdf

Valentina Bisinella, Paola Federica Albizzati, Thomas Fruergaard Astrup, Anders Damgaard. Date: February 2018. *Life Cycle Assessment of carrier bags*. from https://www2.mst.dk/Udgiv/publications/2018/02/978-87-93614-73-4.pdf