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V-MIEX

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VIRTUAL-MELAKA INTERNATIONAL INTELLECTUAL EXPOSITION

ROAD TO COMMERCIALISATION

V-MIEX BOOK



V - MIIEX BOOK

'ROAD TO COMMERCIALISATION'

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FOREWORD

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



Welcome to Virtual-Melaka International Intellectual Exposition 2022 (V-MIIEEX 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-MIIEEX 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.



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.

road to commercialisation...

WAN HASMAT WAN HASAN
Project Director V-MIIEEX 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-MIIEEX 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-MIIEEX22 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-MIIEEX 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.

ABOUT V-MIIEEX

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-MIIEEx 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-MIIEEx).

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-MIIEEx 2022) with the theme, 'Road To Commercialisation'. V-MIIEEx 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.

SMART LUGGAGE

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ABSTRACT

This study aims to create market innovation in manufacturing in the travel industry. Specifically, it investigates these problem statements which are “Are they someone who travels mainly for business?”, “Do they like to take long-term sightseeing trips?” and “Do they prefer more nature-based adventures?”. Each of these options will weigh into what kind of suitcase would suit their needs and be the most convenient for them on their trip. This study tries to bring innovative ideas to the tourism sector, maintain customer satisfaction by guaranteeing that the products match customer needs and ensuring that the employees have all of the resources they need to be as productive as possible. In this study, we estimated that polycarbonate is the option material since it is high-quality material that is impact resistant, waterproofing, and scratch resistant. This smart luggage also features a modern dresser-style drawer, a hangar-friendly bar and the ability to charge a smartphone. This study will result in producing the most beneficial product that will satisfy all customers, especially those who enjoy travelling. In addition, smart luggage can specialise in travel-friendly or luggage friendly, which secures the items during travel, and is the most beneficial and useful to travellers. In conclusion, we hope that this study will develop into the most popular luggage in Malaysia and throughout the world, while also being unforgettable due to its unusual and original idea in the future.

Keywords: market innovation, travel industry, customer satisfaction, smart luggage.

1.0 INTRODUCTION

Smart Travel Enterprise is the name of our company. Our main business is specializing on selling and manufacturing suitcase with unique characteristics that distinguish it from the competition and make it more efficient for users. The signature product of our company is smart luggage. Our nature of business is a set up that focus on producing and commercializing suitcase. Our factory is located at Shah Alam whereas Kuala Lumpur is the location of the selling activities for our product. We utilize social media platforms like Facebook, Twitter, Instagram, and WhatsApp as marketplaces to boost our marketing initiatives.

The demand for suitcases as a storage option for personal things, particularly when travelling, is not new to Malaysian travellers. After two years of pandemic, Malaysia reopened its national borders on April 1, 2022, to allow quarantine-free travel and tourism. This will allow vaccinated travellers to travel around the world again. Every traveller wants to purchase bags that will give them convenience in all matters that is easy to carry or pull along and

also adequate storage and numerous capabilities for storing various items together. On top of that, it makes a most convenient travel option because they have to walk a lot and also carry the luggage with you. As a result, this explains why we decided to start a business.

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2.0 OBJECTIVE

There are three objectives. Firstly, we want to bring new innovation in the travel industry. Smart Travel want its product to be known and influenced by the public in travel industry. Secondly, keep our consumers satisfied by ensuring that our product meet their expectation. Even when busy running the business, we always allocate some time every month to discuss how to market our products to draw customer's attention and interest. Thirdly, provide our workers with all of the facilities they require to maintain as productive as possible.

3.0 NOVELTY & INVENTIVENESS

In the context of innovation, novelty is importantly related to the quality of concepts, products, features, and the inventiveness of the concept in a creative and forward-thinking manner. Hence, the main concept of this luggage with numerous improvements and features with a modern dresser-style drawer that simply slides out of the front of the luggage and a pull handle that functions as a hangar-friendly bar in which it can hang suits and coats to avoid wrinkled clothes. Other features of this luggage also provide better protection against strong impacts, waterproof, scratch-resistant, and the ability to charge a mobile device from the luggage's outside USB port is the most attractive of this smart luggage.

The brand name of our product is Smart Luggage. We used the material Polycarbonate where the durability and quality are the highest levels of strength of luggage materials. We sell our products at a price of RM1,450.00. The dimension of the luggage for height is 75, width is 55 and length is 30. The weight of this luggage is 11.19 IBS. In addition, customers also have 4 options to choose the different colours which are white, black, royal blue, and brown colour. Smart luggage is shaped like a rectangle with curved edges and we produce only one size of luggage bag that is large. Therefore, our luggage is an innovative suitcase that doubles as a portable closet and is incredibly easy to unpack and repack perfect for families, vacations, camping, road trip, and even home storage.

4.0 PRACTICALITY & USEFULNESS

The practicality & usefulness can be defined as the part of a situation that involves the sensible or usable part of product. Smart Travel focus on producing the smart luggage from our own design and creativity. We provide and produce the most useful product that can give satisfaction to every consumer especially, who loves travelling. It is important for our company to understand the expectation of the customers which will help our company to assess the kind of product or services liked by customers so that our company can release them to the market. Our product usefulness is we use a high-quality material which is polycarbonate. Polycarbonate is very strong, lightweight, resistant to extreme temperature, flexible and most durable. As a result, this material makes for a stringer suitcase or luggage. The frequent travellers are most suitable to use this type of material.

Next, one of the most useful and helpful to traveller is luggage can specialize in travel-friendly or luggage friendly which protects the items during travel. Our usefulness features product will ease the use of customers to pack and can simply hang clothes at a pull handle

after unpacking. Therefore, our product plays a crucial role in keeping our customers happy and satisfied. Moreover, we aim to attract customers of 20 – 55 years since our products are incredibly versatile and useful for traveller especially for adults and middle age who love to adventure. Thus, they will love carrying this luggage while traveling. We hope that our product will satisfy their want and ensure that our products are helpful and suitable for they love to travel in style in this modern world.

5.0 CONCLUSION

In conclusion, we decided that starting our own firm would be the best choice for us after researching business prospects and environment. We are convinced that Smart Travel Enterprise will gain recognition and become well-known in our community. Furthermore, Smart Luggage involves in manufacturing of the luggage with its innovation and useful features makes buyers desire to own one. This is one of the advantages for our company (Smart Travel Enterprise) to grab this opportunity to establish the luggage in the market.

We believe that by achieving our objectives, the novelty and inventiveness, practicality, and usefulness of our product will be able to meet consumers' demands while also increasing their productivity. This V-MIEX 2022 template has given us the ideal opportunity for how to build up our own firm with the proper details of structured business planning had submitted by all the department in this business. Thus, we are convinced that Smart Travel Enterprise will prove to the market that this company can improve suitcase business in an entire year by competing with other competitors in Malaysia to convince the investors who will be interested in this business. We hope that our product will improve and become the most popular luggage in Malaysia and internationally while not easily forgotten through its special and unique concept in the future.

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