

FACULTY OF APPLIED SCIENCES (AS201) BACHELOR OF SCIENCE (HONOURS) BIOLOGY

ENT600-TECHNOLOGY ENTREPRENEURSHIP

TECHNOLOGY-BASED BUSINESS IDEA BLUEPRINT MASK TECH (MT01)

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2. TABLE OF CONTENTS

Content	Page Number	
1.0 EXECUTIVE SUMMARY	3	
2.0 PRODUCT OR SERVICE DESCRIPTION	4	
3.0 TECHNOLOGY DESCRIPTION	9	
4.0 MARKET ANALYSIS AND STRATEGIES	13	
5.0 MANAGEMENT TEAM	28	
7.0 PROJECT MILESTONES	34	
8.0 CONCLUSIONS	35	
9.0 REFERENCES	36	

1.0 EXECUTIVE SUMMARY

1.1. BRIEF DESCRIPTION OF THE BUSINESS AND PRODUCT CONCEPTS

The current stage of mask tech 01 (mt01) is in the process of pre-research and production. Our service is an expansion to an existing offering. As we want new products to replace old products with more comfortable and practical changes, we have also made some improvements and revisions to existing products such as HEPA filter feature in the face mask, efficient airway pathways with fans on both sides of the mask that the speed can be control, fabric material inside the mask (spandex), case for sanitization and wireless charging.

1.2. THE TARGET MARKET AND PROJECTIONS

The target market for our product of Mask tech 01 (mt01) is in Kuala Lumpur, Malaysia. As everybody knows, people nowadays love to use new things to follow the technology trend especially when you live in the city. So, our product will be more focused in the area of Kuala Lumpur, Malaysia.

1.3. THE COMPETITIVE ADVANTAGES

The competitive of our product are Razer, C-mask, and LG Puricare face mask. All the advantages of competitors are provided in our product but it is upgraded with more modern design and different functions such as Razer face mask provides voice amplifier technology to ensure consumer's speech is not muffled. Next, C-mask provides the ability to translate languages, make calls and amplify voices.

1.4. THE PROFITABILITY

The profit is taken from selling our product is 15% which is the total cost per unit is RM 235. So the profit is RM 35.25 from the selling price of a product is RM 270.25.

1.5. THE MANAGEMENT TEAM

Our company has built an organization that includes the Chief Executive Officer, R & D Manager, Finance Manager, Marketing Manager, and Manufacturing Manager. This management team is functioning in expensing and controlling our product.

2.0 PRODUCT OR SERVICE DESCRIPTION

2.1 DETAIL OF THE PRODUCT

To identify a suitable study, the important factor of the identification of a product with a great potential for improvement, the group thought that it would be more beneficial to study the product that many people need to use. The pandemic would have a positive effect on the global market for face masks. This is mostly due to the growing demands for face masks, as the transmission of life-threatening covid-19 infections is prevented or slowed down. Face masks have also been used against the spread of sars-cov-2 as a measure to protect public and personal health. There is now a need for a solution, which is composing this study and its subsequent innovation process. Therefore, our product addresses mask to use from the viewpoint of public health, technological specifics of industrial, home manufactured masks, recent advances in mask construction, disinfection, and materials.

The improvement of current products is our product. As a subset of the current product range, we had supplemented the existing line by maybe concentrating on various consumer segments. We have also improved and revamped existing products because we want to replace current products with more realistic and usable enhancements. We also already lowered prices by giving the customer no additional incentives other than a potential price drop and give the business a massive added value. The current stage of mask tech 01 (mt01) is in the process of pre-research and production. Our service is an expansion to an existing offering. As we want new products to replace old products with more comfortable and practical changes, we have also made some improvements and revisions to existing products.

2.2 THE APPLICATION OF THE PRODUCT

Mask tech 01 (mt01) provides a different experience for any face mask user. We know that many people have breathing problems especially among front-liners such as doctors, nurses and polices that need to work long shift while wearing the mask during the pandemic. That is why we provide efficient airway pathways with fans on both sides of the mask that the speed can be control. As we know, the temperature in Malaysia is hot, thus, wearing a mask while working can be suffocated. Thus, fans provided on both sides of our mask will lessen their burden and increase the level of comfort for those who are working.

Next, the length of ear loops can be adjusted. By adjusting the ear loops on the mask, it will directly tighten the grip of the mask along the nose's area and prevent exhaled air from escaping. This is important especially for people that have a problem when their lenses of spectacle fog up. This is because, according to urban (2020), moist air that coming from exhaled 12 air and directed up to your glasses while wearing a mask can cause fogging, and by blocking exhaled air from reaching surfaces of eyeglasses, it can prevent fogging from happening. After that, our face masks tech 01 (mt01) tightly grips on the nose without hurting as there will be a silicone layer to reduce the force on the consumer's face. The silicone that is attached inside the mask around the area of consumer's nose bridge will decrease the force exerted so it will comfortably grip on consumer's nose without hurting.

There is a HEPA filter featured in this mask. Besides being protected against covid-19, this mask used a HEPA filter that can filter out dust and other substance so you will inhale fresh air without chemicals in there. Other than that, fabric material inside the mask. The fabric material inside the mask we use spandex fabric that is synthetic materials instead of natural material like cotton. According to researchers from the Georgia Institute of Technology (2020), even though cotton is a natural material, but it absorbs moisture and sticks it on the face, irritated the skin that leads to 'mask acne' and butterfly rash, reducing breathability, and will create the growth of microbes. Furthermore, we choose this kind of fabric to create a comfortable experience for the user.

We also provide the face mask tech 01 (mt01) with a case for sanitization and wireless charging. The mask case will be provided with equipment like UV rays for sanitization of the mask and a wireless charger pad in it. According to a study from Ajic, when they used a specific type of UV light to kill sars-cov-2 on laboratory surfaces, they found that the life of coronavirus can be reduced by 99.7 percent in just 30 seconds (Schulman, 2020). Thus, after a long day of using this mask, it needs to be sanitized to kill