



TECHNOLOGY BLUEPRINT

HI-MASK

Faculty	: Faculty of Applied Sciences
Program	: Bachelor of Science (Hons) Chemistry With Management
Program Code	: AS222
Course	: Technology Entrepreneurship
Course Code	: ENT600
Semester	: October 2020 – February 2021
Group	: RAS222_2B
Group members	: 1) AMIRA DELAILA BINTI MOHD NASIR (2020960945) 2) HAZIRAH NISA BINTI HAZNIZAM (2020979157) 3) NUR 'AIN BINTI HABEP (2020996777) 4) SARAH AMALIN BINTI ASFANI (2020960925) 5) SHAHAIRATULRAIZA BINTI AHMAD TAJUDDIN (2020989143)

Submitted To:

DR NURSYAMILAH BINTI ANNUAR

Submission Date:

22 January 2021

TABLE OF CONTENTS

CONTENTS		PAGE
1.0	EXECUTIVE SUMMARY	1 - 2
2.0	PRODUCT DESCRIPTION	
	2.1 Product or Service Description	3
	2.2 Application of The Product or Service	3 - 4
	2.3 Unique Features	4 - 7
	2.4 Present State of Development of The Product or Service	7 - 8
	2.5 Patents or Other Proprietary Features of the Product or Service	8 - 9
	2.6 Expansion of The Product Line	9 - 10
3.0	TECHNOLOGY DESCRIPTION	11 - 12
4.0	MARKET ANALYSIS AND STRATEGIES	
	4.1 Customers and Market Segment	13 – 14
	4.2 Market Size and Trends	14
	4.3 Competition and Competitive Edges	15
	4.4 Market Share and Sales	16
	4.5 Marketing Strategy	16 - 18
5.0	MANAGEMENT TEAM	
	5.1. Organisation	18
	5.2 Key Management Personnel	19 – 22
	5.3 Management Compensation and Ownership	22
	5.4 Supporting Professional Advisors and Services	23
6.0	FINANCIAL ESTIMATES	
	6.1 Start-up Cost	24 – 25
	6.2 Working Capital	25 – 26
	6.3 Start-up Capital and Financing	26
	6.4 Cash Flow Statement	27 – 28
	6.5 Income Statement	29 – 30
	6.6 Balance Sheet	31
7.0	PROJECT MILESTONES	32
8.0	CONCLUSIONS	33
9.0	APPENDICES	34 - 49
10.0	REFERENCES	50

1.0 EXECUTIVE SUMMARY

Due to the pandemic of COVID-19, our government have mulling mandatory use of face mask especially in public area as this is one of the prevention steps in reducing the COVID-19 cases in Malaysia and as a result, there will be high demand of face mask . However, based on our study, most of our respondents said that there are few lacking elements in face mask such as they felt uncomfortable especially at ear and nose part when they are wearing a face mask for a long time, face mask can cause them to have skin problems such as acne, rash and dryness as well as disposable face mask also can lead to littering problems. Therefore, Hi- mask's have created a new developed product which is a biodegradable face mask that made of banana peel fiber with silver nanotechnology which designed with an ergonomic design of mask shape as we want to give maximum comfort to our customers.

Our target customer would be all Malaysians since our face mask will available for various range of ages which nicely fit for different sizes of face from little kids to adults and the design of face mask is also unisex which mean it is suitable for all genders and we also specially design a hijab-friendly mask for hijabis.

Our biodegradable cloth face mask offers a wide range of important specifications and attractions uniqueness to the product which are unable to be found in the usual face mask in the market whereby our company offers excellent unique features to our biodegradable cloth face mask. For instance, our mask is made from 100% organic banana fiber that can gives protective to the face and skin-friendly as well as silver nanotechnology which was proven that it is capable to kill human pathogenic which can cause acne, rash and other skin problems. Moreover, our product also have adjustable features at the ear and nose parts which most people mentioned that they felt uncomfortable when wearing a mask. We also designed our mask with a ergonomic design of mask shape which is duckbill shape which it can give maximum comfort when wearing a mask. A face mask case and extra disposable filter will be provided for every purchase.

In term of profitability, our company were aiming for increment in market share for the following years whereby 10% increase in 2022 and 15% increase in 2023 as the market size and trends for our business is taken from early of 2021 until the end of 2023. Besides, we are also expected to continue a positive cash-flow of our business for years ahead.

2.0 PRODUCT DESCRIPTION

2.1 Product or Service Description

Product description is an important marketing imitate which interprets the value and worth of a product to the customer. The aim of a product description is to provide customers with significant information regarding the uniqueness of features promotes by the product to tempt them to purchase the product (Duistermaat, 2019). The biodegradable cloth face mask offers a wide range of important specifications and attractions uniqueness to the product which are unable to be found in the usual face mask in the market. Due to the pandemic of COVID-19, a lot of problems that are being issued not only because of the virus but also involve the protection with face masks. The details of the product and service description as in the apendices.

2.2 Application of The Product or Service

The biodegradable cloth face mask has made in aiming to solve the problem of environmental issue which is littering of disposable surgical face mask. The disposable surgical face mask made from polypropylene is a non-degradable material that leads to pollution including in the ocean. In order to solve the issue, our company comes up with the idea of producing a face mask made from a degradable material which is banana fibre together comes with specification of antimicrobial properties from the silver nanotechnology. This is to make sure that the pollutions can be reduced by wearing the degradable face mask and compromise with silver nanoparticles that can inhibit the bacterial growth especially to the customers that need to wear the face masks every day for long hours during this pandemic COVID-19. The probability of bacterial growth is high since the production of sweats increased when the face is covered with the mask. The banana fibre is being chosen as the famous fruit, banana is easily and widely found in Malaysia and the banana trees are largely being planted.

The primary end use which is the basic uses of face mask is in order to provide a cover at the mouth and nose part from infected to harmful substances, bacteria, or germs. Besides that, the most common face mask which is surgery face mask usually being used by the surgeons in the operation room easily can be seen anywhere especially during this pandemic of COVID-19 where people need to practice the prevention from the viral infections of the virus. In addition, surgery face mask becomes one of the typical face masks being used and sold in the market as it does provide good protection from the germs and harmful substance. However, it is categorized as a non-biodegradable face mask which littering of the used surgery face mask occurred everywhere especially at the beach where the aquatics live in as well as the materials does not support to be used for long hours. In the primary end use, the

f. Distribution

Our face mask will be distributed to our customer in two methods. Firstly which is through physical distribution whereby our customer can purchase it at drugstore such as Watsons, Guardian, Caring as well as our product will be distributed by few wholesalers which fulfills orders of retailers all around Malaysia. Secondly, our product will be distributed by couries sevices such as Skynet, Pos Laju, J&T express according to our customer preference. This distribution method is for those who purchase our product through online store.

5.0 MANAGEMENT TEAM

5.1. Organisation

KEY MANAGEMENT ROLES	NAME
Chief Executive Officer	Hazirah Nisa Binti Haznizam
Administration Manager	Nur `Ain Binti Habep
Financial Manager	Shahairatulraiza Binti Ahmad Tajuddin
Marketing Manager	Sarah Amalin Binti Asfani
Operational Manager	Amira Delaila Binti Mohd Nasir

Excessive Overhead

There are a few overhead required for executive role for our product which can increase the competitiveness of our company at the same time. The excessive overheads required are as followed:

- i. **Finance specialist:** Controls the marketing and financial of HI-MASK Sdn. Bhd.
- ii. **Supervisor:** Supports the team organization and observe the competitiveness and quality of the team especially when their key employees have a duty outside the office
- iii. **Professional operation worker:** Ensures the quality check of the raw materials of the imported products from other companies and controls the export of the products for maintenance and the security of the product.