

# FACULTY OF APPLIED SCIENCES: BACHELOR OF (HONS) MATH

### **MANAGEMENT**

# TECHNOLOGY ENTREPRENEURSHIP (ENT600)

## "EZ LOCK"

# PREPARED FOR:

MADAM ZAIDATUL HUSNA BINTI MUHAMMAD ISNANI

## PREPARED BY:

MUHAMMAD HAFEEZ BIN HASHIM

2018425462

**JUNE 2020** 

# TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY	3
2.0 PRODUCT DESCRIPTION	7
3.0 TECHNOLOGY DESCRIPTION	10
4.0 MARKET ANALYSIS AND STRATEGY	12
5.0 MANAGEMENT TEAM	21
6.0 PROJECT MILESTONE	34
7.0 CONCLUSION	35
8.0 APPENDICES	36

#### 1.0 EXECUTIVE SUMMARY

## 1.1 Brief Description of The Business and Product Concepts

At this stage, a detail study about EZ lock for my new product development was done. It is necessary in order to get detailed information about the product, non-verbal interview and research on the innovation product based and its features, quality, and conveniences. Furthermore, the theory of the new product development was related to my product concept. The details of my product were divided into research and development, product design, features, concept testing, build prototype and test marketing.

In research and development, the details explanation of how the idea generation and market survey was conducted. The idea actually was generated based on the problem for the bikers and students in using their present bike lock which are not convenient and not enough secured. It is also waste time in finding the bike lock's key and sometimes student often forgot where the last time they put their key. Next, the details study based on target market for my product is bike store and hardware store which is the attractive sport for the people that looking for the bike lock. From the idea generation and market survey done, it shows the summary of the product detail, analysis and also target market on how our product idea was develop. The things that was analyzed is the product design or features. At this part, a sketch of my product design was done based on combination of existing product in market. Concept testing is the further analysis of the product on how target market will accept the innovation product.

## 1.2 The Target Market and The Projections

EZ lock can be introduced to few target market such as bikers and students. Nowadays, due to increase in bike's robbery case, an idea came to my research to build a bike lock which will give more security and convenient to the bikers and students in locking their bike. Most people that use cable lock waste their time in finding their key and they also find it is difficult to unlock their bike. For combination lock, it is not secured enough when the combination can be easily readable by their friend or people nearby. Most of the present bike's lock are heavy and hard to carry everywhere. That's why EZ lock came as an idea to overcome those problem. It is suitable for students and bikers which this bike lock give more security and convenient as it use thumbprint technology as a medium of unlock. Hence, student or bikers don't have to waste their

time to find their key and they does not have to carry key and the bike lock also is light in weight. Students can just carry their bike in a pocket. This bike lock also have alarm sensor to detect extreme beat occur to the bike as someone tried to break the bike lock. The chain's length also can be adjust to give comfort when lock it.

## 1.3 The Competitive Advantages

The main challenge for business strategy is to find a way of achieving a sustainable competitive advantage over the other competing products and firms in a market.\_A competitive advantage is an advantage over competitors gained by offering consumers greater value, either by means of lower prices or by providing greater benefits and service that justifies higher prices. The differentiation and cost leadership strategies seek competitive advantage in a broad range of market or industry segments. By contrast, the differentiation focus and cost focus strategies are adopted in a narrow market or industry. Therefore, as we know that there are many giant companies that monopoly the business of the bike lock such as Standard Lock Kryptonite New York, Abus Extreme Chain Plus and many more. There are some strategies in the competitive advantages. First is cost leadership. With this strategy, the objective is to become the lowest-cost producer in the industry. The traditional method to achieve this objective is to produce on a large scale which enables the business to exploit economies of scale. This strategy is usually associated with large-scale businesses offering "standard" products with relatively little differentiation that are readily acceptable to the majority of customers. Occasionally, a low-cost leader will also discount its product to maximise sales, particularly if it has a significant cost advantage over the competition and, in doing so, it can further increase its market share. The company must has some guide such as high capacity utilisation The use of bargaining power to negotiate the lowest prices for production inputs, Lean production methods, effective use of technology in the production process and also access to the most effective distribution channels.

Secondly is the differentiation focus strategy, a business aims to differentiate within just one or a small number of target market segments. The special customer needs of the segment mean that there are opportunities to provide products that are clearly different from competitors who may be targeting a broader group of customers. The important issue for any business adopting this strategy is to ensure that customers really do have different needs and wants, in other words that there is a valid basis for differentiation and

that existing competitor products are not meeting those needs and wants. Differentiation focus is the classic niche marketing strategy. Many small businesses are able to establish themselves in a niche market segment using this strategy, achieving higher prices than undifferentiated products through specialist expertise or other ways to add value for customers. Therefore, for this strategies, EZ lock must provide the features that the other bike lock had provided plus with the special characteristics. One of the characteristics that EZ lock has is use thumbprint technology as a medium of unlock replacing key. As we know that, the thumbprint technology is now well used by the modern people as it give more security and convenient to the people. It is commonly use in any product such as phone, door lock and many more.

Thirdly is differentiate leadership. This strategy involves selecting one or more criteria used by buyers in a market and then positioning the business uniquely to meet those criteria. This strategy is usually associated with charging a premium price for the product, often to reflect the higher production costs and extra value-added features provided for the consumer.

### 1.4 The Profitability

Profit margin is one of the most important aspects of a business to example when entering into a business venture and throughout the business operation. Calculating profitability is an accurate way to determine the success of our business. Profits from the product sales will be used to pay the loan. The profits gained are estimated to be higher than the cost of operation and loan payment in order to avoid loss.

The two key aspects of profitability are revenues and expenses. Revenues are the business income. This is the amount of money earned from customers by selling the EZ lock and the services. Generating income from selling the EZ lock isn't an easy task, however, in businesses we must use all the resources that we have in order to produce these products and provide these services. Resources, like cash, are used to pay for expenses like employee payroll, rent, utilities, and other necessities in the production process. Profitability looks at the relationship between the revenues and expenses is to see our company is performing and the future potential growth and still on track.