



Multipurpose Travel Tooth Kit (MTTK)

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Group Name : HS2577A
Group Members : 1. Aisyah Nabilah binti Abd Latif (2015428586)
 2. Fatimah Najihah binti Baderol Allam
 (2015428962)
 3. Nazatul Najmi binti Zulkafle (2015430296)
 4. Nur Liyana binti Mohamad Nasir
 (2015663786)
 5. Siti Nur Aishah binti Abdul Razak
 (2015441688)

Submitted to

MDM. ZANARIAH ZAINAL ABIDIN

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*Theory - give
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TABLE OF CONTENTS

Page Number

Contents

1.0 EXECUTIVE SUMMARY	1
2.0 INTRODUCTION	2
3.0 NEW PRODUCT DEVELOPMENT	4
3.1 Definition	4
3.2 Classification of NPD	4
3.3 New Product Development Process	5
3.3.1 Research & Development	5
3.3.2 Product Design/Features	9
3.3.3 Concept Testing	12
3.3.4 Test Marketing	14
4.0 CONCLUSION	14
5.0 REFERENCES	15
6.0 APPENDICES	16

1.0 EXECUTIVE SUMMARY

Recently, travelling is becoming everyone's favourite but travelling with a huge and excessive weight of luggage can cause difficulties among traveller. This may reduce their activity flow and prevent them from having too much fun during travelling. This issue can also be worsening with absent of favourite product at the destined country causing traveller willing to carry the extra weight, so they do not have to go through searching of products they are comfortable with. This situation is also applicable to personal stuff such as toiletries. Combining few toiletries in one body may reduce the burden and giving space to a more important item. This study was conducted to develop a product with a multipurpose function to help traveller in need. The product is a result of traveller's worry and complains, thus, we decided to produce a product that can help in resolving this issue. This product named Multipurpose Travel Tooth Kit (MTTK) in which it is a combination of foldable toothbrush and automatic toothpaste dispenser together with a removable facial cleansing brush, shaver and floss dispenser. It is also accompanied with the latest technology to help in making sure customers experiencing the best quality with this product. This study also discovers that there are many potential buyers who are interested with the product and thus, making this product possible to be commercialized. The design and reasoning behind every technology in this product are explained thoroughly in this paper.

2.0 INTRODUCTION

Optimum oral health is defined as a standard of health free from active disease, which enables a person to eat, speak, socialise and carry out the activities of daily living without pain, discomfort or embarrassment and which contributes to general well-being (Oral Health Division, 2011). Compromised general health and poor quality of life has been associated with poor dental care (Ahmad, Abuzar, Razak, Rahman, & Borromeo, 2016). Oral health is often taken for granted despite being one of important aspect of healthcare and well-being. Maintenance of healthy teeth and gums need a consistence commitment.

According to World Health Organization (WHO), 60 to 90 per cent of school children have at least one dental cavity. Moreover, nearly 100 per cent of adult have at least one dental cavity and 15 and 20 percent suffered from severe gum disease at the age of 35 to 44 years. This information indicates that most people lack of dental healthcare and dental care is important throughout life. Study also found that 32.8 per cent do not meet adequate tooth brushing of twice daily (Peltzer & Pengpid, 2014). In Malaysia, previous study showed a lack of awareness among children and 90 per cent of the children had dental caries at the age of 6 to 18 years (Khan, 2016). Behaviour is one of the significant factor that influence oral health (Mills, Falconer, & Cook, 2010). Inadequate tooth brushing (twice daily) and snack frequency were associated with poor oral health (Peltzer & Pengpid, 2014). Mills et. al., (2010) stated that a good behaviour changes may help in improving dental health.

Practicing a good dental care is a key to overall health. Tooth brushing twice daily is one of good oral habit that should be practiced to prevent gum disease and maintaining good oral health. However, it is not easy to keep up with the routine when travelling. Proper maintenance of teeth can be a challenge during travelling (American Dental Association (ADA), 2006). Skipping of flossing and brushing activities may happen due to long hours of travelling especially when driving. A handy toothbrush and toothpaste and a quick brushing time are suggested when travelling (ADA, 2006). Furthermore, it's advisable to keep your toothbrush in contact with other things in the bag and dry out the brush.

3.0 NEW PRODUCT DEVELOPMENT

3.1 Definition

New product development is a process by which the entrepreneur designs and creates a new product or service that will be sold to customers. It is important to introduce new products on the market for continuing business success. It will influence the profit performance, and contribute to the growth of company (Bhuiyan, 2011).

3.2 Classification of NPD

There are 2 classifications of new products, which are completely new product and improvements on existing products. A new product is an invention that completely new that will be introduced to the market. It can be new to the world of products, which means there is no kind of product available in market. Meanwhile, it can be new to the firm, which means it can be new to the company in order to introduce new product lines but not new to the market place. On the other hand, improvements on existing products might be as additional to the existing lines and the target of market segment might be different with the existing product. It also can be an improvement and revisions to the existing product as some functions of the existing product will be improvised and enhanced. Other than that, an improvement on existing products can be due to cost reductions and repositioning.