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NEW PRODUCT DEVELOPMENT

Company Name: SwimPro

Programme: HS 257 7

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EXECUTIVE SUMMARY

It is known that everyone who swims is at risk of drowning regardless of their skills and in fact, the risk will much more higher among individual without swimming skills. There are a lot of factors contributed to incapability of swimming such as no swimming opportunities, lack of facilities and time constrain to attend swimming classes. This study was conducted to develop a product with a swim-assist technology to help individual who does not have the skill to swim. This product is an improvement from the current swimsuit in the market which is called The SMART swimsuit. It uses Functional Electrical Stimulation (FES) to stimulate the movement for swimming. This study also discovers how many potential consumers are interested with the product. Besides, the design of the product and reasoning behind the parameters chosen will be highlighted in this paper.

INTRODUCTION

3.1 Problem Statement/Issue

1. Drowning is a leading cause of injury leading to increase in death rate in many countries (Brenner, Saluja, & Smith, 2010)
2. Swimming can be a high-risk activity especially among individual without proper training and skills.
3. Time constraints become one of the barriers among adolescents and adults to attend swimming classes.
4. Few studies conducted and stated that, even individual that participate in formal swimming lessons also has the risk in drowning (Brenner et al., 2014)
5. However, current swimming suit in the market only limited with the ability to conserve body heat, increase resistance against water and for maintaining endurance during swimming and no safety feature design to prevent drowning.

3.2 Methodology

- Who: The survey done among individual that have the desire to swim but never attending any swimming classes.
- Where: The survey through social media sites.
- When: The survey conducted for 2 days.
- How: Electrical poll done on Instagram, and Twitter.

NEW PRODUCT DEVELOPMENT

4.1 Definition

SMART swimsuit is an innovation that helps to improve the chance for individual without proper training to enjoy swimming. This product come with specialty in the ability to move the muscle by using functional electrical stimulation (FES) pads to assist movements for swimming and subsequently providing balance for body to float. This swimming suit also equipped with switch on and off to initiate and stop the functionality of the FES.

4.2 Classification of New Product Development

SMART swimsuit is an improvement of the existing product. This is the new product line that targeted similar existing market segments. This product has undergone some improvements and revision to enhance the functionality with the capabilities to assist swimming through basic swimming movements.

4.3 New Product Development Process

4.3.1 Research & Development

New product is often characterized by very high rate of failures. Therefore, research and development is a critical step in the new product development. Mainly, in the product development process, there are three crucial stages which are idea generation process, idea screening and market survey.