



## **NPD REPORT: HOME SECURITY – DOOR LOCK**

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## **EXECUTIVE SUMMARY**

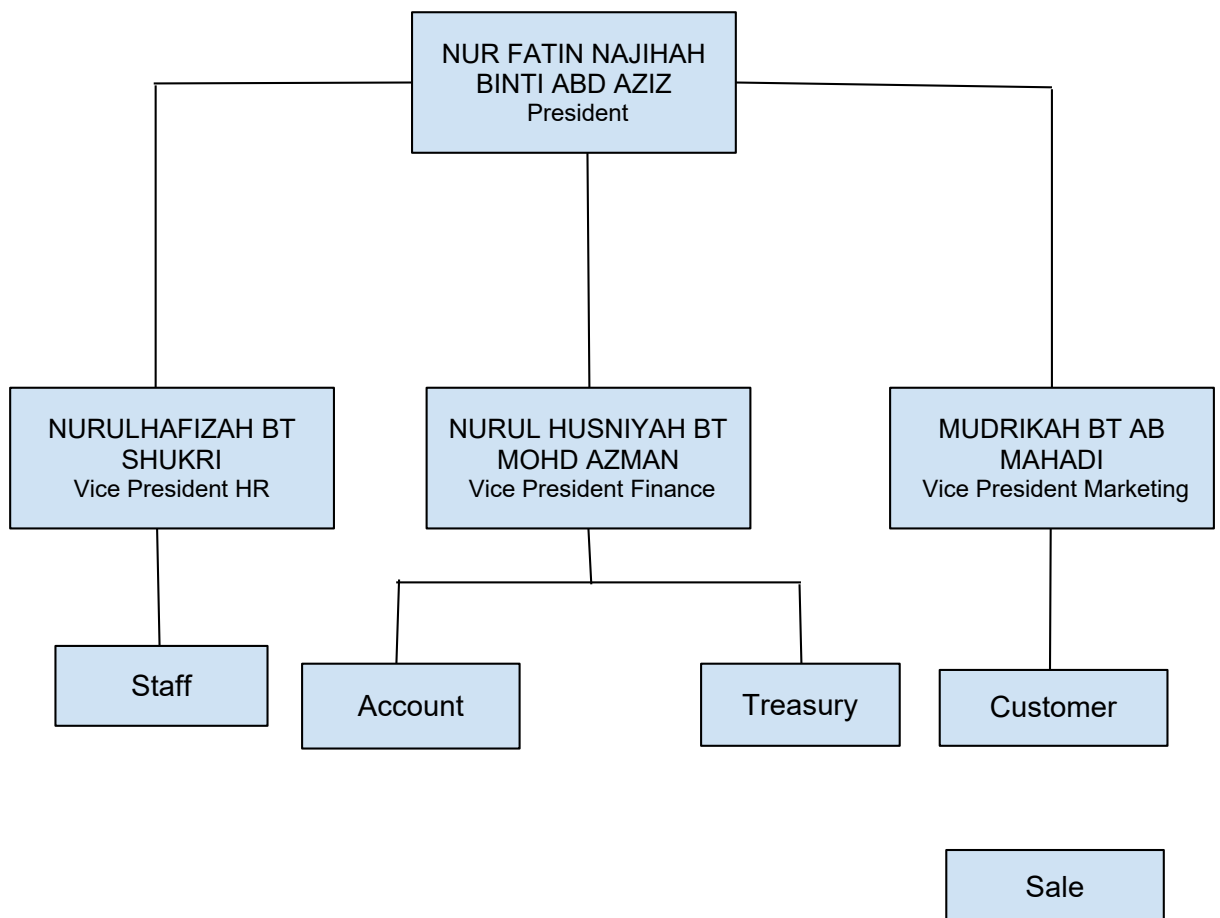
The purpose of this study is to make improvements to the current product that has been proposed which is for door knobs. The improvements are based on the technology for security. Nowadays, the number of burglaries has been a significant challenge for many years around the world. Therefore, our company made a few suggestion ideas for this project to make door knob home security. Before producing this technology product, our company has gone through the process needed in producing a new product. For new product development, the research and development for this product is done with the idea generation, idea screening and market survey in order to produce a good product. Next, the target customers for our product are the homeowner and person who are going to buy a house. This product is good for them to make their house more secure from being break in by burglars. The concept test also has been conducted in order to get the analysis about what our target customers know about door knob home security. The prototype is built to give an overview for the target user on how our product will look like. Lastly, the test marketing also has been conducted to get the information for door lock home security and know the average price that is suitable for our product.

# 1.0 INTRODUCTION

## 1.1 Background of Company

Our company, Lestary. Co is a company that is more customer oriented business that invented new creation of tools and equipment based on the need from the customer and current problem that they are facing in managing the security of their door lock at their house.

Lestary. Co is a door lock company which provides the safest door lock to secure a house. The product produced by the company is an upgraded version of door lock. The door lock was produced with the keyless concept of door lock. The door lock consists of a keypad to enter the passcode of the house and an automatic feature. The fingerprint is provided to ease the user by only scanning the fingerprint to unlock the house. Door lock also comes with mobile features which can control for any error that happens. The door lock was completed with a complete security system to secure the house such as recognition and CCTV.



## **2.3.2 Product Design & Features**

Product design is one of the methods of the new product development process which is used for imaging, designing, and iterating products that can solve the current product problems or meet specific needs (Scott, 2018). Product features are functions or characteristics of the product that has value to the customers. Moreover, the product design and features are considered to understand the customers, the person whom the product is being developed. This method is attempting to solve the real-world problems for customers by combining empathy and knowledge of their potential customers' habits, behaviours, frustrations, needs, and desires.

### **2.3.2.1 Translation of New Product Idea into Concept**

In this project, the smart door lock is one of the inventions to help people to secure their home which can implement the traditional door lock that have been used by most of Malaysian. However, the traditional door lock is less secure compared to the smart door lock as the traditional door lock will use the key to access into the house. For this reason, we came up with a new product which is a smart door lock that provides the multiple access codes that can be used to access while the multiple access codes also can be shared among the family members and relatives.

Besides, the smart door lock will be provided with the automatic features that can help users to make sure the door is already locked whenever they leave their house. This automatic feature will lock the door by itself when the door is closed. The door lock can be more user-friendly by providing remote access features where users can control and access the door lock for far or short distance by using their mobile phone with the Internet connection. Lastly, the doorknobs will be implemented with the keypad which users can enter the multiple access code for accessing into the house. This keypad door knob is more durable compared to the traditional doorknob as it does not need frequent maintenance and never needs to be replaced.

### **2.3.2.2 Product Performance Criteria**

The product performance in the new product development process have been assessed based on the criteria below: