



NEW PRODUCT DEVELOPMENT(NPD):

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EXECUTIVE SUMMARY

Overview

This report is to propose a new product from our company, Hedera Co., Ltd.. Several sections including problem statement, user requirement, market target, design and prototype development will be discussed in this paper. The product is a Smart Air Conditioner with multiple features and a smart air conditioner mobile application as controller.

The Problem

- Filter status issue - Air conditioner users are rarely aware about air conditioner filter condition/status. This is due to no technology to remind or keep them alert about when and how to service their air conditioner.
- Health issue - Air dehumidifying poses several health risks to users.

Recommended Solution

- Mobile application implementation - Use of mobile application is believed to be easier and more convenient for users to control filter status, air conditioner performance, service reminder and remote-control function.
- Humidifier – User can control the humidity of air using this feature.
- Sensor – Use of sensor in air conditioner seem to be relevant to save energy and electricity.

Highlights

- The analysis technique used in this report is CTC (Consumer Trend Canvas) technique.
- The facts and data collected are from reliable sources. Example: real survey statistics, target consumer market survey/feedback.

1.0 INTRODUCTION

1.1 Background of Company



Figure 1: Company logo

Our company's name is Hedera Co., Ltd. which is generally manufacturing home appliances products using new technologies such as smart refrigerator, smart washer machine, smart vacuum, and smart dustbin. A new product that has been manufactured is smart aircond. Our company was founded in 2018 and since then the demand of the product has been increasing until now.

Our main objective is to design, manufacture and sell a variety of home appliances products that are unique and innovative by using several technologies. Another objectives for this business are to make things easier to do house chores and to make people feel comfortable being at home. We have divided the business in a few departments such as department for administration, marketing, operational and financial. It will help us to run our business smoothly and it can maintain our profit. The estimated profit of Hedera Co., Ltd. in 3 years is RM 492,918 and will also be awarded in SME100 Awards Malaysia in 2020. This achievement helps us to grow and leads us to design and manufacture another new product with technologies in the future.

- **Reminder Feature**

Users will get a reminder for every activity that happened to the air conditioner. For example, a user forgetting to switch off before leaving, an application in the smartphone will give notification. Not only that, the application will send notification when filters need to be cleaned or air conditioners need to be serviced. This will ensure the air conditioner will always give the best performance.

- **Humidifier**

Humidifiers can help rooms increase room humidity level to ensure sufficient humidity to comfort users in dry areas. Level of the humidifier can be controlled through application but if users do not want it they can switch off this function. Other than that, the humidifier in this product not only gives mist but also fragrance which will help the users to calm themselves. Users can put their own favorite fragrance to keep the room smell they want.

2.3.2 Product Design & Features

Hedera Smart Air Conditioner has two parts of the unit which are the front part and rear part. Front part consists of the fan, evaporator, and controls while the rear part consists of a compressor and condenser. There is an LED in front of this device to display time and current temperature. The colour of the smart air-conditioner is white. The specification for this device was illustrated in Table 1. Furthermore, this device can be controlled using a smartphone by downloading the mobile application for smart air conditioner.