



## SMART SHOE CLEANER MACHINE

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## **1.0 EXECUTIVE SUMMARY**

This report is based on the research and analysis that we manage to gather on our study about shoe cleaning service and shoe gallery business of Blackout Resource and Trading. We have made an interview session by calling the company and analyze its system and processes to clean customer product as their main service. We interview the company's owner to learn about their business and to gather required information for this case study report.

We manage to identify the issues and problems that the company had to encounter and have made some research and discussions to find its solutions using some of the techniques. The solution we have made is based on our engineering knowledge and application.

The major purpose of this report is to analyze a real-life situation of a business where existing problems need to be solved. We have to relate the theory with practical situation by applying the ideas and knowledge in the coursework to real situation. We are required to identify the problems that they encounter. The major problems will be discussed and the solutions will be gathered. The best solution and its details will be implemented.

## **2.0 INTRODUCTION**

### **2.1 PROBLEM STATEMENT**

In this era of modernization, manual hand cleaning method used to clean the shoe was not effective because people need to que in long lines or wait for a long time in order to wash their shoe at the shop. Other than that, the cleanliness of the shoe using manual hand was not very good because using manpower may have some difficulties. The new product development idea was originated from the case study where Blvckout Store wants to increase their good customer service and time management.

### **2.2 METHODOLOGY**

In search to make this new product development idea work, a lot of data were collected. First, the idea was developed based on the case study report of Blvckout Store. From the case study, Blvckout Store stated a few problems faced by their company and this smart shoe cleaner and drying machine is one of the solution to the problem. This machine target market are to all customer and industry that need to clean their shoes instantly and effectively. Therefore, survey and observation were made to see and identify the importance of developing the machine. The idea also generated by researching through the internet and related journal.

## 2.3 LIMITATION

Even though we use the new technology in develop and create new smart machine for the use of all user, there is still have some limitation in it. It cannot be denied that it have more advantages rather than disadvantages but each machine should be a limitation in it quality. This machine have been introduced and use in overseas but not in our local industry. Thus this machine is not a new product but innovation of an existing system.

On the other hand, the lack of awareness of the machine also could be its limitation This new smart machine is rarely used and maybe some of the user is not familiar with the advantage of using it. For example, For the user like folks or people ranging 35-60 years old may find it hard for them to adapt with the new technology of smart machine to use it properly. It could be more easy to use among youngsters as they always update and exposed about new technology in the market.

Besides that, as the system is rarely used then the manufacturing cost might be high, this is because, the machine was not well known used in Malaysia and the demand was not to high compared with the supply. It might be the reason why some of the shoe cleaner industries does not use the smart cleaning machine. If the demand and supply is high in local industries, the price might be low to consider because the manufacturing cost is cheap. Therefore, in a nutshell, each of the product have their own limitation. Thus, based on the limitation we could someday improve it with many more solution to solve the problem.