**Smart reloading Machine**

**User Survey**

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**EN3022 - Electronic Design Realization**

**Department of Electronic and Telecommunication Engineering**

Group No-4333290

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**Content**

**Introduction-Smart Reloading machine**

The telecommunication industry has developed rapidly throughout the world. And even for a developing country like Sri Lanka It’s hard to find a person not having access to a communication device. So as a group we thought that our project should focus more on making that field more accessible and easy for the society to use.

The reloading of mobile phones is an essential part of keeping the communication between people going and making it fast and easy will be convenient to all. The reloading machine is a product that aims to make the reloading facility easy and quick and independent of the shop owner. As we have found out in the user survey although a good product it still has lot of room for improvement in some areas. So this project aims at making the reloading machine easy, secure and more importantly accessible to a wider clientele including differently able people. With the basic idea of our product in mind we carried out a user survey to find out the feasibility and how to actually implement our product.

**Product Goals**

Before carrying out the user survey we developed the basic product goals, functionality, and the expected value of the product.

The product aims to give a solution to the problems associated with reloading by making the machine more user friendly, easy to operate fast and secure.

In achieving these objectives the functionality of the product include

* Audible signals
* Bill issuing
* Brail system keypad
* RFID based identification
* GUI
* Cost effectiveness

The value of the product is aimed to be around Rs.35000/=. With aim being making this product accessible to a bigger crowd making the product cost effective and able to be bought by many shop owners is essential.

The initial volume of production is planned to be 10 machines and with the successful implementation of those we plan to further increase our volume.

**User Need Identification**

**Objective-**

The user survey aims to identify the needs and ideas of the users and buyers of this product and also their idea about the improvements that we plan to make to our product and the practicality of the product. Getting the ideas of the intended users will enable us to come up with a product that is more suited to their needs and how much of a market we have for our product and to come up with a revised product goal concerning price, volume and even functionality

**Methodology-**

As our group members are from different regions of the country we went to our residential areas namely Kandy, Kurunegala, Kadawatha, Kegalle and Kaluthara and carried out the user survey individually. We thought of talking to both the shop owners who will actually buy our product and the users who will use this machine to obtain reloads. By this we will make our product equally beneficial to both the parties. We talked to them about our product and also gave them a feedback-form which will enable us to more methodically analyze the results of our user survey.

**Analysis-**

The results were analyzed on various market segmentations to find out how different segments of the market would want our product and how they responded to our preliminary designs. The market was segmented on the following basis and analyses.

* Geographical Location
* Monthly Income
* Age
* Gender

Nikan thibba ewa demme apita hoda widihakata market segmentation eka karamu

**Analysis of service providers against living area**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Kauthara | Kandy | Kurunagala | Gampaha | Kegalle |
| Mobitel | 4 | 4 | 3 | 4 | 4 |
| Dialog | 2 | 4 | 3 | 3 | 2 |
| Hutch | 1 | 0 | 1 | 1 | 0 |
| Etisalat | 1 | 2 | 2 | 2 | 1 |
| Airtel | 0 | 0 | 1 | 1 | 2 |

Table 1

Histogram 1

**Is it easy for you to pay the bill from reload center?(Post paid)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Kauthara | Kandy | Kurunagala | Gampaha | Kegalle |
| Yes | 2 | 2 | 4 | 3 | 5 |
| No | 1 | 0 | 0 | 2 | 1 |

Table 1

Histogram 1

**Most frequent way of paying bills (Post Paid)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Kauthara | Kandy | Kurunagala | Gampaha | Kegalle |
| Reload center | 2 | 1 | 3 | 2 | 0 |
| Bank | 0 | 1 | 0 | 0 | 2 |
| Super center | 0 | 0 | 1 | 3 | 1 |
| Other | 1 | 0 | 0 | 0 | 0 |

Table 1

Histogram 1

**Used packages against living area**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Kauthara | Kandy | Kurunagala | Gampaha | Kegalle |
| Pre paid | 5 | 8 | 6 | 6 | 6 |
| Post paid | 3 | 2 | 4 | 5 | 3 |