Student Design Project

Project Brief:
Design and Development of a Newspaper Vending Machine for Public Spaces. The newspaper vending machines are stand alone automatic dispensers of various types of newspapers which operate on insertion of currency or credit card by customers into the machine.

MSME Unit:
Institute sponsored

Salient Features:
- Designed with improved safety for newspaper dispensing.
- Well designed from ergonomics and aesthetics point of view.
- Easy to operate instructions given for operating the machine for even by local people.
- Facilities for operation using touch screen and simple instruction.
- Simple design with location of coin inserting slot, coin return box, newspaper delivering slot and electronic card insert slot.

Commercial Viability:
Project Completed-Awaiting interested MSME unit to takeup the project outcome for commercial production.
Design of Newspaper Vending Machine for Public Spaces

Renugopal K
BTB0910028, FT2010
M. Sc. (Engg) in Product Design

Academic Guides:
Mr. C.S. Divyadarshan,
(Asst. Professor, DOD)
MSRSAS, Bangalore

Mr. Supradip Das,
(Asst. Professor, DOD)
MSRSAS, Bangalore
Project Objectives

- To carry out literature review on newspaper vending machine understand the latest trends, present practices and collect relevant data.
- To collect data of existing designs through product study, visual design exploration, user study and market study.
- To create QFD on basis of customer voice and arrive at PDS to meet the customer requirements.
- To generate concepts as per PDS, create 3D models of the generated concepts and select the final concept using weighted ranking method.
- To build a mock up model of the final concept and take user feedback.
Literature Survey continued....
Advantages of newspaper dispensers

- Better service to the customer
- Ability to handle more traffic
- Can serve a range of firms competing with in the same industry
- Once people learn how to use it, they take pride in using it
- It occupies lesser space compared to a stall and can be placed almost anywhere
This is new concept of the newspaper vending machine. Three types of newspapers are available in this machine. Each of newspapers are loading in 50 numbers. Select the different newspapers by using touch screen. The invalid coins are rejected from the sensor to the coin box. The speaker is available for guiding how to select the newspaper. The machine has been designed as per Indian anthropometric ergonomics dimensions. The papers are loading in the bottom place.
In this concept, two types of newspapers are available like The Times of India and The Hindu. The payments modes are coins and cards. The newspapers are shown in both sides for advertisement to the people. The cost of the newspapers are mentioned in the machine itself. The newspapers cost will be varying in week days.

The touch screen is using by selecting the various types of newspapers. The card facilities are available in this machine, who don’t have coin to access
This is different concept of newspaper vending machine. Three types of newspapers are available in this concept. The newspapers are displayed in the machine itself. The speakers are guide for selecting the newspapers by using help button. The machine has been fixed into the ground itself.
In this concept, the person who is going to insert the coin to the machine has designed as per the ergonomics dimensions. The newspapers are shown in both sides for advertisement. The newspapers are loading everyday in the early morning.
Concept 6
### Weight ranking method

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Ranking importance</th>
<th>Concept 1</th>
<th>Concept 2</th>
<th>Concept 3</th>
<th>Concept 4</th>
<th>Concept 5</th>
<th>Concept 6</th>
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Renugopal K

M S Ramaiah School of Advanced Studies
Final Mockup Model
Conclusion

- This project helps to find the problems of newspaper vending machine from the users and trying to solve the problems.
- It makes good designing of newspaper vending machine with ergonomics, safety and aesthetics.
- It can be improved my knowledge in design, data collection, ethnography research and manufacturing area.
- Finally I have found the problems of making the screen panel shape while making the prototype model.
- It is very good experience for making the prototype model like welding process, sun board sticking, applying metal paste and putti and finally painting works.