INTRODUCTION TO SMART SHOPPING CARTS

ABSTRACT

The Automated Shopping Cart, “Smart Cart”, is an innovative consumer purchasing product that is designed to help shoppers’ fast-track their shopping experience. The concept of this smart cart will revolutionize the purchasing experience of every buyer. The RFID readers and IR sensors will be installed in the cart which will automatically scan the product being entered into the cart. Once the product has been put into the cart, the information related to the product will be displayed on the LCD screen installed on the cart or the smartphone of the user. The information of the products put in cart will be communicated to the ERP software of the shop via Wi-Fi. This will lead to automatically billing up the products user has put into the cart. Once the shopping of the user has been over, the final bill will be displayed on his smartphone. This will drastically reduce the shopping time of the costumer and make shopping experience easier. The concept of internet of things and artificial intelligence has been used in making of this smart cart. All the shopping carts will be connected via the internet to the ERP servers and user’s smartphone (internet of things) and shopping habit of every consumer will be recorded and next time when they come to shop, they will be notified about products, discounts, offers, etc. related to their previous shopping experience. Moreover, the products placed on the racks in the shopping mall will be placed above miniature pressure sensors and image analyzer which will sense the product being picked up and how many of the similar kind of product are left for future costumers. (this part includes the concept of AI, sensor networks and machine learning). The above concept will not only revolutionize the shopping
experience of the buyer but it will also have great impact on the shop keepers. They will get real time data about products being purchased and will know the stock of products at each moment. The above concept will improve the inventory management and customer relationship management. Introduction of this smart carts will be quiet appealing in the retail sector and will lead to a new era of buying and selling of goods. Since the main issue it covers is saving time of the buyer, it can be considered as a good option for future retails.