

E-MENU

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Abstract— Many times in hotel we have to wait for a waiter to give our order for food. This creates problem when there is rush in hotel especially in festival seasons and generally on weekends. Main intention of our project is to avoid such problems and to give solutions to such problems. In this project a Touchscreen panel will placed on every table. Whenever customers come to their table then they will select the desired order menus from the touchscreen. For example: suppose users have selected menu no 1, 5, 3 so on and once he/she is done then he/she can press enter/confirm key. At this time information will be sent to the kitchen of the hotel. All this information will be displayed on a computer display. For this purpose we have used a wireless RF transmitter at the customer table side. And wireless RF receiver at the kitchen side. So orders will be directly sent to the kitchen and users don't have to wait for the waiter. On the same time all the customers will get a smart card for payment. After the bill arrives payment is made by this smart card which is recharged by hotel itself when balance in it is over. As soon as the payment is done the customer gets a notification in the form of a SMS sent on their mobile phones. Our main objective here is to minimize the waiting time of the customers to place an order.

Keywords: *Electronic menu, Ordering, digital ordering.*

I. INTRODUCTION

Among the favourite premises restaurant is a place where people visits usually. While visiting such place people expects service that should satisfy them however it is common thing that customer complains when he doesn't feel the service is proper.[1]

That is the reason why hospitality and service have great important as well as impact on business transaction.

There are many reasons due to which the feeling of dissatisfaction arises in customer's mind which include being entertained late in terms of order taking by the waiter and meals serving. The time taken by waiter for taking order is very long, customer gets disappointed. In other case due to human error the wrong order is taken by customer and served to consumer.[2]

In the recent past there has been evolution in ordering and serving system but still the results are not very much promising. With the advancement in communication technology the issue of being late entertained can be solved.[1]

The proposed Touchscreen based menu card system has capacity to overcome time delays in traditional ordering system. Along with this it reduces the excess manpower need in restaurant business. As it is a gadget it doesn't need leave or vacation and thus work efficiently 24x7.

This paper highlights the drawbacks in the traditional menu ordering system compared to the proposed Touchscreen based menu card system.[1]

II. LITERATURE SURVEY

Starting from the time when it was realized that hospitality, service and presentation have great impact on restaurant business transactions, many new ordering and serving scheme has been proposed up till now.[3]

The existing system is paper based. This system is used mostly in restaurants. In this, menu cards offered to customers in restaurant are made of Paper, hard board. Waiters use notepad to write the order of customers. The records are stored on paper. This ordering system is somewhat same as KIOSK ordering system in aspect of order placing but differs in aspect of serving. Here food is served by waiters. But order is written on computer by restaurant staff.[3]

The above mentioned traditional menu ordering and catering systems are time consuming and susceptible to human errors which can be reduced but can't be avoided. The problem with the self-service ordering system is that self-service restaurants are more popular in metro cities. So in smaller cities there are hardly any self-service restaurants available. Many a times these self-service systems take unreasonable amount of delays to deliver the order. The problem with the recently developed zigbee based system is its high cost and limited range.[4]

Our aim is to develop a cost effective system which could work in small restaurants that are not willing to invest huge amount of money in these systems.[5]

The newly suggested system is emphasized on increasing user friendly interface, simple navigation and low cost, increasing service range of wireless communication used and decreasing order processing time. This is done by efficient use of GLCD, Touchscreen, GSM module, and microcontroller. [6]

This circuit consists of a transmitter and a receiver. The transmitter is made up of microcontroller, touch screen, analog to digital converters, LCD display, a RF trans receiver and smart card. LCD screen shows the food items that will be taken as the input. LCD touch screen is used to give an input which will be a food item. This is converted to an electrical signal via an analog to digital converter. This signal is then transmitted to the receiver. Once the order is transmitted it will ping the receiver and the Chef can view the screen provided to him. Once the order is ready the customer receives a message that the order is ready and they can pick it up at the counter or the food will be provided to them by waiter. The customer can request for bill from the LCD screen which will also be sent to customer's mobile phone via SMS to keep a record of bill. This bill can be paid via a rechargeable smart card that can be universally used. Or the other way of payment will be the traditional way that is cash.

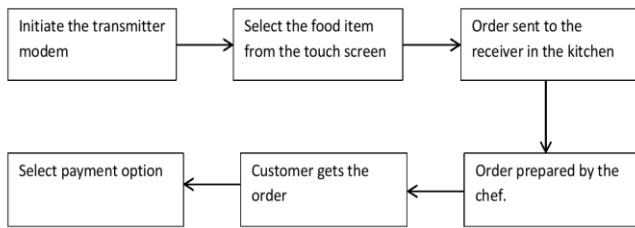


Fig.1 Block Diagram of Transmitter and Receiver Circuits

D. Applications

This mechanism provides a great benefit in reducing the use of paper in hotel industry. This system can also be used to modernize the hotel industry and eliminate need of extra staff.

III. CONCLUSION

Such kind of systems can prove worthy in transforming the whole catering industry. The proposed system will help in reducing the number of staffs used in the restaurants hence will help in considerably reducing cost of restaurant management. It will also minimize manual service given by waiters and serving staff, thus eliminating the human mistakes. It can also help in reducing child labor problem, which is a huge problem in countries like India.

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