

The Food Circle Android Application

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ABSTRACT

Because of busy lifestyles, Mobile food Apps have emerged as a trend. Every other person prefers to order food online rather than cooking at home. Technology has played a major role in introduction and advancement of mobile food Apps. Apps such as Zomato, Swiggy, Foodpanda, Uber eats, Fasoos, etc. are the most commonly and frequently used apps by consumers. Mobile food Apps have tie-ups with many restaurants and act as a link between restaurants and people. There are many factors that lead to an increase in their sales such as convenient to use, easy payment methods, variety of food and restaurants, delivery time, customer services, etc. In this paper, a survey is conducted to understand the interest of consumers in mobile food Apps which will further help us to understand the consumers awareness of mobile food Apps, viable factors considered by the consumers while ordering food from a particular app, expectations of the consumers while ordering from a new app and various methods and factors based on which food apps can be compared.

Key Words: Digital payment, E-commerce, Online food ordering system, Restaurant, Swiggy, Zomato

I. INTRODUCTION

Food delivery apps have grown increasingly popular and are revitalizing the food industry, exciting customers who are, in turn, paying more attention to the available options. The shift in customers' food purchasing behavior has spurred the growth of the food delivery business. Of late, digital transformation has brought many changes to the way companies in all sectors do business. Online food ordering and delivery is the process in which the order for the food is placed through the internet and delivered to the customer to the specified place. Food delivery Apps, online food ordering systems are designed for those people that don't have time to go to a restaurant. As they say, money is not money but time is money. These systems impressively simplify the ordering process for both customers and restaurants owner, this is the main advantage of online food ordering or delivery systems. In the past manual food ordering system will be used. In this system, customers have to go to the restaurant and the waiter takes order from the customer and writes it down on paper. In this system, each and every type of record is stored on paper. Then the waiter sends the order to the kitchen for further processing. Then Personal Digital Assistant technology was used. A personal digital assistant is a portable device like Smartphone every waiter should have a PDA and take orders from customers. To cover the limitation of PDA multi-touch technology come to market, where the user has the authority to perform and control different type of operations at a time on multitouch screen. Basically, mobile Apps consists a set of instruction that runs on Smartphone's and perform a specific task. A developer built a mobile application for different purposes. Mobile applications are easy to use, User-friendly, Inexpensive, Convenient to carry, Powerful development framework,

simply downloadable, runs on most of mobile phones. There are a number of apps which are pre-installed in Smartphone's and others Apps users can easily download, installed in Smartphone. In the past, people used mobile phones just for receiving a call, messaging and doing simple calculations, etc. Now a day, Mobile Phones are Used Commonly due to different functionalities i.e. users can use for calling, used for messaging, used for browsing, used for chatting, used for social network communication, and users can also use for audio, video, games, etc. Mobile food ordering and food delivery are one of the most popular areas of mobile application development. The online food delivery application is impressively good for those people that don't have time to go to the restaurant. Anyone who has a Smartphone they can easily order food from anywhere and they can receive food at her/her home. Payment can be either on delivery or by credit card and Digital payment.

II. RELATED WORK

2.1 Online Food Delivery (OFD)

Online Food Delivery is similar to e-commerce, but it has more direct process and the items ordered are different than eCommerce that usually sell products. Besides that, the delivery time also faster than e-commerce, the food or product ordered will be delivered directly to the customer. In this case, mostly in Indonesia, online food is provided by many providers of sharing economies such as Go-Jek (Go-Food) and Grab (Grab-food), but suppliers or restaurants also have online food delivery facilities such as KFC, Pizza Hut, etc. This online Food delivery is located on the customer's Smartphone, depending on the customer's needs.

2.2. Conventional Paper-Based System

A paper-based system is one of the most widely used food ordering systems in the past. In this system, customers have to go to the restaurant and the waiter takes order from the customer and writes down on paper. In this system, each and every type of record is stored on paper. Then the waiter sends the order to the kitchen for further processing. The main drawback of this system is the wastage of time and money.

2.3 Personal Digital Assistant Personal digital assistant

A personal digital assistant is a portable device like a Smartphone every waiter should have a PDA and take orders from customers. According to the author, personal digital assistants and Smartphone are used by a limited number of people in the past. Still, due to potential, sales and the user of Smartphone's are increasing day by day. In the modern market of Smartphone's, mobile offers a variety of choices and lifestyles.

2.4 Trust

In the business field, trust is essential because it provides customers with a sense of safety. Service providers need to be able to create truthful connections with their customers to provide the basis for a good consumer-brand relationship and long-term success. Creating valuable content or campaigning can motivate customers to use a product or service and establish long-term relationships with them.

2.5 Application Quality

Application quality is the top concern regarding the customers' use of technology and is critical to customer satisfaction. An increase in technology and a competitive environment requires new actions. Companies that do not consider and meet the demanded quality standards of their products and services have no chance of survival in the market. Companies must persevere to understand their customers' requirements and must focus on exceeding their customers' expectations. Therefore, quality is crucial for business success and future development. In the food delivery app context, application quality can be defined as a multidimensional interface stimulating negative or positive responses to the use of the food delivery app.

2.6 Satisfaction

The competition for customers is stronger than ever before in the food delivery market due to overcrowding. Just attracting new customers is not enough to guarantee business success. Ensuring customer satisfaction and keeping existing customers satisfied has become the most critical business goal to increase revenue and expand the customer base. Satisfaction is a cumulative feeling developed after multiple uses of an app and after multiple interactions with service providers. It is evident that the more customers are satisfied, the more they are likely to use the product or service again in the future. Satisfied customers are hidden treasures, and keeping them fully satisfied and happy is the key to retaining them as regular customers. In the food delivery app context, satisfaction is defined as the user's pleasure from using a food delivery app [9]. During the current COVID-19 pandemic, providing superior services and exceeding customer expectations have improved customer experience (satisfaction) when using food delivery apps.

III. PROPOSED SYSTEM

The following are the tools that were used in the development of previously proposed systems.

3.1 JAVA

Java is a high-level programming language, which developed by Sun Microsystems. It was originally designed to develop the Android application. The syntax of java language is just like C++ programming language. But it is a purely object-oriented programming language. Java programs consist of classes and methods. The java program is interpreted by java virtual machine which almost the entire platform. The java program developments require a java software development kit, which typically includes compiler, interpreters, and documentation generator, etc. which is used to produce a complete code.

3.2 MYSQL

MYSQL is Open source freely available relational database management system, which uses structure query language. SQL is a structured query language that is used to add, remove, update and access the content of the database. It is widely used due to its processing speed, high reliability, and flexibility of use.

3.3 PHP

PHP stands for peripheral Hypertext preprocessor, it is a widely use journal purpose scripting language. It was originally developed for the development of a web-based application. The code of PHP is embedded with HTML hypertext markup language to create and produce dynamic WebPages. It is free available programming language and run on the different platform including Linux, Unix, and window operating system, etc. PHP is easy to learn and easy to understand.

IV. USED RESEARCH METHODOLOGY

In the above overall discussed system normally both qualitative and quantitative research methodology. User-based testing is the type of qualitative research method in which users are directly participating. In this method, users are requested to perform the task on the App or product, or in another way to explore it freely [20]. While using the product their behavior is observed and recorded for the purpose to identify the flaw, errors, and difficulties. When the user performs the tasks these things to be noted, time required to perform the task, task-completion rates, and the number and type of errors, are recorded. If the flaws in the product are identified then design recommendations are proposed to improve the usability of the App. User-based testing is the type of qualitative research method in which users are directly participating. In this method, users are requested to perform the task on the App or software product. When the user performs the tasks these things to be noted, time required to perform the task, task-completion rates, and the number and type of errors, are recorded. Heuristic evaluation is the type of research method, in which a small group of the evaluator are presented to the interface and asked to judge the product or the App follows usability principles. It is the most commonly used usability evaluation method, in which both expert and non-expert users participate. The main advantage of usability evaluation is the ability to do a lot of work in short period of time with limited resources.

V. IMPLICATION

The research provider of food online delivery must provide more detailed information about the food to make it more interesting for the customer. The customer expects a lot from this information. In food, for example, it must provide more detailed information about comments, reviews from food reviewers and other customers, prices should be updated, so that customers feel more satisfied and not disappointed if the price is different and charged different from what is in the application, the food picture also the real picture for each menu. In addition to providing information, providers of online food services must offer more convenience according to the identity of the customer. The application must already know the identity of the customer, for example for men or

women, age and others. Then provide a suitable suggestion in accordance with the privacy data provided by the customer so every information will appear appropriate as the customer needs and gives convenience for customers.

VI. CONCLUSION AND FUTURE WORK

This paper presents, all the proposed systems related to food delivery, food ordering, and food delivery applications. But in all these proposed systems there are a lot of drawbacks. In a conventional system, the waiter takes orders from customers and writes them down on paper then sends them to the kitchen for further processing. To cover the limitation of conventional paper-based systems, a personal digital assistant system, a multi-touch screen technology system has been introduced which enabled users to use that touch screen for ordering food. Then wireless food ordering system comes which also enabled, the customer to get real-time feedback. This system changed to mobile food ordering and delivery process but there are still some limitations and usability issues. Now we are going to develop a Usable food delivery application according to the current customer needs and also to fulfill all the available usability issues in these systems.

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