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FOOD DELIVERY ORDERING SYSTEM

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ABSTRACT

Online food ordering system is a web-based application that allows customers to order their foods online by locating restaurant around their neighbourhood. Recently, this trend becomes popular among university student. Student placed order typically through a merchant's website or phone call, while some students join an instant messaging group to make order. Current practice leads to the problems such as difficulty to track and manage order, lack of merchant and meals information and some student experienced fraud. Thus, a food delivery ordering system (FDOS) is developed which act as an e-marketplace for student and merchant to conduct transaction and this process is controlled by the university in a single platform. The objective of this project includes identifying user and system requirements, development of the system using adapted waterfall model and applying characteristics of online demand delivery services and the last objective is to evaluate the functionality and usability of the system with expert and potential users. FDOS utilized a business-to-consumer (B2C) model in line with the commission fee as a revenue model. The evaluation process includes seven (7) constructs which are online food ordering system, perceived ease of use, efficiency, satisfaction, consistency, user interface design and restaurant perception. As a result, the construct for online food ordering system and restaurant perception get the highest mean which is 4.97 and 5.0 respectively. Conclusively, users of the system are satisfied that online food ordering system is more convenient and helps merchant to increase company growth to accelerate revenue.

Keywords: food delivery ordering system, e-marketplace, online demand delivery services, e-commerce

1. INTRODUCTION

Electronic commerce has affected the global economy in our country in many different aspects. The highest profile types of e-commerce involve those that sell products or services to customers [1]. Nowadays, online food ordering systems are becoming a popular topic. By using the internet to make an order, users can check the menu, search the restaurant that they want, and can view the customer rating and also can see the review of the restaurants. Then from the restaurant's perspective, they no longer spend time taking the customer order and stop worrying about communication errors. Most businesses associate an online food ordering with on-demand delivery services in order to provide greater value to the consumer [2]. The use of on demand services greatly increased from 2016 to 2017, which is from 24.9 million customers in 2016 to 41.5 million in 2017. Total customers spending on on-demand services reached $75.7 billion in 2017 versus $48.0 billion in 2016. The most popular categories of on demand services identified in this research include the food delivery [3].

2. METHODOLOGY

This project focused on the current ordering process and the problem among the university students that order foods online, the requirements to develop a system and lastly the evaluation of the system in term of functionality and the usability of the system. During preliminary study, a total of 42 students had responded to a survey to identify their experience using the internet to order foods. The result shows that around 83.3% of respondents prefer using this service because it is easy, convenient and faster in just one click away. For development of the system, this project implemented adaptive waterfall model which consist of six phases which are planning, analysis, design, development, testing and documentation. The most vital phase is the implementation phase where the designs of the system being executed and followed by the testing of the system. There were 30 respondents participated in testing phase. Meanwhile, the last phase is focusing on documentation.

2.1. System Design & Modules

FDOS is developed to facilitate the transaction between the student and merchant, while the university act as a third party to monitor the whole process that include managing the merchant's membership application and viewing payment and order reports. Merchant needs to register by providing their details and pay a membership fee, and once it is approved by the university, the merchant can access the system and manage their menu and order management. On the other hand, student can access the system and complete the order within the system including payment and order tracking.

3. FINDINGS AND DISCUSSION

This project implemented the characteristic of on-demand delivery services [2] which include features of authentication, visually informative, live GPS tracking, payment gateway integration and review and rating system. Several sets of test plans are distributed to 30 respondents. The test plan covers demographic profile of the users, and the seven constructs for system usability. Based on the result, the construct for online food ordering system and restaurant perception get the highest mean which is 4.97 and 5.0 respectively. It implies that the satisfaction of the system is good and user responses have only small dispersion which reflects to the implementation of the characteristics on-demand delivery service.
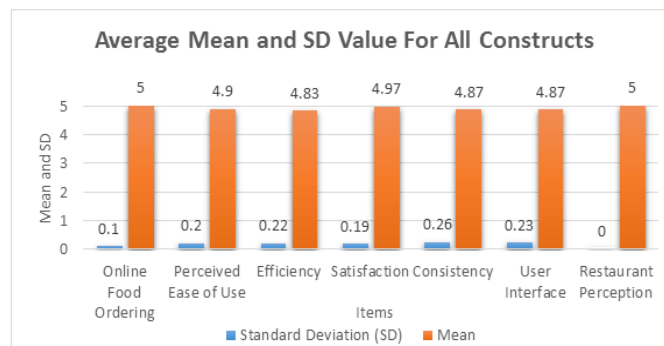

Figure 1. Analysis of System Evaluation

4. CONCLUSION

Conclusively, users of the system are satisfied that online food ordering system is more convenient and helps merchant to increase company growth to accelerate revenue. With the technology evolving day by day, online food ordering system has become a key part in the present food industry to endure the market competition and to serve your customers in a better way.

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