CURRENT ADVANCED RESEARCH ON SHARIA FINANCE AND ECONOMIC WORLDWIDE
(CASHFLOW)
VOLUME 1 ISSUE 4 (2022)

IMPLEMENTATION OF QR CODES ON ICHIBAN SUSHI RESTAURANT'S DISH MENU ON ORDER TIME EFFICIENCY AND CUSTOMER SATISFACTION LEVEL

Firstarine Alberlianasari[1*], Salma Nabilah[2], Safrina Dewi Rahmawati[3]
[1,2,3] Jurusan Pendidikan Ekonomi, Universitas Siliwangi
E-mail: [1)] firstarinealber10@gmail.com, [2)] salmanabilah261@gmail.com,
[3)] safrinadewi608@gmail.com

Abstract

This research aims to find out how the QR code affects the efficiency of consumer ordering time and the level of consumer satisfaction with the QR code. This is a qualitative research which describes the QR code research on the Ichiban Sushi restaurant menu. Data collection techniques using observation and interviews. The research carried out on "Ichiban Sushi" restaurant which is located in Plaza Asia, Tasikmalaya City in West Java. The results of this study focus on solving problems by simplifying the queue management process for the Ichiban Sushi menu and simplifying restaurant menu ordering and how it affects customer satisfaction. The findings reveal that there was an efficiency in ordering time because using this QR code was felt to be faster and more flexible, consumers could order simultaneously and consumers also did not need to queue to order restaurant menus. QR codes on the ordering menu for Ichiban Sushi Restaurant greatly affects the level of consumer satisfaction, where the majority of consumers feel satisfied with the use of QR codes on the ordering menu for Ichiban Sushi Restaurant which is certainly very beneficial for consumers.

Keywords: *QR Code, Order Time Efficiency, Customer Satisfaction, Dish Menu, Ichiban Sushi Restaurant*

1. INTRODUCTION

According to current advancements, the usage of technology is quickly increasing in this millennial era (Saputra, 2021). Where technology is not only focused on the use of social media, but is also quickly developing in a variety of industries (El Fiorenza et al., 2018; Shriwas et al., 2014). One of them is the Ichiban Sushi culinary sector, which is currently in high demand among Indonesians, particularly teenagers who are also well-versed in modern technological breakthroughs (Bendixen et al., 2004). Ichiban Sushi has changed its menu to a disposable or one-time menu since the Covid-19 pandemic since it is considered that using menu books can offer a risk of transferring the Covid-19 virus. Aside from the presence of Covid-19, there are other internal issues such as a lack of customer satisfaction with employee service, the efficiency of ordering time, and the length of the dishes supplied.

Ichiban Sushi's use of technology in this scenario includes the use of QR codes on the food menus they serve. According to Soon (2008), a QR code is a form of matrix code or two-dimensional barcode invented and published in 1994 by Denso Wave, a division of Denso Corporation, a Japanese business, with the major functionality that it can be easily read by a QR scanner is an abbreviation for quick reaction or quick response, and its

objective is to deliver information quickly and receive a quick response (Faisal & Anas, 2020).

The usage of this QR code is also highly valued by a large number of individuals, as it facilitates the ordering of menu items solely through the display of a mobile phone or tablet (Pambudi et al., 2020; Azmi, 2020). Customers are simply required to input personal information, such as cell phone numbers or email addresses, in order to enhance order time efficiency (Kovacs & Szeman, 2013). However, there are a number of drawbacks to the QR code when viewed from a variety of perspectives (Ratih, n.d.; Taufiq, 2014; Anggreani, 2016), such as this QR code that can only be used on smart phones such as Android and Apple, causing difficulties for elderly consumers or consumers who are unfamiliar with Android and affecting consumer satisfaction.

Hence, the purpose of this research is to explain how the implementation of the QR code on the menu of the dish influences the efficiency of ordering time and customer satisfaction at the Ichiban Sushi Restaurant in order to determine how effective the use of this QR code is for long-term implementation.

2. RESEARCH METHOD

This descriptive study employs qualitative research to discuss the QR code research on the Ichiban Sushi restaurant menu. Data collection techniques using observation and interviews. The research carried out on "Ichiban Sushi" restaurant in Plaza Asia, which is located at Jl. KHZ. Mustofa NO. 326, Tugujaya, Kec. Cihideung, Tasikmalaya City, West Java 46126. This study uses a scientific approach, namely a research approach based on science and technology. There are several research instruments used in this study, namely:

a) Hardware, which consists of: Acer Laptop RAM 4 GB, Asus Laptop RAM 4 GB, Android Smartphone.
b) Software: Windows 10 64-bit, Windows 11 64-bit, Google Lens, Android Device, Ichiban Sushi Website, QR Code Application.

3. RESULT AND DISCUSSION

Systems Analysis is a term that refers to both the early phases of system development and a troubleshooting procedure for a component. This is accomplished by detailing the system's components in order to identify an issue.

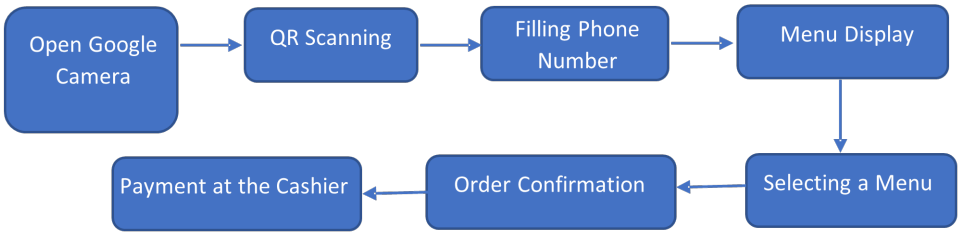

Figure 1 System Analysis Flowchart

In Figure 1, a process or service system step is described. This service system is in the form of a QR code scan that is connected directly to an Ichiban Sushi restaurant web. The first step in the operation of this system is to use the Google camera to scan the QR code that

is shown on the table. After that, the system will proceed to automatically enter the web, at which point customers will be prompted to enter their telephone number. After filling in the mobile number, all the Ichiban Sushi restaurant menus will be displayed. Then the consumer selects the menu they want to order, after finishing selecting the menu, a menu confirmation display appears on the web and the order is automatically connected to the restaurant server. Subsequently, there will be a waiter who comes to the consumer's desk to reconfirm the consumer's order, after which the consumer pays at the cashier while showing the display that has been listed on the order and the consumer's desk number.

3.1. Problem Analysis

As a result of observations and observations, it has been determined that there is a need to improve service at the Ichiban Sushi restaurant, as the number of customers is increasing daily. Consequently, the present issues will be remedied as a result of the enhancement of these services. These issues include the late arrival of the dishes ordered by customers, despite the fact that other customers have already gotten their food, a scarcity of ramen spoons, and a weak signal, despite the fact that the menu ordering service must utilize internet assistance. As a matter of fact, if the restaurant improves its service, there will be fewer customer complaints and more satisfied customers.

3.2. System Requirements Analysis

1. Non-Functional Requirements Analysis

Analysis of non-functional requirements is an analysis needed to determine the specification of the requirements of a system (Tiwari, 2016). In the analysis of non-functional requirements is also explained about the analysis of hardware requirements, software and user analysis, including:

a. Software

The required software are as follows: Microsoft Windows10 (64-bit), Microsoft Windows11 (64-bit), Google Lens, Android Device, Ichiban Sushi Website, and QR code app

b. Hardware

The hardware required are as follows: ASUS Laptop RAM 4GB, Acer Laptop RAM 4GB, and Android Smartphone

2. Functional Requirements Analysis

Functional requirements are types of requirements whose contents are in the form of any processes that will be carried out by a system. This functional requirement also contains what information must exist and is also generated by a system.

3. System Design

The following are the results of the implementation of the system that has been made:

a. Scan the QR code

To access the Ichiban Sushi restaurant's system or website, customers must first scan the QR code that is already present on every table (Li et al., 2009 dan Qian et al., 2021). Since customers can use the Ichiban Sushi restaurant's system only after scanning the QR code.

Figure 2 Ichiban Sushi restaurant QR code

b. *Splash Screen*

A picture of Ichiban Sushi's name and an instruction to fill in a phone number appear at the top of the web page. The Splash Screen on the initial display of this website has a purpose, especially Ichiban Sushi branding or logo identification. After entering the phone number, customers can click "order food" to place an order for food or drinks.

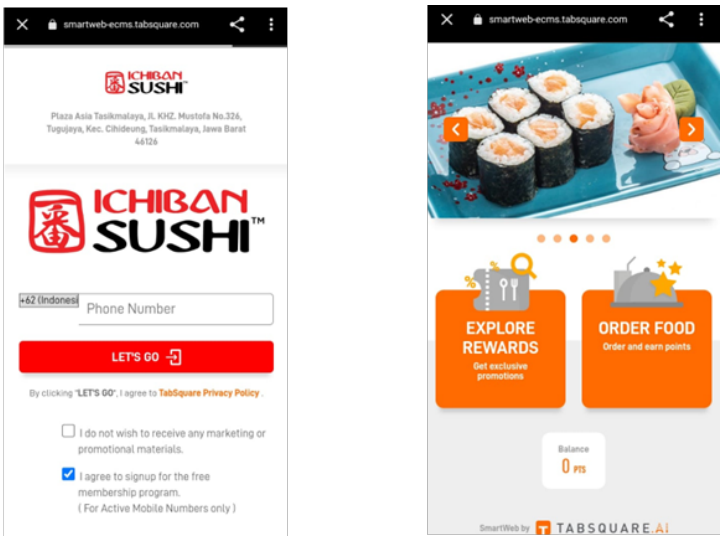

Figure 3 Splash Screen Display

c. Menu Display

The menu display shows a list of food and beverage menus. The food menu is further divided into several categories such as ramen, sushi, and so on.

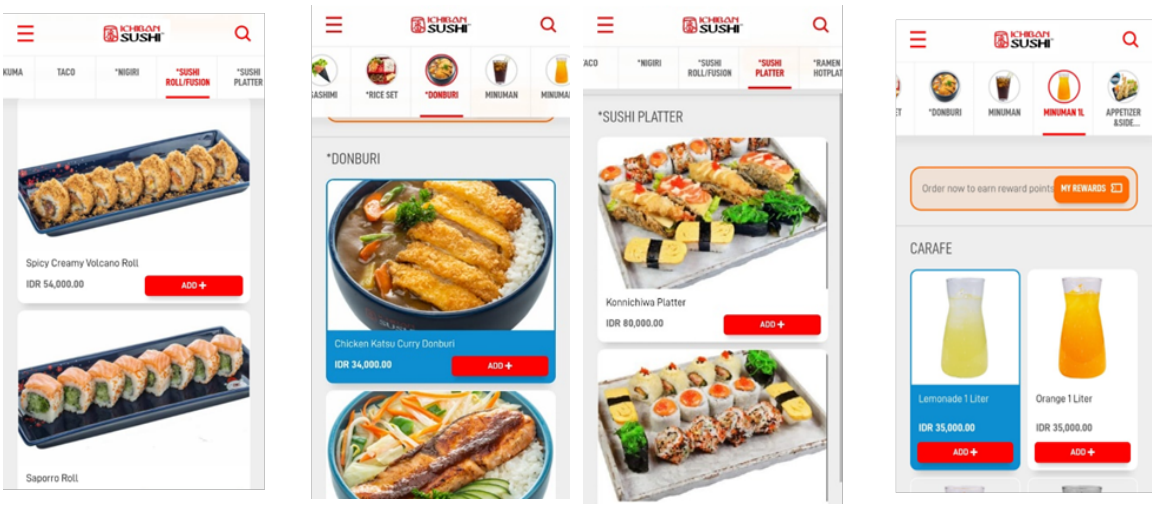

Figure 4 Display of the Food and Beverage Menu

d. Order Confirmation Display

This view displays a list of menus that customers have chosen/ordered, as well as their pricing and total costs. The order is then confirmed, and it is automatically entered into the restaurant server. The consumer then pays the cashier for the order by displaying the final display on the web, which includes the menu that the customer purchased, the total price, and the table number.

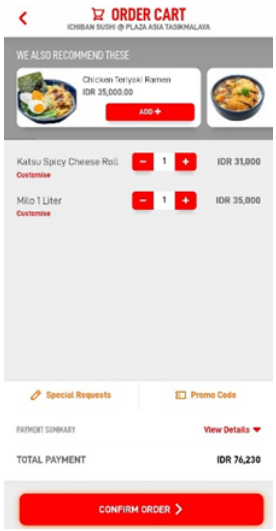

Figure 5 Display Order Menu Confirmation

3.3. The Influence of QR Code Implementation on Order Time Efficiency at Ichiban Sushi Restaurant

Efficiency is a measure of a process's resource consumption (Sedarmayanti, 2014:22). The procedure will be more efficient if it uses fewer resources. The development of a process so that it becomes cheaper and saves more time is a feature of an efficient process. Place efficiency, time efficiency, benchmark efficiency, break-even efficiency, and other factors all contribute to overall efficiency (Shamsuzzoha et al., 2012). Time efficiency, on the other hand, is a type of efficiency that we frequently come across in our daily lives. The term "time efficiency" is used in a variety of industries, including the culinary arts.

This study is focused on the culinary industry, where time efficiency is absolutely critical. Ichiban Sushi Restaurant is one of the culinary businesses that millennials adore nowadays. Ichiban Sushi Restaurant uses QR codes to order restaurant meals in order to improve service and save time. The adoption of this QR code is one of the most recent advances for restaurant owners, since it allows them to attract more customers by providing ease. One of the benefits that consumers see as a result of using this QR code is that ordering time is minimized.

According to the findings of our interviews, the majority of customers said that ordering time was more efficient since utilizing this QR code was perceived to be faster and more flexible, consumers could order at the same time, and consumers did not have to wait in line to purchase restaurant menus. As a consequence, using QR codes on the Ichiban Sushi Restaurant ordering menu can save time and increase customer satisfaction.

3.4. The Influence of QR Code Implementation on Customer Satisfaction at Ichiban Sushi Restaurant

In his book "Principles of Marketing," Kovacs & Szeman (2013) defines customers as "all persons and families who purchase or get goods or services for personal consumption." As a result, when executing a purchase transaction, the consumer is one of the parties entitled to receive satisfaction from the seller. Meanwhile, according to Kotler & Armstrong (2001) from the book Marketing Management, consumer satisfaction is a person's feelings of joy or disappointment as a result of comparing the performance (results) of the product to the expected performance.

Consumer satisfaction itself is based on the theory of satisfaction (the Expectancy Disconfirmation Model), which is a model that explains the process of forming consumer satisfaction or dissatisfaction. Consumer satisfaction is also influenced by several factors such as the products produced, good service, attractive advertisements, and providing convenience for consumers. These factors have been proven to have been applied directly since the Covid-19 pandemic by Ichiban Sushi Restaurant, one of which is by implementing the use of QR codes on the menu of dishes which are considered to be able to facilitate consumers. The use of the QR code scan can be used by consumers from the age of children to the elderly because its use is through hardware in the form of Android or iOS which is generally owned by all groups.

Based on the research that we made through observations and interviews with several consumers of Ichiban Sushi Restaurant, the use of the QR code in ordering menus at Ichiban Sushi Restaurant turned out to be very helpful for consumers in ordering food. One of them is time efficiency in ordering, making it easier for consumers to choose a menu with flexible

conditions through their respective cellphones. Furthermore, QR codes are thought to be more cost-effective and help eliminate menu inaccuracies. This is due to the fact that through the Ichiban Sushi Restaurant web menu, customers can choose and order their own food menu. Although elderly consumers may have difficulty scanning QR codes, the waiters who are on duty will be happy to help consumers direct the menu to these consumers. On the other hand, it turns out that signal and network problems are also still an obstacle in ordering menus through QR codes where consumers must have more quota or signal network to be able to access the Ichiban Sushi Restaurant web menu.

Through our observations and research interviews and evaluations, the implementation of using QR codes on the ordering menu for Ichiban Sushi Restaurant greatly affects the level of consumer satisfaction, where the majority of consumers feel satisfied with the use of QR codes on the ordering menu for Ichiban Sushi Restaurant which is certainly very beneficial for consumers themselves as well as for Ichiban Sushi Restaurant owners because they are able to increase their turnover.

4. CONCLUSION

4.1. Conclusion

Based on the findings of the presented data, it is possible to conclude that this QR code scan is being used as intended. This innovation is aimed to decrease order processing time and improve customer satisfaction at Ichiban Sushi restaurants. In accordance with the desires of both business owners and customers, this system is extremely advantageous for both business owners and customers. With this system, consumers can be assisted or facilitated. With the usage of this QR code, the ordering process becomes more efficient, which is one of the advantages noticed by consumers. By utilizing this QR code, it is believed to be faster and more flexible, customers may place orders simultaneously, and there is no need for consumers to wait in line to order food or beverages at the restaurant. In addition, the usage of QR codes is thought to be more cost-effective and helps eliminate menu errors. Therefore, we conclude that the adoption of QR codes in Ichiban Sushi restaurants has a significant effect on both the efficiency of the ordering process and customer satisfaction.

4.2. Suggestion

As we all know, having a supported internet connection is required in order to access the QR code. However, the accessible internet signal at the Ichiban Sushi restaurant where we visited was less steady, preventing customers from using the existing system. As a result, we suggest that Ichiban Sushi support the presence of Wi-Fi at the restaurant so that customers can access the QR code.

5. ACKNOWLEDGEMENT

We would like to extend our gratitude to the Ichiban Sushi Restaurant for being ready to allow us to use some of their business practices, namely the application of the QR code for the dish menu, as study material in order for us to be able to successfully carry out our research.

REFERENCES

Anggreani, N. (2016). *Aplikasi Pemesanan Menu Di Restoran Menggunakan Qr (Quick Response) Code Pada Rm Pak Dirjo*. http://repository.polimdo.ac.id/687/1/NOVITA

ANGGREANI_opt.pdf

Azmi, F. M. (2020). *Pola Pemanfaatan Kode Qr Pada Peningkatan Pelayanan Dan Kepuasan Pelanggan Pada Restoran*. Fakultas Sains dan Teknologi. UIN Alauddin: Makassar.

Bendixen, M., Bukasa, K. A., & Abratt, R. (2004). Brand equity in the business-to-business market. *Industrial marketing management*, *33*(5), 371–380.

El Fiorenza, J. C., Chakraborty, A., Rishi, R., & Baghel, K. (2018). Smart Menu Card System. *2018 3rd International Conference on Communication and Electronics Systems (ICCES)*, 847–849.

Faisal, F., & Anas, M. A. F. (2020). Pemanfaatan Kode Qr Pada Peningkatan Pelayanan Dan Kepuasan Pelanggan Pada Restoran. *Jurnal INSTEK (Informatika Sains dan Teknologi)*, *5*(1), 111–120.

Kotler, P., & Armstrong, G. (2001). *Manajemen Pemasaran: Analisis, Perencanaan, Implementasi, dan Kontrol. jakarta: PT Prehallindo*.

Kovacs, L., & Szeman, G. (2013). Complexity-based generation of multi-choice tests in AQG systems. *2013 IEEE 4th International Conference on Cognitive Infocommunications (CogInfoCom)*, 399–402.

Li, G., Yang, H., Sun, L., & Sohal, A. S. (2009). The impact of IT implementation on supply chain integration and performance. *International journal of production economics*, *120*(1), 125–138.

Pambudi, L. B. A., Rahagiyanto, A., & Suyoso, G. E. J. (2020). Implementasi QR code untuk efisiensi waktu pemesanan menu makanan dan minuman di restoran maupun kafe. *BIOS: Jurnal Teknologi Informasi dan Rekayasa Komputer*, *1*(1), 35–39.

Qian, J., Xing, B., Zhang, B., & Yang, H. (2021). Optimizing QR code readability for curved agro-food packages using response surface methodology to improve mobile phone-based traceability. *Food Packaging and Shelf Life*, *28*, 100638.

Ratih. (n.d.). *Kepuasan Konsumen: Pengertian, Teori, Faktor dan Indikator*. Diambil 13 Juni 2022, dari https://tambahpinter.com/kepuasan-konsumen-revisi/

Saputra, A. S. (2021). Pengaruh Teknologi Informasi Pada Koperasi Di Era Industri 4.0. *Transekonomika: Akuntansi, Bisnis Dan Keuangan*, *1*(5), 505–510. https://doi.org/https://doi.org/10.55047/transekonomika.v1i5.77

Shamsuzzoha, A. H. M., Ehrs, M., Addo-Tenkorang, R., Nguyen, D., & Helo, P. T. (2012). Performance evaluation of tracking and tracing for logistics operations. *International Journal of Shipping and Transport Logistics*, *5*(1), 31–54.

Shriwas, R., Patel, N., Bherani, A., Khajone, A., & Raut, M. (2014). Touchscreen based ordering system for restaurants. *2014 International Conference on Communication and Signal Processing*, 1021–1024.

Soon, T. J. (2008). QR code. *synthesis journal*, *2008*, 59–78.

Taufiq, T. (2014). *Kelebihan dan Kekurangan QR Kode*. https://blogsitaufik.blogspot.com/2014/11/kelebihan-dan-kekurangan-qr-code.html

Tiwari, S. (2016). An introduction to QR code technology. *2016 international conference on information technology (ICIT)*, 39–44.