



ASSESSMENT OF DIGITAL KIOSK ATTRIBUTES AND CUSTOMER EXPERIENCE IN QUICK SERVICE RESTAURANTS

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ABSTRACT

This study assessed digital kiosk attributes and customer experience in quick service restaurants (QSRs). Specifically, it examined the demographic profile of digital kiosk users in terms of age, sex, employment status, and frequency of kiosk usage; evaluated customers' perceptions of digital kiosk attributes, including user-friendly interface, customization options, menu display, payment integration, order confirmation, language options, promotions and discounts, accessibility features, order tracking, and feedback collection; and determined whether customer experience differed across demographic groups. A descriptive quantitative research design was employed, and the study was conducted from February 2024 to January 2025. Data were collected from 303 digital kiosk users from selected quick service restaurants in Ermita, Manila using a structured survey questionnaire. Frequency, percentage, weighted mean, standard deviation, and the Kruskal–Wallis test was used to analyze the data. The findings revealed that respondents generally rated all digital kiosk attributes as Strongly Agree, indicating highly positive customer experiences. Significant differences in customer experience were observed when respondents were grouped according to sex and frequency of kiosk usage, while no significant differences were found based on age and employment status. The study concludes that customers generally perceive digital kiosk attributes positively and view digital kiosks as effective self-service technologies that support positive customer experiences.

Keywords: *Digital Kiosks, Customer Experience, Quick Service Restaurants (QSR)*

INTRODUCTION

Digital kiosks are interactive stand-alone devices that allow physical user engagement. These gadgets have become an essential component of a variety of businesses, including retail, hospitality, and healthcare. Digital Kiosks allow customers to easily customize their orders, choosing ingredients, portion sizes, and dietary preferences. This level of personalization enhances customer satisfaction and loyalty. Implementing web-based food ordering systems allows customers to place orders online, eliminating the need for physical queuing and providing real-time updates on order status (Winanda et al., 2025).

A quick service restaurant is one which is focused on providing customers with food as quickly and efficiently as possible. This generally means there is no table service, and food is cooked to order in a short space of time. Quick Service Restaurant are known to have standardized, modular, and efficient processes which help them in reducing the lead times to fulfil the orders but still maintain the quality expected by the customers. Preparation methodology and usage of technology are pillars of a Quick service restaurant (QSR).

The term "quick serve" indeed aligns closely with "fast food," as both refer to food that is prepared and served rapidly, often in a franchise model. Quick service restaurants (QSRs) have become a dominant force in the food service industry, characterized by their convenience and affordability. QSRs typically operate under a franchise model, allowing for standardized food preparation and distribution from central locations. The capital requirements for opening a QSR are relatively low, making it accessible for many entrepreneurs (Bergen, n.d.).

The study explores the integration of digital kiosks in quick-service restaurants (QSRs) as a response to evolving technological advancements in the food service industry. Digital kiosks are self-service technologies that streamline ordering and payment processes, offering customers enhanced convenience, customization options, and operational efficiency. These kiosks have become increasingly prevalent in the QSR sector, enabling businesses to address challenges like labor shortages and increasing consumer demand for personalized dining experiences. The adoption of digital kiosks reflects a shift towards improving customer satisfaction while optimizing restaurant operations.

The study aimed to assess customers' perceptions of digital kiosk attributes and the overall experience in quick service restaurants. It focuses on understanding how features such as user-friendly interfaces, customization options, menu displays, and payment integrations influence customer perceptions. Additionally, the research seeks to determine whether demographic factors affect overall satisfaction and to provide insights for QSRs to enhance their services and adapt to technological trends effectively.

Impact of Self-Service Technologies on Customer Experience

Digital kiosks empower customers by offering streamlined ordering and payment processes, enhancing convenience and reducing wait times. They also contribute to operational efficiency and customer satisfaction by enabling personalized and autonomous experiences. (*Rastegar, 2018; Kokkinou & Cranage, 2013; Liebman, 2003*)

Customization and Personalization

Customization and personalization significantly enhance customer satisfaction and loyalty, particularly in dining experiences facilitated by kiosks. By allowing customers to select ingredients and adjust portion sizes, businesses can create tailored experiences that meet individual preferences. This approach not only aligns with customer expectations but also fosters a deeper connection between the customer and the brand. Personalization leads to higher satisfaction as it meets specific customer needs, aligning with the Expectancy-Disconfirmation Theory (Onibokun et al., 2023). Customers who engage in customization are more likely to return, as evidenced by a study showing that initial customization experiences lead to increased future customization and spending (Kim et al., 2025).

User-Friendly Interface Design

A straightforward layout minimizes cognitive load, allowing users to navigate easily. Intuitive designs lead to higher satisfaction and retention rates (Harahap et al., 2024). Providing explicit guidance helps users understand functionalities, reducing frustration and enhancing usability ("The Impact of Customer Interface and Exp...", 2025). Immediate feedback on user actions reinforces engagement and trust, making users feel in control of their interactions (Priyadarshini, 2024).

Efficiency of Digital Kiosks in Upselling and Revenue Growth

The efficiency of digital kiosks in upselling and revenue growth is significantly enhanced through the integration of advanced technologies such as artificial intelligence (AI) and interactive features. These innovations not only personalize customer experience but also optimize operational performance, leading to increased sales. AI algorithms analyze customer behavior and preferences, allowing kiosks to recommend tailored products based on purchase history and demographics (Rajalakshmi et al., 2025). By anticipating customer needs through sentiment analysis and contextual data, kiosks can effectively suggest higher-value items, boosting upsell opportunities (Rajalakshmi et al., 2025) (Ogbu, 2025). Interactive kiosks that connect with mobile platforms enhance customer engagement and conversion rates, creating a continuous shopping experience (Rajan, 2025).

Adoption of Technology in the Food Service Industry

The adoption of technology in the food service industry has significantly transformed operations, customer experiences, and sustainability practices. Key advancements include automation, AI, and mobile platforms, which streamline processes and enhance service delivery. The integration of these technologies not only improves efficiency but also personalizes customer interactions, making it essential for businesses to adapt to remain competitive. Smart kitchen technologies reduce labor costs and optimize food preparation processes (Yue, 2024). These tools enable personalized services, optimize supply chains, and enhance decision-making, improving overall management and customer satisfaction (Silva et al., 2025) (Dsouza et al., 2024). Platforms like UberEats and DoorDash expand market reach and convenience for consumers (Yue, 2024).

Research Questions

The study aimed to assess customers' perceptions of digital kiosk attributes and the overall experience in quick service restaurants. Specifically, it sought to answer the following questions:

1. What is the demographic profile of the respondents in terms of:
 - 1.1 Age;
 - 1.2 Sex;
 - 1.3 Employment status; and
 - 1.4 Frequency of digital kiosk usage?
2. What is the level of assessment of digital kiosk attributes in terms of:
 - 2.1 User-friendly interface;
 - 2.2 Customization options;
 - 2.3 Menu display;
 - 2.4 Payment integration;
 - 2.5 Order confirmation;
 - 2.6 Language options;
 - 2.7 Promotions and discounts;
 - 2.8 Accessibility features;
 - 2.9 Order tracking; and
 - 2.10 Feedback collection?
3. Is there a significant difference in customers' perceptions of digital kiosks attributes and customer experience when respondents are grouped according to:
 - 3.1 Age;
 - 3.2 Sex;
 - 3.3 Employment status; and
 - 3.4 Frequency of digital kiosk usage?

METHODOLOGY

The study employed a descriptive quantitative research design to assess digital kiosk attributes and customer experience in quick-service restaurants (QSRs). It aimed to describe demographic profile of digital kiosk users, assess customers' perceptions of digital kiosk attributes, and determine whether significant differences existed in customer experience across selected demographic variables. Data were collected using a structured survey questionnaire designed to examines customers' perceptions of digital kiosk attributes such as user-friendly interfaces, customization options, menu displays, and payment integrations. The respondents were 303 digital kiosk users from three major QSRs in Ermita, Manila. Participants were selected using quota sampling, ensuring representation across the selected QSRs. The demographic profile of the respondents included factors such as age, sex, employment status, and frequency of digital kiosk usage. Frequency distribution and percentage were used to describe the respondents' demographic characteristics, while weighted mean and standard deviation were utilized to assess customers' perceptions of digital kiosk attributes. The Kruskal–Wallis test was employed to determine significant differences in customer experience when respondents were grouped according to their demographic characteristics.

RESULTS AND DISCUSSION

Demographic Characteristics of Customers who use Digital Kiosks in Quick Service Restaurants

Table 1. Frequency of Respondents based on Age

AGE	FREQUENCY	PERCENTAGE
18-24 Years Old	238	78.55
25-34 Years Old	40	13.29
35-44 Years Old	12	3.96
45-54 Years Old	10	3.30
55-64 Years Old	5	1.65
65 Years Old and Above	1	0.33
TOTAL	303	100

Table 1 presents the age distribution of customers who use digital kiosks in quick service restaurants. Most of the respondents were between 18 and 24 years old, comprising 78.55% (n = 238) of the total sample. This was followed by respondents aged 25–34 years old, who accounted for 13.29% (n = 40). The remaining age groups, namely 35–44 years old (3.96%), 45–54 years old (3.30%), 55–64 years old (1.65%), and 65 years old and above (0.33%), represented only a small proportion of the respondents. The predominance of respondents aged 18–24 years old suggests that younger consumers are more likely to utilize digital kiosks in quick service restaurants. This finding may be attributed to their greater familiarity with digital technologies and higher levels of technology readiness. According to Parasuraman and Colby (2015), younger individuals

tend to exhibit greater confidence and optimism toward new technologies, making them more receptive to technology-based service encounters. Similarly, Davis (1989) posited in the Technology Acceptance Model that users are more likely to adopt technologies they perceive as useful and easy to use. As digital natives, individuals within the younger age group are generally more accustomed to interacting with digital platforms, mobile applications, and self-service technologies, which may explain their higher representation among digital kiosk users. The findings indicate that digital kiosks are particularly appealing to younger customers who value convenience, speed, and technology-enhanced service experiences in quick service restaurant settings.

Table 2. Frequency of Respondents based on Sex

SEX	FREQUENCY	PERCENTAGE
Female	162	53.47
Male	141	46.53
TOTAL	303	100

For the sex, majority of the respondents are females with 53.47% of the population while the lesser majority are males with 46.53% of the population which leads to the researchers gathering a total 303 participants in the study. According to Venkatesh et al. (2003), demographic characteristics such as sex can influence technology adoption behaviors and perceptions of technology use. Thus, examining respondents by sex provides valuable insights into potential differences in customer experiences with digital kiosks in quick service restaurants.

Table 3. Frequency of Respondents based on Employment Status

EMPLOYMENT STATUS	FREQUENCY	PERCENTAGE
Student	213	70.30
Employed Full-Time	34	11.22
Employed Part-Time	26	8.58
Self-Employed	11	3.63
Unemployed	14	4.62
Retired	5	1.65
TOTAL	303	100

For the employment status, majority of the respondents are students with 70.30% of the population. The last majority are those respondents with full-time employment with 11.22% of the population. Other types of employment status (Employed Part-Time: 8.58%, Self-Employed: 3.63%, Unemployed: 4.62%, Retired: 1.65%) gathered less than 10% of the sample population which leads to the researchers gathering a total 303 participants in the study. According to Venkatesh et al. (2003), individual characteristics and experience with technology influence users' acceptance and usage of information systems, which may explain the high representation of students among digital kiosk users.

Table 4. Frequency of Respondents based on often usage of Digital Kiosks

FREQUENCY OF USAGE IN DIGITAL KIOSKS	FREQUENCY	PERCENTAGE
Daily	33	10.89
Several Times in a Week	100	33.00
Once a Week	61	20.13
A Few Times in a Month	62	20.46
Rarely	47	15.51
TOTAL	303	100

Table 4 presents the frequency of digital kiosk usage among the respondents. Most of the respondents reported using digital kiosks several times a week, comprising 33.00% (n = 100) of the total sample. This was followed by respondents who used digital kiosks a few times a month (20.46%), once a week (20.13%), and rarely (15.51%). Meanwhile, only 10.89% of the respondents reported using digital kiosks daily. The findings indicate that most respondents have regular exposure to digital kiosks, suggesting a moderate to high level of familiarity with this self-service technology. According to Venkatesh et al. (2003), experience with technology plays a significant role in shaping users' acceptance and continued use of information systems. Frequent interaction with digital kiosks may enhance users' confidence and perceived ease of use, contributing to greater acceptance of technology-based service encounters in quick service restaurants.

Digital Kiosk Attributes of Customers' Experiences in Quick Service Restaurants

Table 5. Assessment of Digital Kiosk Attributes in Terms of User-Friendly Interface

USER-FRIENDLY INTERFACE	MEAN	STANDARD DEVIATION	VERBAL INTERPRETATION
The digital kiosk is easy to navigate, even for first-time users.	4.41	0.86	STRONGLY AGREE
The touchscreen responds quickly and accurately to my inputs.	4.34	0.83	STRONGLY AGREE
The interface design makes finding and selecting my desired items simple.	4.49	0.77	STRONGLY AGREE
The digital kiosk offered detailed and comprehensive product information.	4.43	0.82	STRONGLY AGREE
GRAND TOTAL	4.42	0.82	STRONGLY AGREE

Table 5 presents the respondents' assessment of digital kiosk attributes in terms of user-friendly interface. The results revealed a grand mean of 4.42 with a standard deviation of 0.82, verbally interpreted as Strongly Agree. Among the indicators, "The interface design makes finding and selecting my desired items simple" obtained the highest mean (4.49), while "The touchscreen responds quickly and accurately to my inputs" received the lowest mean (4.34), although both were still interpreted as Strongly Agree. These findings indicate that respondents perceived digital kiosks as easy to navigate, responsive, and capable of providing clear and comprehensive information, contributing to a positive customer experience. The results suggest that a user-friendly interface enhances customers' ability to complete transactions efficiently and with minimal effort. This finding is consistent with Nielsen (2020), who emphasized that effective user interface design should promote simplicity, ease of navigation, and efficient task completion to improve user experience. Likewise, Meuter et al. (2000) found that customers tend to evaluate self-service technologies positively when they are easy to use, reliable, and capable of helping users accomplish their goals conveniently and efficiently.

Table 6. Assessment of Digital Kiosk Attributes in terms of Customization Options

CUSTOMIZATION OPTIONS	MEAN	STANDARD DEVIATION	VERBAL INTERPRETATION
The kiosk lets customers easily customize their orders, adjusting ingredients, portion sizes, and requests seamlessly.	4.51	0.73	STRONGLY AGREE
The kiosk offered clear instructions for customizing my order, guiding me with helpful prompts for a hassle-free experience.	4.46	0.76	STRONGLY AGREE
Customers can easily undo or modify customizations, allowing them to correct errors and finalize choices without restarting the process.	4.52	0.77	STRONGLY AGREE
Customization on the kiosk was quick and efficient, with no delays, allowing completion in minutes.	4.46	0.77	STRONGLY AGREE
GRAND TOTAL	4.49	0.76	STRONGLY AGREE

Table 6 presents the respondents' assessment of digital kiosk attributes in terms of customization options. The results revealed a grand mean of 4.49 with a standard deviation of 0.76, verbally interpreted as Strongly Agree. Among the indicators, "Customers can easily undo or modify customizations, allowing them to correct errors and finalize choices without restarting the process" obtained the highest mean (4.52), while both "The kiosk offered clear instructions for customizing my order" and "Customization on the kiosk was quick and efficient" received the lowest mean (4.46), although all indicators were still interpreted as Strongly Agree. These findings indicate that respondents perceived digital kiosks as effective tools for personalizing orders while maintaining convenience and efficiency throughout the ordering process. The ability to modify preferences, adjust orders, and correct mistakes easily contributes to a more satisfactory and user-centered service experience. This finding is consistent with Meuter et al. (2000), who emphasized that self-service technologies enhance customer experiences by providing greater control and flexibility during service encounters. Similarly, Dabholkar (1996) noted that consumers are more likely to evaluate self-service technologies positively when they offer convenience, efficiency, and the ability to tailor services according to individual preferences.

Table 7. Assessment of Digital Kiosk Attributes in terms of Menu Display

MENU DISPLAY	MEAN	STANDARD DEVIATION	VERBAL INTERPRETATION
The quality of the menu photos and graphics on the kiosk made it easier for the customers to choose the food they desired.	4.70	0.60	STRONGLY AGREE
The available options to customize menu items are clearly displayed and easy to understand.	4.62	0.62	STRONGLY AGREE
The menu items are well-organized into logical categories to simplify navigation.	4.68	0.61	STRONGLY AGREE
The menu display offered clear details on descriptions, ingredients, and portion sizes, aiding informed choices.	4.59	0.69	STRONGLY AGREE
GRAND TOTAL	4.65	0.63	STRONGLY AGREE

Table 7 presents the respondents' assessment of digital kiosk attributes in terms of menu display. The results revealed a grand mean of 4.65 with a standard deviation of 0.63, verbally interpreted as Strongly Agree. Among the indicators, "The quality of the

menu photos and graphics on the kiosk made it easier for the customers to choose the food they desired” obtained the highest mean (4.70), while “The menu display offered clear details on descriptions, ingredients, and portion sizes, aiding informed choices” received the lowest mean (4.59). Despite these differences, all indicators were rated as Strongly Agree, indicating that respondents perceived the menu display as visually appealing, informative, and easy to navigate. The findings suggest that an effective menu display enhances customers' ability to make informed decisions and improves the overall ordering experience. This finding is consistent with Meuter et al. (2000), who emphasized that self-service technologies are more likely to be positively evaluated when they provide clear information and facilitate efficient decision-making. Likewise, Nielsen (2020) highlighted that well-organized content, intuitive navigation, and visually clear interfaces contribute significantly to usability and user satisfaction, enabling users to complete tasks more effectively.

Table 8. Assessment of Digital Kiosk Attributes in terms of Payment Integration

PAYMENT INTEGRATION	MEAN	STANDARD DEVIATION	VERBAL INTERPRETATION
The payment process at the kiosk is fast and hassle-free.	4.59	0.71	STRONGLY AGREE
The kiosk offers a variety of payment methods that suit my needs.	4.59	0.69	STRONGLY AGREE
The kiosk provided a clear order breakdown, confirmation, and receipt options, ensuring a smooth process.	4.60	0.68	STRONGLY AGREE
I feel secure when making payments through the digital kiosk	4.53	0.77	STRONGLY AGREE
GRAND TOTAL	4.58	0.71	STRONGLY AGREE

Table 8 presents the respondents' assessment of digital kiosk attributes in terms of payment integration. The results revealed a grand mean of 4.58 with a standard deviation of 0.71, verbally interpreted as Strongly Agree. Among the indicators, “The kiosk provided a clear order breakdown, confirmation, and receipt options, ensuring a smooth process” obtained the highest mean (4.60), while “I feel secure when making payments through the digital kiosk” received the lowest mean (4.53). Nevertheless, all indicators were interpreted as Strongly Agree, indicating that respondents perceived the payment integration features of digital kiosks positively. The findings suggest that customers value efficient payment processing, diverse payment options, transparent transaction details, and secure payment mechanisms when using digital kiosks. These features contribute to a seamless and convenient ordering experience, reducing effort and enhancing customer confidence during transactions. This finding is consistent with Davis (1989), who

emphasized that technologies perceived as useful and easy to use are more likely to be accepted by users. Similarly, Meuter et al. (2000) noted that customers evaluate self-service technologies favorably when they provide reliability, convenience, and efficient completion of service transactions. The high ratings obtained in this study indicate that effective payment integration enhances the overall customer experience in quick service restaurant settings.

Table 9. Assessment of Digital Kiosk Attributes in terms of Order Confirmation

ORDER CONFIRMATION	MEAN	STANDARD DEVIATION	VERBAL INTERPRETATION
Before confirming my order, the kiosk screen provided a clear and easy-to-understand order description.	4.66	0.64	STRONGLY AGREE
The order confirmation included essential details like the order number, item list, quantities, prices, and total cost, ensuring everything was correct.	4.63	0.63	STRONGLY AGREE
The kiosk offered clear options to apply promotional codes during order confirmation, with an accessible field that adjusted the total price instantly.	4.57	0.72	STRONGLY AGREE
Pricing details during order confirmation were clear, showing item costs, taxes, and fees transparently, with no confusion about the final amount.	4.59	0.69	STRONGLY AGREE
GRAND TOTAL	4.61	0.67	STRONGLY AGREE

Table 9 presents the respondents' assessment of digital kiosk attributes in terms of order confirmation. The results revealed a grand mean of 4.61 with a standard deviation of 0.67, verbally interpreted as Strongly Agree. Among the indicators, "Before confirming my order, the kiosk screen provided a clear and easy-to-understand order description" obtained the highest mean (4.66), while "The kiosk offered clear options to apply promotional codes during order confirmation, with an accessible field that adjusted the total price instantly" received the lowest mean (4.57). Despite these differences, all indicators were rated as Strongly Agree, indicating that respondents perceived the order

confirmation process as clear, informative, and reliable. The findings suggest that providing complete order details, transparent pricing information, and accurate order summaries helps customers verify their selections before finalizing transactions, thereby enhancing confidence and reducing ordering errors. This finding is consistent with Nielsen (2020), who emphasized that effective interface design should provide users with clear information and system feedback to support accurate decision-making. Similarly, Meuter et al. (2000) noted that customers are more likely to have positive experiences with self-service technologies when the system provides reliable information and facilitates smooth transaction completion. The high ratings obtained in this study indicate that order confirmation features contribute positively to customers' overall experience with digital kiosks in quick service restaurants.

Table 10. Assessment of Digital Kiosk Attributes in terms of Language Options

LANGUAGE OPTIONS	MEAN	STANDARD DEVIATION	VERBAL INTERPRETATION
It is easy to select the preferred language on the kiosk.	4.60	0.70	STRONGLY AGREE
The availability of multiple language options impacts my overall experience with the kiosk.	4.52	0.73	STRONGLY AGREE
The system offered a variety of language options, all translated clearly and accurately, providing a seamless experience for non-native speakers.	4.49	0.78	STRONGLY AGREE
The language options are relevant and appropriate for the context of the services offered.	4.55	0.74	STRONGLY AGREE
GRAND TOTAL	4.54	0.74	STRONGLY AGREE

Table 10 presents the respondents' assessment of digital kiosk attributes in terms of language options. The results revealed a grand mean of 4.54 with a standard deviation of 0.74, verbally interpreted as Strongly Agree. Among the indicators, "It is easy to select the preferred language on the kiosk" obtained the highest mean (4.60), while "The system offered a variety of language options, all translated clearly and accurately, providing a seamless experience for non-native speakers" received the lowest mean (4.49). Nevertheless, all indicators were interpreted as Strongly Agree, indicating that respondents perceived the language options provided by digital kiosks as accessible, relevant, and beneficial to the overall user experience. The findings suggest that offering multiple language options enhances usability by accommodating users with different

linguistic backgrounds and enabling them to interact with the system more effectively. This finding is consistent with Nielsen (2020), who emphasized that user interfaces should be designed to match users' needs and characteristics to improve accessibility and ease of use. Similarly, ISO 9241-11 (2018) highlights that usability is enhanced when systems enable users to achieve their goals effectively, efficiently, and satisfactorily within their specific context of use. The high ratings obtained in this study indicate that language options contribute positively to customer experience by promoting inclusivity, comprehension, and ease of interaction during the ordering process.

Table 11. Assessment of Digital Kiosk Attributes in terms of Promotions and Discounts

PROMOTIONS AND DISCOUNTS	MEAN	STANDARD DEVIATION	VERBAL INTERPRETATION
The details of the promotions, such as terms and conditions, clearly displayed on the kiosk	4.51	0.81	STRONGLY AGREE
The advertisements have an impact on my decision to buy or test a new product or service.	4.48	0.79	STRONGLY AGREE
The kiosk clearly stated the promotion terms and conditions, with no hidden details and easily understandable requirements like minimum purchase amounts and timeframes.	4.45	0.84	STRONGLY AGREE
Promotions appear at the top- or pop-up during ordering, encouraging exploration before purchase.	4.45	0.86	STRONGLY AGREE
GRAND TOTAL	4.47	0.83	STRONGLY AGREE

Table 11 presents the respondents' assessment of digital kiosk attributes in terms of promotions and discounts. The results revealed a grand mean of 4.47 with a standard deviation of 0.83, verbally interpreted as Strongly Agree. Among the indicators, "The details of the promotions, such as terms and conditions, were clearly displayed on the kiosk" obtained the highest mean (4.51), while both "The kiosk clearly stated the promotion terms and conditions, with no hidden details and easily understandable requirements" and "Promotions appear at the top or pop-up during ordering, encouraging exploration before purchase" received the lowest mean (4.45). Despite these differences, all indicators were interpreted as Strongly Agree, indicating that respondents perceived

promotional information displayed through digital kiosks as clear, accessible, and influential in their purchasing decisions. The findings suggest that well-presented promotions and discounts enhance customer engagement by increasing awareness of available offers and encouraging product exploration. This finding is consistent with Kotler and Keller (2016), who emphasized that sales promotions serve as effective marketing tools that stimulate consumer interest and encourage purchasing behavior. Similarly, Zeithaml et al. (2018) noted that clear communication of promotional offers and pricing information contributes to customer value perception and enhances the overall service experience. The high ratings obtained in this study indicate that promotional features integrated into digital kiosks play a significant role in improving customers' ordering experience in quick service restaurants.

Table 12. Assessment of Digital Kiosk Attributes in terms of Accessibility Features

ACCESSIBILITY FEATURES	MEAN	STANDARD DEVIATION	VERBAL INTERPRETATION
All controls on the kiosk are within arm's reach, making it easy to complete transactions comfortably.	4.63	0.63	STRONGLY AGREE
The kiosk's large screen and buttons are easy to see and use, with a responsive touchscreen and well-sized icons for navigation.	4.52	0.69	STRONGLY AGREE
The kiosk's accessibility features, including voice prompts and large text options, are intuitive and user-friendly for all ages and abilities.	4.47	0.78	STRONGLY AGREE
The accessibility features on the kiosk are designed to be intuitive and easy to use for people of all ages and abilities.	4.51	0.74	STRONGLY AGREE
GRAND TOTAL	4.53	0.71	STRONGLY AGREE

Table 12 presents the respondents' assessment of digital kiosk attributes in terms of accessibility features. The results revealed a grand mean of 4.53 with a standard deviation of 0.71, verbally interpreted as Strongly Agree. Among the indicators, "All controls on the kiosk are within arm's reach, making it easy to complete transactions comfortably" obtained the highest mean (4.63), while "The kiosk's accessibility features, including voice prompts and large text options, are intuitive and user-friendly for all ages and abilities" received the lowest mean (4.47). Despite these differences, all indicators

were rated as Strongly Agree, indicating that respondents perceived the accessibility features of digital kiosks as effective and user-friendly. The findings suggest that accessible design elements, such as appropriately positioned controls, readable displays, responsive touchscreens, and inclusive interface features, contribute to a more convenient and comfortable customer experience. This finding is consistent with ISO 9241-11 (2018), which emphasizes that usability is enhanced when systems are designed to be effective, efficient, and satisfactory for users within their specific contexts. Similarly, Nielsen (2020) highlighted that user-centered interfaces should accommodate diverse user needs and capabilities to improve accessibility and overall usability. The high ratings obtained in this study indicate that accessibility features play an important role in ensuring positive interactions with digital kiosks among customers with varying levels of experience and abilities.

Table 13. Assessment of Digital Kiosk Attributes in terms of Order Tracking

ORDER TRACKING	MEAN	STANDARD DEVIATION	VERBAL INTERPRETATION
The kiosk provided visual aids like maps and status bars to easily track my order's location and progress.	4.49	0.81	STRONGLY AGREE
The order tracking feature was easy to find, prominently displayed on the main screen after placing my order.	4.50	0.71	STRONGLY AGREE
The kiosk offered live updates on my order's progress, providing real-time notifications as the status changed.	4.50	0.80	STRONGLY AGREE
Live updates, visual aids, and easy accessibility made the kiosk a convenient tool, keeping me informed and reducing order uncertainty.	4.53	0.73	STRONGLY AGREE
GRAND TOTAL	4.51	0.76	STRONGLY AGREE

Table 13 presents the respondents' assessment of digital kiosk attributes in terms of order tracking. The results revealed a grand mean of 4.51 with a standard deviation of 0.76, verbally interpreted as Strongly Agree. Among the indicators, "Live updates, visual aids, and easy accessibility made the kiosk a convenient tool, keeping me informed and reducing order uncertainty" obtained the highest mean (4.53), while "The kiosk provided visual aids like maps and status bars to easily track my order's location and progress"

received the lowest mean (4.49). Despite these differences, all indicators were rated as Strongly Agree, indicating that respondents perceived the order tracking features of digital kiosks as useful, accessible, and effective in providing real-time information. The findings suggest that order-tracking capabilities enhance customer experience by improving transparency, reducing uncertainty, and keeping customers informed about the status of their orders. This finding is consistent with Meuter et al. (2000), who emphasized that customers evaluate self-service technologies more positively when they provide reliable information and facilitate smooth service encounters. Likewise, Nielsen (2020) highlighted the importance of visibility of system status, noting that systems should continuously keep users informed through appropriate and timely feedback. The high ratings obtained in this study indicate that order tracking features contribute positively to customer confidence and satisfaction throughout the ordering process.

Table 14. Assessment of Digital Kiosk Attributes in terms of Feedback Collection

FEEDBACK COLLECTION	MEAN	STANDARD DEVIATION	VERBAL INTERPRETATION
The feedback kiosk had a user-friendly interface with a responsive touchscreen, large buttons, and a simple layout for easy navigation.	4.60	0.70	STRONGLY AGREE
The kiosk provided clear, step-by-step instructions for submitting feedback, making the process easy for everyone, regardless of technical experience.	4.50	0.79	STRONGLY AGREE
The feedback questions were relevant, covering key aspects like service quality, product satisfaction, and overall impressions, allowing for thorough reflection on my experience.	4.58	0.73	STRONGLY AGREE
The open-ended questions allowed me to detail key aspects of my experience.	4.53	0.79	STRONGLY AGREE
GRAND TOTAL	4.55	0.75	STRONGLY AGREE

Table 14 presents the respondents' assessment of digital kiosk attributes in terms of feedback collection. The results revealed a grand mean of 4.55 with a standard deviation of 0.75, verbally interpreted as Strongly Agree. Among the indicators, "The feedback kiosk had a user-friendly interface with a responsive touchscreen, large buttons, and a simple layout for easy navigation" obtained the highest mean (4.60), while "The

kiosk provided clear, step-by-step instructions for submitting feedback, making the process easy for everyone, regardless of technical experience” received the lowest mean (4.50). Despite these differences, all indicators were rated as Strongly Agree, indicating that respondents perceived the feedback collection features of digital kiosks as accessible, relevant, and easy to use. The findings suggest that a well-designed feedback system encourages customer participation by simplifying the feedback process and providing opportunities for users to share their experiences. This finding is consistent with Meuter et al. (2000), who emphasized that customers are more likely to engage with self-service technologies when they are easy to use and facilitate efficient interactions. Similarly, Zeithaml et al. (2018) noted that obtaining customer feedback is an essential component of service quality improvement, as it enables organizations to understand customer needs, evaluate service performance, and enhance overall customer experiences. The high ratings obtained in this study indicate that feedback collection features integrated into digital kiosks contribute positively to customer engagement and service improvement efforts in quick service restaurants.

Significant Differences in Customer Experience with Digital Kiosks Across Demographic Groups in Quick Service Restaurants

Table 15. Test of Differences in Customers’ Perceptions of Digital Kiosk Attributes and Customer Experience When Grouped According to Age

OVERALL EXPERIENCE	χ^2 VALUE	P VALUE	INFERENCE	DECISION
User-Friendly Interface	4.73	0.45	Not Significant	FAILED TO REJECT H0
Customization Options	2.39	0.79	Not Significant	
Menu Display	3.99	0.55	Not Significant	
Payment Integration	2.52	0.77	Not Significant	
Order Confirmation	3.62	0.61	Not Significant	
Language Options	2.25	0.81	Not Significant	
Promotions And Discounts	5.65	0.34	Not Significant	
Accessibility Features	5.28	0.38	Not Significant	
Order Tracking	6.51	0.26	Not Significant	
Feedback Collection	5.70	0.34	Not Significant	

Table 15 presents the results of the Kruskal–Wallis test examining differences in customers' perceptions of digital kiosk attributes and customer experience when grouped according to age. The results revealed that all computed p-values were greater than the 0.05 level of significance, indicating no statistically significant differences across the dimensions of User-Friendly Interface ($p = 0.45$), Customization Options ($p = 0.79$), Menu Display ($p = 0.55$), Payment Integration ($p = 0.77$), Order Confirmation ($p = 0.61$), Language Options ($p = 0.81$), Promotions and Discounts ($p = 0.34$), Accessibility Features ($p = 0.38$), Order Tracking ($p = 0.26$), and Feedback Collection ($p = 0.34$). Therefore, the null hypothesis was not rejected for all dimensions.

The findings indicate that customers from different age groups shared similar perceptions of digital kiosk attributes and customer experience. This suggests that the digital kiosks used in quick service restaurants were generally perceived as accessible, usable, and beneficial regardless of respondents' age. The absence of significant differences may reflect the increasing familiarity of consumers with digital technologies across generations, allowing users of different ages to interact with self-service systems with comparable levels of comfort and acceptance.

This finding is consistent with Meuter et al. (2000), who emphasized that customers tend to evaluate self-service technologies positively when they are reliable, easy to use, and capable of efficiently facilitating service transactions. Similarly, Venkatesh et al. (2003) noted that while demographic characteristics may influence technology adoption, the effects of such differences may diminish when users perceive technologies as useful and easy to use. Consequently, the results suggest that well-designed digital kiosks can provide a relatively uniform customer experience across different age groups in quick service restaurant settings.

Table 16. Test of Differences in Customers' Perceptions of Digital Kiosk Attributes and Customer Experience When Grouped According to Sex

OVERALL EXPERIENCE	χ^2 VALUE	P VALUE	INFERENCE	DECISION
User-Friendly Interface	17.81	< .001	Significant	REJECT H0
Customization Options	8.40	0.00	Significant	
Menu Display	5.62	0.02	Significant	
Payment Integration	11.29	< .001	Significant	
Order Confirmation	5.03	0.03	Significant	
Language Options	5.99	0.01	Significant	
Promotions And Discounts	15.72	< .001	Significant	
Accessibility Features	12.18	< .001	Significant	

Order Tracking	11.99	< .001	Significant
Feedback Collection	14.12	< .001	Significant

Table 16 presents the results of the Kruskal–Wallis test examining differences in customers' perceptions of digital kiosk attributes and customer experience when grouped according to sex. The results revealed statistically significant differences across all dimensions, as evidenced by p-values lower than the 0.05 level of significance. Significant differences were observed in User-Friendly Interface ($p < .001$), Customization Options ($p = .00$), Menu Display ($p = .02$), Payment Integration ($p < .001$), Order Confirmation ($p = .03$), Language Options ($p = .01$), Promotions and Discounts ($p < .001$), Accessibility Features ($p < .001$), Order Tracking ($p < .001$), and Feedback Collection ($p < .001$). Therefore, the null hypothesis was rejected for all dimensions.

The findings indicate that male and female respondents differed in their perceptions of digital kiosk attributes and customer experience. This suggests that sex may influence how customers evaluate and interact with self-service technologies in quick service restaurants. Differences in technology-related preferences, attitudes, and usage behaviors may contribute to variations in how users perceive the usability, functionality, and convenience of digital kiosks. The results imply that customer experiences with digital kiosks are not entirely uniform across sexes and that individual user characteristics may shape perceptions of specific kiosk features.

This finding is consistent with Venkatesh et al. (2003), who identified sex as an important factor influencing technology acceptance and usage behavior. Their Unified Theory of Acceptance and Use of Technology (UTAUT) suggests that demographic characteristics can affect users' perceptions of technology and their willingness to adopt technological systems. Similarly, Davis (1989) emphasized that perceived usefulness and perceived ease of use are key determinants of technology acceptance, and these perceptions may vary among different groups of users. Consequently, the significant differences observed in this study suggest that sex may play a role in shaping customers' evaluations and experiences of digital kiosk technologies in quick service restaurants.

Table 17. Test of Differences in Customers' Perceptions of Digital Kiosk Attributes and Customer Experience When Grouped According to Employment Status

OVERALL EXPERIENCE	χ^2 VALUE	P VALUE	INFERENCE	DECISION
User-Friendly Interface	1.78	0.88	Not Significant	FAILED TO REJECT H0
Customization Options	0.96	0.97	Not Significant	
Menu Display	1.38	0.93	Not Significant	

Payment Integration	1.86	0.87	Not Significant
Order Confirmation	2.61	0.76	Not Significant
Language Options	1.83	0.87	Not Significant
Promotions And Discounts	4.66	0.46	Not Significant
Accessibility Features	8.37	0.14	Not Significant
Order Tracking	5.06	0.41	Not Significant
Feedback Collection	5.58	0.35	Not Significant

Table 17 presents the results of the Kruskal–Wallis test examining differences in customers' perceptions of digital kiosk attributes and customer experience when grouped according to employment status. The results revealed that all computed p-values were greater than the 0.05 level of significance, indicating no statistically significant differences across the dimensions of User-Friendly Interface ($p = 0.88$), Customization Options ($p = 0.97$), Menu Display ($p = 0.93$), Payment Integration ($p = 0.87$), Order Confirmation ($p = 0.76$), Language Options ($p = 0.87$), Promotions and Discounts ($p = 0.46$), Accessibility Features ($p = 0.14$), Order Tracking ($p = 0.41$), and Feedback Collection ($p = 0.35$). Therefore, the null hypothesis was not rejected for all dimensions.

The findings indicate that respondents with different employment statuses shared similar perceptions of digital kiosk attributes and customer experience. This suggests that employment status does not significantly influence how customers evaluate the usability, functionality, and overall effectiveness of digital kiosks in quick service restaurants. Regardless of whether respondents were students, employed full-time, employed part-time, self-employed, unemployed, or retired, they generally reported comparable experiences when interacting with digital kiosk technologies. The results imply that the benefits offered by digital kiosks, such as convenience, efficiency, and ease of use, are broadly recognized across various employment groups.

This finding is consistent with Davis (1989), who proposed that technology acceptance is largely influenced by perceived usefulness and perceived ease of use rather than by users' occupational backgrounds. Similarly, Meuter et al. (2000) found that customers tend to evaluate self-service technologies positively when they facilitate efficient and convenient service encounters. The absence of significant differences across employment groups suggests that well-designed digital kiosks can provide a consistent customer experience regardless of respondents' employment status.

Table 18. Test of Differences in Customers' Perceptions of Digital Kiosk Attributes and Customer Experience When Grouped According to Frequency of Digital Kiosk Usage

OVERALL EXPERIENCE	χ^2 VALUE	P VALUE	INFERENCE	DECISION
User-Friendly Interface	15.44	0.00	Significant	REJECT H0
Customization Options	9.10	0.06	Not Significant	
Menu Display	10.45	0.03	Significant	
Payment Integration	14.24	0.01	Significant	
Order Confirmation	4.82	0.31	Not Significant	
Language Options	4.31	0.37	Not Significant	
Promotions And Discounts	12.65	0.01	Significant	
Accessibility Features	10.02	0.04	Significant	
Order Tracking	8.14	0.09	Not Significant	
Feedback Collection	10.14	0.04	Significant	

Table 18 presents the results of the Kruskal–Wallis test examining differences in customers' perceptions of digital kiosk attributes and customer experience when grouped according to the frequency of digital kiosk usage. The results revealed statistically significant differences in several dimensions, including User-Friendly Interface ($p = 0.00$), Menu Display ($p = 0.03$), Payment Integration ($p = 0.01$), Promotions and Discounts ($p = 0.01$), Accessibility Features ($p = 0.04$), and Feedback Collection ($p = 0.04$), as the computed p-values were lower than the 0.05 level of significance. Consequently, the null hypothesis was rejected for these dimensions. However, no statistically significant differences were observed in Customization Options ($p = 0.06$), Order Confirmation ($p = 0.31$), Language Options ($p = 0.37$), and Order Tracking ($p = 0.09$), as the p-values exceeded the 0.05 level of significance. Therefore, the null hypothesis was not rejected for these dimensions.

The findings indicate that customers' frequency of digital kiosk usage influences their perceptions of certain kiosk attributes and aspects of customer experience. Respondents who use digital kiosks more frequently may develop greater familiarity with interface design, menu presentation, payment processes, promotional features, accessibility functions, and feedback mechanisms, leading to differences in how these attributes are evaluated. In contrast, perceptions of customization options, order confirmation, language options, and order tracking remained relatively consistent

regardless of usage frequency, suggesting that these features are generally understandable and accessible to both frequent and infrequent users.

This finding is consistent with Venkatesh et al. (2003), who emphasized that experience is a significant factor influencing users' perceptions and acceptance of technology. As individuals gain more experience with a technological system, their evaluations of its usefulness and ease of use may change over time. Similarly, Davis (1989) posited that repeated interaction with technology can strengthen users' perceptions of its usefulness and usability, thereby influencing their overall experience. The results suggest that continued exposure to digital kiosks may shape customers' assessments of specific kiosk attributes, particularly those related to usability, convenience, and customer engagement.

Conclusions

This study assessed customers' perceptions of digital kiosk attributes and customer experience in quick service restaurants. The findings revealed that respondents generally evaluated all digital kiosk attributes positively, with all dimensions receiving a verbal interpretation of Strongly Agree. This indicates that digital kiosks are perceived as user-friendly, efficient, accessible, and beneficial in supporting the customer ordering process. The results further showed no significant differences in perceptions when respondents were grouped according to age and employment status, while significant differences were observed based on sex and frequency of digital kiosk usage. Overall, the study concludes that digital kiosks contribute to a positive customer experience and are widely accepted as an effective self-service technology in quick service restaurant settings. Continuous improvements in kiosk design, accessibility, and functionality may further enhance customer engagement and service delivery.

Recommendations

Based on the findings of the study, quick service restaurant (QSR) managers may continue to enhance digital kiosk features that were positively evaluated by customers, particularly user-friendly interfaces, menu displays, payment integration, accessibility features, and feedback collection mechanisms. Since significant differences were observed based on sex and frequency of digital kiosk usage, managers may consider conducting periodic user evaluations to better understand the preferences and experiences of different customer groups. Providing clear instructions, intuitive navigation, accessible design features, and multiple payment options may further improve customer experience and encourage greater utilization of digital kiosks. Additionally, regular system maintenance, software updates, and staff training on kiosk assistance and troubleshooting should be implemented to ensure reliable and efficient service delivery.

Future researchers may replicate this study in other quick service restaurant settings and geographic locations to determine whether similar findings can be observed among different populations. Comparative studies involving various restaurant formats, such as casual dining, fast casual, and full-service establishments, may provide broader

insights into the effectiveness of digital kiosk technologies. Future investigations may also examine other factors associated with customer experience, such as technology readiness, perceived usefulness, perceived ease of use, trust, and customer satisfaction. Furthermore, researchers may employ correlational, predictive, or mixed-method research designs to gain a deeper understanding of the factors influencing customers' perceptions and experiences with digital kiosk technologies.

Compliance with Ethical Standards

The study was conducted in accordance with accepted ethical research standards. Prior to data collection, informed consent was obtained from all participants after they were provided with a clear explanation of the study's purpose, procedures, and voluntary nature of participation. Participants were informed of their right to withdraw from the study at any time without penalty or consequence. The anonymity and confidentiality of the respondents were strictly maintained, and no personal identifiable information was collected or disclosed. All data gathered were handled in compliance with applicable Data Privacy regulations and were used solely for academic and research purposes. The researchers ensured that the rights, dignity, safety, and well-being of the participants were safeguarded throughout the conduct of the study. The authors declare that no conflict of interest exists in relation to this research. Furthermore, plagiarism was strictly avoided through proper citation and acknowledgment of all sources, and the findings were interpreted objectively without intentional bias or manipulation. The authors also acknowledge the use of artificial intelligence (AI)-assisted tools, including ChatGPT, SciSpace, Google Scholar, and QuillBot, to support literature searching, language refinement, grammar checking, paraphrasing, and academic writing enhancement. These tools were utilized solely as research and writing aids, while all critical analysis, interpretation of findings, conclusions, and final manuscript decisions remained the responsibility of the authors.

REFERENCES

- van Bergen, Y. (n.d.). Fast food. <https://doi.org/10.1242/jeb.01413>
- Cantarelli da Silva, R., Bacharini Lima, L., Batistela dos Santos, E., & de Almeida Akutsu, R. de C. C. (2025). The Use of Industry 4.0 and 5.0 Technologies in the Transformation of Food Services: An Integrative Review. *Foods*, 14. <https://doi.org/10.3390/foods14244320>
- Dabholkar, P. A. (1996). Consumer evaluations of new technology-based self-service options: An investigation of alternative models of service quality. *International Journal of Research in Marketing*, 13(1), 29–51. [https://doi.org/10.1016/0167-8116\(95\)00027-5](https://doi.org/10.1016/0167-8116(95)00027-5)
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
- Dsouza, E. P., Sardesai, S., Dsouza, E. P., & Sardesai, S. (2024). Technological transformation in food and beverage service: enhancing efficiency and customer

- satisfaction. *Revista de Turism: Studii Si Cercetari in Turism*, 37.
<https://doi.org/10.4316/rdt.37.41>
- Harahap, E. P., Hermawan, P., Kusumawardhani, D. A. R., Rahayu, N., Komara, M. A., & Agustian, H. (2024). User Interface Design's Impact on Customer Satisfaction and Loyalty in SaaS E-Commerce. 1–6.
<https://doi.org/10.1109/iccit62134.2024.10701133>
- International Organization for Standardization. (2018). ISO 9241-11:2018 ergonomics of human-system interaction—Part 11: Usability: Definitions and concepts. International Organization for Standardization.
- Kim, S., Hamilton, R. W., Kim, T. T., & Lewis, M. (2025). EXPRESS: Customization and the Customer Journey. *Journal of Marketing*.
<https://doi.org/10.1177/00222429251379772>
- Kokkinou, A., & Cranage, D. (2013). Using self-service technology to reduce customer waiting times. *International Journal of Hospitality Management*, 33, 435–445.
<https://doi.org/10.1016/j.ijhm.2012.11.003>
- Kotler, P., & Keller, K. L. (2016). *Marketing management* (15th ed.). Pearson.
- Meuter, M. L., Ostrom, A. L., Roundtree, R. I., & Bitner, M. J. (2000). Self-service technologies: Understanding customer satisfaction with technology-based service encounters. *Journal of Marketing*, 64(3), 50–64.
<https://doi.org/10.1509/jmkg.64.3.50.18024>
- Nielsen, J. (2020, November 15). 10 usability heuristics for user interface design. Nielsen Norman Group. <https://www.nngroup.com/articles/ten-usability-heuristics/>
- Ogbu, D. (2025). Leveraging AI models to measure customer upsell.
<https://doi.org/10.5281/zenodo.14719844>
- Onibokun, T., Ejibenam, A., Ekeocha, P. C., Oladeji, K. D., & Halliday, N. (2023). The impact of Personalization on Customer Satisfaction. 4(1), 333–341.
<https://doi.org/10.54660/jfmr.2023.4.1.333-341>
- Parasuraman, A., & Colby, C. L. (2015). An Updated and Streamlined Technology Readiness Index (TRI 2.0). *Journal of Service Research*, 18(1), 59–74.
- Priyadarshini, P. (2024). The Impact of User Interface Design on User Engagement.
<https://doi.org/10.5281/zenodo.18146084>
- Rajalakshmi, K., Hemachandran, C., & Guru, K. V. (2025). Enhancing Kiosk Efficiency With Artificial Intelligence. 81–120. <https://doi.org/10.4018/979-8-3373-4667-0.ch004>
- Rajan, P. K. (2025). Seamless Retail Journey: Interactive Video Kiosk to Mobile Streaming Conversion Flow. *European Modern Studies Journal*, 9(5), 863–873.
[https://doi.org/10.59573/emsj.9\(5\).2025.79](https://doi.org/10.59573/emsj.9(5).2025.79)
- Rastegar, N. (2018). Adoption of self-service kiosks in quick-service restaurants. [Master's dissertation, University of Guelph]. Retrieved from <https://atrium.lib.uoguelph.ca/items/776ce645-95e4-451c-9c2a-fe578da07f5d>
- The Impact of Customer Interface and Experience on E-Banking Appropriation. (2025).
<https://doi.org/10.5281/zenodo.15534568>
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425–478.
<https://doi.org/10.2307/30036540>

- Winanda, R. P., Ramadhani, N. S., Putri, R. M., Sipahutar, N., Winanda, R. P., Ramadhani, N. S., Putri, R. M., & Sipahutar, N. (2025). Desain dan Implementasi Web Pemesanan Makanan untuk Mempercepat Proses Antrean Pelanggan. 3(6), 01–15. <https://doi.org/10.62383/polygon.v3i6.781>
- Yue, G. (2024). Successful Stories on the Usage of Technologies in Service Industries. Advances in Business Strategy and Competitive Advantage Book Series, 197–230. <https://doi.org/10.4018/979-8-3693-7683-6.ch010>
- Zeithaml, V. A., Bitner, M. J., Gremler, D. D., & Ajay, P. (2018). Services marketing: Integrating customer focus across the firm (7th ed.). McGraw-Hill Education.

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