International Journal of Recent Advances in Multidisciplinary Topics Volume 6, Issue 12, December 2025

www.ijramt.com | E-ISSN: 2582-7839 | RESAIM Publishing (www.resaim.com)

Fast Food and Fast Ordering: The Digital Ordering Kiosk

Christine Joy C. Sarsale^{1*}, Rene D. Osorno²

Abstract: This study delves into the customer's experiences in Cebu's three major fast-food chains, aiming to uncover their issues and challenges in using digital ordering kiosks. This study used phenomenological research design to fully understand the viewpoints, challenges, and aspirations among the customers of the three major fast-food chains: Jollibee, McDonald's, and KFC. The researcher employed in-depth face-to-face interviews using a validated interview guide among the 15 participants to collect narratives about their experiences using digital ordering kiosks. The data were transcribed verbatim and subjected to Colaizzi's analysis. Findings revealed their challenges and aspirations to improve the ordering process. With this, there is a need to upgrade the internet connectivity, create simpler and more coherent machine instructions for older people and first-timers, and include our Bisaya language in translating orders. These are essential for a more effective use of digital ordering kiosks. Moreover, the kiosk machines should be more accessible, efficient, and inclusive to all valued customers.

Keywords: digital ordering kiosk, experiences, challenges, aspirations.

1. Introduction

fast-food industry has undergone transformation in recent years, driven by rapid technological advancement and the increasing demand for efficiency and convenience. One of the most notable innovations is the integration of digital ordering kiosks, which allow customers to place their orders with minimal human interaction. These selfservice systems are designed to streamline service, reduce waiting time, and enhance the customer experience (Liu & Tse, 2020). With its continuous expansion, technologies have transformed the delivery of quality service in the hospitality industry, making it more effective and efficient for customers (Law et al., 2019). In the Philippines, especially in urban areas like Cebu, the digitalization of food service is steadily gaining momentum. According to Kemp (2023), over 86% of Filipinos are internet users, and 72% use digital payment systems, an indication that the population is becoming increasingly comfortable with digital technology. Moreover, Philippine fastfood chains have started piloting and expanding the use of selfservice kiosks, especially in Metro Cities, to respond to increased demand for contactless and faster service options (Tayao- Juego, 2018).

However, the implementation of kiosks has issues and challenges. While these kiosks streamline service, they can reduce personal interactions and potentially impact traditional jobs (Ishak et al., 2021). Individuals who are vulnerable to experiencing a cultural lag, fear of mistakes, and anxiety, such as the elderly and disabled, may be reluctant to adopt new technologies. This scenario happens because the instructions for ordering meals in the self- service kiosks are complex and require more effort (Na et al., 2021). With this, some still prefer a more traditional dining experience because it is easy for them. Some customers also feel uncomfortable and concerned about the security of their personal information when using technology in a restaurant. While the global and national contexts suggest a growing adoption of digital kiosks, literature specific to the local impact, efficiency, and customer satisfaction levels of digital ordering kiosks in Cebu are still limited. Most existing studies have been conducted in Western contexts, such as the U.S. and Europe, where customer behavior and digital infrastructure may differ significantly (Nguyen et al., 2022). Furthermore, only a few studies have explored how these systems affect not only consumer convenience but also workforce dynamics, customer flow, and potential challenges in Philippine fast-food operations. Thus, this study aims to fill this gap in local research by focusing on how digital ordering kiosks are perceived and utilized in Cebu's fast-food sector.

As a resident of Cebu and frequent observer of fast-food outlets in the city, the researcher has personally noticed a mixed response to these kiosks. While some customers—especially the younger, tech-savvy crowd—quickly adapt to the new systems, others, particularly older patrons, appear confused or hesitant to use them. Additionally, during peak hours, some kiosks are left

unused while queues still form at traditional counters, hinting at possible inefficiencies in system implementation or user education. Given these observations, this study is justified by the need to examine how digital ordering kiosks are functioning in real-life scenarios in Cebu, both from the perspective of consumers and business operations. As a researcher with a background in hospitality and service management, I have the foundational knowledge and keen interest to conduct this study with an academic and practical lens. The insights from this research may guide local fast-food chains and policymakers in

improving the adoption and effectiveness of digital solutions in customer service.

2. Framework

This study is anchored on Technology Acceptance Model (TAM) theory of Davis (1987), Self-Service Technology (SST) Adoption Model by Considine & Cormican (2016), and Human-Computer Interactions theory of Licklider (1960).

The Technology Adoption Model (TAM), establishes a fundamental framework for comprehending how users embrace and integrate technology into their lives. At its essence, TAM postulates that two essential elements govern individuals' choices to adopt or shun technological innovations: perceived ease of use and perceived usefulness (Dalvi-Esfahani et al., 2020). When applied to the context of digital ordering kiosks within the fast-food industry, these factors emerge as critical in shaping the triumph of this technology (Howcroft & Taylor., 2023). Perceived ease of use refers to the simplicity and userfriendly nature of the kiosks. If customers find the interface intuitive and the interaction straightforward, it significantly contributes to the adoption process. Concurrently, perceived usefulness gauges the value users ascribe to the technology. Customers are more inclined to adopt this innovation in digital ordering kiosks when they recognize its convenience and efficiency in their overall ordering experience.

TAM simplifies and adapts TRA for the context of information systems by focusing on two core determinants: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). Perceived Usefulness is defined as the degree to which a person believes that using a particular system would enhance their performance or efficiency. Meanwhile, Perceived Ease of Use refers to the extent to which a person believes that using the technology would be free of effort (Davis, 1989).

These two constructs influence an individual's attitude toward using the technology, which subsequently affects their behavioral intention to use it, and ultimately leads to actual system use. In later extensions of the model, such as TAM2 and Unified Theory of Acceptance and Use of Technology (UTAUT), researchers emphasized that external factors—such as system features, user training, social influence, and user experience—can impact PU and PEOU, further shaping users' acceptance (Venkatesh & Davis, 2000).

In the context of digital ordering kiosks in fast-food chains, TAM provides a theoretical lens to understand why customers accept or reject these technologies. For instance, if customers perceive kiosks as useful for saving time and improving accuracy, and if they find them easy to navigate, they are more likely to use them regularly. Conversely, if kiosks are perceived as confusing or time-consuming, customers may revert to traditional counter service. Thus, TAM is particularly useful in identifying barriers and drivers of adoption and guiding service improvements based on user perceptions.

Understanding the TAM framework helps businesses and technology developers design better systems by addressing usability concerns and emphasizing benefits that matter to users. For this study, TAM will serve as the foundation for analyzing the challenges and expectations of fast-food

customers in Cebu regarding digital ordering kiosks, allowing for a structured evaluation of user experiences and guiding recommendations for system enhancement.

The first supporting theory is the Self-Service Technology (SST) Adoption Model developed by Considine & Cormican (2016). This model focuses on the interaction between customers and technology in self-service contexts, such as kiosks, ATMs, and mobile ordering systems. It highlights the complex factors that influence a customer's decision to adopt or reject technology-enabled services. The SST Adoption Model identifies six primary constructs that affect user behavior: technology anxiety, perceived control, perceived risk, trust, performance expectancy, and effort expectancy.

Technology anxiety refers to the discomfort or fear some users feel when engaging with unfamiliar digital systems, which may hinder adoption, particularly among older customers or those with limited technical skills. Perceived control reflects how much influence users feel they have over the service transaction, which can impact their confidence and satisfaction. Perceived risk includes concerns about errors, privacy, and security, all of which can negatively influence user behavior. Meanwhile, trust in the reliability and integrity of the technology plays a vital role in user acceptance. The model also incorporates performance expectancy and effort expectancy, which align with the core elements of TAM, usefulness and ease of use, highlighting the importance of practical benefits and system simplicity.

This model is particularly relevant in examining digital ordering kiosks in fast-food chains, as it captures not only functional but also emotional and psychological aspects of the customer experience. While TAM emphasizes cognitive perceptions of usefulness and ease, the SST Adoption Model extends the analysis by accounting for user emotions, fears, and expectations, offering a more holistic understanding of technology acceptance. For this study, applying the framework of Considine & Cormican (2016) will help uncover deeper insights into the challenges and motivations experienced by fast-food customers in Cebu, ultimately guiding strategies to create more accessible, trustworthy, and user-friendly kiosk systems.

Another supporting theory that supports this study is the Human- Computer Interaction (HCI) theory of Licklider (1960), which introduced the concept of "man-computer symbiosis." Licklider (1960)envisioned a future where humans and computers would work interactively to complement each other's strengths-humans providing goals, direction, and decision-making, and computers offering speed, memory, and computational power. The theory emphasizes a collaborative relationship between the user and the machine, aiming for seamless and intuitive interactions that enhance productivity and decision-making.

In the context of digital ordering kiosks in fast-food chains, HCI theory underscores the importance of designing systems that are user-centered, intuitive, and responsive to human needs. The effectiveness of such kiosks depends not only on their technical capabilities but also on how naturally users can interact with them. If the interface is too complex or unintuitive,

it disrupts the symbiotic relationship, leading to user frustration, errors, or abandonment of the technology. Thus, HCI highlights the need for ergonomic, accessible, and adaptive systems that cater to a wide range of users, including those who may be unfamiliar with or hesitant toward technology.

HCL theory provides a deeper understanding of the interaction experience between customers and digital ordering kiosks. It supports the notion that for such technologies to be successful, they must go beyond efficiency and integrate human factors such as ease of navigation, error recovery, visual clarity, and feedback responsiveness. In this study, HCI theory serves as a guiding principle for evaluating the design and usability of kiosks, contributing to recommendations that aim to enhance human- computer synergy in fast-food service environments.

Fast food restaurants, also known as quick-service restaurants (QSRs), have become integral to modern dining culture, characterized by their rapid service and convenience. These establishments cater to a diverse clientele, offering a variety of menu options that appeal to different tastes and lifestyles. Fast food chains like KFC have implemented strategies to improve service quality, which is essential for maintaining competitiveness in a crowded market (Song et al., 2022). While fast food restaurants provide convenience and affordability, concerns about nutritional value and the working conditions of employees persist. These issues highlight the need for greater awareness and potential reforms within the industry to promote healthier eating habits and improve labor conditions.

Traditional ordering methods involve a manual process where staff take orders using paper menus, which can result in miscommunication and errors. This approach often leads to long wait times, as customers must wait for staff to take orders and process payments. Additionally, these methods offer limited data insights, providing minimal information on customer preferences and sales trends, which restricts opportunities for operational improvements (George, 2020).

Digital ordering kiosks enhance efficiency and speed by allowing customers to place orders directly, reducing wait times and increasing table turnover. These systems improve accuracy by minimizing human error through automated order entry and payment processing. Additionally, kiosks provide data-driven insights by collecting valuable information on customer behavior, enabling restaurants to tailor their offerings and improve overall service (Sykimte, 2023).

The comparison between traditional ordering methods and digital ordering kiosks reveals significant advancements in efficiency and customer satisfaction. Traditional ordering often involves paper menus and manual order taking, which can lead to errors and longer wait times. In contrast, digital kiosks streamline the ordering process, enhance accuracy, and provide real- time data management for restaurant operators. While digital ordering kiosks present numerous advantages, some customers may prefer the personal touch of traditional ordering, valuing human interaction and the experience of dining out. Balancing both methods could cater to diverse customer preferences and enhance overall satisfaction (Awojide et al., 2018).

The experiences of customers using ordering kiosks in quick-

service restaurants reveal a complex interplay of usability, efficiency, and satisfaction. While these kiosks are intended to enhance the customer experience and streamline the ordering process, various studies suggest that their effectiveness is often limited by usability challenges and issues with customer acceptance. For example, 33% of users reported confusion with the kiosk interface, indicating that the prompts were not sufficiently clear. Additionally, although 73% of participants valued customizable meal options, the kiosks provided limited customization features, leading to dissatisfaction. Technical difficulties were also common, with users frequently encountering errors, especially when trying to navigate backward during the ordering process, which ultimately extended ordering times (Shan Lee et al., 2023).

Customer satisfaction and acceptance of ordering kiosks present a mix of experiences and perspectives. While some studies indicate that customers appreciate kiosks for their speed and efficiency, others suggest that traditional cashiers may generate higher revenue, particularly during busy periods (Leung et al., 2021). According to the Unified Theory of Acceptance and Use of Technology (UTAUT), customer acceptance of kiosks is largely influenced by their perceived ease of use and the extent to which the technology meets user needs. However, some customers still prefer interacting with cashiers due to the personal touch and assistance that kiosks cannot replicate, underscoring the ongoing debate over the balance between technological convenience and human interaction in enhancing the customer experience.

The use of ordering kiosks in various service industries, particularly in fast-food restaurants, presents several challenges that impact their effectiveness and user acceptance. These challenges primarily center on usability issues, interface design, and consumer acceptance, which can hinder the intended benefits of self-service technologies. One major usability concern is interface complexity, as many users find kiosk operations confusing and unclear. For example, 33% of participants in a study reported difficulty understanding the operation process, with ineffective prompts that failed to guide them back to previous steps when errors occurred.

Additionally, screen design poses another challenge; 37% of users in the same study were unable to locate the shopping cart or scanner due to a full-page interface that became overwhelming when viewed up close, causing them to miss critical information (Shan Lee et al., 2023).

3. Objectives of the Study

This study aims to delve into the verge of food online selling during COVID-19.

This study explores the experienced of informants in the use of ordering kiosks in selected fast-food chains, Province of Cebu, Philippines.

Specifically, this study sought to answer the following questions:

- What are the experiences of the informants in the use of digital ordering kiosks?
- How do the informants cope with the challenges encountered in the use of digital ordering kiosks?

3. What are the aspirations of the informants to improve the services in digital ordering kiosk among fast-food chains in Cebu?

4. Methodology

A. Research Design

The primary objective of this study was to explore and construct a comprehensive description of customers' experiences with digital ordering kiosks in the fast-food industry. The researcher employed a transcendental phenomenological method, emphasizing individual analysis to delve into the interviewees' perceptions, experiences, and knowledge. This approach aims to extract new ideas from participants' existing understanding, fostering a deeper exploration of their insights.

B. Research Environment

The research occurred in three of Cebu's biggest fast-food chains: Jollibee, McDonalds, and KFC. These fast-food chains offer a diverse customer base that spans families with young children, groups of teenagers, a wide array of students, working professionals, and even international tourists who visit the region. The research is conducted in the contemporary fast-food establishments of Jollibee in Naga City, Cebu, McDonald's in South Road, Cebu, and KFC in Fuente Osmeña, Cebu.

The first fast-food chain studied is Jollibee, located in East Plaza Arcade, N. Bacalso National Highway, East Poblacion, Naga City, Cebu. It opened on August 14, 2014. It has 10-12 managers, one store manager, and 60-70 crew members. The second fast-food chain is McDonald's, situated on Cebu South Road, corner of F. Llamas Street, Mambaling, Cebu City. It opened on December 18, 2002. It has 11 managers and one store manager, comprising 76 crew members. The third and last fastfood chain studied is KFC, located on the ground floor of the Doña Luisa building, Fuente Osmeña Circle, Cebu City, which opened in 2010. It comprises ten managers and one store manager with 50-60 crew members.

This is a compelling study for researchers delving into the intersection of technology and the customer's perspective within the fast-food industry. Leveraging an early adopter advantage, these branches recently started deploying digital kiosks, offering valuable insights into the impact of such technology on customer satisfaction and operational efficiency.

C. Research Informants

The research informants for this study consist of 15 customers across three major fast-food chains: Jollibee, McDonald's, and KFC, with each chain contributing five interviewees. The focus is on understanding customers' experiences, challenges, and aspirations related to using the ordering kiosk systems within these establishments. The participants were selected based on their willingness to share insights into their interactions with ordering kiosks. The criteria for selection include a mix of age groups, diverse demographics, and varying frequency of kiosk usage to ensure a comprehensive representation. The objective is to explore the nuances of customers' experiences with the kiosk technology,

identify any challenges they encounter, and uncover their aspirations regarding improving and optimizing the ordering process.

The selection process involved contacting customers on-site during their visits and employing a face-to-face interview. Customers were chosen based on their interest and willingness to share insights about their experiences with ordering kiosks. The interview questions explored their satisfaction, challenges, and suggestions for enhancing the kiosk user experience. This approach aims to provide a nuanced understanding of the customer perspective on ordering kiosk usage across Jollibee, McDonald's, and KFC, contributing valuable insights for the fast-food industry and technology enhancement efforts.

D. Research Instruments

This qualitative study employed a focused interview guide featuring three semi-structured questions to efficiently gather insights into customers' experiences, challenges, and aspirations in ordering kiosks at three major fast- food chains: Jollibee, McDonald's, and KFC. The decision to adopt a semistructured format was made to expedite data collection while allowing for in- depth exploration of the informants' responses. This method facilitates a dynamic conversation between the researcher and the participants, guided by a flexible interview protocol. Subsequently, the researcher supplements this dialogue with follow-up questions, probes, and comments, fostering a deeper understanding of the participants' thoughts, emotions, and beliefs regarding ordering kiosks. The approach emphasizes collecting unstructured data, enabling an exploration of personal and sensitive issues related to the informants' experiences with this technological aspect of the fast-food dining process.

The researcher formulated three questions to extract participants' perspectives and experiences regarding ordering kiosks. These questions were articulated in the Bisaya dialect to foster a comfortable dialogue with respondents. Following this, the interview guide questions underwent a thorough review and correction process by the adviser, ensuring clarity and appropriateness. After finalizing the interview guide, the researcher adeptly employed both note-taking and a voice recorder during interviews to capture and document the informants' responses precisely—this meticulous approach aimed to facilitate the identification of common themes emerging from the participants' accounts.

E. Research Procedures

The study's protocol during the pandemic involves a series of procedures aimed at efficiently gathering data from food online sellers. Initially, the researcher will identify potential participants through online platforms such as facebook marketplace and collect their contact information, including phone numbers, email addresses, and permanent home addresses. Upon contacting the sellers, the researcher will introduce the proposed study, explaining its purpose, procedures, and potential risks and benefits, and seek permission to involve them as informants. Informed consent will be obtained from each participant. Subsequently, face-toface interviews will be arranged with four selected online sellers, adhering strictly to safety protocols such as wearing masks, maintaining physical distance, and choosing wellventilated interview locations. Additionally, one online seller will be interviewed via Facebook messenger to accommodate social distancing measures. The scheduling of interviews will be coordinated between the researcher and the informants, ensuring mutual agreement on convenient timings. Before the interviews, predetermined questions will be prepared to gather insights into the challenges, strategies, and reflections of online sellers in managing their businesses during the pandemic. Follow-up questions will be posed during the interviews to delve deeper into the informants' responses and explore additional perspectives. Data collection will be conducted either in-person or through digital means, with the interviews recorded with the participant's consent.

F. Research Procedures

Following the data-gathering phase, the treatment of the data section involved organizing, analyzing, and interpreting the collected data. The qualitative data obtained from the interviews were carefully reviewed, coded, and categorized to identify common themes, patterns, and trends. This process involved thoroughly examining the responses and identifying key ideas, concepts, and perspectives from the data. Various qualitative analysis techniques, such as thematic or content analysis, were employed to extract meaningful insights and generate comprehensive findings.

Throughout the research procedures, data validation and quality control measures were implemented. The researcher exercised attentiveness and reflexivity to ensure accuracy and completeness in data collection and analysis. Additionally, any potential biases or personal assumptions that might influence the interpretation of the data were consciously acknowledged and addressed.

G. Data Collection

Data collection was conducted through interviews, utilizing virtual platforms such as Messenger or face-to-face interactions with the assistance of a voice recorder. Participants were requested to respond candidly and comprehensively to the prepared questions. The researcher maintained a respectful and considerate demeanor while attentively listening to the informants' narratives. To ensure a systematic record-keeping process, a well- defined schedule was established. Subsequently, the participants' responses were meticulously recorded, transcribed, and coded to facilitate the identification and generation of common themes. This comprehensive approach aimed to capture and analyze the nuanced insights shared by the informants during the interview process.

H. Data Analysis

In this research, the researcher employed the 7-step procedure of Colaizzi's (1978) phenomenological descriptive method to analyze data obtained from in-depth interviews, focusing on the experiences of individuals using ordering kiosks in Cebu. The analysis began with transcribing participant descriptions, ensuring a thorough familiarity with the data. This

process involved repeated readings of the transcribed data to fully grasp the participants' experiences and stories. Subsequently, significant statements relating to the lived experiences of customers using ordering kiosks were extracted and coded. These statements were then used to develop formulated meanings, which were classified and described in detail. The next stage involved the formation of thematic clusters by categorizing these acquired meanings, aiming to uncover the unique structure of the themes. The study further integrated these thematic clusters to compose overarching themes. In the sixth step, the essential structure of the phenomena was identified, and the findings were refined by removing any irrelevant or inaccurate representations. Finally, validation of the study was sought through participant confirmation. It was achieved using a member-checking technique, where the research findings were presented to the respondents for their review and agreement, thereby ensuring the authenticity and reliability of the research outcomes.

5. Results and Discussions

A. Experiences of the Informants in the Use of Digital Ordering Kiosks

Informants' experiences with digital ordering kiosks in fastfood chains in Cebu presented a mix of positive and negative aspects. On the positive side, many informants appreciated the convenience and efficiency of kiosks, which allowed them to place orders quickly, customize their meals, and avoid long queues at cashier counters. The ability to control and review their orders provided a sense of empowerment, especially for those with specific dietary preferences. Additionally, some enjoyed the privacy of ordering without potential judgment from a cashier and found the interaction with modern technology to be a novel and enjoyable experience. However, several informants encountered significant challenges, such as technical issues like unresponsive touchscreens and software glitches, which led to frustration and the need for staff assistance. Moreover, less tech-savvy users, particularly older adults, found the kiosks' user interfaces complicated and difficult tonavigate, which hampered their ability to use the kiosks effectively and efficiently. These mixed experiences highlight the need for improvements in kiosk design and functionality to enhance user satisfaction and accessibility for all customers. Positive experiences are discussed in the

1) Positive Experiences of the Informants

Convenient: Informants found the digital ordering kiosks to be highly convenient for several reasons. They appreciated the interactive nature of the kiosks, which allowed them to see all available meals, including those not displayed at the counter. This feature enabled them to view both ala carte and individual meal options. Additionally, the ability to pay by card directly at the kiosk streamlined the process, as they could simply go to the counter to have their order encoded and prepared, saving significant time. The kiosks also offered easy order personalization and modification, making it simple to change orders as needed. Even those with visual impairments found the

kiosks user-friendly; one informant mentioned being able to use the kiosk effectively without eyeglasses due to the proximity and size of the screen. The large, easily visible screens further added to the convenience by making the kiosks easy to locate and use.

Time Efficient: Informants highlighted the time efficiency of digital ordering kiosks, noting that the process is easier to remember and significantly faster. They appreciated the simplicity of the system, with one informant emphasizing that everything could be accomplished with just one click, making the experience hassle-free. The smooth and streamlined process meant that users did not need to engage in lengthy conversations or explanations, as all the menu options were clearly presented and easily accessible. This efficiency not only saved time but also reduced the stress and effort associated with ordering food, making the entire experience much more pleasant and expedient.

Accurate and Personalized Order: Informants emphasized the accuracy and personalization of orders as key benefits of using digital ordering kiosks. They appreciated the ability to personally organize their orders, ensuring that each detail was correct according to their preferences. This hands-on control meant that when they received their food, everything was accurate and as requested. The kiosks allowed for easy customization, enabling users to tailor their meals exactly how they wanted, which not only enhanced their satisfaction but also reduced errors that might occur with traditional ordering methods. The overall result was a more reliable and personalized dining experience.

Informants encountered several negative experiences with digital ordering kiosks. Many found the kiosks hard to use, especially those who were less familiar with digital technology, as the interfaces were often not intuitive. Issues with the system being unresponsive or overly sensitive further compounded these difficulties, making it challenging to register orders accurately. Connectivity and signal problems also disrupted the process, causing delays and requiring users to restart their orders. Additionally, the overwhelming number of menu choices presented on the kiosks created confusion for some users, who struggled to make decisions quickly. System errors and technical glitches, such as freezing or crashing, frequently interrupted the ordering process, often necessitating assistance from staff. Furthermore, the lack of proper orientation and guidance on how to use the kiosks left many informants feeling unsure and frustrated, as they had no clear instructions to follow. The following will be discussed in the paragraphs below:

2) Negative Experiences of the Informants

Hard to Use: The data reveals several key challenges faced by users when interacting with kiosk systems for ordering. Firstly, the complexity of the ordering process, which requires multiple clicks and navigation through different categories, significantly slows down the experience and causes frustration. This is particularly pronounced for first-time users, who often find themselves confused about where to find specific items like meals, chicken, or drinks, necessitating assistance from staff. The need for help increases wait times, which is problematic for

those in a hurry. Despite the system's smooth and responsive operation without lag, the difficulty in remembering the process remains a major hurdle, especially for infrequent users. Additionally, the cashless payment method is a significant pain point. Many users are unfamiliar with how to use it, leading to worries about taking too long and inconveniencing those waiting in line. Overall, the data highlights the need for a more intuitive, user-friendly interface and better guidance for new users to improve the efficiency and satisfaction of the ordering experience.

Unresponsive and Sensitive System: The data highlights several disadvantages and user frustrations with the kiosk system. One notable issue is the lag time, particularly when there are many customers using the kiosks. This delay occurs during tapping or scrolling, making the system unresponsive, although it is considered a manageable experience by some users. Another problem is the sensitivity of the system, which requires precise interactions and can be problematic for users unfamiliar with the icons and interface. This unfamiliarity increases the risk of incorrect selections and confusion. Additionally, the system experiences significant loading times, which are exacerbated by poor signal or internet connectivity in the store. These technical difficulties contributed to a less efficient and more stressful user experience, emphasizing the need for improvements in system responsiveness, interface design, and internet reliability to enhance the overall usability of the kiosks.

Connectivity/Signal Issues: This underscores significant issues related to internet connectivity and its impact on the functionality of kiosk systems. A slow internet connection directly affects the performance of the kiosks, causing delays and making the system less responsive. This can frustrate users and lengthen the ordering process. Additionally, a slow or unreliable internet connection means the product information displayed on the kiosk menus may not be up-to-date, leading to potential discrepancies between what customers see and what is actually available. This misalignment can result in further confusion and dissatisfaction. More critically, a complete loss of internet connection can cause the ordering process to break down entirely, with the selections made by customers not accurately reflected in the final order summary. This can lead to orders being incorrect or incomplete, significantly impacting the user experience and potentially causing operational disruptions. These findings highlight the need for robust and reliable internet connectivity to ensure the smooth and accurate operation of kiosk systems.

Overwhelming Choices: It reveals that an overwhelming number of choices on the kiosk system contributes to user confusion and delays in the ordering process. Users find the extensive selection of products disorienting, making it difficult to decide on their final choices. This confusion is exacerbated when users initially choose an item but then see another option they prefer, leading to a back-and-forth decision-making process that consumes additional time. Furthermore, the sheer volume of options can make navigation challenging, as users struggle to locate specific items within the system. This complexity not only prolongs the ordering experience but also

adds to the overall frustration and cognitive load on the user. These findings suggest that a more streamlined and organized interface, possibly with better categorization or a simplified menu structure, could help mitigate confusion and improve the efficiency of the ordering process on kiosks.

System Error/Problems: This highlights critical issues related to system performance and internet connectivity that significantly impact the user experience with kiosks. When the system lags or hangs, it leads to longer lines as the ordering process slows down for each user, creating bottlenecks and increasing wait times for everyone. Additionally, discrepancies between the products selected and the order summary due to outdated menu displays can cause confusion dissatisfaction, as users do not receive what they intended to order. This problem is exacerbated by a lack of real-time updates in the system. Furthermore, losing internet connection results in the display board showing a wait icon, causing further delays and inconvenience for users. These technical issues not only frustrate customers but also hinder the efficiency of the ordering process, underscoring the need for reliable system performance and consistent internet connectivity to ensure a smooth and accurate ordering experience.

Lack of Orientation: Several significant usability issues with kiosk systems, particularly affecting first-time and older users. A lack of proper orientation or guidance on how to use the kiosks leaves many users struggling, especially during their initial interactions. This difficulty is exacerbated when users feel pressured by the presence of others waiting in line, leading to anxiety and stress, as they worry about holding up those in a hurry who may become impatient or angry. Additionally, older customers face unique challenges, as they often find the display screens too bright and confusing, making it hard for them to discern what to click. This combination of unfamiliarity with the system, pressure from waiting customers, and displayrelated difficulties significantly hampers the user experience, indicating a strong need for better user education, more intuitive interfaces, and considerate design adjustments to accommodate all users effectively.

B. Coping with the Challenges Encountered in the Use of Digital Ordering Kiosk

Informants employ various strategies to cope with the challenges encountered when using digital ordering kiosks. These strategies include seeking assistance from staff or other customers and switching to direct counter or cashier service. By addressing technical issues, leveraging support resources, and adapting to the system's design, users can mitigate difficulties and enhance their overall experience with the kiosks. Additionally, a separate discussion of the themes reveals that seeking assistance and switching to traditional methods are significant ways users manage the complexities of the kiosk system, ensuring a smoother and more efficient ordering process.

Switch to Direct Counter/Cashier: The users often prefer going directly to the cashier for its simplicity, but when required to use the kiosk, they attempt to navigate it on their own, particularly if they are alone. However, they find it easier to rely

on family members for assistance if available. When staff assistance is not an option, users struggle with the kiosk independently, leading to frustration. Additionally, issues with cashless payments, such as malfunctioning terminals or poor signal, force customers to line up at the counter for payment, which adds to the hassle and defeats the purpose of the kiosk's convenience. These findings highlight the need for more intuitive kiosk interfaces and reliable payment systems to improve user experience and reduce the reliance on traditional methods.

Seek Assistance: Users commonly rely on assistance from others when facing difficulties with digital kiosks, especially if they are unsure how to operate them. Those who struggle with the technology, including older individuals or those less familiar with digital interfaces, often seek help from nearby staff or even security personnel. The users express confidence in asking for help, indicating a willingness to approach the nearest crew or manager for guidance. This support is crucial as it ensures that users can complete their orders despite initial challenges. The presence of knowledgeable staff, including managers, crew members, and sometimes guards, is essential in providing effective assistance and enhancing user confidence in using the kiosks. Additionally, users value learning from these interactions to become more self-sufficient in future attempts. Overall, the data underscores the importance of readily available support and the proactive approach of users in seeking help to navigate the complexities of digital kiosks.

C. Aspirations of the Informants to Improve the Services in Digital Ordering Kiosk among Fast Food Chains

Informants express several key aspirations for improving digital ordering kiosk services at fast food chains. Their primary goal is to enhance the user interface design to make it more intuitive and accessible for all customers. A more user-friendly interface would simplify the ordering process, particularly for those who are less familiar with technology, thus reducing confusion and frustration. Additionally, addressing technical issues such as system errors and connectivity problems is a significant concern. Reliable performance is crucial for a smooth and efficient ordering experience, and resolving these issues would prevent delays and disruptions. Informants also emphasize the need for better guidance and support, especially for users who struggle with digital systems, including older adults and first-time users. By focusing on these improvements, informants aim to create a more seamless and satisfying experience that caters to a diverse customer base, ultimately making digital kiosks a more effective tool in fast food service.

Provide Video Instruction/Tutorial Guide: Informants highlight several aspirations for improving digital ordering kiosks, focusing on making them more accessible and user-friendly, particularly for elderly individuals and first-time users. They suggest implementing visual aids such as short instructional clips or graphic tutorials on the kiosk screens, which would provide clear guidance on how to use the system effectively. These visual instructions could significantly enhance user understanding and ease of use. Additionally, there is a call for more detailed and accurate on-screen instructions to

help users navigate the menu and locate products without confusion. Informants also propose creating a dedicated system assistance feature tailored to the needs of seniors and new users, offering step-by-step guidance. Implementing orientation programs and video instructions could further support users, ensuring they are comfortable and confident when using the kiosks. Overall, these improvements aim to make the kiosks more inclusive and efficient, reducing user frustration and enhancing the overall customer experience.

Add Bisaya Dialect: Informants express a strong desire for greater inclusivity and convenience in digital ordering kiosks, particularly by incorporating the Bisaya dialect. They suggest adding Bisaya language options to the kiosks to accommodate local customers and enhance their user experience, alongside existing languages like Chinese and English. This addition would make the system more accessible and user-friendly for Bisaya- speaking individuals, fostering a sense of familiarity and ease. Additionally, informants advocate for having a greater number of kiosks-ideally eight- to ensure that customer demand is met efficiently and reduce wait times. They also recommend displaying order suggestions in Bisaya to aid understanding and streamline the ordering process. Furthermore, incorporating a discount system directly into the kiosk interface and ensuring that cashless payment options function smoothly without system interruptions are seen as crucial improvements. Overall, these suggestions aim to make kiosks more accommodating to local needs, enhancing both functionality and user satisfaction.

Update and Improve System and Signal Connection: Informants emphasize the need for significant improvements in the digital ordering kiosk system, particularly focusing on connectivity and system updates. They stress the importance of enhancing the internet signal and system performance to prevent delays and lag, which currently hinder the user experience. Ensuring that the system is consistently updated and responsive is seen as crucial for maintaining efficiency and avoiding frustration. Informants also suggest regular updates to the menu to reflect current offerings and the addition of a video tutorial that could provide real-time guidance as users make their selections. This would help users, especially those less familiar with the technology, navigate the system more easily. Improving the cashless payment system is another key area of concern, with a focus on ensuring that it functions smoothly without causing additional delays. Overall, the data highlights a strong desire for a more reliable and user-friendly kiosk experience, achieved through better connectivity, system updates, and enhanced support features.

Add Discounts: Informants advocate for integrating payment and discount functionalities directly into the digital ordering kiosks. They suggest that the kiosk should allow users to complete their transactions entirely within the machine, including processing payments and applying discounts. This integration would streamline the ordering process, reduce the need for additional steps at the counter, and enhance overall efficiency. Incorporating a discount program within the kiosk system is seen as a valuable addition that would provide users with immediate access to promotions and savings while ordering. Such improvements would not only simplify the user experience but also ensure that customers receive the full benefits of available discounts without needing to interact with multiple points of service. This approach would contribute to a more seamless, convenient, and user-friendly experience, aligning with the informants' desire for a more efficient digital ordering process. term success and well-being (Jose et al., 2018).

6. Conclusion

This study explores the experienced of informants in the use of digital ordering kiosk in selected fast-food chains, Province of Cebu, Philippines.

Specifically, this study sought to answer the following questions:

- What are the experiences of the informants in the use 1. of digital ordering kiosks?
- How do the informants cope with the challenges encountered in the use of digital ordering kiosks?
- What are the aspirations of the informants to improve the services in digital ordering kiosk among fast-food chains in Cebu?

The research design for this study was descriptive phenomenology. This study was built on the experiences, challenges, and aspirations of customers using ordering kiosks in the three major fast-food chains in Cebu. Five respondents were selected from each of the fast-food restaurants wherein they shared their information through a face-to-face interview. A letter addressed to the concerned participants of the study was secured before the actual conduct of the study had been undertaken. Data gathered underwent a face- to-face formal interview, transcription, data coding, and analyses. Data analyses were conducted through the 7-steps procedures of Colaizzi's phenomenological descriptive method. Generated themes relative to the customers were discussed thoroughly and holistically.

Based on the results and discussion, several crucial findings were drawn regarding the respondents' use of the digital ordering kiosk. The study has extracted (3) emergent themes that thoroughly explain the informant's experiences in the use of digital ordering kiosks.

These are the following:

- Experiences of the informants in the use of digital ordering kiosk was divided into two with clustered themes as follows: Positive experiences of the informants namely: Convenient, Time Efficient and Accurate and Personalized Order and Negative experiences of the informants namely: Hard to Use, Unresponsive and Sensitive System, Connectivity/ Signal Issues, Overwhelming Choices, System Error/ Problems and Lack of Orientation.
- How do informants cope with challenges encountered in the use of digital ordering kiosk, two (2) themes were extracted, namely, Will Switch to Direct Counter/Cashier and Will Seek Assistance.
- Aspirations of the informants to improve the services in digital ordering kiosks among fast food chains, four

(4) themes were extracted, namely: Provide Video Instructions/Tutorial or Guide, Add Bisaya Dialect, Update and Improve System and Signal Connection and Add Discounts.

7. Recommendations

With this noble study, the researcher was able to come up with relevant suggestion and recommendations that find applicability to the current institutions and for future studies.

Implication for Practice:

Based on the findings of the study, it is implied that the relevance of the ordering machine kiosks in the selected fast-food restaurants in Cebu City is highly vital to the technological growth and improvement of the local fast- food industry. However, as its approaches are vital and its usage are favorable and convenient, it doesn't disregard the challenges that are encountered day to day by both the fast-food crews and the customers.

Despite the imposing challenges faced by both the industry and consumers in terms of negative experiences and challenges on using the ordering kiosks, it is still implied that the overall percentage of the respondents give favorable responses on the positive impacts of kiosk machines in fast-food restaurants as being shown by the majority in their positive experiences with regards to the usage of kiosk machines.

Meanwhile, as the challenges are recognized by the researcher through their negative experiences and the respondents in their face to face and actual interviews, the respondents also expressed their innovative solutions and recommendations as the constantly affected individuals. It is also implied from those outcomes that there is a need to upgrade the internet connectivity as it affects the kiosk machines in terms functional probabilities, the necessity of simpler and coherent machine instructions for the elderly and first timers, and also the inclusion of our own Bisaya language to make the kiosk machines far more accessible to all valued customers.

Implications for Future Studies:

Based on the findings and implications of this study, several topics are recommended for future research to further enhance the understanding and effectiveness of digital ordering kiosks in fast-food restaurants:

First, this study recommends that future research on "Impact of enhanced internet connectivity on kiosk performance and user experience: Investigate the effects of improved internet infrastructure on the functionality and reliability of digital ordering kiosks", and how it influences customer satisfaction and operational efficiency in fast-food establishments.

Second, this study also suggest that future researchers may conduct a qualitative study on "Designing user-friendly kiosk interfaces for diverse demographics: Explore the development of simplified and intuitive kiosk interfaces tailored to accommodate elderly users and first-time customers, including the integration of local languages such as Bisaya". Assess the impact of these design improvements on user adoption and satisfaction.

Lastly, this study recommends researching on "Customer and crew training programs for efficient kiosk usage: Evaluate the effectiveness of comprehensive training programs for both customers and fast-food crew members on the use of digital ordering kiosks". Investigate how such training can reduce challenges, improve user confidence, and enhance the overall dining experience.

These recommended topics aim to address the identified challenges and further improve the integration and effectiveness of digital ordering kiosks in the fast-food industry.

References

- [1] A. R. P. Aprosta, "The applications of artificial intelligence in relation to the marketing strategy of fast-food businesses," in *Advancing Sustainable Science and Technology for a Resilient Future*. Boca Raton, FL, USA: CRC Press, 2024, pp. 100–103.
- [2] M. Bartosik-Purgat and T. Grzegorczyk, "Cross-cultural adoption of augmented reality—Theories and practices," in *International Business* and Culture. London, U.K.: Routledge, 2024, pp. 92–107.
- [3] C. R. Becker, Learn Human-Computer Interaction: Solve Human Problems and Focus on Rapid Prototyping and Validating Solutions Through User Testing. Birmingham, U.K.: Packt Publishing, 2020.
- [4] P. Colazzi, "Psychological research as the phenomenologist views it," in Existential Phenomenological Alternatives for Psychology, R. S. Vaile and M. King, Eds. New York, NY, USA: Oxford Univ. Press, 1978, pp. 48–71.
- [5] E. Edmonds and M. Korozi, "Aesthetics in design," in *Designing for Usability, Inclusion and Sustainability in Human-Computer Interaction*. Boca Raton, FL, USA: CRC Press, 2024, pp. 157–175.
- [6] O. A. El-Said and T. Al Tall, "Studying the factors influencing customers' intention to use self-service kiosks in fast food restaurants," in *Information and Communication Technologies in Tourism 2020*, J. Neidhardt and W. Wörndl, Eds. Cham, Switzerland: Springer, 2020, pp. 206–217.
- [7] M. Fishbein and I. Ajzen, Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research. Reading, MA, USA: Addison-Weslev, 1975.
- [8] T. Issa and P. Isaias, "Usability and human-computer interaction (HCI)," in Sustainable Design: HCI, Usability and Environmental Concerns. London, U.K.: Springer, 2022, ch. 2, pp. 23–40.
- [9] D. Miller et al., The Global Smartphone: Beyond a Youth Technology. London, U.K.: UCL Press, 2021.
- [10] R. A. D. Orquiza, Taste of Control: Food and the Filipino Colonial Mentality Under American Rule. New Brunswick, NJ, USA: Rutgers Univ. Press, 2020.
- [11] C. Santini, C. Johnson, and A. Cavicchi, "Design and food robots: Changing processes in the restaurant industry," in *Transdisciplinary Case Studies on Design for Food and Sustainability*. Duxford, U.K.: Woodhead Publishing, 2021, ch. 5, pp. 97–114.
- [12] C. Stephanidis, "The HCI discipline: Past, present and future," in Foundations and Fundamentals in Human-Computer Interaction. Boca Raton, FL, USA: CRC Press, 2024, ch. 1, pp. 1–54.
- [13] S. Awojide *et al.*, "Towards the digitalization of restaurant business process for food ordering in Nigeria private university: The design perspective," *Int. J. Sci. Res. Publ.*, vol. 8, no. 5, May 2018.
- [14] K. Blöcher and R. Alt, "AI and robotics in the European restaurant sector: Assessing potentials for process innovation in a high-contact service industry," *Electron. Markets*, vol. 31, no. 3, pp. 529–551, Sept. 2021.
- [15] N. M. D. Borbon, "Advances in business strategy and competitive advantage," IGI Global, pp. 69–80, 2024, doi: 10.4018/979-8-3693-7683-6.ch004.
- [16] T. Chen et al., "AI-based self-service technology in public service delivery: User experience and influencing factors," Gov. Inf. Q., vol. 38, no. 4, p. 101520, Oct. 2021.
- [17] J. Y. Choi and S. M. Woo, "A real-time customer-aware kiosk system for improved accessibility," J. Inst. Control Robot. Syst., vol. 29, no. 1, 2023.
- [18] E. Considine and K. Cormican, "Self-service technology adoption: An analysis of customer to technology interactions," *Procedia Comput. Sci.*, vol. 100, pp. 103–109, 2016.
- [19] M. Dalvi-Esfahani et al., "Explaining students' continuance intention to use mobile web 2.0 learning and their perceived learning," J. Educ. Comput. Res., vol. 57, no. 8, pp. 1956–2005, Jan. 2020.

- [20] F. D. Davis, "Perceived usefulness, perceived ease of use, and user acceptance of information technology," MIS Q., vol. 13, no. 3, pp. 319– 340, Sept. 1989.
- [21] B. Dela Peña and J. M. Aquino, "An analysis of customer perception on self-ordering kiosk of fast-food restaurants in San Pablo City, Laguna," *Bosoc J.*, vol. 1, no. 1, 2023, doi: 10.26480/bosoc.01.2023.01.07.
- [22] B. S. Galdolage, "Are you a trend setter or a straggler?," Int. J. Emerg. Markets, vol. 19, no. 9, pp. 2366–2384, 2022.
- [23] J. George, "Food ordering application for canteen using React Native," Int. J. Eng. Res., vol. 9, no. 6, 2020.
- [24] A. Granić and N. Marangunić, "Technology acceptance model in educational context," Br. J. Educ. Technol., vol. 50, no. 5, pp. 2572–2593, Sept. 2019.
- [25] C. Gu *et al.*, "The effect of using augmented reality technology in takeaway food packaging," *Agriculture*, vol. 13, no. 2, p. 335, 2023.
- [26] M. Guriya and A. Sharma, "A product design for information kiosk for shopping malls," *Mody Univ. Int. J. Comput. Eng. Res.*, vol. 6, no. 2, pp. 27–32, 2022.
- [27] J. Han, Y. Oh, and S. Ham, "Influence of ordering kiosk nutrition information transparency," J. Korean Diet. Assoc., vol. 25, no. 3, pp. 165– 178, 2019.
- [28] A. Bagaskara et al., "Development of smart restaurant application for dine-in," in Proc. 1st Int. Conf. Comput. Sci. Artif. Intell. (ICCSAI), Jakarta, Indonesia, Oct. 2021, pp. 230–235.
- [29] R. De Cicco et al., "Understanding users' acceptance of chatbots," in Proc. Int. Workshop Chatbot Res. Design, Cham, Switzerland: Springer, 2021, pp. 3–22.
- [30] R. J. A. Paulmino and C. A. Marquez, "Critical success factors of lean six sigma implementations," in *Proc. Int. Conf. Ind. Eng. Oper. Manag.*, Manila, Philippines, Mar. 2023, pp. 7–9.

- [31] C. Remy et al., "Evaluating creativity support tools in HCI research," in Proc. ACM Designing Interact. Syst. Conf. (DIS), Eindhoven, The Netherlands, Jul. 2020, pp. 457–476.
- [32] Y. Shiba and M. Sasakura, "Visual interface and interaction design for self-service orders," in *Proc. Int. Conf. Inf. Visual.* Lisbon, Portugal, 2016, pp. 230–235.
- [33] E. K. Xavier, J. Putra, and T. L. Anita, "Customer satisfaction from self-service kiosks' UI/UX," in E3S Web Conf., vol. 426, p. 01083, 2023.
- [34] C. E. L. Yap, J. J. Lee, and V. Roto, "How HCI interprets service design," in *Human-Computer Interaction—INTERACT 2021*, Bari, Italy, Aug.— Sept. 2021, pp. 259–280.
- [35] E. Anees, "Improving user experience of smart kiosk interface," Ph.D. dissertation, Tech. Hochsch. Ingolstadt, Ingolstadt, Germany, 2024.
- [36] F. D. Davis, "A technology acceptance model for empirically testing new end-user information systems," Ph.D. dissertation, MIT Sloan School of Management, Cambridge, MA, USA, 1986.
- [37] I. De Vera, "An ICT adoption model for SMEs in the Philippines," Ph.D. dissertation, CO Univ., Rockhampton, Australia, 2022.
- [38] M. E. Elkashif, "Examining fundamentals of graphic design education," Master's thesis, Iowa State Univ., Ames, IA, USA, 2023.
- [39] B. O. Fatokun, "Customers' affective responses towards key factors influencing e-commerce adoption," Ph.D. dissertation, Liverpool John Moores Univ., Liverpool, U.K., 2023.
- [40] F. D. Davis, "User acceptance of information systems: The technology acceptance model (TAM)," Working Paper No. 529, Univ. Michigan, Ann Arbor, MI, USA, 1987.
- [41] T. S. Liebman, "Automated self-service ordering system and method of use," U.S. Patent Appl. 20030046166 A1, Mar. 6, 2003.
- [42] Republic Act No. 10611, An Act to Strengthen the Food Safety Regulatory System, Philippines, 2012.
- [43] Republic Act No. 7394, *The Consumer Act of the Philippines*, Philippines, 1992.