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SERVICE QUALITY AND CUSTOMER SATISFACTION ON SELF-SERVICE TECHNOLOGY OF FAST-FOOD RESTAURANTS IN TANZA CAVITE

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ABSTRACT

This study determined the impact of self-service technology in fast-food restaurants in Tanza, Cavite, on customer satisfaction and service quality. It focuses on customer perceptions regarding factors such as reliability, responsiveness, convenience, assurance, and empathy, and how these elements influence customer satisfaction concerning their needs, desires, convenience, cost, and communication. Additionally, the study gathered demographic information from each participant, including age, sex, occupation, civil status, and monthly income. A face-to-face survey questionnaire and descriptive research methods were employed to collect and analyze various aspects of customer satisfaction and service quality. The study utilized purposive, quota, and convenience sampling techniques to gather data from 100 participants who had used self-service technology at a fast-food restaurant in Tanza, Cavite. The data was evaluated using statistical tools, including standard deviation, weighted mean, frequency, and percentages. The findings indicate that participants believe the self- service technology in fast-food restaurants is visually appealing, reliable to use, responsive, efficient, and easy to use. It enhances security and effectively caters to the needs and preferences of customers. Participants expressed satisfaction with the technology's ability to fulfill their needs and wants, ensure clear communication, provide quick service, and offer clear pricing without hidden fees. Overall, the study concludes that self-service technology provides convenience, efficiency, and a general sense of customer satisfaction. However, it also highlights existing concerns regarding the usability of the technology and perceived empathy. Finally, while participants acknowledged the advantages of self-service technology in fast-food establishments, they rated its service quality as good. Their experiences with the technology moderately affected their overall customer satisfaction. To improve productivity and customer satisfaction further, the study recommends enhancements such as better designs and user support. Suggested improvements include developing a user- friendly interface, gathering customer feedback, providing incentives, and ensuring staff availability to assist customers who may struggle with the technology. Overall, the study offers valuable insights for fast-food operators aiming to enhance consumer satisfaction and service quality.

Keywords: Service quality, customer satisfaction, self-service technology, fast-food restaurants

1.0 INTRODUCTION

When the pandemic swept through the lives of many, it sparked a remarkable transformation among the people. Suddenly, technology became an integral part of daily life, pushing us to adapt and innovate. This shift opened the door for exciting advancements, leading to a flourishing of new technologies that reshaped our world in unexpected ways. Therefore, the people of today are more educated, which has led to a surge in creativity that shapes essential aspects of our lives, driving the evolution of our society's landscape. As time progresses, changes become necessary to address emerging challenges. In essence, contemporary society has a strong desire for improvement. This drive has given rise to many innovators who leverage their scientific knowledge and resources to develop technologies that provide solutions and meet societal demands. As a result, new technologies have gradually transformed society, influencing countless individuals, particularly daily, and fostering widespread technological awareness. Moreover, self-service technology is an essential choice because it effectively empowers consumers, allowing them to reclaim their valued sense of self (Wang et al., 2022).

Customers have clearly defined preferences when ordering food at fast-food establishments. They prioritize the menu, flavor, food quality, convenience, and speed of service. These factors are critical in shaping customer behavior. Since fast food is often a go-to option for many, the industry faces significant pressure to deliver efficient operations while ensuring a satisfying customer experience. Integrating self-service technology (SST) in restaurants has boosted profits, as customers are likely to order more items while requiring fewer staff members (Hanks et al., 2016). Moreover, this technology effectively collects consumer consumption data (Filloon, 2017) and enhances customer service by providing greater flexibility and minimizing wait times (Ozturk, 2016).

Self-service technology has transformed how businesses operate, benefiting employees and customers alike. It delivers services that are more convenient, customized, and efficient. Beyond just the ordering process in fast-food restaurants, it allows customers to take charge of their dining experiences, particularly in Tanza, Cavite. The National Restaurant Association's 2019 State of the Industry report reveals that 41 percent of quick-service operators plan to invest more in tablets, iPads, tableside ordering systems, or self-order kiosks (SOKs) in their venues to enhance customer satisfaction and meet growing expectations (Kelso, 2019). Additionally, Tillster (2020) found that over 65 percent of its customers would be more likely to patronize a restaurant equipped with self-service kiosks for faster and easier ordering. This suggests that restaurants can significantly benefit from the expanded options for selecting orders that kiosks provide (Neiman, 2019). Furthermore, it increases sales through effective up-selling and appeals to Millennial customers and their younger peers.

Even though self-service technology has been successfully implemented to enhance convenience, reduce waiting times, and improve the dining experience, users still encounter various challenges. These include technology-related frustrations, issues with the user interface, and the possibility that staff might need help navigating the system. Moreover, insufficient performance of self-service technology—whether stemming from poor design of the technology or the service itself—can lead to notable customer dissatisfaction. Additionally, introducing Service-Oriented Knowledge Systems or self-order kiosks (SOKs) can be particularly challenging for management, especially regarding staffing costs and the expenses associated with training customers (Ravenel et al., 2016). Suppose consumers do not engage with the new service technology. Under such circumstances, management will be under more

Volume 06, Issue 01 "January - February 2025"

ISSN 2583-0333

financial strain because staff members must continue working while paying for the new system (Ravenel et al., 2016). Therefore, before deploying self-order kiosks, service managers should carefully assess their plans to meet customer needs and financial constraints (Iqbal et al., 2018).

This research determined the impact of self-service technology on service quality and customer satisfaction within the fast-food sector in Tanza, Cavite. It seeks to determine customers' views on self-service technology and their level of satisfaction with these services while also assessing the perceived quality of service.

Given the preceding statements, this study was conducted to:

1. Determine the demographic profile of the participants in terms of:

   a. Age;
   b. Sex;
   c. Civil status; and
   d. Monthly income;

2. Determine the service quality of self-service technology as perceived by the participants in terms of:

   a. Tangible;
   b. Reliability;
   c. Responsiveness;
   d. Convenience;
   e. Assurance; and
   f. Empathy;

3. Identify the customer satisfaction towards self-service technology in terms of:

   a. Consumer needs and wants;
   b. Convenience;
   c. Cost; and
   d. Communication.

2.0 METHODOLOGY

This study takes a constructive approach by employing descriptive research to gather comprehensive data on service quality and customer satisfaction with self-service technology in fast-food restaurants. Descriptive research serves as a valuable tool for collecting and analyzing various elements of service quality and customer satisfaction, offering insights into the current state of self-service technology in these establishments. The researchers in this study used three sampling techniques to collect feasible data: purposive sampling to select individual participants for this study, quota sampling to determine the one hundred participants needed for this study, and convenience sampling, which targets customers who have used self-service technology at fast-food restaurants in Tanza, Cavite. In addition, the researchers developed a survey questionnaire to evaluate the quality of service provided by the self-service technology at fast-food restaurants, and the survey questionnaire by the researchers was

disseminated directly to participants who used the self-service technology while dining in a fast-food restaurant in Tanza, Cavite.

The data was analyzed using various statistical tools, including frequency counts, percentages, weighted means, and standard deviation, to assess the demographic profile, perceived service quality, and customer satisfaction related to self-service technology. The researchers utilized a 5-point Likert scale to interpret participants' responses. This scale measures how participants rated the quality of self-service technology and its influence on their experiences and satisfaction while dining at fast food restaurants. The scale ranges from one to five, with five indicating strong agreement with the provided statements and one indicating strong disagreement. Consequently, a higher rating reflects greater alignment with the statements, while a lower rating suggests less agreement.

Table 1. Descriptive interpretation for Tangible

NUMERAL RANGE	VERBAL INTERPRETATION	DESCRIPTIVE INTERPRETATION
4.21 – 5.00	Strongly Agree	Customers have a very positive perception of the design and layout of fast-food restaurant self-service technology.
3.41 – 4.20	Agree	Customers have a positive perception of the design and layout of fast-food restaurant self-service technology.
2.61 – 3.40	Slightly Agree	Customers have a slightly positive perception of the design and layout of fast-food restaurant self-service technology.
1.81 – 2.60	Disagree	Customers have a negative perception of the design and layout of fast-food restaurant self-service technology.
1.00 – 1.80	Strongly Disagree	Customers have a very negative perception of the design and layout of fast-food restaurant self-service technology.

Table 2. Descriptive interpretation for Reliability

NUMERAL RANGE	VERBAL INTERPRETATION	DESCRIPTIVE INTERPRETATION
4.21 – 5.00	Strongly Agree	Customers feel very confident in the reliability of self-service technology in fast-food restaurants.
3.41 – 4.20	Agree	Customers feel confident in the reliability of self-service technology in fast-food restaurants.
2.61 – 3.40	Slightly Agree	Customers feel slightly confident in the reliability of self-service technology in fast-food restaurants.

Volume 06, Issue 01 "January - February 2025"

ISSN 2583-0333

1.81 – 2.60	Disagree	Customers feel doubt about the reliability of self-service technology in fast-food restaurants.
1.00 – 1.80	Strongly Disagree	Customers feel very doubt about the reliability of self-service technology in fast-food restaurants.

Table 3. Descriptive interpretation for Responsiveness

NUMERAL RANGE	VERBAL INTERPRETATION	DESCRIPTIVE INTERPRETATION
4.21 – 5.00	Strongly Agree	Customers believe that the self-service technology is very responsive to their needs.
3.41 – 4.20	Agree	Customers believe that the self-service technology is responsive to their needs.
2.61 – 3.40	Slightly Agree	Customers believe that the self-service technology is slightly responsive to their needs.
1.81 – 2.60	Disagree	Customers believe that the self-service technology is fewer responsive to their needs.
1.00 – 1.80	Strongly Disagree	Customers believe that the self-service technology is not responsive to their needs.

Table 4. Descriptive interpretation for Convenience

NUMERAL RANGE	VERBAL INTERPRETATION	DESCRIPTIVE INTERPRETATION
4.21 – 5.00	Strongly Agree	Customers feel that the technology in fast-food restaurants provide a very convenient experience.
3.41 – 4.20	Agree	Customers feel that the kiosks in fast-food restaurants provide a convenient experience.
2.61 – 3.40	Slightly Agree	Customers feel that the technology in fast-food restaurants provide slight convenient experience.
1.81 – 2.60	Disagree	Customers feel that the technology in fast-food restaurants do not provide enough convenience to enhance their experience.
1.00 – 1.80	Strongly Disagree	Customers feel that the technology in fast-food restaurants are inconvenient.

Table 5. Descriptive interpretation for Assurance

NUMERAL RANGE	VERBAL INTERPRETATION	DESCRIPTIVE INTERPRETATION

Volume 06, Issue 01 "January - February 2025"

ISSN 2583-0333

4.21 – 5.00	Strongly Agree	Customers feel that fast-food restaurants provide highly assurance when using self-service technology.
3.41 – 4.20	Agree	Customers feel that fast-food restaurants provide assurance when using self-service technology.
2.61 – 3.40	Slightly Agree	Customers feel that fast-food restaurants provide slight assurance when using self-service technology.
1.81 – 2.60	Disagree	Customers feel that fast-food restaurants provide few assurances when using self-service technology.
1.00 – 1.80	Strongly Disagree	Customers feel that fast-food restaurants do not provide assurance when using self-service technology.

Table 6. Descriptive interpretation for Empathy

NUMERAL RANGE	VERBAL INTERPRETATION	DESCRIPTIVE INTERPRETATION
4.21 – 5.00	Strongly Agree	Customers feel that the self-service technology in fast-food restaurants demonstrate a strong understanding of their needs.
3.41 – 4.20	Agree	Customers feel that the self-service technology in fast-food restaurants demonstrates an understanding of their needs.
2.61 – 3.40	Slightly Agree	Customers feel that the self-service technology in fast-food restaurants provide slight understanding of their needs.
1.81 – 2.60	Disagree	Customers feel that the self-service technology in fast-food restaurants provide limited understanding of their needs.
1.00 – 1.80	Strongly Disagree	Customers feel that the self-service technology in fast-food restaurants does not understand their needs.

Table 7. Descriptive interpretation for consumer needs and wants

NUMERAL RANGE	VERBAL INTERPRETATION	DESCRIPTIVE INTERPRETATION
4.21 – 5.00	Highly Satisfied	Customers feel that the self-service technology in fast-food restaurants is highly effective in meeting their needs and wants.

Volume 06, Issue 01 "January - February 2025"

ISSN 2583-0333

3.41 – 4.20	Satisfied	Customers feel that the self-service technology in fast-food restaurants is effective in meeting their needs and wants.
2.61 – 3.40	Slightly Satisfied	Customers feel that the self-service technology in fast-food restaurants is slightly effective in meeting their needs and wants.
1.81 – 2.60	Dissatisfied	Customers feel that the self-service technology in fast-food restaurants is not sufficiently effective in meeting their needs and wants.
1.00 – 1.80	Highly Dissatisfied	Customers feel that the self-service technology in fast-food restaurants is highly ineffective in meeting their needs and wants.

Table 8. Descriptive interpretation for convenience

NUMERAL RANGE	VERBAL INTERPRETATION	DESCRIPTIVE INTERPRETATION
4.21 – 5.00	Highly Satisfied	Customers feel that the self-service technology in fast-food restaurants provide a very convenient experience.
3.41 – 4.20	Satisfied	Customers feel that the self-service technology in fast-food restaurants provide a convenient experience.
2.61 – 3.40	Slightly Satisfied	Customers feel that the self-service technology in fast-food restaurants provide a slightly convenient experience.
1.81 – 2.60	Dissatisfied	Customers feel that the self-service technology in fast-food restaurants do not provide enough convenient experience.
1.00 – 1.80	Highly Dissatisfied	Customers feel that the self-service technology in fast-food restaurants provide an inconvenient experience.

Table 9. Descriptive interpretation for cost

NUMERAL RANGE	VERBAL INTERPRETATION	DESCRIPTIVE INTERPRETATION
4.21 – 5.00	Highly Satisfied	Customers feel that the self-service technology in fast-food restaurants are very reasonable.
3.41 – 4.20	Satisfied	Customers feel that the self-service technology in fast-food restaurants are reasonable.
2.61 – 3.40	Slightly Satisfied	Customers feel that the self-service technology in fast-food restaurants are slightly reasonable.

1.81 – 2.60	Dissatisfied	Customers feel that the self-service technology in fast-food restaurants are poorly reasonable.
1.00 – 1.80	Highly Dissatisfied	Customers feel that the self-service technology in fast-food restaurants very poor reasonable.

Table 10. Descriptive interpretation for communication

NUMERAL RANGE	VERBAL INTERPRETATION	DESCRIPTIVE INTERPRETATION
4.21 – 5.00	Highly Satisfied	Customers feel that the self-service technology in fast-food restaurants communicates very effectively.
3.41 – 4.20	Satisfied	Customers feel that the self-service technology in fast-food restaurants communicates effectively.
2.61 – 3.40	Slightly Satisfied	Customers feel that the self-service technology in fast-food restaurants communicates slightly effectively.
1.81 – 2.60	Dissatisfied	Customers feel that the self-service technology in fast-food restaurants lacks the ability to communicate effectively.
1.00 – 1.80	Highly Dissatisfied	Customers feel that the self-service technology in fast-food restaurants do not communicate effectively.

3.0 RESULTS AND DISCUSSION

3.1 Demographic Profiles of the Participants

Table 11 shows that most participants (81%) are in the 18-24 age bracket and are female (54%). The majority (93%) of the participants are single and have monthly incomes (66%) ranging from Php5,000 and below.

Understanding the demographics of participants—specifically their age, sex, marital status, and monthly income—is essential for gaining insights into their preferences and behaviors. According to Smith and Taylor (2020), individuals aged 18 to 24 are typically in the workforce and are often among those who engage with the latest trends and digital developments (Lopez, 2019). Additionally, there are differences in the roles each gender plays regarding preferences and perceptions. Johnson (2018) notes that women exhibit distinct behavioral patterns, particularly concerning communication, purchasing, and lifestyle choices.

Most participants in the study are single, which tends to lead to greater independence in decision-making, especially regarding technological solutions driven by convenience (Kim and Qu, 2021). Moreover, single individuals often dine alone and prefer quick and straightforward services, which self-service technology can provide (Wang et al., 2020). A study by Chen and Wang (2020) revealed that many participants are low-income consumers who are price-

Volume 06, Issue 01 "January - February 2025"

ISSN 2583-0333

sensitive and focused on value. They generally prefer dining services that are both efficient and affordably priced. Self- service technology meets these needs because, as noted by Meuter et al. (2017), it can offer faster service and help customers avoid additional costs.

Table 11. Distribution of participants in terms of their demographic profile

DEMOGRAPHIC PROFILES	FREQUENCY	PERCENTAGE
Age		
18-24	81	81.00
25-31	13	13.00
32 and above	6	6.00
Sex		
Female	54	54.00
Male	46	46.00
Civil Status		
Single	93	93.00
Married	7	7.00
Monthly Income		
5,000 and below	66	66.00
5,001-10,001	16	16.00
10,001-15,000	7	7.00
15,001-20,000	4	4.00
20,001 and above	7	7.00

3.2 Quality Service in Self-Service Technology of Fast-Food Restaurants

Table 12 presents the perceived service quality of self-serve technology regarding tangibility at a fast-food restaurant. The study shows that participants positively viewed the design and layout of the self-service technology in fast-food restaurants.

Arlen (2023) emphasized that customers value service in five dimensions; tangible is the least important. However, it encompasses essential physical aspects of self- service technology (SST) that customers interact with, including visual appeal, cleanliness, and maintenance standards.

Nyabundi et al. (2021) revealed in their study that tangible factors significantly influence customers' first impressions and set expectations for service quality and satisfaction, according to their respondents' data analysis.

Lcs and Lcs (2024) highlighted the essential role of tangibility, visuals, and cleanliness in affecting customers' perceptions. Cleanliness extends beyond mere appearance and holds significant psychological meaning to customers.

Table 12. Service quality based on tangible

TANGIBLE	WEIGHTED MEAN	STANDARD DEVIATION	REMARKS
1. It is visually appealing and modern.	4.32	0.445	Strongly Agree
2. It is clean and well-maintained.	4.16	0.503	Agree
3. It has improved design or layout.	4.11	0.309	Agree
4. It provides clear and easy-to-read instructions.	4.21	0.425	Strongly Agree
5. Its screens and keypads are in good working condition.	4.01	0.411	Agree
OVERALL	**4.16**	**0.419**	**Agree**

Table 13 present the perceived service quality of self- service technology regarding to reliability at fast food-restaurant. This study shows that participants agreed that self- service technology is reliable to use.

Kyung (2020) As technology becomes easier to use, people expect it to perform better and be seen more favorably and reliable to use. The reason for this is because customers' opinions regarding the effectiveness of technology use are strengthened if they believe that the self-service technology is easier to use. The astounding outcome is that you won't utilize the kiosk if you don't understand how effective it is. Additionally, habits developed through kiosk experience may lead to greater device recognition.

Table 13. Service quality based on reliability

RELIABILITY	WEIGHTED MEAN	STANDARD DEVIATION	REMARKS

Volume 06, Issue 01 "January - February 2025"

ISSN 2583-0333

1. It handles orders accurately.	4.28	0.273	Strongly Agree
2. It works well and without frequent errors.	3.69	0.273	Agree
3. It allows users to complete orders placed immediately.	4.22	0.359	Strongly Agree
4. It constantly performs as expected.	4.05	0.298	Agree
5. It reliably generates receipts and confirmations.	4.22	0.251	Strongly Agree
OVERALL	**4.09**	**0.045**	**Agree**

Table 14 illustrates the perceived service quality with self-service technology (SST) in terms of responsiveness. Overall, the result indicates that participants agreed that the SST in fast-food restaurants is responsive.

The results were supported by Wiyata and Roziqin (2024), which indicates in their study that responsiveness of SST significantly influence customers' overall satisfaction and experience, and their inclination to interact with such technologies. When customers input their inquiries, they expect SST to respond fast and accurately and this aspect is crucial in enhancing its perceived service quality.

Table 14. Service quality based on responsiveness

RESPONSIVENESS	WEIGHTED MEAN	STANDARD DEVIATION	REMARKS
1. It responds quickly when placing an order.	4.28	0.401	Strongly Agree
2. It displays helpful information in case of an error.	3.83	0.397	Agree
3. It enables simple changes to order before payment.	4.18	0.314	Agree

Volume 06, Issue 01 "January - February 2025"

ISSN 2583-0333

4. It will notify staff immediately if assistance is required.	3.66	0.401	Agree
5. It is designed to reduce wait times.	3.94	0.395	Agree
OVERALL	**3.98**	**1.948**	**Agree**

Table 15 shows the ratings for the convenience of self-service technology. The study indicates that participants strongly agreed that the self-service technology is not only highly convenient but also effective and easy to use.

Chan and Petrikat (2022) revealed in their study that self-service technology significantly enhances customer satisfaction through its convenience and operational efficiency. According to the study, participants strongly agreed that the ease of use and the reduced need for human interaction provided an effective and satisfactory service experience.

Table 15. Service quality based on convenience

CONVENIENCE	WEIGHTED MEAN	STANDARD DEVIATION	REMARKS
1. It is easy to use when placing orders.	4.39	0.249	Strongly Agree
2. It is available at convenient locations in the store.	4.19	0.251	Agree
3. It speeds up the ordering process compared to traditional service.	4.14	0.238	Agree
4. It allows flexible payment options (e.g., card and mobile payments).	4.31	0.247	Strongly Agree
5. It provides clear and user-friendly navigation throughout the process.	4.24	0.272	Strongly Agree
OVERALL	**4.25**	**0.012**	**Strongly Agree**

Volume 06, Issue 01 "January - February 2025"

ISSN 2583-0333

Table 16 presents the service quality on self-service technology of fast-food restaurants in terms of assurance. As a result, the study revealed that the participants had agreed that the self-service technology provides greater assurance when using it.

Self-service technology, as highlighted in various studies, provides customers with clarity, security, and immediate receipts or confirmations, which enhances their confidence in the accuracy and safety of their transactions. Customers are more likely to trust self-service technology when they receive clear and reliable transaction receipts and feel assured that their sensitive data is protected (Lee et al., 2017). Furthermore, Haider et al. (2021) emphasize that when consumers can instantly access their receipts, verify their orders, and avoid errors or misunderstandings that may arise in traditional cashier systems, they experience increased security and satisfaction.

Table 16. Service quality based on assurance

ASSURANCE	WEIGHTED MEAN	STANDARD DEVIATION	REMARKS
1. It provides confidence when used without needing staff assistance.	3.880	0.422	Agree
2. It gives me confidence that my order is handled correctly.	4.050	0.407	Agree
3. It appears security and trustworthy.	4.130	0.305	Agree
4. It provides adequate support if I encounter an issue.	3.680	0.394	Agree
5. It provides confidence for accurate billing and payments.	4.230	0.415	Strongly Agree
OVERALL	**3.99**	**1.605**	**Agree**

Table 17 presents the perceived service quality of self-serve technology in terms of customers' empathy in fast-food restaurants. This study shows that most participants agreed that the self-service technology in fast-food restaurants demonstrates an understanding of their needs.

This finding was strengthened by Bahadur et al. (2018), who found that empathy has a positive effect on customer loyalty—the ability to address the needs and preferences of customers, even without human interaction.

Table 17. Service quality based on empathy

Volume 06, Issue 01 "January - February 2025"

ISSN 2583-0333

EMPATHY	WEIGHTED MEAN	STANDARD DEVIATION	REMARKS
1. It accommodates special requests or health concerns.	3.64	0.398	Agree
2. It provides options for language preferences.	4.14	0.418	Agree
3. It is accessible to customers with disabilities.	3.68	0.390	Agree
4. It allows personalized interactions (e. g., loyalty rewards).	3.67	0.409	Agree
5. It offers clear assistance when a problem happens, making me feel cared for.	3.77	0.393	Agree
OVERALL	**3.78**	**0.402**	**Agree**

3.3 Customer Satisfaction in Self-Service Technology of Fast-Food Restaurants

Table 18 present the perceived customer satisfaction of self-service technology. It shows that the participants are satisfied that the self-service technology provides there needs and wants.

Sandamali (2020) customers generally use self-service technology when physical interfaces are congested, or they are in a hurry (situational variables) to save time. They want self-service technology to function quickly without wasting their time or effort. If the self-service technology is more easily to use more likely customer are satisfied.

Table 18. Customer satisfaction based on consumer needs and wants

CONSUMER NEEDS AND WANTS	WEIGHTED MEAN	STANDARD DEVIATION	REMARKS
1. It provides voice commands.	3.31	0.279	Highly Satisfied
2. It allows for fast transactions, ensuring efficiency.	4.16	0.255	Satisfied
3. It provides various languages.	3.99	0.243	Satisfied

Volume 06, Issue 01 "January - February 2025"

ISSN 2583-0333

4. It allows customization (e.g., orders).	4.25	0.320	Highly Satisfied
5. It provides visual aids like icons and images to improve its usability.	4.38	0.320	Highly Satisfied
OVERALL	**4.02**	**0.031**	**Satisfied**

Table 19 presents the customers' satisfaction with self-service technology in terms of convenience. Overall, it can be seen that all the participants are satisfied in terms of convenience of SST in fast-food restaurants.

The results were reinforced with the findings of Kaushik et al. (2018), who emphasize the crucial role of convenience along with its attributes, such as speed and accessibility, in shaping positive SST evaluation and its significant influence on customer satisfaction.

Table 19. Customer satisfaction based on convenience

CONVENIENCE	WEIGHTED MEAN	STANDARD DEVIATION	REMARKS
1. It is simple to use for beginners.	3.94	0.393	Satisfied
2. It offers quick service to meet customer requirements effectively.	4.20	0.321	Satisfied
3. It provides users with access to flexible payment options.	4.16	0.427	Satisfied
4. It supports resources that are readily available for assistance.	3.99	0.386	Satisfied
5. It provides clear instructions and easy to navigate.	4.17	0.437	Satisfied
OVERALL	**4.09**	**1.643**	**Satisfied**

Table 20 shows how cost factors affect user satisfaction with the service. The study finds that users are satisfied with clear pricing, no hidden charges, and no extra fees. However, they are

Volume 06, Issue 01 "January - February 2025"

ISSN 2583-0333

not fully satisfied with the discounts and promotions offered. Overall, the study suggests that cost factors positively influence how users feel about the service.

Meuter et al. (2000) strengthened the result of the study by demonstrating that self- service technologies (SSTs) significantly impact customer satisfaction, particularly when clear pricing, absence of hidden charges, and lack of additional fees are present. Similarly, a study by Siti Nur Syahida Mohd Shukry et al. (2023) highlighted the importance of these cost-related factors in enhancing user satisfaction with self- service kiosks in fast food restaurants. Both studies underscore that transparent cost structures are essential for fostering customer trust and satisfaction, thereby supporting the findings of this study that clear pricing, no hidden charges, and no extra fees positively influence users' perceptions of the service.

Table 20. Customer satisfaction based on cost

COST	WEIGHTED MEAN	STANDARD DEVIATION	REMARKS
1. Its pricing is straightforward and transparent, giving users clarity on costs.	4.21	0.278	Highly Satisfied
2. It provides users with access to discounts and promotions.	3.64	0.283	Satisfied
3. It provides an economical solution.	3.97	0.261	Satisfied
4. It has no hidden charges.	4.27	0.243	Highly Satisfied
5. It has no additional service fees applied.	4.24	0.271	Highly Satisfied
OVERALL	**4.07**	**0.016**	**Satisfied**

Table 21 shows the customers' satisfaction with self-service technology in terms of communication. Overall, the participants are satisfied to the self-service technology in a fast-food restaurant communicates effectively.

The result of the study can be justified by De Leon, Atienza, and Susilo (2020), who found that self-service technologies are essential in communication to make customers feel supported and valued. When customers can easily access information and receive timely assistance through self-service technology, it addresses their immediate concerns and fosters a sense of trust and reliability in the service.

Table 21. Customer satisfaction based on communication

COMMUNICATION	WEIGHTED MEAN	STANDARD DEVIATION	REMARKS

Volume 06, Issue 01 "January - February 2025"

ISSN 2583-0333

1. It encourages user feedback and questions.	3.58	0.395	Satisfied
2. It is designed to be easily understandable and facilitate effective communication.	4.02	0.428	Satisfied
3. It addresses various communication needs.	3.91	0.457	Satisfied
4. It has options for languages like Filipino and English, making it accessible to all.	4.22	0.443	Highly Satisfied
5. It has no technical jargon or specialized language that is not easy to understand	4.22	0.314	Highly Satisfied
OVERALL	**3.99**	**0.407**	**Satisfied**

4.0 CONCLUSIONS AND RECOMMENDATIONS

The study determined the quality of self-service technology service quality and customer satisfaction in fast-food restaurants. Based on the findings, the following conclusions were drawn:

1. Most of the participants are female and single. The result means they have an opportunity to make independent choices, particularly when it comes to technological options. It showcases the diverse behavioral tendencies in different aspects, such as in their communication styles, purchasing habits, and lifestyle decisions.
2. The participants perceived the service quality of self-service technology as good. This means the participants are satisfied with self-service technology in a fast- food restaurant.
3. The participants' experiences with self-service technology in fast-food restaurants moderately impact their satisfaction as customers. This means that their experiences affect their attitude toward using self-service technology.

Based on the above conclusions, the following recommendations are made:

1. Fast-food restaurants should improve the usability and accessibility of self- service technology by creating user-friendly interfaces, providing clear instructions, and ensuring seamless functionality to address the needs of young adults, particularly females with lower monthly incomes.
2. Conduct consistent customer feedback sessions to identify specific challenges or concerns regarding self-service technology and implement targeted improvements.

3. Provide incentives or loyalty rewards for using self-service technologies, such as discounts or freebies, to encourage customers to utilize the technology more frequently.
4. To improve customer confidence and overall satisfaction, provide in-person assistance for first-time users or those encountering issues, such as staff guidance or virtual tutorials.
5. Businesses that employ self-service technology can use the findings of this study to educate new self-service technology users and enhance their experiences.
6. They can also utilize this study to compare the perceptions of usability, reliability, and self-service security between middle-aged and younger users, helping to better understand and increase self-service technology adoption rates.
7. Fast-food restaurants and other food service businesses can use the findings of this study to refine their marketing and operational strategies. By aligning their services with the needs and preferences of their target demographic, they can increase customer satisfaction and encourage higher adoption rates of self- service technology.
8. Future researchers may explore the broader impacts of self-service technology on customer behavior and satisfaction. Including additional demographic variables and external factors may provide a more comprehensive understanding of how different segments of the population interact with and benefit from self-service technology.

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