
| RESEARCH ARTICLE**Digitalization and Its Effect on Customer Satisfaction**

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| ABSTRACT

This study looks at how digitalization affects customer satisfaction at a popular fast-food company in Cagayan de Oro City. Taking respondent demographics into account, the researchers examined the connection between customer satisfaction (price, product quality, and service excellence) and digitalization (digital marketing strategies, technology use, and digital literacy), determining the degree to which digitalization affects overall customer satisfaction and pinpointing areas in need of improvement were the objectives. A survey questionnaire was used in the study with a descriptive quantitative design, wherein 246 clients were chosen at random from a total population of 642. Using a four-point Likert scale, the questionnaire evaluated customer satisfaction across several aspects, demographic profiles, and digitalization levels. Descriptive statistics (frequency, percentage, mean) and inferential statistics (T-Test, Anova, Pearson R correlation) were used in the data analysis. The validity of the instrument was validated by three external expert reviewers. SPSS software was used to examine the data. The study, which concentrated on particular facets of digitalization and consumer happiness, was restricted to a single fast-food restaurant in Cagayan de Oro City. Digitalization and total customer satisfaction were shown to have a somewhat favorable connection ($r = 0.56217$). The lack of statistical significance ($p > 0.05$) in this correlation, however, suggests that the effect of digitalization on satisfaction has not been conclusively demonstrated. While satisfaction with product quality and service excellence was constant across groups ($p > 0.05$), there were notable disparities in pricing satisfaction across demographic categories (age, gender, and income; $p < 0.05$). Customers gave the fast-food chain's internet platforms excellent ratings for usability. Price, product quality, and service excellence all received high ratings from customers. In conclusion, other factors have a stronger impact on customer satisfaction than digitalization, despite the latter having a moderate association with it. A balanced strategy that incorporates both traditional customer service components, human interaction, and digital innovations should be given top priority by businesses. The subtleties of the relationship between digitalization and customer happiness should be further investigated, taking into account a greater variety of circumstances and factors.

| KEYWORDS

Digitalization, customer satisfaction, and human interaction.

| ARTICLE INFORMATION

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1. Introduction

Digitalization is defined in the country as the increased and widespread use of e-commerce, social media, and technologies (Ona et al., 2021). In this evolving digital landscape, most countries in the world today, including the Philippines, have become members of the digital user. Filipinos, being the most active users of social media and technologies, have been plastered throughout the internet (Gonzales, 2019). The online omnipresence of Filipinos

has not ceased despite having the slowest internet connection in comparison with its neighbors. Technology expansion nowadays is reshaping business growth, and businesses will be able to fully exploit new technology and reap its benefits. This expansion has created a significant change in how businesses connect with their customers, and the financial sector is believed to be ahead of other industries that rely on technology and the internet to engage with clients through electronic services (Rawwash et al., 2020).

In addition, research by Sedighi et al. (2022) and Magcope et al. (2023) confirmed improvements in service effectiveness and user satisfaction from digital governance, the approach to digitalization. Lin et al. (2023) supported that digitalization efforts have significantly improved the transparency and efficiency of public services, emphasizing the importance of a customer-centered approach and continuous enhancement of digital platforms.

The increasing usage of technology has permanently changed. As stated by Sales force, customers are willing to spend more for a positive experience, customers expect companies to understand their requirements and expectations, and purchasing decisions are made depending on how the customers feel they are handled (Bass et al., 2020). A business can run smoothly and without many hiccups if its system is not just adaptable but also capable of tackling new obstacles regarding technology advancements. That is why the backbone of the business is a strong and efficient technological system.

The purpose of this study was to examine the effect of digitalization on customer satisfaction. The topic captivated the researchers' interest due to its relevance in today's rapidly evolving business world, where most businesses use and adapt digital technologies to operate and run their business efficiently and effectively. The researchers got interested in digging deeper into the extent to which this digitalization affects customer satisfaction in one of the fast-food chains in Cagayan De Oro City.

The study focused on a well-known fast-food chain in Cagayan De Oro City that actively embraced digitalization, by examining customer satisfaction in terms of pricing, product quality, and service excellence, and digitalization in terms of digital marketing strategies, adoption of digital technologies, and digital literacy. The study sought to evaluate whether digitalization significantly influences satisfaction levels.

This research was anchored on Digital Transformation Theory (Jamal et al, 2023), which highlights that technological advancement should be integrated with the organizational culture and human interaction to achieve meaningful outcomes. Digital transformation is not solely about technology adoption but about aligning digital tools with people, processes, and customer experience. Similarly, Digital Marketing Theory (Mandal and Nitin, 2016) emphasizes the role of data-driven marketing strategies in influencing customer engagement, trust, and satisfaction. Both theories affirm that digitalization must go hand-in-hand with service quality and human interaction to drive sustainable customer satisfaction.

It's important to note that technology is frequently seen as the crucial tool for increasing a company's economic competitiveness. The adoption of digital technologies is rampant in terms of how companies operate and interact with customers, making it vital to know how these changes affect customer satisfaction (Almajali et al., 2021). However, while the benefits of digitalization are widely acknowledged, some scholars caution against potential drawbacks, such as the digital divide and the risk of over-reliance on technology, which may exacerbate existing inequalities in society (Katrin, 2022).

1.1 Research Questions:

This study seeks to answer the following core question: *How does digitalization affect customer satisfaction in one of the fast-food chains in Cagayan De Oro City?* Supporting questions, measuring the level of digitalization in terms of digital marketing strategies, adoption of digital technologies, and digital literacy, how do respondents assess customer satisfaction in terms of pricing, product quality, and service excellence? A significant relationship between digitalization and customer satisfaction, and a significant difference in the effect of digitalization on customer satisfaction when grouped according to their profile.

1.2 Purpose of the Study:

The main objective was to examine the effect of digitalization on customer satisfaction. By understanding its effects, businesses can make better decisions to improve their digital strategies and gain competitive advantages. Thus, the output of the study aims to improve customer satisfaction through digitalization and to provide insights for businesses on how to balance technology adoption with service excellence, and to serve as a guide for developing an action plan that integrates digital innovations with traditional customer service strategies.

1.3 Significance of the Study:

The findings benefit multiple stakeholders. For businesses, the results provide a roadmap to enhance customer experience through digital platforms. Researchers gain reference material on how digitalization affects customer satisfaction. Teachers and students can use the study as an educational resource, while future researchers may extend its scope to other sectors. Ultimately, customers themselves benefit from improvements in pricing fairness, product quality, and service excellence informed by digital strategies.

2. Methods:

2.1 Research Design

The study used a descriptive quantitative design, appropriate for identifying the degree to which digitalization influences customer satisfaction using numerical data. This design allowed researchers to describe existing conditions, analyze numerical responses, and statistically interpret relationships and differences between variables.

2.2 Participants and Sampling Method:

The population of the study consisted of 642 regular customers of the fast-food chain. Using Slovin's formula at a 5% margin of error, a sample size of 246 respondents was determined. Respondents were regular customers familiar with the restaurant's digital services. Simple random sampling was used to ensure equal chances of selection and customer participation.

2.3 Research Instruments:

Data were gathered using a structured three-part questionnaire, which was adopted and modified from a previous study by Guangying et al. (2024) to suit the variables of the present study.

Part I: questions referring to the demographic profile of the customers as to their age, sex, and average monthly income.

Part II: covered questions referring to digitalization as to digital marketing strategies, adoption of digital technologies, and digital literacy.

Part III: covered questions related to customer satisfaction as to pricing, product quality, and service excellence.

2.4 Data Gathering Procedure:

The researchers intended to obtain permission from our research adviser and campus-in-charge to carry out an extensive study of the campus grounds. Furthermore, the researchers asked customers for permission to conduct an interview during their spare time. The researchers headed to one of the well-known fast-food chains in Cagayan de Oro City to gather information, making sure that no question was missed. In the end, the researchers gathered all the reliable information and data required to wrap up the study and offered a complete view of the business environment, enabling accurate analysis of economic contributions and common issues faced by businesses.

2.5 Ethical Considerations:

The study ensured ethical compliance by:

- Securing informed consent from participants,
- Ensuring confidentiality and anonymity of responses,
- Allowing voluntary participation, and

- Respondents were assured that data would be used strictly for academic purposes only.

2.6 Data Analysis:

Collected data were encoded and analyzed using **SPSS software**. The following statistical tools were used:

- **Descriptive Statistics:** Frequency, percentage mean average and standard deviation were employed to ascertain the respondent's profile and assess responses.
- **Pearson R:** It was used to assess if there is a relationship between digitalization and customer satisfaction.
- **T-test and ANOVA:** To test if there is a significant difference in the effect of digitalization when the respondents are grouped according to their profile.
- Responses were quantified using a **four-point Likert scale**, interpreted as follows:

Scale	Range	Description	Interpretation
4	3.26-4.00	Strongly Agree	Very High
3	2.51-3.25	Agree	High
2	1.76-2.50	Disagree	Poor
1	1.00-1.75	Strongly Disagree	Very Poor

3. Results

Table 1. *Frequency Distribution of Respondents Profile*

Profile	Frequency (F)	Percentage (%)
Age		
18-25 years old	172	70
26-35 years old	52	21
36 & above	22	9
Sex	Male	51
	Female	49
Average Monthly Income		
P5, 000.00 & below	145	59
P5,001.00- P15,000.00	56	23
P15,001.00-P25,000.00	33	13
P25,001.00- P35,000.00	5	2
P35,001.00 & up	7	3

Table 2. Summary of the Average Distribution of Respondents' Assessment on Digitalization in terms of Digital Marketing Strategies, Adoption of Digital Technologies and Digital Literacy

Digitalization		Average Mean	Average STD	Description	Interpretation
Digital Marketing Strategies		3.46	0.67	Strongly Agree	Very High Digitalization
Adoption of Digital Technologies		3.40	0.68	Strongly Agree	Very High Digitalization
Digital Literacy		3.40	0.71	Strongly Agree	Very High Digitalization

Legend: 1-1.75 (Very low in digitalization) 1.76-2.50 (Low in digitalization)
2.51-3.25 (High in digitalization) 3.26-4.00 (Very high digitalization)

Table 3. Summary of the Average Distribution of Respondents' Assessment on Customer Satisfaction in terms of Pricing, Product Quality and Service Excellence

Customer Satisfaction	Average Mean	Average STD	Description	Interpretation
Pricing	3.43	0.66	Strongly Agree	Very high satisfaction
Product Quality	3.41	0.65	Strongly Agree	Very high satisfaction
Service Excellence	3.38	0.66	Strongly Agree	Very high satisfaction

Legend: 1-1.75 (Very low in satisfaction) 1.76-2.50 (Low in satisfaction)
2.51-3.25 (High in satisfaction) 3.26-4.00 (Very high satisfaction)

Table 4. A Significant Relationship between Digitalization and Customer Satisfaction

Variables	Customer Satisfaction	
	r	P
Digitalization	0.56217	>0.05
Strength	Moderate	
Interpretation	Not Significant	

Legend:

STRENGTH:
 0.00-0.19 Very Weak
 0.20-0.39 Weak
 0.40-0.59 Moderate
 0.60-0.79 Strong

INTERPRETATION
 $p \leq 0.05 \rightarrow$ Significant
 $p \leq 0.01 \rightarrow$ Highly Significant
 $p \leq 0.001 \rightarrow$ Very Highly Significant

Table 5. A Significant Differences between Digitalization and Customer Satisfaction when Respondents are Group According to their Profile

Profile	Customer Satisfaction					
	Pricing	Product Quality		Service Excellence		
	p-value	Decision on H0	p-value	Decision on H0	p-value	Decision on H0
Age	<0.05	Reject	<0.05	Accept	<0.05	Accept
Sex	<0.05	Reject	<0.05	Accept	<0.05	Accept
Average Monthly Income	<0.05	Reject	<0.05	Accept	<0.05	Accept

Significant if P-value <0.05

Legend: Ho is rejected if significant
Ho is accepted if Not Significant

4. Discussion

This study examined how digitalization affects customer satisfaction in a fast-food chain in Cagayan De Oro City. Thus, the output of the study aims to improve customer satisfaction through digitalization and to provide insights for businesses on how to balance technology adoption with service excellence, and to serve as a guide for developing and action plan that integrates digital innovations with traditional customer service strategies.

4.1 Interpretation of the Results

The findings of the study revealed that digitalization has a moderately positive relationship with customer satisfaction. Although the correlation between the two variables was not statistically significant, the results indicate that digital tools and technologies still play an important role in enhancing customer experience. Customers highly rated the fast-food chain's online platforms for their ease of use and accessibility, showing that digital innovations such as online ordering, mobile payments, and social media promotions improve convenience and engagement.

However, the study also found that factors such as price, product quality, and service excellence have a stronger effect on customer satisfaction than digitalization alone. This suggests that while technology supports business efficiency, the human aspect of service, including responsiveness, friendliness, and product consistency, remains essential in achieving overall satisfaction. Moreover, the results emphasize the importance of balance between technology and traditional service practices. Although digitalization allows faster and more convenient transactions, businesses should ensure that customers still feel valued and personally attended to. The significant differences in satisfaction across demographic groups, particularly regarding pricing, highlight the need for flexible strategies that cater to diverse customer preferences. The study recommends that businesses continue integrating digital tools while maintaining high service standards and customer trust through data security and consistent quality. Overall, the interpretation supports the idea that digitalization enhances customer satisfaction, but human interaction, fair pricing, and reliable service remain the foundation of a positive customer experience.

4.2 Comparison with Existing Literature

The result of this study resonates strongly with previous research on digital transformation, marketing, and customer satisfaction. The moderate correlation between digitalization and customer satisfaction aligns with the theoretical foundations established by Ciancarini et al. (2023), whose digital transformation theory posited that technology, when integrated effectively with organizational culture and people, enhances management efficiency and customer experience. However, Jamal also asserted that digital tools alone are insufficient without human-centric approaches, a conclusion mirrored by the study's findings. Both bodies of work affirm that the ultimate goal of digital transformation is not automation but customer experience optimization through the coexistence of digital and human elements.

The result also complements the Digital Marketing Theory of Mandal and Nitin (2016), which explained that digitalization improves marketing effectiveness but should be geared toward engagement rather than pure promotion. The study demonstrated that respondents positively associated digital marketing strategies, such as social media advertising and online promotions, with product quality and brand perception. However, consistent with Mandal and Nitin's theory, the absence of a significant correlation between digitalization and satisfaction suggests that digital marketing alone cannot create lasting customer loyalty. Engagement must be paired with meaningful service, empathy, and authenticity to yield stronger satisfaction outcomes.

Comparing these findings with the works of Parasuraman et al. (2015) also reveals strong conceptual alignment. According to the model, customer satisfaction is influenced by reliability, responsiveness, empathy, assurance, and tangibility-factors that remain essential even in digital environments. The current study's result confirmed that while digital tools improve reliability and efficiency, empathy and human assurance continue to drive satisfaction levels. Similarly, Zeithmal et al. (2018) emphasized that product quality remains one of the strongest predictors of satisfaction, supporting this research's conclusion that customers highly value consistent quality and tangible experiences over technological novelty.

In the Philippine context, the findings parallel studies by Ona et al. (2021) and Magcope et al. (2023), which explored the integration of digitalization among Filipino businesses. These scholars found that while digital adoption has improved marketing efficiency and reach, Filipino consumers still seek personal interaction and relational service. The cultural preferences for warmth and hospitality explain why local consumers continue to value face-to-face interaction, courteous service, and emotional engagement even in digitalized environments. This study strengthens

that argument by providing empirical evidence that Filipino customers perceived digitalization as helpful but not as a replacement for the traditional human connection that defines service excellence in the country.

Additionally, findings from Gursoy et al. (2019) and Wang et al. (2022) emphasized that digital tools enhance efficiency and operational accuracy, reducing human error and wait times. The present study validates these advantages but adds that customers still measure satisfaction based on perceived value and emotional resonance rather than efficiency alone. Meanwhile, Tinmaz et al. (2022) cautioned that excessive dependence on digital systems could create exclusion among those with lower digital literacy- a concern supported by this study's observation that some respondents still require assistance in using digital platforms. This reinforces the call for inclusive digital transformation strategies that ensure accessibility for all users.

In summary, the present research both confirms and extends existing literature by presenting quantitative evidence that digitalization, while beneficial, is not the sole determinant of satisfaction. Instead, it strengthens service quality when combined with human empathy, inclusivity, and relational interaction. The consistency of these findings with global and local research demonstrates that the optimal customer experience lies at the intersection of technology and humanity- a principle that remains universal across industries and cultures.

5. Conclusion and Implications of the Results

The findings of this study carry significant implications for business operations, education, policy-making, and future research. In the business sector, the result emphasized that digitalization must serve as a complement, not a substitute for personal service and human connection. Fast-food chains and similar enterprises should use digital technology to enhance convenience, accuracy, and communication, but should also invest equally in staff training, customer relations, and service excellence. Managers should recognize that technology creates efficiency, while human employees create loyalty. Therefore, training programs should focus not only on technical proficiency but also on empathy, attentiveness, and cultural sensitivity to maintain a balance between digital competence and emotional intelligence.

Furthermore, businesses should focus on integrating digital marketing with relational engagement. While social media campaigns and online platforms are essential tools for reaching customers, these should promote authentic communication and brand trust rather than mere promotional content. The study's findings also suggest that pricing strategies should remain sensitive to consumer income levels, ensuring that technological improvements do not lead to price inflation. Cost efficiency gained from digital tools should be redirected towards maintaining fair pricing and consistent product quality- two factors found to be critical determinants of satisfaction.

From an educational perspective, this research highlights the need for higher education institutions, particularly business and management programs, to prepare students for hybrid digital environments. Future professionals must be equipped with digital literacy skills while retaining the interpersonal abilities that foster customer satisfaction. Courses integrating digital marketing, data analytics, and communication as key competencies. This dual focus will help produce graduates who can lead in industries that demand both technological fluency and people-centered leadership.

On the policy level, the study's implications extend to the need for inclusive digital transformation policies. Policymakers should ensure that technological progress benefits all citizens, not just those with high income or education levels. Government agencies and private institutions can collaborate to promote digital literacy programs that educate consumers on online transactions and cybersecurity. And data privacy. By bridging the digital divide, both businesses and society can ensure equitable participation in the growing digital economy. Moreover, policy support can encourage small and medium-sized enterprises to adopt digital tools without losing their local and relational touch.

From the theoretical viewpoint, the findings suggest that models of customer satisfaction and digital adoption need to evolve towards integrative frameworks that combine human and technological dimensions. Traditional models like the Technology Acceptance Model (TAM) may need extensions that incorporate emotional intelligence, service

empathy, and cultural context. This study contributes to the growing recognition that customer satisfaction is not purely cognitive or functional; it is also emotional, relational, and experiential. Hence, future models should reflect this multidimensional nature of satisfaction in the digital age.

Finally, the study serves as a reminder to businesses and scholars alike that digitalization is not an endpoint but a continuous process of adaptation and learning. Customer preferences evolve alongside technology; therefore, continuous monitoring, feedback collection, and improvement are essential.

5.1 Limitations of the Study

The study was limited to one selected fast-food chain located in Cagayan de Oro City, which restricts the generalization of results to other settings. Furthermore, the study only covered selected indicators of digitalization and customer satisfaction, leaving out other possible influencing factors such as emotional connection, brand loyalty, or cultural attitudes. Despite these limitations, the findings still provide valuable insight into how digitalization affects customer satisfaction and can serve as a foundation for future studies.

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