

Digital-Based Customer Service Development Strategy in the Business Development Division of Merchant Marine in Indonesia

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Abstract

This study examines the digital-based customer service development strategies implemented by the Business Development Division of STIP Jakarta, a leading maritime institution in Indonesia. The background of this research is driven by the gap in the utilization of digital technologies to enhance customer service quality in the higher education maritime sector, particularly in the context of adapting to the evolving needs of customers. The main focus of this research is to explore how digital tools such as web-based platforms, AI-powered chatbots, WhatsApp customer service, zoom meetings, and Google Forms for satisfaction surveys are used to improve communication efficiency, responsiveness, and overall customer satisfaction. The research employs a descriptive analysis method with a qualitative approach, which includes interviews with service management staff and direct observations of the digital tools' implementation. The findings show that these digital tools have enabled more efficient communication, increased responsiveness, and improved the overall customer experience. The use of Zoom meetings, in particular, proved to be highly effective in engaging customers with low digital literacy, ensuring that they can fully benefit from the services offered. This study concludes that the strategic integration of digital technologies significantly contributes to customer loyalty, service quality, and business growth.

Keywords: digital customer service; business development; AI chatbot; customer satisfaction; maritime education

1. Introduction

In a period of intensifying business rivalry, client happiness has emerged as a critical determinant of an organization's success. Contemporary consumers anticipate not just high-quality products or services but also significant experiences during their engagements with the organization. This change in emphasis requires organizations to always innovate and build strategies that address the constantly changing wants and expectations of customers. Elevated customer happiness fosters loyalty, improves reputation, and eventually propels firm growth (Kumar et al., 2023). The focus on customer experience has revolutionized the contemporary corporate environment, where service quality and personalization serve as the primary differentiators among firms (Chung & Lee, 2022). The utilization of digital technologies in customer service management is crucial. Customer-centric management information systems (MIS) that prioritize technology can assist firms in delivering

precise and pertinent information, thereby augmenting customer happiness and bolstering competitiveness (Martin & Reyes, 2021). These technologies facilitate communication, improve decision-making processes, and enable firms to respond to client needs promptly and efficiently (Chung & Lee, 2022). The integration of Management Information Systems with customer-centric strategies is essential for sustaining a company's competitive advantage in the global market due to the always increasing problems (Singh & Gupta, 2022).

The use of digital technologies into customer service systems is vital for firms seeking to maintain competitiveness. Management Information Systems (MIS) designed for customer-centric strategies can enhance communication and decision-making processes, resulting in improved responsiveness to client needs (Martin & Reyes, 2021). The significance of Information and Communication Technology (ICT) in this change is paramount, as it enables the provision of timely and pertinent information, thereby improving overall service quality. (Singh & Gupta (2022) assert that aligning Management Information Systems with customer-centric initiatives is essential for sustaining a

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competitive advantage in a swiftly evolving business landscape. The progression of technology has essentially transformed consumer behavior, requiring firms to comprehend and promptly address customer wants. The rising demand for tailored services has resulted in the implementation of advanced data analytics and real-time information processing capabilities (Li et al., 2023). The integration of artificial intelligence and machine learning into customer service management equips firms with capabilities to proactively anticipate and fulfill customer expectations (Taylor & James, 2022). This technology advancement is especially pertinent for educational institutions like Government School, Merchant Marine in Indonesia, which must address comparable issues in providing high-quality services to their customers.

As the corporate landscape increasingly digitizes, organizations such as STIP Jakarta must adopt technology to maintain competitiveness. The Business Development Division at STIP Jakarta is pivotal in incorporating customer-centric tactics into the institution's services, influencing both its academic programs and financial viability. Nonetheless, a considerable gap exists in comprehending the precise techniques the division utilizes to promote customer-centric offerings. Lee & Park (2023) assert that educational institutions must adjust to the changing expectations of students, alumni, and industry stakeholders to maintain relevance and efficacy. In light of swift technology progress and evolving consumer expectations, educational institutions must transcend conventional methods and integrate innovative tools like advanced analytics, cloud computing, and machine learning to enhance student satisfaction and outcomes. By aligning service offerings with industry trends, institutions such as STIP Jakarta can more effectively serve their stakeholders and attract a wider clientele.

The significance of implementing customer-centric management information systems (MIS) in educational institutions has become increasingly evident. According to Safitri and Dera (2014), MIS can provide a necessary framework for managing student information, fostering efficient communication among teachers, students, and industry partners, and enhancing decision-making processes. By integrating MIS, educational institutions can optimize administrative operations and improve the student experience through real-time updates, tailored feedback, and digital engagement tools. Additionally, the swift adoption of artificial intelligence, machine learning, and big data analytics allows schools to anticipate student needs more accurately and respond proactively. Li et al. (2023) argue that leveraging data analytics enables institutions to create individualized learning

environments tailored to students' specific needs, thereby enhancing their overall educational experience. Successful implementation of these technologies can also improve graduates' employability by aligning curricula with industry demands and providing real-time, personalized career support.

The business development section at STIP Jakarta is essential in formulating and executing these initiatives. It is essential for improving the educational and operational functions of the institution. Further research is required to ascertain how STIP Jakarta can utilize developing digital tools to foster a customer-centric culture. This research seeks to determine the customer-centric service development methodologies utilized by the Business Development Division of STIP Jakarta, with the objective of determining best practices for enhancing service delivery. Zhang and Liu (2024) assert that the effective incorporation of technology into service delivery necessitates both technical instruments and a transformation in organizational culture to prioritize a customer-centric approach. This transition is crucial for maintaining competitiveness in a swiftly evolving industry.

This study aims to analyze the techniques employed by the business development division of STIP Jakarta, necessitating an examination of their actual application in real-world contexts. This research will evaluate the effectiveness of the division's strategy in aligning with the changing needs of its customers students, companies, and industry stakeholders. Moreover, comprehending the obstacles encountered in the execution of these strategies would yield significant insights into the determinants affecting the success or failure of such projects. Rosen & Thompson (2023) assert that feedback systems, like surveys and focus groups, are crucial for assessing client satisfaction and pinpointing areas for enhancement. By integrating these feedback channels into the institution's service development framework, STIP Jakarta may guarantee that its services are perpetually enhanced and customized to meet the specific needs of its clientele.

Customer satisfaction is a continuous process necessitating meticulous attention to detail. At STIP Jakarta, this entails implementing a comprehensive strategy for service design and delivery. Student and industry partner feedback must be regularly collected, analyzed, and implemented to guarantee that services are responsive and effective. This study will examine how STIP Jakarta gathers, analyzes, and utilizes consumer input to enhance its services and address the changing requirements of its stakeholders. Through the implementation of modern analytics and machine learning, STIP Jakarta can effectively rectify existing service deficiencies while also forecasting future trends in

education and industry, thereby establishing itself as a frontrunner in customer satisfaction within the educational domain.

Based on the background of the problem above, the formulation of the problem outlined in this research is as follows: What strategies have been implemented by the business development division of STIP Jakarta to improve customer-based services?, How is the implementation of that strategy realized in practice?, What are the factors that influence the success or failure of the implementation of that strategy?

This study adopts a qualitative case study design to examine digital-based customer-service strategies within the Business Development Division of STIP Jakarta. Qualitative evidence is drawn from semi-structured interviews and document/CRM analysis, while a structured survey provides descriptive indicators of use, responsiveness, and perceived service quality. Integration occurs at the interpretation stage to triangulate themes with descriptive metrics and ensure a holistic view of strategy and implementation.

This research is expected to provide substantial benefits to various stakeholders, offering valuable insights for the improvement and development of customer-based services in the business development sector. The results of this research can also serve as a significant resource in formulating policies and plans for future service enhancements, thereby enriching the knowledge base regarding customer service development initiatives in educational institutions. It is expected that this research can serve as a reference for future studies on the same topic. This research uses a qualitative methodology with a case study approach. Data collection was conducted through interviews with key stakeholders in the business development division of STIP Jakarta, including document analysis.

2. Research Methodology

This study used a qualitative research approach, particularly emphasizing digital strategies, to investigate customer-centric service development within the Business Development Division of the Merchant Marine in Indonesia. The main objective is to examine how digital technologies, particularly Management Information Systems (MIS), enhance customer service strategies and promote operational efficiency in the education and business development sectors. Previous studies have highlighted the significant role of MIS in improving service delivery and operational outcomes (Laudon & Laudon, 2019; O'Brien & Marakas, 2011). Furthermore, the integration of digital tools has been shown to facilitate better decision-making and

increase responsiveness to customer needs in various industries (Zhao & Liu, 2020).

In addition, the survey method was employed to gather data directly from stakeholders within the Business Development Division, including employees, management, and customers, using structured questionnaires and semi-structured interviews. This approach allowed for a comprehensive understanding of the challenges and opportunities related to digital transformation in customer service practices. By collecting insights from a diverse range of participants, the study aimed to provide a holistic perspective on the effectiveness of digital strategies in improving customer service delivery within the Merchant Marine sector. The use of structured questionnaires ensured consistency in data collection, while semi-structured interviews provided flexibility for participants to share detailed insights and personal experiences regarding the adoption of digital tools and the resulting impact on customer service quality. Previous studies emphasize the value of mixed-methods research in capturing both quantitative data and qualitative insights, which is critical for understanding complex phenomena such as digital transformation (Creswell & Poth, 2018). Furthermore, the triangulation of data from different stakeholder groups allowed for a more robust analysis of the challenges and benefits associated with the implementation of digital technologies in service operations (Flick, 2018).

2.1. Research Design

The study used a digital qualitative methodology to obtain profound insights into customer-centric service strategies, utilizing digital tools and technology for data collecting and analysis. Digital transformation in customer service is imperative, as firms progressively implement Information and Communication Technology (ICT) and Customer Relationship Management (CRM) systems to provide improved services (Bong & Suh, 2024). This research seeks to analyze how the integration of real-time data analytics and digital solutions empowers the Business Development Division to provide services that address the evolving needs of stakeholders. Creswell and Poth (2023) assert that digital research procedures provide real-time monitoring and the acquisition of digital traces unattainable by conventional methods. The emphasis on digital instruments, such as online surveys, digital interviews, and CRM platforms, facilitates a more precise comprehension of service quality, customer behavior, and satisfaction (Martin & Reyes, 2021). This study seeks to acquire a nuanced comprehension of service development strategies and their effects on organizational performance by gathering data through digital methods.

This study aims to identify patterns and trends concerning consumer demands, satisfaction, and service delivery procedures through digital surveys, semi-structured online interviews, and data from customer interaction platforms. Charmaz (2022) contends that qualitative research, augmented by digital tools, facilitates the acquisition of real-time, actionable data that uncovers the fundamental elements driving service innovation.

2.2. Data Collection Techniques

Data collection is based on a combination of digital and traditional qualitative techniques, with an emphasis on technologies that facilitate efficient and comprehensive data gathering:

- 1) Digital Interviews: Using online interview platforms (Zoom, Microsoft Teams), key personnel from the Business Development Division will be interviewed to explore their insights on digital-based service development strategies. These semi-structured digital interviews allow flexibility and the ability to adjust based on ongoing insights. As Merriam & Grenier (2019) highlight, online interviews are effective for capturing qualitative data in a time-efficient manner and provide a broader reach to stakeholders across different locations.
- 2) Digital Surveys: To capture a larger volume of data, customer satisfaction surveys will be distributed digitally to current students, faculty, and industry partners associated with the Merchant Marine institution. The surveys will incorporate questions related to service quality, technological usage, and customer satisfaction. These surveys will be analyzed through digital platforms to identify trends and satisfaction scores, providing a broad understanding of customer perspectives Li et al. (2023).
- 3) Document and CRM Data Analysis: Digital documents, reports, and internal CRM data will be analyzed using content analysis methods to examine the alignment of organizational strategies with actual service delivery. CRM platforms will also provide valuable insights into customer interactions and feedback, facilitating an in-depth analysis of service effectiveness and areas for improvement (Bong & Suh, 2024).

2.3. Data Analysis

Data analysis will integrate digital analysis tools and thematic coding to extract valuable insights:

- 1) Thematic Analysis: The qualitative data collected through digital surveys and interviews will be coded and analyzed thematically to identify common patterns, themes, and insights related to service strategies and the application of digital tools in service development. This approach aligns with the work of Saldana

(2021)., who emphasizes thematic analysis as an effective way to understand complex, digital-embedded service processes.

- 2) Content Analysis: CRM data and internal reports will undergo content analysis to evaluate the alignment between customer feedback, organizational goals, and service strategies. This technique is particularly useful in assessing the effectiveness of digital service platforms and understanding their role in enhancing customer experiences (Patton, 2022).
- 3) Comparative Analysis: Combining data from interviews, surveys, and CRM systems will involve a comparative analysis to cross-check insights, validate findings, and provide a comprehensive understanding of service development. This triangulation ensures robust and reliable data interpretation, as suggested by (Bryman (2023).

2.4. Implications of Research

This study's findings are expected to offer actionable insights for the Business Development Division of the Merchant Marine, enabling the integration of digital solutions into service strategies. By understanding how digital technologies (such as CRM systems and online platforms) enhance customer service delivery, the research will contribute to refining service strategies, improving customer engagement, and driving institutional growth (Taylor & James, 2022).

The study will provide recommendations on how digital tools can be employed to:

- 1) Enhance customer interaction through automated systems and real-time feedback.
- 2) Improve operational efficiency by streamlining communication and decision-making processes (Martin & Reyes, 2021).
- 3) Foster customer loyalty by offering personalized services, leveraging data analytics and AI-driven insights (Li et al. (2023).

2.5. Data Analysis Flowchart

The data analysis flowchart of the research process as shown in Figure 1.

- 1) Digital Data Collection
 - Online Interviews with key personnel
 - Digital Surveys for customer feedback
 - Document analysis using CRM and internal reports
- 2) Data Processing and Analysis
 - Thematic Analysis (coding, identifying recurring patterns)
 - Content Analysis (reviewing CRM data, documents, and reports)

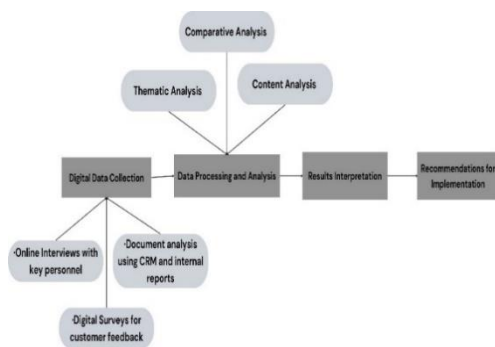


Figure 1. Data Analysis Flowchart

- Comparative Analysis (triangulation of multiple data sources)
- 3) Results Interpretation
 - Synthesizing insights from interviews, surveys, and digital tools
 - Identifying key strategies for service improvement
- 4) Recommendations for Implementation
 - Proposing actionable strategies to enhance digital customer service development.

3. Result and Discussion

The research findings indicate that the Business Development Division of STIP Jakarta has implemented various customer-centric service development strategies. These strategies, while promising, require more consistent effort to address implementation gaps and achieve optimal results.

3.1. Findings

In this section, the findings from the research conducted on the Business Development Division of STIP Jakarta are discussed in detail, and their implications for service delivery and customer satisfaction are explored. The findings reveal several key strategies and practices that have been employed by the division to enhance customer-oriented services. These strategies not only focus on improving service quality but also emphasize responsiveness, employee training, and customer engagement. Additionally, the practical implementation of these strategies has been influenced by several internal and external factors.

The findings from the study, based on table 1, demonstrates that STIP Jakarta's Business Development Division has successfully implemented several customer-oriented strategies that have led to enhanced service delivery and improved customer satisfaction. Each strategy, from customer-centric service delivery to modern facilities and continuous innovation, plays an essential role in ensuring that the division meets and exceeds customer expectations. The combined impact of these efforts has resulted in stronger customer loyalty, improved service quality, and a better overall customer experience. These findings

Table 1. Summary of Findings on Customer-Oriented Service Strategies at STIP Jakarta.

Strategy/Practice	Description	Impact
Customer-Centric Service Delivery	Providing timely, accurate, and responsive services to avoid delays and meet customer expectations.	Increased customer satisfaction and loyalty.
Employee Training Programs	Regular training sessions focusing on customer service, financial reporting, integrity, and other needs.	Improved employee performance and service quality.
Personalized Customer Engagement	Tailoring services to meet the individual needs of customers.	Stronger customer relationships and enhanced customer retention.
Service Innovation and Development	Ongoing creation of new services and updates to existing services to meet changing market demands.	Ability to adapt to market changes and maintain relevance.
Online Registration System	Providing an easy-to-use, fast online registration platform for customers.	Streamlined enrollment process, improving customer convenience.
Customer Feedback and Complaint Management	Regular collection of feedback through surveys and suggestion boxes, followed by actionable responses.	Continuous improvement of services based on direct customer input.
Modern Facilities and Equipment	Well-equipped classrooms, simulator labs, and workshops for practical training.	High-quality training experiences, increasing customer satisfaction and perceived value.

underscore the importance of investing in both customer engagement and internal processes to foster long-term success and growth.

The research findings reveal that the Business Development Division at the Merchant Marine institution in Indonesia, notably STIP Jakarta, has achieved considerable progress in implementing digital customer service techniques. These digital initiatives have been helpful in augmenting service delivery, elevating consumer happiness, and streamlining communication channels. The following are the principal outcomes concerning the implementation of digital technology and strategies:

- 1) The Business Development Division has effectively implemented a web-based platform for service delivery, enabling stakeholders such as students, teachers, and industry partners to conveniently access critical services and information. This portal serves as a centralized repository for announcements, academic materials, event updates, and customer service inquiries, facilitating user interaction with the institution and expediting the resolution of their issues.

- 2) **Implementation of AI-Powered Chatbots:** The deployment of artificial intelligence (AI)-driven chatbots has markedly improved customer service by delivering prompt responses to common inquiries and managing standard queries. This approach has alleviated the workload of customer service personnel while guaranteeing that clients receive immediate assistance around the clock. The chatbot is included into the institution's web platform and can respond to inquiries regarding admissions, course options, scheduling, and financial problems, so assuring a seamless client experience.
 - 3) **Zoom Meetings for Tailored Interactions:** In response to the escalating demand for personalized interactions and the rising dependence on remote communication, STIP Jakarta has employed Zoom meetings to enable real-time consultations with students, alumni, and industry partners. This digital technology has allowed the Business Development Division to sustain ongoing contact with stakeholders despite geographic and temporal constraints, enhancing the link between the institution and its customers.
 - 4) **client contentment Surveys Utilizing Google Forms:** To acquire essential insights into client contentment and pinpoint areas for enhancement, STIP Jakarta has adopted Google Forms for the execution of regular surveys. These surveys aim to collect input on multiple facets of the institution's services, including course offers and customer assistance. The convenience and accessibility of Google Forms facilitate stakeholder feedback, which is subsequently examined to improve service quality and meet evolving needs.
 - 5) **Expedited Communication through WhatsApp Customer Service:** A significant digital enhancement in the customer service approach is the incorporation of WhatsApp as a principal medium for client inquiries and assistance. This technology facilitates real-time communication between clients and the institution's customer support personnel. The rapid-response approach has enhanced customer satisfaction by providing prompt remedies to critical matters, ranging from course registration challenges to technical help. This approach has enhanced customer interactions by guaranteeing that students and industry partners receive timely attention to their demands.
- The execution of these digital initiatives has yielded numerous beneficial results for the Business Development Division of STIP Jakarta. The web-based service platform, chatbot, zoom meetings, Google Forms for surveys, and WhatsApp customer support collectively enhance a seamless and

efficient client experience. These initiatives have improved the institution's internal efficiency and enhanced overall service quality by delivering timely and pertinent help to customers. Furthermore, the digitalization initiatives have favorably influenced customer satisfaction levels. The incorporation of AI technologies, including chatbots, alongside the rapid-response features of WhatsApp, has resulted in expedited problem resolution, minimizing wait times and enhancing overall satisfaction. The online platform and Zoom meetings have facilitated more personalized and accessible interactions, enhancing the institution's customer-centric strategy.

The integration of these digital initiatives has resulted in enhanced customer loyalty, as stakeholders perceive greater engagement and support during their interactions with the institution. Through the ongoing adoption of innovative technologies and enhancement of customer service protocols, STIP Jakarta's Business Development Division has established itself as a frontrunner in digital transformation in the education sector, securing sustained success and expansion. These findings highlight the crucial importance of digital customer service techniques in improving service delivery and customer satisfaction inside educational institutions. STIP Jakarta has effectively utilized technical improvements to satisfy client expectations and cultivate a positive, forward-looking service environment.

3.2. Discussion

The findings of this research provide valuable insights into the digital-based customer service strategies implemented by the Business Development Division at STIP Jakarta. These strategies have played a pivotal role in transforming the service delivery model and improving overall customer satisfaction. This discussion will address the research questions formulated at the outset of the study, highlighting the strategies used, their practical implementation, and the factors influencing their success or failure.

1) **What strategies have been implemented by the business development division of STIP Jakarta to improve customer-based services?**

The Business Development Division at STIP Jakarta has successfully implemented several digital strategies aimed at improving customer-based services. These strategies include:

- **Web-Based Service Delivery:** A centralized, user-friendly platform for accessing information



Figure 2. Division's Website

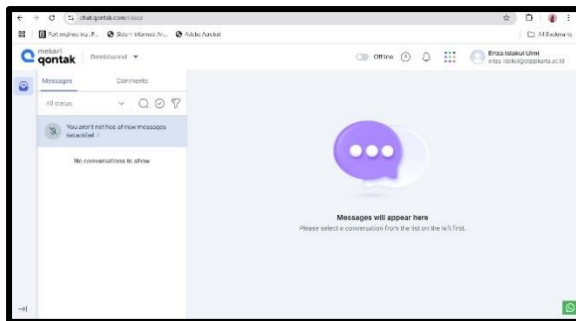


Figure 3. Chat bot.



Figure 4. Division's WA.

and services has been developed, offering stakeholders a comprehensive and easily accessible resource. This aligns with (Kumar et al. (2023), who highlighted the importance of digital platforms in enhancing service quality and improving overall customer satisfaction.

- **AI-Powered Chatbot:** The institution has introduced a chatbot to handle basic inquiries and provide instant responses to customers, improving response times and reducing the reliance on human customer service agents. This strategy is consistent with the work of (Taylor & James (2022), who emphasized how AI tools can predict and meet customer expectations proactively, improving service responsiveness.
- **Zoom Meetings for Personalized Interactions:** To provide real-time and more personal interactions, STIP Jakarta adopted Zoom meetings, allowing direct consultations and fostering stronger relationships with



Figure 5. The queue machine.



Figure 6. Service Counter.

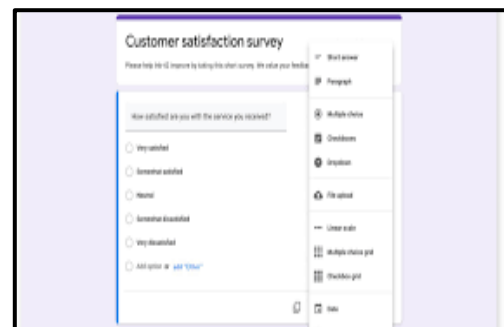


Figure 7. Google Form

students, alumni, and industry partners. This approach was also highlighted by (Singh & Gupta (2022), who emphasized the role of digital technologies like video conferencing in maintaining close and responsive relationships with clients, especially during times when face-to-face meetings are not feasible. Zoom has been particularly useful for customers with lower digital literacy levels, as it offers an accessible platform for more personalized support, helping users navigate complex digital systems more effectively.

- **Customer Satisfaction Surveys via Google Forms:** The use of Google Forms for feedback collection has helped the division gather insights on customer experiences, identify areas for improvement, and measure the

effectiveness of their services. Similar methods were noted by (Chung & Lee (2022), who found that integrating digital surveys into service management systems can enhance decision-making processes by providing real-time customer feedback.

- **Fast Response via WhatsApp Customer Service:** A significant aspect of the digital transformation at STIP Jakarta is the integration of WhatsApp as a real-time communication channel, enabling quick responses to urgent issues and fostering immediate customer engagement. As (Bong & Suh (2024), noted, platforms like WhatsApp are crucial for ensuring quick and seamless communication, leading to improved customer satisfaction and faster problem resolution.

These strategies reflect STIP Jakarta's commitment to meeting the evolving expectations of its stakeholders, primarily through the use of digital tools that enhance communication, accessibility, and overall customer engagement.

2) How is the implementation of that strategy realized in practice?

In practice, the implementation of these digital strategies has been facilitated through careful integration of various technological tools into the institution's operations. Each strategy is designed to address specific customer needs and improve operational efficiency. For example:

- The **web-based service platform** is constantly updated with relevant information and resources, ensuring that students and partners have access to the latest updates regarding academic programs, events, and services. The platform is user-friendly and designed to be easily navigable, allowing users to find information quickly and efficiently. This digital infrastructure aligns with the findings of (Li et al., 2023) , who argued that digital platforms must be accessible and continuously updated to maintain relevance and foster customer loyalty.
- The **AI-powered chatbot** is integrated into the institution's website and can respond to common inquiries about course registration, tuition fees, and other administrative matters. This has reduced the burden on the customer service team and significantly improved response times, providing users with instant support even outside regular working hours. Such systems have been found by (Taylor & James (2022) to enhance service efficiency by automating responses to frequently asked questions, allowing human resources to focus on more complex queries.
- **Zoom meetings** have been integrated as a communication tool for personalized

interactions. These meetings allow for virtual consultations with students and industry stakeholders, addressing their specific needs and concerns. This has been particularly valuable during periods when physical meetings were not feasible, such as during the COVID-19 pandemic. The adoption of Zoom aligns with (Singh & Gupta's (2022) argument that virtual meetings provide personalized service, particularly when some stakeholders may lack advanced digital literacy skills. For these customers, the use of Zoom provides a more accessible way to resolve issues through face-to-face interaction, even in a digital environment.

- **Google Forms** have been used as an efficient tool for collecting feedback on various aspects of service delivery. The data collected through surveys is then analyzed to identify trends, assess customer satisfaction levels, and determine areas requiring improvement. This method of feedback collection is widely supported in research, including by (Chung & Lee (2022) with (Singh & Gupta's (2022), who suggested that digital surveys not only streamline feedback processes but also help organizations make data-driven decisions.
- The **WhatsApp customer service** channel has become one of the most popular and effective methods for engaging with customers. The fast response times enabled by WhatsApp ensure that users receive prompt answers to their questions, enhancing the institution's reputation for responsiveness and care. Bong & Suh (2024) emphasize that real-time messaging services like WhatsApp significantly improve communication flow, especially in a fast-paced, customer-centric environment.

Through the effective use of these digital tools, STIP Jakarta has ensured that its services remain accessible, efficient, and responsive to the needs of its customers, providing a smooth and user-friendly experience.

3) What are the factors that influence the success or failure of the implementation of that strategy?

Several factors contribute to the success or failure of the implementation of these digital-based strategies at STIP Jakarta:

- **Technological Infrastructure:** One of the key factors influencing the success of the digital strategies is the institution's technological infrastructure. STIP Jakarta has invested in a robust IT infrastructure that supports the integration of various digital tools, such as the web platform, chatbot, and Zoom meetings. The ability to ensure smooth and seamless operation

of these platforms is crucial for the effective delivery of services. This is supported by (Singh & Gupta's (2022), who emphasized that a well-established technological foundation is essential for the successful deployment of customer service technologies.

- **Staff Training and Adaptation:** The success of digital transformation also depends on how well the staff adapts to new technologies. Proper training and support were essential for ensuring that staff members could effectively use the digital platforms and provide quality customer service. This finding is in line with (Kumar et al. (2023) , who noted that staff competency in using digital tools is a critical success factor for customer satisfaction.
- **Stakeholder Engagement:** Engaging customers (students, industry partners, etc.) is a critical factor in the success of digital-based service strategies. The introduction of the chatbot, Zoom meetings, and WhatsApp communication channels has been successful in part because these methods align with the preferences and expectations of the institution's customers. Understanding customer needs and involving them in the development and improvement of services ensures that the strategies remain relevant and impactful. Li et al. (2023) highlighted that ongoing engagement is necessary to ensure that digital strategies continue to meet customer needs over time.
- **Data-Driven Decision Making:** The use of Google Forms for collecting feedback has enabled the institution to make informed decisions based on customer insights. However, the extent to which the feedback is analyzed and acted upon influences the success of these strategies. Continuous monitoring and adapting based on the data collected help STIP Jakarta improve its services and maintain high levels of customer satisfaction. This is in line with Chung & Lee (2022) , who argued that organizations must leverage customer data to continually optimize their services.
- **Continuous Innovation:** The willingness to innovate and adapt to new technologies is another crucial factor in the success of digital service strategies. STIP Jakarta's ongoing investment in upgrading digital platforms and exploring new technologies ensures that its services remain competitive and meet the evolving expectations of customers. As noted by Taylor & James (2022), businesses must embrace innovation to stay ahead of customer expectations in an ever-evolving digital landscape.

Conversely, obstacles like inadequate technological infrastructure, staff aversion to

change, and insufficient consumer interaction might impede the efficacy of these techniques. These challenges must be tackled proactively to guarantee a successful digital transition in customer service. The study indicates that STIP Jakarta's Business Development Division has made considerable progress in incorporating digital technology to improve customer service. The institution has enhanced internal procedures and stakeholder experiences by employing tactics including web-based service delivery, AI chatbots, Zoom meetings, WhatsApp communication, and customer satisfaction surveys. The efficacy of these initiatives depends on three critical factors: a strong technology infrastructure, employee training, stakeholder involvement, data-informed decision-making, and a dedication to ongoing innovation. Nonetheless, problems concerning technology adaptation and client interaction persist as vital, necessitating continuous focus to uphold the efficacy of these techniques and guarantee sustained success. The findings underscore the necessity of tackling these difficulties while utilizing digital tools to improve customer service and achieve corporate success.

4. Conclusion

This research concludes that the Business Development Division of STIP Jakarta has successfully implemented a range of digital strategies to improve customer service and enhance overall customer experience. These strategies include the use of web-based platforms, AI-powered chatbots, WhatsApp customer service, Zoom meetings, and customer satisfaction surveys through Google Forms. By effectively integrating these technologies into their operations, the division has improved communication, accessibility, and customer engagement, particularly helping those with limited digital literacy through Zoom meetings. The success of these strategies is driven by factors such as robust technological infrastructure, comprehensive staff training, active stakeholder engagement, data-driven decision-making, and a commitment to continuous innovation. However, challenges related to technology adaptation and customer engagement must still be addressed to ensure the sustained effectiveness of these strategies and guarantee long-term success.

5. Acknowledgment

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