

Original Article

# Perceived Readiness of Camarines Norte State College Main Campus for Digital Payment System: Basis for Business Digitalization

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**Abstract:** "Cash is King," on the other hand, is becoming outmoded. In today's world, digital payment has grown into a new means of doing business for many businesses and consumers, with physical cash being replaced by a digital equivalent that can only be recorded and transferred online. Some governments actively want to eradicate cash from ordinary transactions in order to transition to a cashless society. The study determined Camarines Norte State College Main Campus's readiness for a digital payment system, the basis for business digitalization. Specifically, it has the following objectives to determine the processes of CNSC Main Campus offices that can be considered for the digital payment system, evaluate the level of readiness of CNSC Main Campus in terms of technological, organizational, and environmental context, identify the challenges that limit the implementation of the digital payment system; correlate the significant agreement on the perceived challenges that limit the implementation of digital payment system at the CNSC Main Campus; formulate business strategy plan to implement digital payment system in CNSC Main Campus. Respondents of the study were the N= 62 personnel of Camarines Norte State College Main Campus offices from the office of the president; office of the vice president in academic affairs, administration and finance, and research and extension; office of the deans; chief administrative office; internal control office; human resource and management office, planning and development office; budget office; accounting office; cashier office, supply and property management office, procurement office; information technology service office; and the office of the student service development office. The self-designed modified questionnaire and the researcher-made questionnaire were used to collect data. This was personally answered by the respondents, as the primary source of data. Descriptive statistic was used to interpret and analyze the results of the study.

**Keywords:** digital, payment, business digitalization

## 1. INTRODUCTION

"Cash is King," on the other hand, is becoming outmoded. In today's world, digital payment has grown into a new means of doing business for many businesses and consumers, with physical cash being replaced by a digital equivalent that can only be recorded and transferred online. Some governments actively want to eradicate cash from ordinary transactions in order to transition to a cashless society. According to [1], cashless societies have existed from the beginning of human history, based on barter and various forms of transaction; however, a true cashless society is entirely documented and

transferred in electronic digital form. Going cashless simplifies life while also aiding in transaction authentication and standardization. People can send money anywhere utilizing a digital payment system. According to claims made by the Philippine administration, the country is ready to usher in a digital revolution that will make the country cashless. The Philippines ranks sixth out of 21 countries that favor the shift to cashless societies, according to a news report from Inside Asian Gaming (IAG). This is based on information from the most recent global survey conducted by MoneyTransfers.com [2]. Executive Order 170 signed by former President Rodrigo Duterte explained in [3] news article. It mandates that all government departments and agencies, including state universities and colleges and government-owned or government-controlled corporations, distribute and collect payments through digital channels. It seeks to expedite transactions, save public and government funds, and lessen the likelihood of corruption and graft. Furthermore, all agencies must use safe and efficient' digital disbursement when paying for goods, services, and other disbursements, such as financial aid, salaries, wages, allowances, and other employee remuneration. By moving to more than 200 online government services and increasing the open data features of public information, the Philippines has improved steadily in the ongoing implementation of the Ease of Doing Business (EODB) and Efficient Government Service Delivery (EGSD) Law [4]. This aim has also been made possible by the expansion of free public Wi-Fi hotspots around the nation [5]. However, the Government Integrity and Corruption Perception Index, which was derived from a particular international governance index between 2010 and 2020, indicates a decline in the Philippine government's ranking in terms of impartiality, openness, transparency, and accountability. Numerous issues with bureaucratic efficiency are to blame for this decline, including insufficient funding to digitize transactions and services. EO 170 and PDP 2023 to 2028 called on all public sectors to adopt digital payment methods across the board. Online payments are accepted from clients in the Bicol Region at a number of institutions and state colleges, including Camarines Sur Polytechnic College, University of Nueva Caceres, Ateneo De Naga University, and Bicol University. The only public university in the province of Camarines Norte that continues to handle its collecting and disbursement procedures in a traditional manner is Camarines Norte State College (CNSC). Assessing CNSC Main Campus's digitalization readiness will reveal the institution's strengths and weaknesses with regard to its current organizational, technological, and environmental status and performance. The campus is an ISO 9001:2015 certified organization. Also, by assessing its level of preparedness for the digital age, the school will be able to increase accessibility and quality of instruction, particularly for students who attend remote locations. This will ensure equity and inclusivity among all parties involved and help CNSC's commercial digitalization efforts. Throughout its history, Camarines Norte State College has implemented digital initiatives to improve operational efficiency and service delivery, acknowledging the significance of digitalization. By preparing staff for digitization and laying a solid modernization basis, the previous administration established the University of Camarines Norte (UCaN). The Strategic Milestone: Excellence 2020-2032 of former President Rusty G. Abanto, which encourages the use of ICT in good governance, serves as the foundation for these efforts. Using the Human Resource Management Information System (HRMIS), integrating management information systems, offering WLAN connectivity between campuses, gaining access to Prime HRM Level III, adopting a Learning Management System (LMS), a centralized platform for all learning resources, materials, and assessments, creating a Budget Utilization Monitoring System (BUMS), and creating the Electronic Budget Planning Process (EBPPro), which has been named one of the top 10 winners of the Development Academy of the Philippines (DAP) 2020 Government Best Practice Recognition (GBPR) [6]. Camarines Norte State College has significant transitional hurdles even in spite of the obvious advantages of implementing cashless payment methods. This has made it challenging for CNSC to

modernize and streamline its everyday operations because the school will continue to rely on cash transactions and paper-based methods of collection and payment. Only a complete strategy comprising investments in cutting-edge technology, robust cybersecurity policies and procedures, stakeholder education and training, regulatory backing, and sustainable financial planning will be able to overcome such obstacles. Now that all of these obstacles have been removed, CNSC can take advantage of the many advantages of a cashless payment system, increasing operational effectiveness and giving staff and students a easier and secure payment routine. In response, the researcher investigated the elements that can help the Main Campus of Camarines Norte State College understand the benefits and drawbacks of implementing a digital payment system. The objective is to assess its readiness prior to proceeding with the execution. This study clarifies the college administration's perspective on CNSC's integration of a payment system. Generally, this study aimed to determine the readiness of Camarines Norte State College Main Campus for a digital payment system as the basis for business digitalization.

## 2. MATERIALS AND METHODS

The study used a quantitative approach, particularly descriptive research design. An author [7] states that the goal of the descriptive research design is to collect quantitative information for the population sample's statistical analysis. It was created to characterize the distribution of one or more variables independent of any causal or other hypothesis. With this popular market research technique, we may gather and characterize the features of the demographic segment. The process of choosing which CNSC offices can be considered for a digital payment system, the respondents' level of preparedness for one, the obstacles to its implementation, the degree of agreement among respondents regarding these obstacles, the difficulties in implementing the system at the CNSC Main Campus, and the potential business strategy plan for its implementation were all covered in this study using a descriptive survey design. The researcher attempted to collect data on the problem above and justify and satisfy the study's objectives through a survey questionnaire. The Camarines Norte State College Main Campus served as the study's location. The study involved 62 employees from specific CNSC offices, including the chief administrative office, internal control office, human resource and management office, budget office, accounting office, cashier's office, supply and property management office, procurement office, information technology service office, and office of the student service development office. The respondents were chosen from among these offices to participate in the study. Purposive sampling was employed by the researcher to choose the respondents who would respond to the study's problem statement. The researcher selected key persons from Camarines Norte State College offices who were familiar with the business operations of CNSC and could supply pertinent data for the study, making the purposive sample technique appropriate for this investigation. A non-probability sampling method called "purposeful sampling" is used in research to choose people or groups of people who fit particular requirements related to the goal or topic of the study. Depending on the researcher's judgment in unit selection, this is sometimes referred to as judgmental or selective sampling [8]. Employees in specific offices on the CNSC Main Campus participated in this study as responders. While respondents from the main campus deans can evaluate and provide insightful feedback on how the digital payment system can streamline the approval of transactions on their unit, chief administrative office personnel and the internal control office can also aid in streamlining administrative processes and guarantee that the CNSC's new initiative is secure and complies with regulatory requirements as mandated by the Commission on Audit. The president's and vice presidents' involvement steers the overall direction and priorities of CNSC for digital payment readiness, ensuring that they are in line with institutional goals. The human resource management office's personnel input can help fulfill staff training demands and

readiness to accept new digital payment technologies. The adoption of digital payment methods is also coordinated with the strategic institutional development plans by staff members from the planning and development office. In addition, budget office respondents are vital to the distribution of resources. Their participation guarantees a transparent budget for setting up and managing the electronic payment system. Accounting staff, on the other hand, assists in determining if the digital payment method is compatible with the CNSC's current disbursement procedure. While staff members in charge of the supply office and procurement office assess potential suppliers who can provide the technology and services required for digital payment systems and make sure that all necessary hardware, like computers, is available, cashier personnel are in charge of collecting and disbursing payments to clients because they will enable the use of digital payment systems in the future. The study's most important participants are the information technology support staff, whose technical know-how guarantees the system's security, dependability, and compatibility with current technologies. Last but not least, in our capacity as the representatives of the student body, the input provided by the director of the Office of Student Service Development guarantees that the digital payment system improves the overall student experience by increasing accessibility and efficiency of transactions. The use of printed hard copies of the questionnaire and through Google Forms questionnaire were distributed to the respondents. The study was carried out during the Academic Year 2023–2024. The researcher requested written consent for the respondents' willing participation in the study from both the head of the agency and the respondents themselves after confirming the validity and reliability of the data-gathering method, creating pertinent questions for the study, and making the necessary adjustments to the selected respondents. Respondents were given the time to finish the instruments and were assured the secrecy of all the information they contributed. A combination of custom questionnaires from similar research papers and questionnaires produced by the researcher were utilized to create the survey. The survey questionnaires have been validated by five experts in the subject on the basis of their consistency, logical sequencing, comprehension, terminology, and other aspects. The researcher employed the weighted mean to determine the level of preparedness of CNSC Main Campus for a digital payment system. The respondents' attitudes, perspectives, and degrees of agreement with using a digital payment system were assessed using a five-point Likert scale. Respondents are presented with five alternatives to select from. There is one neutral opinion, two extremes, and two intermediates. According to [9], this scale can evaluate quality, importance, frequency, likelihood, and agreement among other aspects. This statistical instrument was used to determine the selected employees' perception of CNSC's readiness for a digital payment system, consisting of five agree or disagree points: strongly agree, agree, neutral, disagree, and strongly disagree.

### 3. RESULTS AND DISCUSSION

A network of specialist offices runs the Camarines Norte State College (CNSC) Main Campus, and each one is vital to the college's operations. These offices collaborate to guarantee the efficient operation of support, administrative, and academic services. They therefore form the cornerstone of the institution's activities. The CNSC's priorities for digital payment preparedness are set by the Office of the Presidents and Vice Presidents, who also make sure that these priorities are in line with the organization's objectives. The main campus dean's office can evaluate how the digital payment system can expedite transaction approval on their unit and offer insightful input. In order to guarantee that the CNSC's new initiative is secure and complies with the regulatory standards set forth by the Commission on Audit, the chief administrative office and internal control office can assist in streamlining

administrative procedures and ensuring digitization. The HRM office's input can be used to address staff training requirements and get them ready to accept new digital payment technologies. As the point of contact for customers, the cashier's office handles money collection and disbursement. In the future, it will be up to them to make digital payment systems easier to use. Supply, management, and procurement departments make sure that the required gear, including computers, is available in addition to assessing possible vendors who can offer the services and technology for the digital payment system. Because of their technical expertise, which guarantees the system's security, dependability, and compatibility with current technologies, the information technology service office is one of the most important participants in this study. Lastly, feedback from the Office of Student Service Development, which represents the student body, guarantees that the digital payment system enhances the quality of the student experience by streamlining and improving transaction accessibility. The business procedures of a few offices on the CNSC Main Campus that are covered in this study are those that could be taken into account for an automated payment system. The procedures that are in place at CNSC Main Campus and could be included into the digital payment systems are shown in Table 01. The "Collection of Tuition Fee and Other Fees" is the one that jumps out the most among the 62 respondents questioned, ranking first with the highest frequency of 50. The "Scholarship Grant and Disbursement Process" has a frequency of 29 and is ranked second. Another significant process that respondents have considered to have a digital payment system is the "Supplier Payment Process," which has a frequency of 24 and is ranked third. Further, the "Cash Advances Process" and "Reimbursement Process" followed with a frequency of 11 and ranked 4.5. Lastly, "Financial Reporting and Analysis" got the lowest frequency of nine and ranked sixth.

**Table 01:** Business Processes in Selected Office of the CNSC

Processes	Frequency	Rank
Collection of Tuition Fee and Other Fees Process	50	1
Supplier Payment Process	24	3
Cash Advances Process	11	4.5
Reimbursement Process	11	4.5
Scholarship Grant and Disbursement Process	29	2
Financial Reporting and Analysis	9	6

An author [10] collaborates on student discoveries at MTS Guppi Airnaningan in Indonesia. Students demonstrate that they still pay their school tuition fees manually and must line up to make payments, resulting in poor school administration. To address this, they created a computer-based tuition fee payment information system, which improves the efficiency and accuracy of MTS Guppi Airnaningan tuition payments. The researcher found that the payment information system application might enhance payment services for MTS Guppi Airnaningan students. Additionally, research on the adoption and acceptance of digital payment mechanisms in Philippine higher education institutions was done [11]. Nine percent of the 6596 enrolled students had a balance at the end of the semester, according to the results. They turned student IDs into Smart IDs in order to address behavioral concerns pertaining to the collection of school fee payments. Financial analysis and reporting, on the other hand, seem to occur least frequently. It suggests that workers give the payment more weight than how it may affect financial reporting. However, in order to guarantee openness and accountability of the system's economic health and performance—a measure that auditors use to assess the integrity, risk exposure, and dependability of the system—financial reporting and analysis are essential for compliance with

Commission on Audit regulatory standards. These results corroborate the study [12], which examines the potential for fraud when the administration of DKI Jakarta Province implemented cashless transactions. It demonstrates how this policy on cashless transactions enhances internal control, increases responsibility and transparency, and makes treasurer work easier. It also makes regional financial management, reporting, and accountability better, and it makes the auditor's job of supervising the process easier.

**Table 02:** Current Method of Collection in CNSC Main Campus

Mode of Collections	Frequency	Rank
Cash	4	1
Check	3	2

The findings indicate that the most common mode of collection at CNSC Main Campus is cash. This suggests that the college is still depending on conventional ways of collection, such taking actual cash payments from students and other consumers, and that its present payment system is not yet completely employed. The cashier staff confirmed that certain clients continued to pay with checks for the leasing of CNSC facilities. This also implies that since there are currently few options for payment collection, CNSC Main Campus has a significant deal of potential to modernize its payment process by offering more payment options, such online payments, for people who prefer digital transactions. According to [12] research, over 60percent of students believed that utilizing cash for daily transactions would help them spend less, but they still chose to pay with a digital system. However, the lack of online payment choices became one of the most serious difficulties with the digital payments system among students in South Bangalore.

**Table 03:** Number of Collected Official Receipts in a Month

Average Number of Collected Fees per Month	Frequency	Rank
1000 and below	1	2.5
1001-2000	1	2.5
2001-3000	2	1
5001 and above		

The study's findings, which demonstrate that an information system can enhance cashier performance—particularly when creating invoices—and assist the cashier in creating an accurate and thorough sales report, were endorsed [13]. The requirement for manual counting can be removed by automatically counting each sales transaction. Cashiers can use the information system used in this study, for this reason.

**Table 04:** Current Method of Disbursement used for Processing Payment of Various Expenses

Type of Transactions	Mode of Disbursement	Frequency	Rank
Salaries, Wages, and Benefits for Faculty and Staff	Check	2	5
	LDDAP-ADA/ADA	4	2
Maintenance and Other Operating Expenses	Check	3	4
	LDDAP-ADA	4	2

Scholarships, Grants, and financial aid	Cash	4	2
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The results demonstrate that during data collection, the cashier personnel employed "cash" as the only form of payout for scholarships, grants, and financial aid. It signifies that students claim their financial support by personally visiting the cashier's office and receiving their cash. However, these findings were acquired prior to the Office of Student Service Development's (OSSD) push to encourage the usage of debit cards by forcing qualified students to register a bank account with Landbank to deposit their educational claims. According to [14] study on the cost of using checks in Uruguay's private sector, the private cost of checks is the printing and clearing costs incurred by agents during transactions. After accounting for the equivalent GDP of 0.04percent, the total cost of managing checks in Uruguay's private sector is greater.

**Table 05:** Average Number of Disbursement Vouchers Processed in Accounting Office in a Month

Average Number of Disbursement Vouchers	Frequency	Rank
51-100	1	2
151 and above	2	1

Similarly, [15] found that transaction volume had a significant influence on performance expectancy, effort expectancy, and enabling conditions. The study used multigroup estimation to assess the effect of transaction volume on these variables. The findings indicate that higher transaction volume has a greater impact on performance and effort expectancy. The following data indicate that the CNSC Main Campus tuition and fee collecting procedure is a top priority for digital payment solutions. This is because the manual collection of actual cash, especially during the enrollment period or at the end of the school year, adds to an increase in the number of collections. Given the increasing volume of disbursement vouchers and the restricted payment choices available at CNSC, the accounting office's procedure of disbursing various expenses should be considered for digital payment systems. The study assessed CNSC Main Campus's readiness for adopting digital payment systems through a survey questionnaire, considering technological, organizational, and environmental readiness.

**Table 06:** Level of Readiness of CNSC Main Campus for Digital Payment Systems Along Technological Context

Indicators	Weighted Mean	Interpretation
1. CNSC Main Campus employees are confident that the institution has security protocols and privacy measures to safeguard personal and financial information during online transactions	3.57	Ready
2. CNSC Main Campus has well-experienced IT professionals who can manage the future adoption of digital payment systems	3.63	Ready
3. The majority of CNSC Main Campus employees are familiar with digital payment technologies	3.52	Ready
4. The current IT systems at the CNSC Main Campus could be linked with a digital payment platform	3.63	Ready
5. CNSC Main Campus has reliable technological infrastructure, including high-speed internet	3.02	Neither Ready nor Unready

connectivity, updated hardware and software, and well-equipped IT facilities/supplies to support digital payment systems		
Overall Weighted Mean	3.47	Ready

*Rating Scale:*

4.20-5.00	-	<i>Very Much Ready</i>
3.40-4.19	-	<i>Ready</i>
2.60-3.39	-	<i>Neither Ready nor Unready</i>
1.80-2.59	-	<i>Approaching Readiness</i>
1.00-1.79	-	<i>Developing Readiness</i>

This is consistent with [16] findings, which show that IT expertise improves task interdependence and autonomy. The employee's professional knowledge and experience also have an impact on the perception of IT proficiency in task organization, especially when the user has complete autonomy and independence in carrying out duties. These findings were reinforced by the research of [17], who discovered that compatibility had a considerable favorable effect on technology adoption. According to them, new technologies are more compatible with existing IT resources, and a high level of compatibility enhances the possibility that both organizations and personnel will consider implementing the new system. However, the indicator that the CNSC Main Campus has solid technological infrastructure, such as high-speed internet connectivity, current hardware and software, and well-equipped IT facilities, is neither ready nor unprepared. This shows that the current CNSC technological infrastructure and facilities are available and sufficient for basic purposes, but are still being upgraded and improved for more advanced applications required to meet the demand for digital payment systems. This finding is consistent with [18] research, which found that employees are more inclined to embrace digital payments when they perceive the essential operational infrastructure is in place and they have access to the knowledge needed to use such payment methods.

**Table 07:** Level of Readiness of CNSC Main Campus for Digital Payment Systems Along Organizational Context

Indicators	Weighted Mean	Interpretation
1. CNSC Main Campus employees are open to accepting/embracing technology innovations like digitalizing payment methods	3.95	Ready
2. CNSC Main Campus has set aside funds to procure digital payment systems	3.09	Neither Ready nor Unready
3. CNSC Main Campus top management encourages employees to use digital payment systems in daily/routine tasks	3.45	Ready



4. CNSC Main Campus top management has an implementing plan to accommodate digital payments	3.32	Neither Ready nor Unready
5. CNSC Main Campus organizes training/skills development for employees in preparation for digital payment adoption	3.09	Neither Ready nor Unready
Overall Weighted Mean	3.38	Neither Ready nor Unready

*Rating Scale:*

4.20-5.00	-	<i>Very Much Ready</i>
3.40-4.19	-	<i>Ready</i>
2.60-3.39	-	<i>Neither Ready nor Unready</i>
1.80-2.59	-	<i>Approaching Readiness</i>
1.00-1.79	-	<i>Developing Readiness</i>

This is consistent with the findings of [19] that technologies positively impact employee training and development. Train and develop employees ready to adapt to change and evolve into “skilled employees” rather than “knowledgeable employees.” In addition, they concluded that proper training is fundamental due to changes in new technology that make it difficult for staff to adjust. Moreover, the second indicator with the lowest weighted mean is whether the CNSC Main Campus has set aside funds to procure digital payment systems. This implies that CNSC has a budget constraint or has other priorities that have prevented the allocation of funds for this purpose. This is consistent with [20] findings that top management hesitates to adopt cashless payment systems due to the investment in infrastructure development and employee training and the need for clear benefits or value of such systems. The overall weighted mean indicates that while CNSC is progressing towards readiness, areas in the CNSC administration strategic decision show some degree of preparedness but also have significant areas needing improvement. The environmental context encompasses the industry's structure, the availability or lack of technological service providers, and the regulatory framework.

**Table 08:** Level of Readiness of CNSC Main Campus for Digital Payment Systems Along Environmental Context

Indicators	Weighted Mean	Interpretation
1. There is sufficient support from local authorities to facilitate the implementation of digital payment systems	3.28	Neither Ready or Unready
2. The majority of clients expressed willingness to support the digital payment systems in CNSC Main Campus	3.58	Ready
3. CNSC Main Campus is ready to compete with other colleges/universities in digitalization	3.34	Neither Ready or Unready
4. CNSC Main Campus has adjusted to the changing market trends in digital payment technologies	3.06	Neither Ready or Unready

5. CNSC Main Campus adheres to the rules and guidelines for implementing digital payment methods for government transactions	3.40	Ready
Overall Weighted Mean	3.33	Neither Ready or Unready

*Rating Scale:*

4.20-5.00	-	Very Much Ready
3.40-4.19	-	Ready
2.60-3.39	-	Neither Ready nor Unready
1.80-2.59	-	Approaching Readiness
1.00-1.79	-	Developing Readiness

The indicator with the highest weighted mean is the majority of clients at CNSC Main Campus willing to support digital payment systems. The CNSC Main Campus personnel perceived high acceptance, trust, and interest in digital payment solutions among the clients. This positive experience creates opportunities for CNSC Main Campus to offer services similar to the client's preferences. This result supports previous studies indicating a significant positive impact in the Indonesian payment system between trust and behavioral intention. According to them, potential users are more likely to convert to long-term users if they believe the cashless payment system is trustworthy and valuable [21]. Similarly, the intention of accepting new product innovations, such as digital payment systems, is primarily affected by the attitude of the user toward the digital technology itself [22]. According to [23], the development of new digital payment systems is due to factors such as fintech development, internet access, smartphone usage growth, the majority of Indonesia's unbanked population, and transportation apps that have become increasingly popular as people do their daily transactions online

**Table 09:** Challenges that Limit the Implementation of Digital Payment Systems Along Technological Context

Challenges	Sum of Ranks	Rank
1. Lack of adequate security measures and data privacy to protect sensitive personal and financial data	234	4
2. Inadequate technological infrastructure, including low-speed internet connectivity, outdated hardware and software, and unequipped IT facilities/supplies to support digital payment systems	248	5
3. Complexity in integrating digital payment systems with existing IT systems	191	2
4. Lack of experienced IT staff to facilitate digital payment systems	149	3
5. Lack of employees' knowledge and awareness of digital payment technologies	123	1

The result of inadequate technological infrastructure, including low-speed internet connectivity, outdated hardware and software, and unequipped IT facilities/supplies to support digital payment systems, became the most challenging factors that limit the adoption of digital payment systems in terms of technological context. The finding in this specific indicator is supported by similar results on technological readiness, which also obtained a low frequency. This implies that CNSC's technological infrastructure and facilities cannot support the implementation of digital payment systems, leading to user frustration and discouraging adoption of digital payment methods. The findings were supported by the study of [24], which states that improper network and connectivity are the major problems affecting the IT industry growth and efficiency of the company's business performance. Similarly, [25] study on the effect of technical infrastructure on government employee performance in Kisumu County found a low grade for computer hardware sufficiency, poor telephone connectivity, and internet reliability. According to the research, technological infrastructure is favorably and strongly correlated with employee performance. As a result, it was determined that increased technology infrastructure leads to better employee performance. An author [26] found that consumer financial awareness plays a significant impact in determining cashless payment behavior. According to the data, economic knowledge has an important role in determining payment type. This suggests that the higher a consumer's degree of understanding, the more likely they are to use cashless payment methods.

**Table 10:** Challenges that Limit the Implementation of Digital Payment Systems Along Organizational Context

Challenges	Sum of Ranks	Rank
1. Employees are unwilling to embrace new technology due to their comfort with the existing process	170	1
2. Lack of digital training/skills development of employees	186	3
3. Need more budget to invest in the digital payment systems	223	5
4. Not aligned with the current strategic directions of the institutions	192	4
5. More personnel are needed to manage the digital payment systems	174	2

Among the five challenges under the organizational context, an insufficient budget to invest in digital payment systems ranked as the most challenging. The finding in this specific indicator is supported by similar results in organizational readiness, which also obtained a low weighted mean for the available budget to invest in a digital payment system. This is also attributed to several factors, such as the CNSC Main Campus operating under strict budgetary limitations imposed by higher authorities, resulting in restricted funds for investing in innovative technologies like digital payment systems. Additionally, other projects and initiatives could have been prioritized for financial allocations; hence, the funding for investments in digital payment systems was not prioritized. This implies that CNSC Main Campus will lose the chance to compete with other schools that already initiated the implementation of digital payment systems and offer more convenient payment methods. This will lead to client loss and dissatisfaction, loss of market share, and potential revenue. This is consistent with the study conducted by [27], which found that the highest and most significant barrier to technological innovation was the

availability of funds. They discovered that adequate funding is the essence of implementing innovative technologies. An author [28] discovered that attitudes play an important role in influencing the intention to use digital payment systems, with perceived usefulness and simplicity of use being the primary motivators. According to their research, the more consumers see digital payment systems as helpful and simple to use, the more positive their view toward digital payment becomes. This indicates that when people understand the potential value of digital payment systems, they are more likely to use them efficiently.

**Table 11:** Challenges that Limit the Implementation of Digital Payment Systems Along Environmental Context

Challenges	Sum of Ranks	Rank
1. Need help to meet the regulatory compliance requirements related to digitalization	196	3
2. Unaware of government campaigns on the use of digital payment systems	177	2
3. Clients resist opening bank accounts due to various documentary requirements	208	5
4. Resistance of clients and suppliers for additional processing fees of transactions	199	4
5. Frequent power disruption in the province that may affect online transactions	165	1

Similarly, one of the primary societal disadvantages of cashless transactions in the study of [29] is that unbanked people cannot participate in cashless transactions. Based on their findings, respondents who do not have bank accounts need help with doing digital financial transactions. In contrast, their findings state that one of the critical societal benefits of cashless financial transactions is that they promote contactless transactions, where the risk of carrying cash is reduced.

**Table 12:** Test for Significant Agreement on the Perceived Challenges that Limit the Implementation of Digital Payment Systems at the CNSC Main Campus

Challenges	Kendall's(W)	p-value	Remarks	Interpretation of W
Technological Context	.289**	.000	Significant	Fair Agreement
Organizational Context	.044*	.025	Significant	Slight Agreement
Environmental Context	.031	.099	Not Significant	No Agreement

**\*\*Concordance/Agreement is significant @ 0.01 level**

**\*Concordance/Agreement is significant @ 0.05 level**

The significant agreement on technological context suggests a fair agreement and that the respondents perceive similar obstacles and issues related to inadequate technological infrastructure, including low-speed internet connectivity, outdated hardware and software, and unequipped IT facilities/supplies to support digital payment systems. Similarly, the considerable agreement on ranking challenges in the organizational context implies a slight agreement that the respondents share a common understanding of the organizational barriers and difficulties of the insufficient budget to invest in digital payment systems. This means that the agreement between the respondents on ranking challenges in these

contexts is statistically significant. This is similar to the study of [31], which found that respondents in India have made significant technological advancements. However, they had the same opinion in terms of challenges that need to be addressed to achieve the widespread adoption of digital payment systems, such as the lack of proper infrastructure, insufficient supply of electricity in remote areas, poor connectivity, low quality of internet, and insufficient budget. An author [32] study on the impact of environmental context on technology adoption in Chinese supply chains found that while the regulatory environment (RE) heavily influences the business innovation environment (BIE), it does not directly impact technology adoption and performance (TAP).

**Table 13:** Business Process Strategy Plan

Key Challenges	Objectives	Strategies	Responsible Person/Unit	Indicative Budget
Manual Collection of Tuition Fees and Other Fees and the increasing Volume of Transactions	To streamline transactions using an automated workflow process for collection and disbursement	Upgrade Transaction Workflow		
		Set up automated workflows for collection and disbursement transactions. This includes creating rules and procedures that will shorten the processing of routine transactions.	CNSC Accounting, Cashier, and IT Personnel	5,000.00
		Evaluate the current Student Information Access System (SIAS) and determine if automation solutions are compatible and can utilize the system's full potential.	CNSC Accounting, Cashier, and IT Personnel	5,000.00
Limited Payment Options for Collection and Disbursement	To adopt online payment options that will provide alternative modes of payment for clients	Cashless Payments Implementation		
		Create or integrate with existing digital payment systems in the market, such as mobile wallets, online banking, and other digital payment gateways that can address the current CNSC needs and customer preferences.	Head of Agency, ITSO Team	3,000,000

*Note:* The indicative budget is estimated based on the cost of the subscription for the digital payment system and the cost of upgrading the current systems. The aim is to streamline transactions using an automated workflow process for collection and disbursement. This includes creating rules and procedures that will shorten the processing of routine transactions. This component addresses the manual tuition and other fee collection and the increasing transaction volume in the cashier and accounting offices. The accounting, cashier, and IT personnel may set up an automated workflow for collection and disbursement. Additionally, evaluating the SIAS will help identify its strengths and weaknesses, allowing CNSC to improve the system and fully utilize its features. An indicative budget of 5,000 pesos may be used to prepare work plans and snacks during deliberations of the automated workflow plan.

**Table 14:** Technology Context Strategy Plan

Key Challenges	Objectives	Strategies	Responsible Person/Unit	Indicative Budget
Inadequate technological infrastructure, including low-speed internet connectivity, outdated hardware and software, and unequipped IT facilities.	To upgrade the current technological infrastructure and facilities crucial for the organization's present and future needs.	Network Infrastructure Enhancement		
		Invest in expanding broadband networks to supply high-speed internet access to those areas with limited services.	Information and Technology Service Office; Procurement Office	126,000.00
		Regularly update the existing computer hardware and software and replace those needed for immediate improvement and replacement to ensure optimum functionality.	Information and Technology Service Office	-
		Collaborate with the Department of Information and Communications Technology (DICT) on their Free Internet Wi-Fi Project that covers subscription to broadband connectivity for free public use (Free Wi-Fi Hotspot) in CNSC Main Campus	Office of the President; CNSC Information and Technology Service Office; DICT Office	5,000.00
		Collaborate with the Department of Information and Communications Technology (DICT) on their Free Internet Wi-Fi Project that covers subscription to broadband connectivity for free public use (Free Wi-Fi Hotspot) in CNSC Main Campus	Office of the President; CNSC Information and Technology Service Office; DICT Office	5,000.00

Note: The indicative budget is estimated based on the cost of procuring additional internet providers and the administrative expenses incurred during collaboration with other government agencies. The CNSC aims to upgrade its technological infrastructure and facilities to meet its current and future needs. The IT Team will assist in identifying areas for improvement, while the procurement office will seek

suppliers with updated hardware and software. The main campus unreliable public WIFI will be rectified in coordination with the Department of Information and Communications Technology and the CNSC President. Additionally, a 126,000 pesos investment in fast broadband networks will provide high-speed internet access to underserved communities.

**Table 15:** Organizational Context Strategy Plan

Key Challenges	Objectives	Strategies	Responsible Person/Unit	Indicative Budget
Insufficient budget to invest in digital payment systems	To evaluate an organization's financial feasibility and overall resources	Digital Literacy Training Program	Human Resource Management Office	50,000.00
		Include the digitalization of the collection and disbursement process in their annual budget proposal.	Office of the Vice President in Administration and Finance; Chief Administrative Office	
		Review the current budget to determine where funds can be reallocated to support digital payment system initiatives, reduce non-essential expenses, and allocate funds towards digital payment infrastructure.	Budget Office	
		Determine and conduct a cost-benefit analysis on which online payment system provider has the highest return on investment and include it in the list of priorities.	Planning and Development Office	20,000.00
Insufficient budget to invest in digital payment systems	To evaluate an organization's financial feasibility and overall resources	Optimize Resource Allocation		
		Include the digitalization of the collection and disbursement process in their annual budget proposal.	Office of the Vice President in Administration and Finance; Chief Administrative Office	
		Review the current budget to determine where funds can be reallocated to support digital	Budget Office	

		payment system initiatives, reduce non-essential expenses, and allocate funds towards digital payment infrastructure.		
		Determine and conduct a cost-benefit analysis on which online payment system provider has the highest return on investment and include it in the list of priorities.	Planning and Development Office	20,000.00

The objective of this crucial component is to effectively build the necessary skills and knowledge among employees to support the adoption and efficient use of digital payment systems. To align digital skills among CNSC employees, HR should assess current digital skills through surveys or assessments. Based on these results, the Learning and Development Department under the Human Resource and Management Office will provide training, seminars, and workshops for CNSC employees to address their digital competency needs and preferences. An indicative budget is used for training kits, speaker payments, and other expenses worth 160,000 pesos. Also, the CNSC Personnel Selection Board (PSB) shall hire employees, especially heads of offices, with expertise in digitalization, or at least those who have worked in organizations with a background in the digital system. In addition, the Chief Administrative Office (CAO) and the Human Resource Office must seek approval to conduct benchmarking with an estimated budget of 100,000 pesos for SUCs who have applied digital payment systems in their daily transactions.

**Table 16:** Environmental Context Strategy Plan

Key Challenges	Objectives	Strategies	Responsible Person/Unit	Indicative Budget
Unable to adapt to evolving market trends in digital payment technologies	To increase organizations' awareness on the digital payment systems trend by involving client's significant feedback	Incorporate Client's Feedback		
		Continually distribute surveys and questionnaires to get clients' views on the demands for digital payment technologies.	Accounting, Cashier, Budget, Supply & Property Management Office	5,000.00
		Employees to attend webinars, trainings, or seminars on the latest trends, policies, innovations, and emerging digital payment	All personnel under Accounting, Cashier, ITSO,	150,000.00



		technologies in the government sector.	and Budget Office	
Clients' resistance to open bank accounts due to various documentary requirements	To inform the general public or a specific target audience about the benefits, services, or advancements of having a bank account	Technology Bank Support		
		Conduct a collaboration effort between CNSC and its government-servicing bank to educate the clients about the benefits of having a bank account. This may include posting educational materials on CNSC's website or social media platforms.	DBP General Manager and CNSC President; Public Information and Community Relations Office	5,000.00

Note: The indicative budget is estimated based on the administrative cost of printing client survey questionnaires, daily travel allowance expenses for attending seminars and training, and other supplies needed to conduct promotional campaigns.

#### 4. CONCLUSION

The collection of tuition fees and other fees is the most suitable process for a digital payment system. Therefore, it can be concluded that CNSC Main Campus still relies on accepting payments manually, and respondents perceived that this process would streamline the transactions for collections using a digital payment system. It can be concluded that the CNSC administration took the initial step to convert cash assistance to an online bank transfer. However, cash is still the most preferred method because it burdens the cashier personnel due to the need to fill out cash deposit slips corresponding to the number of students. Lastly, the accounting office processes an average of 150 and above disbursement vouchers. Therefore, it can be concluded that CNSC expenditures are significantly increasing, which resulted in high transaction volume. It can be concluded that CNSC's existing IT professionals are well-prepared whenever the CNSC decides to implement the digital payment system. It can be concluded that the current CNSC technological infrastructure and facilities were less technologically advanced in supporting the implementation of digital payment systems. For an organizational context, insufficient budget allocation for digital payment systems was the most challenging. It can be concluded that other projects and initiatives could have been prioritized for financial allocations; hence, the funding for investments in digital payment systems was not prioritized. The significant agreement on technological context can be concluded that respondents perceive similar barriers and issues with technology adoption, suggesting a fair agreement. Similarly, the significant agreement on ranking challenges in the organizational context implies a slight agreement. Therefore, it can be concluded that the respondents have a common understanding of the organizational barriers and difficulties they encounter. It can be concluded that the UCaN strategy plan addresses the key issues in the CNSC Main Campus business process and its technological, organizational, and environmental challenges in implementing a digital payment system, ensuring long-term success and sustainability.

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