

Digital Transformation of the Public Service Delivery of Professional Regulation Commission Region 2: It's Impact on Clients Satisfaction

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Abstract

This study assessed the impact of digital transformation on the public service delivery of the Professional Regulation Commission (PRC) Region 2 and its effect on client satisfaction. Employing a descriptive research design, the study involved 221 professionals (Professional Teachers, $n=104$; Nurses, $n=57$; Geodetic Engineers, $n=30$; and Fisheries Professionals, $n=30$) who acquired their licenses in 2017 and underwent their first renewal in 2019–2020 in Region 2. Sample size was determined using Slovin's formula. Data were collected through a validated and reliable structured questionnaire (Cronbach's $\alpha = 0.911$) adapted from relevant literature. The instrument consisted of three parts: respondent profile, level of satisfaction across three dimensions (processing time, resource utilization, and accessibility), and problems/challenges encountered. Data were analyzed using frequency and percentage, weighted mean, one-sample t -test, and Chi-square test with Cramer's V .

Findings revealed that the respondents were highly satisfied with the digital transformation initiatives. Satisfaction levels were: processing time ($M = 4.49$), resource utilization ($M = 4.42$), and accessibility ($M = 4.41$), with an overall mean of 4.44—all interpreted as "Strongly Agree." One-sample t -test results showed significant differences from the neutral benchmark (test value = 4) across all dimensions ($p = .000$), rejecting the null hypothesis. Among profile variables, only profession had a significant relationship with satisfaction in all dimensions (Cramer's $V = 0.324$ – 0.389 , $p < .05$), while age, sex, and occupation showed no significant relationship. The study concludes that PRC Region 2's digital transformation significantly enhances client satisfaction in license issuance and renewal. An action plan was proposed to sustain and further improve the digital services, particularly addressing profession-specific needs and identified challenges. The findings offer valuable insights for other government agencies pursuing similar digital initiatives.

Keywords: *Digital Transformation, PRC Region 2, Client Satisfaction, License Renewal, Public Service Delivery, E-Governance, percentage, weighted mean, one-sample t-test, and Chi-square test with Cramer's V.*

INTRODUCTION

The evolution of digital technologies has revolutionized the way organizations operate, causing transformations in public and private sectors alike. Government agencies, as key providers of essential services, are increasingly under pressure to adopt innovative strategies to increase their efficiency, accessibility and transparency. The conventional paper-based transactions became inadequate in meeting the growing demands of citizens in an interconnected world.

The necessity to adopt digital transactions came from the expected excellent service delivery, reduced operational costs, and the mitigation of corruption and fraud. With digital transactions, citizens can access services anytime and from anywhere without needing to visit physical offices, saving time and effort. They could also track and monitor their transactions through the online system, which reduces opportunities for corruption and fraud. The automation of processes ensures faster processing of requests, approvals and transactions. It can lower operational costs by reducing the need for physical resources such as paper, office supplies, and even administrative staff. Furthermore, global crises, such as the COVID-19 pandemic, underscored the urgency of adopting digital frameworks, as physical interactions were limited. Thus, by adopting online transactions, government offices can promote better citizen engagement, enhance trust in public institutions, and adapt to the demands of a digital society.

Literatures said that the digitization of transactions in government offices is a critical step towards creating a more efficient, transparent, and responsive public sector. Through the automation of administrative procedures, information asymmetries between the government and citizens, is reduced, and vulnerabilities can be easily identified and addressed (Santiso, 2022). Moreover, the integration of digital technologies into government operations can speed up policy-making processes and enhance the quality of public services, leading to a more collaborative and efficient government (Novianto, 2023). The process-centric approach to e-governance, as opposed to the traditional function-based model, can further streamline government activities and bring government activities closer to the public, while enhancing and tackling various forms of corruption (Sharma, 2002; and Ulyar et al., 2021).

Despite its promising potential, the digitization of government transactions has challenges and disadvantages. This includes digital divide, wherein certain segments of the population, particularly the elderly and low-income individuals, may lack the necessary technological skills or access to participate fully in online transactions (Santiso, 2022). There is also a challenge on heightened risk of cybercrime and data breaches associated with online transactions. This is due to the digital transmission of personal and financial information, which could be accessed illegally. Another challenge lies in the potential for system failures and technical glitches that can disrupt the seamless operation of online transactions.

Despite the challenges and disadvantages of online transactions, existing literatures suggested that its implementation in government offices can have significant impact on client satisfaction (Chin & Rakhmatullayev, 2019). This implied that issues on digital service inclusivity and accessibility, cost and resource management, and data security and privacy, should be addressed (Latupeirissa et al., 2024). Digital transformation in the government sector



requires management of citizen expectations and create value in digital services (Teixeira et al., 2021).

Digital government strategies are fundamental in modernizing the public sector (Torfing et.al, 2021). These strategies help identify and develop the organizational structures needed to support digitization efforts, build effective ways to interact with citizens and businesses, and reduce costs and layers of organizational business processes. Digital government projects can only be implemented with the right digital government strategy that matches the on-the-ground realities of a particular jurisdiction. Digitization programs in the public sector cover a diverse array of operations with the goal of enhancing service delivery, efficiency, and design to attain transparency and citizen satisfaction (Meh and Rao, 2016). To achieve successful digitization initiatives, governments must adopt new ways of working with stakeholders, implement new service delivery practices, and create effective strategies to engage with the market. Technology is transforming service delivery and practice in many regulated professions, altering required skills, scopes of practice, and the organization of professional work. Professional regulators face considerable pressure to facilitate technology-enabled work while adapting to digital changes in their practices and procedures. However, our understanding of how regulators are responding to technology-driven risks and the impact of technology on regulatory policy is limited. Regulators face ongoing challenges with providing equity-based approaches to regulating virtual practice, ensuring practitioners are technologically competent, and leveraging regulatory data to inform decision-making. Policymakers and regulators across Canada and internationally should prioritize risk-balanced policies, guidelines, and practice standards to support professional practice in the digital era. (Leslie, et.al. 2024)

The Professional Regulation Commission (PRC/Commission) is the licensing and regulatory agency of the national government for the practice of regulated professions. Republic Act No. 8981 otherwise known as the PRC Modernization Act of 2000 the Commission exercises three functions: 1) executive functions; 2) quasi-legislative functions; and 3) quasi-judicial functions. It had also set its new thrusts and priorities such as customer-focused service, modernization through full computerization and re-structuring, integrity of licensure examinations, good governance, protection and promotion of Filipino professionals and support to national development priorities.

Simultaneously, the Professional Regulation Commission demonstrated its forward-looking approach by initiating the computerization of the database of registered professionals in 1975, a groundbreaking move facilitated with assistance from the National Computer Center. This technological leap underscored the Commission's commitment to efficiency, accuracy, and embracing emerging technologies.

The Professional Regulation Commission served more than 4.9 million professionals (as of October 2022) from 46 various regulated professions and the hundreds of thousands of aspiring professionals who take the licensure examinations every year. Thus, PRC stakeholders include the professionals, would-be professionals, accredited professional organizations, foreign professionals seeking temporary permit to practice their professions in the country, schools and academe, and other government agencies.



With the desire to continuously expand its reach and serve more clients, especially in the far-flung areas, PRC, at present, has established at least thirty (30) Service Centers, and One-Stop Service Center for OFWs (OSSCOs) nationwide. With a strong commitment to delivering its core processes by facilitating ease of access and bringing its services closer to the people.

This research aimed to examine the impact of digital transformation of public service delivery of the Professional Regulation Commission Regional Office 2 and determined the challenges encountered in digital transformation in Professional Regulation Commission Regional Office 2. Furthermore, it explored the benefits of digitization in public service delivery and provided a comprehensive review of digitization initiatives to understand their impact on improving efficiency and effectiveness in public service delivery.

Statement of The Problem

This study aimed to assess the impact of digital transformation of the public service delivery of Professional Regulation Commission Region 02 on clients' satisfaction.

Specially, it sought to answer the following questions:

1. What is the profile of the respondents in terms of:
 - 1.1 Age
 - 1.2 Sex
 - 1.3 Profession
 - 1.4 Occupation?
2. What is the level of satisfaction of the respondents on the digital transformation service delivery of Professional Regulation Commission in the issuance and renewal of license in terms of:
 - 2.1 Processing Time
 - 2.2 Resource Utilization
 - 2.3 Accessibility
3. Is there a significant difference on the level of satisfaction of the respondents on the digital transformation service delivery of Professional Regulation Commission in terms of?
 - 3.1 Processing Time
 - 3.2 Resource Utilization
 - 3.3 Accessibility
4. Is there a significant relationship between the level of satisfaction of the respondents on the digital transformation service delivery of Professional Regulation Commission and their profile variables?
5. What are the problems or challenges encountered by the respondents in the digital transformation service delivery of Professional Regulation Commission?
6. What action plan can be proposed based on the result of the study?

METHODS AND PROCEDURES

Research Design

This study employed a descriptive research design to examine the impact of digital transformation on the public service delivery of the Professional Regulation Commission Region 02 and its effect on clients' satisfaction. The descriptive design was appropriate for this study as it aimed to systematically describe the current state of the PRC's digital services, specifically in the renewal and issuance of licenses, and determined how these services are perceived by clients.

Respondents of the Study

To identify appropriate participants for this study, inclusion and exclusion criteria were carefully established. The participants who met the following criteria were the professionals who applied their initial registration and acquired their licenses in 2017, by assessing their first renewal experience in 2019-2020 in the region the respondents that did their first renewal only includes Professional Teachers, Nurses, Geodetic Engineers, and Fisheries Professionals. All Professionals not mentioned above were excluded. The statistical method used was the Slovin's Formula, denoted as $n = N / (1 + Ne^2)$, this is used to determine the required sample size (n) for a study having known the total population size (N) and an acceptable margin of error (e). It's a relatively simple formula often used in research, particularly when no prior information about the population is available. The source of the data of respondents came from Professional Regulation Commission and are summarized in the following table:

Table 2. Respondents of the Study

Profession	Total Population	Sample Population	Renewal 2020
Teachers	271	104	8,259
Nurses	129	57	2,984
Geodetic Engineers	69	30	93
Fisheries Professionals	70	30	30
TOTAL	539	221	11,366

Data Gathering Tool

The researcher utilized a structured questionnaire checklist as the primary instrument for data collection.

The data collected through an adapted survey instrument from the study of Kala, D. et. al (2024) on "Impact of user satisfaction with e-government services on continuance use intention and citizen trust using TAM-ISSM framework." The researcher reconstructed the adapted survey to meet the study's specific needs. The instrument validation and examine its face and content validity.

Prior to the administration to the target respondents the questionnaire underwent reliability test and validation of experts which was distributed to the 30 respondents in same profession of respondents. The result of Cronbach's α was 0.911 which indicated the



questionnaire was in the excellent level, then the questionnaires were administered to target respondents.

The questionnaire is composed of three (3) parts:

1. Part I – Profile of Respondents.

This section gathered basic demographic and professional information, including age, sex, profession, and current occupation of the respondents.

2. Part II – Satisfaction with Digital Transformation in Service Delivery.

This section assessed the respondents' level of satisfaction with the digital transformation initiatives of the Professional Regulation Commission (PRC), specifically in relation to the issuance and renewal of licenses. It focused on three key dimensions of service delivery: Processing Time, Resource Utilization, and Accessibility.

Each dimension consisted of five (5) structured statements, measured using a Likert scale and descriptive value of 1.00-1.80 "Strongly Disagree"; 1.81-2.60 "Disagree"; 2.61-3.40 "Neutral"; 3.41-4.20 "Agree"; 4.21-5.00 "Strongly Agree", to evaluate the quality and effectiveness of the PRC's digital services.

3. Part III – Problems and Challenges Encountered

This section identified the issues and challenges experienced by respondents in using the PRC's digital service delivery systems. It included nine (9) guided questions aimed at uncovering specific difficulties and areas for improvement in the digital transformation process.

Data Gathering Procedure

The researcher wrote a letter of permission from the Office of the President through the Director of the Internal Review Board, noted by the Dean of the School of Business Administration and Governance to conduct this research. Then, the researcher secured an Ethical Clearance from the Office of the Internal Review Board (IRB). After which, the researcher sent a letter to the Regional Director of the Professional Regulation Commission Region 02, requested and sought for his approval to conduct research and gathering data for the total number of professionals who applied their initial registration and acquired their licenses in 2017, by assessing their first renewal experience in 2019-2020. The data was the reference on whom the researcher gave the survey questionnaire. The researcher reached out to the respondents who applied for their renewal of license at PRC Regional Office 2, including PRC offsite service centers and conduct mobile service in the region, by determining their registration date through their Professional Identification Cards or PRC ID, their renewal form and through verifying into the online system (LERIS). The researcher explained the questionnaire together with the Inform Consent Form "Appendix E" through all means possible like administering a questionnaire without violating any data privacy law. The questionnaire was administered to the consenting



respondents by filling out a hard copy of the questionnaire that was collected within 20-30 minutes. All gathered data was tabulated, tallied and treated with integrity while keeping confidentiality. The questionnaires were destroyed after the completion and approval of this study.

Statistical Tool

The data gathered was analyzed using the following:

Frequency and Percentage Distribution. This was used to describe the profile of the respondents

Weighted Mean. This was used to describe the level of satisfaction of the respondents on the digital transformation service delivery of PRC in the issuance and renewal of licenses in terms of processing time, resource utilization, and accessibility.

T-test. This was used to test if there is a significant difference in the level of satisfaction of the respondents on the digital transformation service delivery of PRC

Chi-square Cramer's V. This was used to describe the significant relationship between the level of satisfaction of the respondents on the digital transformation service delivery of PRC and their profile variables

Mean and Ranking. This was used to describe the problems or challenges encountered by the respondents in digital transformation service delivery of PRC.

Summary of Findings

1. Profile of the respondents

Most of the respondents were 26-35 years old, female, Professional teachers and Government employees.

2. Level of satisfaction of the respondents on the digital transformation service delivery of the Professional Regulation Commission in the issuance and renewal of licenses.

2.1 Processing time

Respondents were highly satisfied with the PRC's digital transformation in processing time in the issuance and Renewal of Licenses

2.2 Resource Utilization

Respondents were very satisfied with the resource utilization of the PRC's digital transformation in the issuance and renewal of licenses

2.3 accessibility

Respondents expressed a high level of satisfaction with the PRC digital transformation in license issuance and renewal processes, particularly in terms of accessibility

3. Comparison of the level of satisfaction of the respondents on the digital transformation service delivery of the Professional Regulation Commission Regional Office 2.



There was a significant difference in the satisfaction level of the respondents with the PRC's digital transformation services in processing time, resource utilization, and accessibility based on the baseline satisfaction set.

4. Correlation between the profile variables and the level of satisfaction of the respondents on the digital transformation service delivery of the Professional Regulation Commission Regional Office 2.

The respondents' profession showed a significant relationship with all the dimensions of the digital transformation service delivery of the Professional Regulation Commission.

5. Problems or challenges encountered by the respondents in the digital transformation service delivery of the Professional Regulations Commission Regional Office 2.

Personal information on the online platform was the top problem or challenge encountered by the respondent's digital transformation service delivery.

Conclusion

Based on the findings, there was a significant difference in the level of satisfaction of the respondents regarding processing time, resource utilization, and accessibility when compared to the baseline satisfaction. This indicated that the digital transformation initiatives had a measurable and positive impact on service delivery across the three dimensions. Therefore, the null hypothesis is rejected, as evidence shows that differences in satisfaction levels do exist. The results revealed that the profession of the respondents has a significant relationship with all dimensions of satisfaction related to digital transformation service delivery. This suggested that respondents' occupational background influences their perceptions and experiences of the PRC's digital services. Hence, the null hypothesis is partially rejected, since at least one profile variable (profession) showed a significant relationship with the level of satisfaction.

Despite the overall positive evaluation of the PRC's digital transformation efforts, challenges were still identified. The most prominent issue encountered by respondents was concern over personal information on the online platform, highlighting the need for strengthened data privacy and information security measures.

In conclusion, the digital transformation initiatives of the PRC Regional Office 2 have significantly enhanced service delivery and client satisfaction. However, continuous improvements, particularly in ensuring data privacy and addressing profession-specific needs, are essential to sustain public trust and further improve the effectiveness of digital services.

Recommendations

Based on the conclusions of the study, the following recommendations are proposed to further improve the PRC Regional Office 2's digital transformation initiatives:

1. Strengthen Data Privacy and Information Security Measures. PRC should enhance its cybersecurity infrastructure by implementing advanced data encryption, multi-factor authentication, and regular security audits. Clear data privacy policies should be

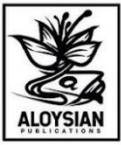


- communicated to users to address concerns regarding the safety of personal information on digital platforms.
2. **Conduct Continuous System Monitoring and Evaluation.**
Regular assessments of digital systems should be conducted to ensure efficiency in processing time, optimal resource utilization, and reliable accessibility. User feedback mechanisms may be institutionalized to promptly identify and resolve system issues.
 3. **Develop Profession-Specific Digital Service Features.**
Since profession significantly influences satisfaction levels, PRC may customize certain digital services, interfaces, or workflows to cater to the unique needs of different professions, ensuring a more inclusive and user-centered system.
 4. **Enhance User Education and Digital Literacy Programs.**
Orientation sessions, tutorials, and step-by-step guides should be provided to help clients navigate the digital platforms efficiently. This will improve user confidence, especially among professions that may be less familiar with digital technologies.
 5. **Improve System Accessibility and Platform Reliability.**
PRC should ensure that digital platforms are accessible across various devices and internet conditions. System downtime should be minimized through infrastructure upgrades and backup systems to maintain uninterrupted service delivery.
 6. **Institutionalize Feedback and Complaint Management Systems.** A responsive digital feedback and grievance mechanism should be established to capture client concerns, particularly regarding data privacy and system usability, and to ensure timely action by the concerned offices.
 7. **Continuous Capacity Building for PRC Personnel.**
Regular training for PRC staff on digital system management, cybersecurity awareness, and customer support will help sustain service quality and improve client interactions in a digital environment.
 8. **Policy Review and Alignment with National Data Privacy Standards.** Existing policies should be reviewed and aligned with the Data Privacy Act of 2012 and other relevant regulations to ensure compliance and strengthen public trust in PRC's digital transformation initiatives.

These recommendations aim to sustain the gains of digital transformation while addressing identified challenges and enhancing overall service delivery effectiveness.

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