IJAMS
INTERNATIONAL JOURNAL OF ADVANCED MULTIDISCIPLINARY STUDIES
Volume V, Issue 6 June 2025, eISSN: 2799-0664

Evaluating the Digital Transformation Readiness of Dr. Filemon C. Aguilar Memorial College of Las Piñas in the Application Process for School Credentials

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Abstract — The increasing demand for efficiency in higher education administrative processes has driven institutions toward digital transformation. This study evaluates the digital transformation readiness of Dr. Filemon C. Aguilar Memorial College of Las Piñas (DFCAMCLP) in the application process of school credentials. Specifically, it assesses the institution's preparedness across five key areas: strategy, technology, organization, people, and governance. This study utilizes the Digital Transformation Maturity Model and the Unified Theory of Acceptance and Use of Technology as theoretical frameworks to examine the level of digital infrastructure, stakeholder adoption, and institutional culture supporting digitalization. A quantitative research design was employed, utilizing a structured survey questionnaire distributed among administrators, academic and administrative staff, and students involved in the credentialing process. Descriptive and inferential statistical methods were applied to analyze the data and determine significant relationships between digital maturity dimensions and technology adoption levels. Findings indicate that while DFCAMCLP has initiated digitalization efforts, challenges remain in infrastructure adequacy, staff training, and user adoption. Results suggest a need for strategic enhancements in digital literacy, system integration, and governance policies to ensure a seamless transition to a fully digital credentialing process. The study provides insights and recommendations to improve digital transformation efforts, aiming to improve
operational efficiency and stakeholder satisfaction in the school's administrative functions.

Keywords — Digital Transformation, Higher Education, Technology Adoption, Administrative Efficiency, School Credentials, Digital Readiness

I. Introduction

The rapid advancement of digital technology has fundamentally changed the worldwide educational scene (Grapon et al., 2021). Technological developments have changed administrative

procedures, learning, and instruction inside academic settings (Marks et al., 2021). The COVID-19 epidemic hastened this even further as many schools had to quickly implement digital tools and approaches to keep teaching remotely (Timotheou et al., 2022).

Digital change is becoming a bigger part of making school settings more efficient and better for everyone involved. Philippine higher educational institutions are about to embrace the digital age in which using new technology can affect the application process for school credentials. This study aims to find how digitalization could enable a seamless efficient processing of higher education school credentials applications. It will therefore assess if current technological infrastructure, digital tools integration, and organizational culture align with its readiness for the digital age.

The process of requesting school certificates is an essential administrative chore that directly affects teachers, students, staff members, and other stakeholders. Moving toward digitalization, Philippine higher educational institutions must grasp the supposed value and simplicity of digitals instruments.

The importance of this function cannot be underestimated because it has an immediate impact on students, instructors, and staff within an organization in charge of issuance of certificates to students. However, this procedure serves as a crucial administrative function that affects everyone concerned.

As Philippine higher education advances toward digitalization, local colleges and universities must be aware of how practical or simple new technologies must be employed in their processes. Furthermore, how digital technologies are received and integrated at local colleges and universities is greatly influenced by institutional culture. Creating an enabling environment for technological development depends on aligning the institution principles and practices to the demands of digital transformation.

This research is focused on assessing the digital readiness for school credential applications of the Dr. Filemon C. Aguilar Memorial College, the only local college in Las Piñas. Identifying its strengths as well as weaknesses, thus giving recommendations on how to maximize the use of digital tools and improve general operation efficiency. Additionally, this study also assesses stakeholders' opinions on acceptance technology and degree of support given by them thus analyzing effectiveness through which the institution is maximizing these new endeavors in simplifying school credentials application.

LITERATURE REVIEW

Digital Transformation in Higher Education

Digital transformation in higher education refers to the comprehensive integration of digital technologies across educational, administrative, and operational domains. It goes beyond the delivery of content and includes streamlining administrative processes such as the application for school credentials. Timotheou et al. (2022) argue that successful digital transformation requires higher education institutions to develop adequate infrastructure, foster a supportive culture, and equip both staff and students with the digital competence necessary for full integration.

The COVID-19 pandemic has accelerated this shift, highlighting the need for institutions to develop scalable, agile systems to ensure academic and operational continuity. Marks et al. (2021) emphasize that digital transformation has led to greater efficiency, improved data accuracy, and more effective stakeholder engagement, especially in developing countries.

Digital Transformation Maturity and Readiness

Digital transformation maturity refers to the extent to which an institution has strategically and operationally adopted digital technologies across five dimensions: strategy, technology, organization, people, and governance. Maturity models provide frameworks to assess how well institutions have embedded digital practices. Rodríguez-Abitia & Bribiesca-Correa (2021) note that many universities lag in maturity due to insufficient leadership support, outdated governance structures, and low stakeholder buy-in.

Timotheou et al. (2022) emphasize that digital readiness must be evaluated in terms of policy, digital capacity, infrastructure, and the digital literacy of staff and students. These maturity indicators are essential to understand an institution's preparedness and areas that require development.

Adoption and Use of Digital Technologies: UTAUT Framework

The Unified Theory of Acceptance and Use of Technology (UTAUT) offers a useful lens for analyzing the adoption of digital technologies. It identifies four key constructs: performance expectancy, effort expectancy, social influence, and facilitating conditions. These factors collectively determine users' acceptance and use of technology (Venkatesh et al., 2003). Studies applying UTAUT in academic settings show that these constructs significantly influence the uptake of digital platforms, especially in administrative processes like online credential applications (Vy et al., 2022).

Influence of Demographics on Perceptions of Digital Transformation

Research suggests that demographic variables such as role (e.g., administrator, faculty, staff), department, tenure, and digital literacy levels affect how individuals perceive and engage

with digital initiatives. For instance, individuals in administrative roles may perceive higher digital maturity due to greater exposure to institutional planning and system use (Rodríguez-Abitia & Bribiesca-Correa, 2021). Likewise, departments with different functional roles may show varied levels of adoption depending on their operational needs and familiarity with digital tools.

Leadership and Organizational Culture as Enablers of Digital Transformation

Leadership plays a central role in shaping institutional readiness. According to Rodriguez et al. (2024), transformational and distributed leadership approaches foster innovation and support change, enabling successful digital adoption. Institutions with strong leadership demonstrate higher maturity levels in strategy and governance dimensions. Similarly, a positive organizational culture encourages openness to technology, ongoing training, and adaptation, all of which are critical for sustaining transformation efforts.

Assessment of Digital Readiness in Administrative Processes

The digitization of administrative functions, such as the application for school credentials, offers substantial improvements in efficiency, transparency, and user satisfaction. Studies underscore the importance of evaluating not just whether digital tools exist, but how effectively they are used and accepted by stakeholders (Vy et al., 2022). Establishing digital workflows for application processes reduces manual errors, enhances data handling, and aligns with institutional goals of modernization and sustainability.

Toward Enhancement Programs for Digital Readiness

Literature supports the development of targeted enhancement programs as outcomes of digital readiness assessments. These may include digital skills training, upgrades in infrastructure, leadership development initiatives, or new policy frameworks. As Timotheou et al. (2022) suggest, such interventions must be data-driven and strategically aligned with the institution's current maturity level and user needs.

Statement of the Problem

The study aims to evaluate the digital transformation readiness of Dr. Filemon C. Aguilar Memorial College of Las Piñas in the application process for school credentials. Specifically, it seeks to answer the following research questions:

1. What are the demographics of the respondents in terms of:
   1.1. Role;
   1.2. Department;
   1.3. Years at the college;
   1.4. Familiarity with digital tools and technologies?

2. What is the level of digital transformation maturity of the college in terms of:
   2.1. Strategy;
   2.2. Technology;
   2.3. Organization;
   2.4. People;
   2.5. Governance?

3. What is the level of adoption and use of digital technologies in the application process for school credentials in terms of:
   3.1. Performance expectancy;
   3.2. Effort expectancy;
   3.3. Social influence;
   3.4. Facilitating conditions?

4. Is there a significant difference in the respondents' perception of the digital transformation maturity level when grouped according to their demographic profile?

5. Is there a significant difference in the respondents' perception of the level of adoption and use of digital technologies when grouped according to their demographic profile?

6. Is there a significant relationship between digital transformation maturity and the level of adoption and use of digital technologies in the application process for school credentials?

7. Based on the findings, what interventions or development strategies can be proposed to enhance the digital transformation readiness of the college in the application process for school credentials?

II. Methodology

This study employed a quantitative approach using a descriptive-comparative-correlational research design to assess the digital transformation readiness of Dr. Filemon C. Aguilar Memorial College of Las Piñas (DFCAMCLP), focusing specifically on the application process for school credentials. This design was selected to provide a comprehensive view of the current status of digital transformation within the institution. The descriptive component identified the profile of respondents based on their role, department, length of stay at the college, and digital literacy. The comparative aspect examined significant differences in perceptions based on demographic factors, while the correlational component assessed the relationship between digital maturity and technology adoption in the credentialing process.

The population consisted of second to fourth-year students who had prior experience with credential processing, as well as administrators and staff directly involved in managing or overseeing the application systems. The student population for the academic year totaled 1,524:

618 second-year, 460 third-year, and 446 fourth-year students. Using the Cochran formula, the minimum required sample size was determined to be 306 students, ensuring a 95% confidence level and a 5% margin of error. A convenience sampling method was used to select respondents based on accessibility and willingness. Meanwhile, total enumeration was applied to include all 12 administrators and staff members relevant to the study due to their direct involvement in digital operations.

The study involved three groups of respondents: administrators, who guide policy and decision-making regarding digital transformation initiatives; staff, who handle the operational and technical aspects of credential processing; and students, who are end-users of the system and provide feedback on usability and efficiency. Their collective insights were instrumental in evaluating institutional readiness for digital transformation.

A structured survey questionnaire served as the main research instrument. It consisted of three major sections. Section one gathered demographic information. Section two assessed digital transformation readiness using five key dimensions: (1) Strategy, referring to the clarity and adaptability of digital plans; (2) Technology, focusing on infrastructure availability and reliability; (3) Organization, reflecting institutional support and communication; (4) People, referring to the digital competence and training of personnel; and (5) Governance, which included oversight and compliance mechanisms. Section three was based on the Unified Theory of Acceptance and Use of Technology (UTAUT) and measured four constructs: Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions. A four-point Likert scale (1 = Strongly Disagree to 4 = Strongly Agree) was used to quantify responses.

To ensure instrument validity, the questionnaire underwent content validation by a panel of experts from the fields of education, information technology, and institutional administration. These experts assessed the clarity, relevance, organization, and appropriateness of the items. Following validation, the revised instrument was pilot tested with 20 individuals from the target population. The internal consistency of the scale was assessed using Cronbach's alpha. The result showed a Cronbach's alpha (α) = 0.928, indicating excellent reliability ($\alpha > .90$). This suggests that the set of items included in the scale measure the same underlying construct and are highly consistent with one another. The 95% confidence interval for Cronbach's alpha ranged from 0.903 to 0.954, with a standard error of 0.013, reinforcing the reliability of the estimate.

Data collection was carried out over a period of two to three weeks using Google Forms to facilitate efficient and contactless distribution. The survey was disseminated through class group chats and department coordinators. Informed consent was obtained before participation, and respondents were informed of their rights, including the voluntary nature of their involvement and confidentiality of their responses. Only participants who were affiliated with DFCAMCLP and had experience with the credentialing process were included in the final analysis.

This research adhered to ethical standards. No personally identifiable information was collected, and all data were stored securely in password-protected digital files. Additionally, artificial intelligence tools, particularly ChatGPT by OpenAI, were utilized for language refinement and draft structuring. These tools did not participate in data collection or analysis and were used solely as supplementary writing aids, with all outputs reviewed and approved by the researcher to maintain academic rigor and originality.

III. Results and Discussion

This study intended to evaluate the digital transformation readiness of Dr. Filemon C. Aguilar Memorial College of Las Piñas (DFCAMCLP), particularly in relation to the application process for school credentials. Using a quantitative-descriptive-comparative-correlational research design, data were collected from 313 respondents and analyzed across five core digital maturity dimensions: strategy, technology, organization, people, and governance.

The findings revealed the following:

1. Demographics of Respondents. The majority of respondents were students, primarily from the BS in Business Administration and BS in Accountancy programs, with 2 to 3 years of stay at the college. Most respondents indicated being somewhat to very familiar with digital tools and technologies, suggesting a generally high level of digital awareness.

2. Digital Transformation Maturity. Respondents rated the college's maturity level as moderate across all five dimensions:

    - Strategy was present but not fully institutionalized.
    - Technology infrastructure was in place but required further enhancement and integration.
    - Organization showed partial alignment with digital initiatives, though manual processes remained dominant.
    - People exhibited moderate openness to digital systems, yet training needs were evident.
    - Governance lacked structured monitoring and evaluation mechanisms for digital efforts.

3. Adoption and Use of Digital Technologies. Using the Unified Theory of Acceptance and Use of Technology (UTAUT) model, the level of adoption in the application process was found to be moderate. Perceptions of performance expectancy, effort expectancy, social

influence, and facilitating conditions all suggested cautious optimism, with room for improved usability and support systems.

4. Differences by Demographics. Statistical analysis revealed no significant difference in digital transformation maturity or technology adoption when grouped according to program, department, or role. However, certain dimensions, such as technology and governance, showed significant differences when grouped by length of stay at the college, indicating that tenure may influence perceptions.

5. Relationship Between Digital Maturity and Technology Adoption. A positive and statistically significant relationship was found between the college's digital transformation maturity and the level of adoption of digital technologies in credential processing. This suggests that improvements in digital maturity are likely to enhance the successful implementation and acceptance of digital systems.

IV. Recommendations

Based on the findings, the following recommendations are offered:

1. Develop a Comprehensive Digital Transformation Strategy. The institution should formulate a strategic roadmap that aligns digital initiatives with institutional goals, including key performance indicators and timelines for evaluation.

2. Enhance Technological Infrastructure and System Integration. Invest in digital platforms that are interoperable, scalable, and user-friendly. A centralized digital credentialing system should be implemented to replace manual processes.

3. Redesign and Standardize Business Processes. Review existing workflows and introduce automation where applicable to increase efficiency, accuracy, and turnaround time for application processes.

4. Conduct Regular Digital Literacy Training. Faculty, staff, and students should receive continuous capacity-building programs focused on digital skills and system usage to support user adoption and reduce resistance to change.

5. Establish Governance and Monitoring Mechanisms. Form a digital transformation committee tasked with overseeing implementation, monitoring progress, and ensuring accountability across departments.

6. Foster a Supportive Digital Culture. Encourage stakeholder engagement and leadership support to cultivate a culture that values innovation, adaptability, and continuous improvement in digital initiatives.

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