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# Digital Transformation in Educational Management: Impact Analysis and Implementation Strategy in LLDIKTI Main Cluster Colleges Region 2 with an Empirical Study at PGRI Palembang University

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**ABSTRACT**

*This study explores the impact and implementation strategies of digital transformation in educational management, with a focus on higher education institutions under LLDIKTI Region 2, using Universitas PGRI Palembang as a case study. Digital transformation in education management encompasses administrative processes, learning systems, and student services, leveraging technologies like Learning Management Systems (LMS), big data, and artificial intelligence (AI). The research identifies key challenges such as limited infrastructure, varied digital competencies, and resistance to change, as well as external factors like digital divides and policy dynamics. Using a descriptive quantitative approach with Results indicate significant operational efficiencies, enhanced educational quality, and increased transparency. The study recommends infrastructure upgrades, digital literacy programs, and stronger stakeholder engagement to optimize digital transformation efforts, offering a framework for broader adoption across similar institutions.*

**KEYWORDS**

*digital transformation; higher education; educational management*

## INTRODUCTION

The development of information and communication technology has brought significant changes in various sectors, including the education sector. Digital transformation is one of the keys to improving the quality and effectiveness of educational management, especially in higher education. In this digital era, universities are required to adapt and adopt the latest technology in order to compete globally and meet the needs and expectations of stakeholders, including students, lecturers and industry.

Digital transformation in education management covers various aspects, from managing academic administration, learning systems, to services to students. Application of technology such as *Learning Management System* (LMS), *big data*, and *Artificial Intelligence* (AI) is expected to help universities optimize the learning process, increase information accessibility, and strengthen data-based decision making.

However, implementing digital transformation is not easy and requires the right strategy and in-depth analysis of its impact. Several factors that need to be considered include infrastructure readiness, human resource competency, organizational culture, and support from management. Without thorough preparation and an effective implementation strategy, digital transformation can encounter various obstacles that hinder the achievement of the desired goals. The university created an e-learning website for students and the content has been provided according to the curriculum. If the lecturer is not guided by the material in e-

learning and so on giving assignments, teaching materials, or exams only from reference books that they have used for a long time, then students do not feel the need to access e-learning. (Lian, Muhammad, & Riyanti). The utilization of educational facilities and infrastructure is part of a complete process of utilizing a facility, either directly or indirectly, in supporting the course of education or teaching, so as to provide ease in absorbing the material provided, and learning facilities play a vital role in enabling the achievement. (Yusutria, Fajri, Hudatun, & Febriana, 2024).

Therefore, this research aims to analyze the impact of digital transformation in educational management at PGRI University in Palembang and formulate effective implementation strategies. This research is expected to make a significant contribution to the development of educational management science and the practice of digital transformation in higher education, especially in LLDIKTI Region 2. Through this empirical study, it is hoped that a comprehensive understanding of the factors determining the success of digital transformation and its impact on improving quality will be obtained. educational management in tertiary institutions in the LLDIKTI 2 area, especially at PGRI University Palembang.

Thus, it is hoped that the results of this research can become a reference for other universities in LLDIKTI Region 2 and throughout Indonesia to develop effective and sustainable digital transformation strategies. It is also realizing MBKM by implementing it within ourselves as lecturers in carrying out the tri dharma of higher education. It is not easy for lecturers in an era full of challenges to create higher education that is adaptive, creative and innovative (Sari, et al., 2021). Based on several phenomena that occur in various conditions related to the development of digital transformation and the implementation of the development of higher education clustering, the author is interested in researching further and in depth about this matter which has been carried out in private universities, namely Universitas PGRI Palembang in order to realize *cyber university* , which will be made into research with the title "Digital Transformation in Educational Management: Impact Analysis and Implementation Strategy in LLDIKTI Region 2 Main Cluster Universities with Empirical Studies at PGRI University in Palembang"

## RESEARCH METHODS

This research is descriptive quantitative, research that is used to answer problems through careful measurement techniques of certain variables, thereby producing conclusions that can be generalized, regardless of the context of time and situation as well as the type of data collected, especially quantitative data (Arifin, 2012: 29)

In this research, the measurement of each variable uses research instruments that have been developed by previous researchers. By using a Likert scale to indicate how appropriate the statement submitted is to the conditions existing or felt by each respondent consisting of Strongly Disagree (STS), Disagree (TS), Neutral (N), Agree (4), Strongly Agree (SS).

The population in this study were all Permanent Foundation Lecturers (DTY) at PGRI University Palembang with a total of 377 people. Meanwhile, the sample in this research is based on a formula from Slovin (Sugiyono, 2012), By using the Slovin formula, the number of samples in this study is as follows:

n = N (1 + N. e2)
= 377 /(1 + 377 x 0.052)²
= 377/(1 + 377 x 0.0025)
= 100/(1 + 0.94)
= 100/(1.94)
**= 52 people.**

## RESULTS AND DISCUSSION

Based on the Decree of the Director of Research, Technology and Community Service Number 1350/E5/PG.02.00/2023 dated 28 December 2023, we submit a list of universities providing academic education in the Mandiri, Main, Intermediate and Pratama Clusters. This clustering is based on higher education performance data processed using SINTA from 2020 to 2022. The performance data taken into account is data that has been verified and validated by the LPPM Higher Education verifier including the author's data (*author*), affiliate (*affiliation*), articles (*article*), study (*research*), dedication to the community (*community service*), intellectual property (*intellectual property rights*), and books (*book*). Not a ranking, but this clustering was created to categorize universities based on their performance. This is used as a basis for creating research road maps and strategic plans as well as a basis for determining the authority for research management and community service in higher educations, campus digitalization can be a solution.

### *Data Analysis and Data Tabulation*

The word strategy means choosing how resources might be used effectively to achieve a stated goal. Strategies are planned to adapt to the internal and external environment. Expressed in another way, strategy states which factors will be emphasized in achieving goals (Terry, 2001). The basic elements are also one of the keys in the empirical study that will be carried out (Soedjono, 2022), these elements work together to create a foundation for the successful implementation of digital learning programs and for other change strategies and programs. The definition of strategy implementation according to (Hunger & Wheelen, 2003) is the stage of realizing and implementing strategies that have been created in the form of actions through a series of procedures, programs and budgets. Higher education implementation strategies involve planning, implementing, and evaluating various initiatives to achieve the institution's vision and mission. The following is a detailed description of the college's implementation strategy:

a. Strategic Planning
    1. Vision and mission:
       A clear definition of the Vision and Mission of Higher Education to provide strategic direction.
    2. SWOT Analysis
       Do analysis Strengths, Weaknesses, Opportunities, And Threats for understand the position of the institution and its external environment.
    3. Strategic Objectives
       Setting short-, medium- and long-term goals that are specific, measurable, achievable, relevant and time bound (SMART).

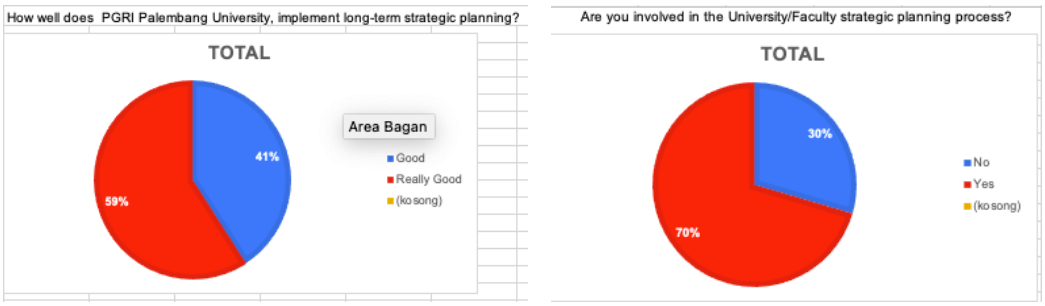


**Diagram 1.** Questioners on Interviews Result

b. Curriculum Development
   1. Competency Based Curriculum
      Design a curriculum that focuses on developing student competencies according to industry needs and scientific developments.
   2. Learning Innovation
      Implement innovative learning methods such as blended learning, e-learning, and problem-based learning.
   3. Collaboration with Industry
      Involve industry in curriculum development to ensure the relevance of education to labor market needs

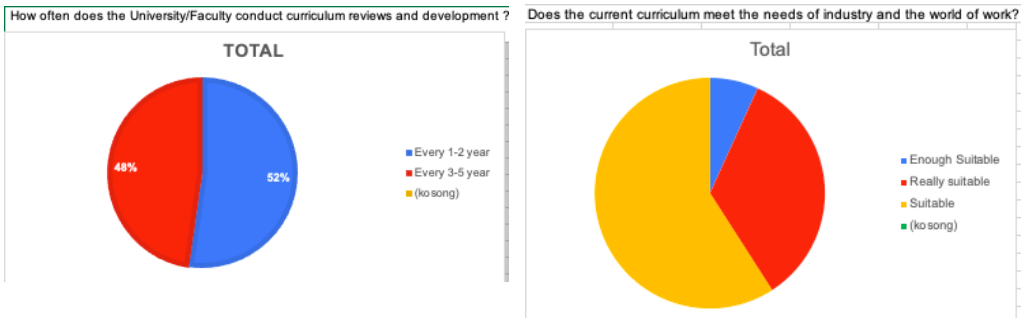


**Diagram 2.** Questioners on Interviews Result

c. Human Resources Development (HR)
   1. Recruitment and Training
      Recruit qualified lecturers and staff and provide ongoing training to improve their competency.
   2. Career Development
      Create clear career development pathways for faculty and staff, including opportunities for research, publication, and involvement in academic projects.
   3. HR Welfare
      Improve the welfare of lecturers and staff through welfare programs, rewards and incentives.

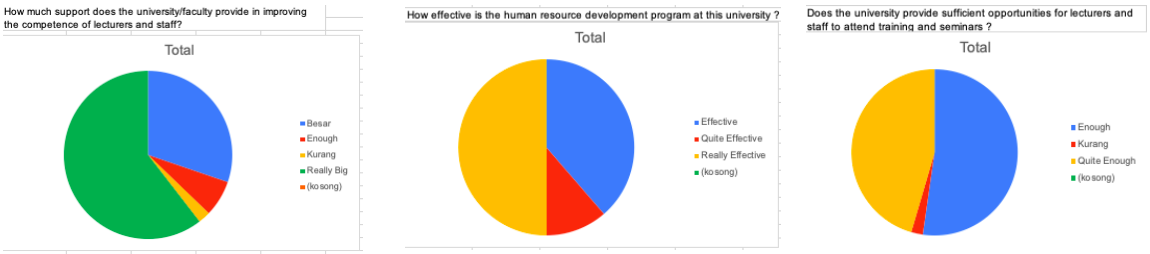


**Diagram 3.** Questioners on Interviews Result

d. Infrastructure and Technology
   1. Campus Facilities
      Improve and update physical facilities such as classrooms, laboratories, libraries, and sports facilities.
   2. Information Technology
      Implement cutting-edge information technology to support learning, administration and research processes.

3. Sustainability
   Adopt sustainable practices in campus infrastructure management to support environmental sustainability.

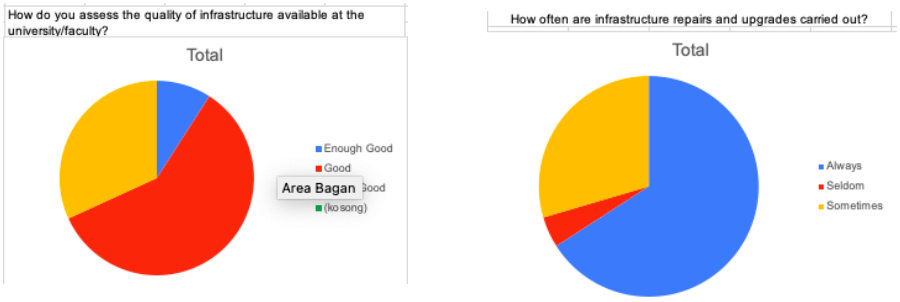


**Diagram 4.** Questioners on Interviews Result

e. Research and Innovation
   1. Research Focus
      Determine superior research areas that are in line with the university's vision and mission.
   2. Research Funding
      Provide funds and facilities to support lecturer and student research activities.
   3. Research Collaboration
      Build research collaborations with other institutions, industry, and government to expand research impact.

f. Improved Student services
   1. Academic Support
      Provide academic guidance and consultation services to help students achieve optimal academic achievement.
   2. Extracurricular Activities
      Encourage student participation in extracurricular activities to develop soft skills and professional networks.
   3. Career Services
      Provide career and alumni development services to assist students in career planning and job searches.

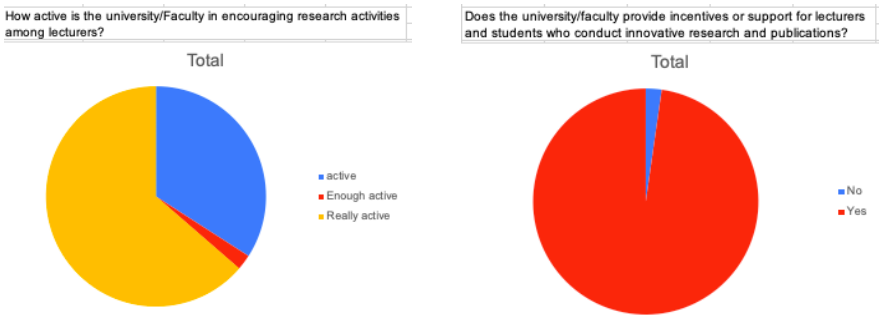


**Diagram 5.** Questioners on Interviews Result

g. Partnerships and networks
   1. International Cooperation

Increase cooperation with universities and international research institutions for student and lecturer exchanges as well as research collaboration

2. Local Cooperation
   Build partnerships with local government, industry and local communities to support regional development and educational relevance.

h. Continuous Evaluation and Improvement
   1. Performance assessment
      Implement a data-based performance assessment system to measure the achievement of strategic goals.
   2. Feedback Loop
      Collect feedback from students, lecturers, staff and other stakeholders to make continuous improvements.
   3. Audit Internal
      Conduct regular internal audits to ensure compliance with quality standards and regulations.

i. Financial management
   1. Diversification of Funding Sources
      Diversify sources of income through paid educational programs, research collaborations, grants, and donations.
   2. Budget Management
      Manage the budget efficiently and transparently to support academic and operational activities.
   3. *Financial Sustainability*
      Design financial strategies that ensure long-term financial sustainability.

j. Leadership and Governance
   1. Visionary Leadership
      Higher education leaders must have a strong vision and the ability to inspire the entire campus community.
   2. Good Governance
      Implement the principles of good governance (*good governance*) such as transparency, accountability, and participation.

Level of adoption (analysis) and impact of implementing digital transformation in education management at PGRI University Palembang as LLDIKTI Region 2 Main Cluster University.

1. Digital Infrastructure Assessment
   - Evaluate the availability of hardware (computers, servers, internet networks) and software (*Learning Management System*, academic information systems, etc.).
   - Internet connectivity analysis, especially to support online learning.
2. Digital Competence of Educators and Education Personnel
   - Assessment of the ability of lecturers and administrative staff in using digital technology for learning and management.
   - Digital training and certification that has been carried out.
3. Digital System Implementation
   - Percentage of study programs that have used digital technology in the academic process.

- Platform adoption e-learning, academic management applications, and integration with external systems (LLDIKTI, PD-DIKTI).

4. Student Engagement (Level of student participation in digital-based learning)
   - The use of technological devices by students, such as campus applications, e-library, and communication media.

## CONCLUSIONS

**Implementation of Digital Transformation;** Digital transformation at PGRI Palembang University has had a significant impact on operational efficiency, improving the quality of learning, and transparency of education management. Application of technology such as *Learning Management System* (LMS), archive digitization, and integration of academic information systems increase flexibility and accessibility for lecturers, students, and staff.

**Challenges Faced;** The main obstacles in implementing digital transformation include limited technological infrastructure, diverse digital competencies of human resources, resistance to changes in work culture, and limited funding. External challenges include gaps in access to technology among students and competitive dynamics with other universities.

**Implementation Strategy;** The strategy implemented involves developing digital infrastructure, digital literacy training for all stakeholders, and strengthening partnerships with technology institutions. Regular monitoring and data-based evaluation are used to measure success and ensure continuous improvement.

**Positive impact;** Digital transformation increases administrative efficiency, makes learning access easier for students, and supports lecturers in providing a more interactive and modern learning experience.

### *Suggestions*

1. Improved Infrastructure and Technology
   a. Allocate additional funds to update and expand technology infrastructure, including a stable internet network and modern hardware.
   b. Implement AI-based technology to support learning and administration processes.
2. Training and Competency Improvement
   a. Hold regular training for lecturers and staff to increase digital literacy and adapt to new technology.
   b. Provide incentives for lecturers and staff who actively participate in competency development programs.
3. Socialization and Communication
   a. Improve internal communications and campaigns to increase understanding of all stakeholders regarding the benefits of digital transformation.
   b. Involve students in system evaluation to ensure their needs are met.
4. Efficient Financial Management
   a. Diversify funding sources through collaboration with industry, grants and donations.
   b. Optimize budget allocation for digital transformation activities and human resource development.
5. Strengthening Cooperation
   a. Expand the collaboration network with technology institutions and international educational institutions for knowledge exchange and digital system development. b. Continuous Evaluation and carrying out regular monitoring and evaluation of the implementation of digital transformation using key performance indicators (KPI).
   b. Use evaluation results to improve and perfect existing systems.

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