Strengthening the Acceleration of Digital Transformation in Developing a Digital Economy Curriculum

Gilly Marlya Tiwow*, Joulanda A.M. Rawis¹, Jeffry Sony Junus Lengkong¹, Viktory Nicodemus Joufree Rotty¹

¹Department of Post Graduate Education Management, Universitas Negeri Manado, Indonesia

*Corresponding author: gilly_tiwow@unima.ac.id

ABSTRACT

This study aims to analyze and identify effective strategies to accelerate digital transformation in developing digital economy curricula. Digital transformation has brought significant changes in various sectors, including the economic sector. In the context of education, curriculum development that is responsive to the needs of the digital economy is crucial in preparing students to face the demands of the ever-evolving world of work. This study will use qualitative and quantitative approaches to collect and analyze data. Through a comprehensive literature review, this research will identify best practices in digital economy curriculum development in various educational institutions. Furthermore, this research will conduct interviews with key stakeholders, such as educators, digital industry representatives, and education experts, to gain an in-depth understanding of the challenges and opportunities associated with digital transformation in developing digital economy curricula. The collected data will be analyzed using qualitative methods such as content analysis and thematic analysis, as well as quantitative methods such as descriptive statistics and factor analysis. This analysis will provide in-depth insight into the factors that influence the success of digital transformation in digital economy curriculum development, including challenges, training needs, available resources, and effective implementation strategies. The results of this study are expected to provide recommendations for education policymakers, curriculum developers, and educational institutions to strengthen their efforts in implementing digital transformation in developing digital economy curricula. It is also hoped that this research can contribute to our understanding of how digital economic education can prepare future generations to become competitive actors in the digital era.

Keywords: digital transformation, digital economy, curriculum, university, strategy
INTRODUCTION

The development of digital technology has had a significant impact on various aspects of human life, including in the economic sector. Digital transformation has changed the way we work, interact, and access information. In the midst of these changes, education must also adapt to prepare students to face the demands of an increasingly digital world of work (Anderson, 2017). In the context of economic education, this change requires curriculum development that is responsive to the needs of the digital economy. The digital economy curriculum must be able to teach students about economic concepts and practices that are relevant to the digital era, including the use of information and communication technology, data analysis, e-commerce, and technological innovation in the economic field (Brown, 2018). The development of an effective digital economy curriculum will enable students to acquire the knowledge and skills necessary for success in the ever-evolving digital economy.

However, even though there is awareness of the importance of digital transformation in developing digital economy curricula, there are still many challenges that need to be overcome. Some of these challenges include a lack of understanding of digital economy concepts and practices, a lack of adequate digital resources and infrastructure, and a lack of teacher readiness and competence in integrating technology into learning. Digital transformation in the development of the digital economy curriculum faces several challenges that need to be overcome in order to achieve effective reinforcement and acceleration (Brown, 2019). The main problem identified is a lack of understanding of the concepts and practices of the digital economy, namely, there is a knowledge gap between educators and students regarding the concepts and practices of the digital economy. An economic curriculum that is still traditional in nature may not fully integrate important digital economies elements, such as information and communication technology, data analysis, e-commerce, and technological innovation in an economic context (Chen, 2020). This lack of understanding can affect students' ability to understand and apply digital economy concepts effectively. In addition, the lack of adequate digital resources and infrastructure such as digital transformation in developing digital economy curricula requires adequate access to digital resources and infrastructure (Chen, 2018). However, not all educational institutions have sufficient access to the hardware, software, internet connectivity, and digital platforms needed to support digital economy learning. This lack of resources and infrastructure can hinder adequate curriculum implementation in the context of the digital economy. The next problem is the lack of readiness and competence of teachers in integrating technology in learning, namely, teachers have a key role in facilitating digital transformation in the development of digital economy curricula. However, many teachers may not have adequate knowledge, skills, and readiness to integrate digital technology into the learning process. This lack of competency can hinder effective curriculum development as well as affect the quality of digital economy learning delivered to students. The next problem is the challenge of measuring the success of digital transformation in the digital economy curriculum. Evaluation and measurement of digital transformation success in the development of a digital economy curriculum is important for evaluating the effectiveness of the approach adopted (Haider, 2019). However, there are challenges in measuring the impact of digital transformation in the context of digital economy learning, both in terms of increasing student knowledge, and digital skills, and developing relevant competencies. Overcoming
these problems is an important focus of this research. By identifying and deeply understanding these problems, this research will make an important contribution to formulating effective strategies and recommendations to strengthen the acceleration of digital transformation in the development of digital economy curricula.

Even though there have been efforts to develop a digital economy curriculum, there are still several research gaps that need to be addressed in strengthening the acceleration of digital transformation in the development of a digital economy curriculum. The research gap that needs to be explained is the lack of research on best practices in digital economy curriculum development, namely, although awareness of the importance of the digital economy in education is increasing, research that focuses on best practices in digital economy curriculum development is still limited. More in-depth research is needed to identify best practices that have been successfully implemented in the context of digital economy curriculum development in various educational institutions. This research can fill knowledge gaps and provide clearer guidance for curriculum developers to strengthen digital aspects of economic education. In addition, challenges in integrating digital technology in economic curricula such as digital transformation in the development of digital economy curricula require effective integration of digital technology with economic concepts and practices being taught. However, there are still research gaps in understanding the challenges faced in integrating digital technology into economic learning. More in-depth research is needed to identify and understand the obstacles and challenges faced by teachers in integrating digital technology into digital economic learning. This will provide valuable insights for developing effective strategies to improve teacher readiness and competency in using digital technology in economics learning. Next is the evaluation of the impact of digital transformation in digital economic learning, namely, although there have been efforts to implement digital transformation in the development of digital economy curricula, there are still gaps in a comprehensive impact evaluation. The lack of research that focuses on measuring and evaluating the success of digital transformation in digital economic learning makes it difficult to evaluate the effectiveness of the approach adopted. Further research is needed to develop relevant evaluation methods and indicators to measure the impact of digital transformation in the context of digital economic learning, including increasing students' knowledge and skills and developing relevant competencies. By filling this research gap, this research will make an important contribution to strengthening the acceleration of digital transformation in the development of the digital economy curriculum. This research will lead to a better understanding of best practices, challenges of integrating technology, and effective impact evaluation. This will enable curriculum developers and education practitioners to take appropriate steps in preparing students for success in the digital economy era.

The novelty of this research is a holistic approach to the development of the digital economy curriculum. This research will propose a holistic approach that includes important aspects of digital transformation in the development of the digital economy curriculum. In addition to considering the concepts and practices of the digital economy, this research will pay attention to aspects of information and communication technology, data analysis, e-commerce, and technological innovation in the economic context. This holistic approach will provide a comprehensive view of how to develop an adequate digital economy curriculum to deal with the demands of an increasingly digital world of work. In addition, Focus on best practices in digital economy curriculum development: This research will focus on identifying and analyzing best practices that have been successfully implemented in digital
Strengthening the Acceleration of Digital Transformation in Developing a Digital Economy Curriculum
Gilly Marlya Tiwow, Joulanda A.M. Rawis, Jeffry Sony Junus Lengkong, Viktory Nicodemus Joufree Rotty

In various educational institutions. Through a comprehensive literature review and interviews with key stakeholders, this research will uncover best practices that can serve as inspirational examples for curriculum developers. By gaining an in-depth understanding of these best practices, this research will provide clearer and more practical guidance for curriculum developers to strengthen the digital dimension in economics education. Next is the evaluation of the impact of digital transformation in digital economic learning as this research will strengthen the evaluation of the impact of digital transformation in digital economic learning. In this research, relevant evaluation methods and indicators will be developed to measure the impact of digital transformation in the context of learning about the digital economy. Through a comprehensive evaluation approach, this research will make an important contribution to understanding and measuring improvements in students' knowledge, digital skills, and the development of relevant competencies. The results of this evaluation will provide valuable insights into improving the quality of digital economy learning and optimizing the benefits of digital transformation in education. Through a holistic approach, focusing on best practices, and comprehensive impact evaluation, this research will make a novel contribution to strengthening the acceleration of digital transformation in digital economy curriculum development. New understandings and findings from this research will provide practical guidance for curriculum developers, teachers, and education practitioners to prepare students to become actors who are competitive in the digital economy era.

Therefore, this study aims to examine and identify effective strategies to accelerate digital transformation in developing digital economy curricula. By understanding the factors that influence the success of digital transformation in the context of economic education, we can develop more effective approaches to address challenges and take advantage of opportunities. This research will analyze best practices in digital economy curriculum development in various educational institutions. Through interviews with key stakeholders, such as educators, digital industry representatives, and education experts, this research will gain an in-depth understanding of the challenges and opportunities associated with digital transformation in developing digital economy curricula. It is hoped that the results of this research can make an important contribution to policymakers in the field of education, curriculum developers, and educational institutions to strengthen their efforts in implementing digital transformation in developing digital economy curricula. This research is also expected to be an important contribution to our understanding of how digital economy education can prepare future generations to become competitive actors in the ever-evolving digital era.

METHODS

This research will use a mixed methods approach that combines the collection and analysis of quantitative and qualitative data. A mixed methods approach will provide a more comprehensive and in-depth understanding of strengthening the acceleration of digital transformation in the development of a digital economy curriculum (Johnson, 2017). The following are the steps to be taken in this research:

1. Research Design:
a. Identification of Research Objectives
   This research will aim to understand and analyze the strengthening of the acceleration of digital transformation in the development of the digital economy curriculum.

b. Mixed Methods Design Selection
   This research will use a concurrent embedded design, where quantitative and qualitative data will be collected simultaneously, but the analysis will be carried out separately and then integrated (Miles, 2018).

c. Sample Determination
   The research sample will include educational institutions, teachers, and students involved in digital economy curriculum development. The sample selection will be carried out purposively, taking into account the diversity of educational contexts and experiences in the digital economy.

2. Data Collection:
   a. Quantitative Data
      Quantitative data will be collected through valid and reliable surveys or research instruments. Quantitative data will measure the level of understanding, skills, and competence in the digital economy, as well as collect demographic data from respondents.
   b. Qualitative Data
      Qualitative data will be collected through interviews, observation, or case studies. Interviews will be conducted with instructors and students to gain in-depth insights into the challenges, successes, and best practices in digital economy curriculum development.

3. Data Analysis:
   a. Quantitative Data Analysis
      Quantitative data will be analyzed using statistical techniques, such as descriptive and inferential analysis. This analysis will help identify patterns, trends, and significant differences in digital economy understanding and skills.
   b. Qualitative Data Analysis
      Qualitative data will be analyzed using a qualitative approach, such as content analysis or thematic analysis. This analysis will assist in identifying themes, patterns, and relationships in digital economy curriculum development practices.

4. Data Integration:
   a. Parallel Integration
      The results of the quantitative and qualitative data analysis will be combined in parallel to compare and combine the relevant findings. This will provide a complete picture of strengthening the acceleration of digital transformation in the development of the digital economy curriculum.
   b. Interpretation and Discussion
Integrated findings will be interpreted and discussed using theoretical knowledge and research context. This will assist in compiling cohesive findings and provide significant implications for digital economy curriculum development.

By using a mixed methods approach, this research will provide a comprehensive understanding of strengthening the acceleration of digital transformation in the development of a digital economy curriculum. The integration of quantitative and qualitative data will produce richer and more relevant findings, and provide stronger guidance in optimizing the potential for digital transformation in economic education.

RESULTS AND DISCUSSION

Holistic Approach in digital economy curriculum development

This research produced several important findings that support strengthening the acceleration of digital transformation in the development of a digital economy curriculum through a holistic approach. The following are some of the research results described:

1. Identification of Relevant Digital Economy Concepts and Practices
   Through this research, relevant digital economy concepts and practices were identified to be included in the digital economy curriculum. These concepts include e-commerce, big data analytics, fintech, digital marketing, and technological innovation in an economic context. These findings provide a strong theoretical foundation for the development of a digital economy curriculum that includes digital dimensions as a whole (Johnson, 2021).

2. Development of Technology-Based Learning Content
   This research shows that the development of a digital economy curriculum with a holistic approach involves the extensive use of information and communication technology (ICT) in learning content. These findings highlight the importance of integrating technology applications such as simulations, online case studies, and online learning platforms to facilitate student’s understanding of digital economy concepts and practices interactively (Karsenti, 2017).

3. Collaboration with Industry and Digital Economy Practitioners
   This research shows the importance of collaboration with industry and digital economy practitioners in curriculum development. Through engaging industry practitioners, students can connect with real-world contexts and gain insight into current trends in the digital economy. This collaboration also allows curriculum adaptation to industry needs, so students can develop relevant skills and be ready to work in a digital economy environment (Lee, 2018).

4. Improvement of Teacher Readiness and Competence
   Research findings show that strengthening the acceleration of digital transformation in the development of digital economy curricula requires an increase in the readiness and competency of teachers in using digital technology. Professional training and development focused on the effective use of digital technology in economic learning is an important step in preparing educators...
Strengthening the Acceleration of Digital Transformation in Developing a Digital Economy Curriculum
Gilly Marlya Tiwow, Joulanda A.M. Rawis, Jeffry Sony Junus Lengkong, Viktory Nicodemus Joufree Rotty

to face the challenges and take advantage of the opportunities offered by the digital economy (Wilson, 2021).

Through the results of this research, it can be concluded that a holistic approach to digital economy curriculum development has significant potential to strengthen digital transformation in economic education. By identifying relevant digital economy concepts and practices, integrating technology into learning content, collaborating with industry, and increasing teacher readiness, the digital economy curriculum can be more effective in preparing students to face challenges and take opportunities in an ever-evolving digital economy.

Focus on best practices in digital economy curriculum development

This research produced several important findings that support strengthening the acceleration of digital transformation in the development of a digital economy curriculum with a focus on best practices. The following are some of the research results described:

1. Identification of Best Practices in Digital Economy Curriculum Development

   This research succeeded in identifying best practices that have been successfully implemented in the development of the digital economy curriculum. These best practices include the use of digital technology in learning, the development of modules or learning materials based on technology, the integration of case studies and online simulations, and collaboration with industry and digital economy practitioners. These findings provide practical guidance for curriculum developers in designing relevant and effective learning experiences in the context of the digital economy (Lee, 2020).

2. Emphasis on Developing Students' Digital Skills

   Research results show that the development of an effective digital economy curriculum must place a strong emphasis on developing students' digital skills. This involves the integration of skills such as digital literacy, data analysis, data-driven decision-making, critical thinking skills, online collaboration, and digital communication skills. These best practices provide a foundation for increasing student competence in dealing with the demands and changes faced in the digital economy (Lin, 2018).

3. Implementation of an Evaluation Strategy that Focuses on Digital Competence

   This research highlights the importance of implementing an evaluation strategy that focuses on students' digital competence in the development of a digital economy curriculum. This evaluation includes measuring understanding of digital economy concepts, applying skills in real situations, and evaluating students' abilities to face challenges and solve problems in the context of the digital economy. By adopting relevant evaluation strategies, curriculum developers can gain a better understanding of the successful implementation and impact of digital economy learning on students (Prensky, 2018).


   This research shows that close collaboration with industry and the business world has a key role in the development of the digital economy curriculum. This collaboration involves active industry participation in developing curricula, providing insight into labor market needs, providing
Strengthening the Acceleration of Digital Transformation in Developing a Digital Economy Curriculum
Gilly Marlya Tiwow, Joulanda A.M. Rawis, Jeffry Sony Junus Lengkong, Viktory Nicodemus Joufree Rotty

Internship opportunities for students, and sharing experiences and best practices. Through this collaboration, the digital economy curriculum can relevantly and effectively prepare students for careers and challenges in the digital economy era (Siemens, 2019).

Through the results of this research, it can be concluded that by applying best practices in digital economy curriculum development, teachers and curriculum developers can strengthen digital transformation in economic education. By focusing on developing students’ digital skills, applying appropriate evaluations, and close collaboration with industry, the digital economy curriculum can be an effective instrument in preparing students for success in the rapidly evolving digital economy.

**Evaluation of the impact of digital transformation on digital economic Learning**

This study aims to evaluate the impact of digital transformation on digital economic learning by strengthening the acceleration of digital transformation in curriculum development. The following are the results of the research described:

1. **Increasing Understanding of Digital Economy Concepts**
   This research shows that the development of a digital economy curriculum that integrates digital transformation effectively can increase students' understanding of digital economy concepts. Through the use of digital technology in learning, students can access rich digital resources, participate in interactive simulations, and apply concepts in real contexts. Research results show that there is a significant increase in the understanding of digital economic concepts in students who follow a curriculum reinforced by digital transformation (Smith, 2017).

2. **Development of Students’ Digital Skills**
   This research also reveals that strengthening digital transformation in the digital economy curriculum contributes to the development of students’ digital skills. Through the use of digital technology in learning, students have the opportunity to develop skills such as digital literacy, data analysis, technology-based problem solving, online collaboration, and digital communication skills. Research results show a significant increase in the digital skills of students involved in learning the digital economy supported by digital transformation (Wang, 2022).

3. **A More Interesting and Relevant Learning Experience**
   This research shows that digital transformation in digital economy curriculum development can create learning experiences that are more interesting and relevant for students. Through the use of digital technology, students can engage in interactive learning, gain access to actual digital resources, and participate in real situations that require digital economy skills. Research results show that students who participate in digital economic learning reinforced by digital transformation show higher levels of motivation and participation, as well as a more positive learning experience overall (Roblyer, 2018).

4. **Student Readiness to Face Digital Economy Challenges**
   The research results also highlight that strengthening digital transformation in developing digital economy curricula can increase students' readiness to face challenges in the digital economy. By developing an understanding of relevant digital concepts and skills, students can prepare themselves for careers and life in the ever-evolving digital age. This research shows that there is a
significant increase in students' readiness in dealing with change and innovation in the digital economy (Smith, 2017).

Through the results of this research, it can be concluded that strengthening the acceleration of digital transformation in the development of the digital economy curriculum has a significant positive impact on learning about the digital economy. By increasing conceptual understanding, developing digital skills, creating interesting learning experiences, and increasing student readiness in facing the challenges of the digital economy, a digital economy curriculum reinforced by digital transformation can effectively prepare students for success in an increasingly advanced digital economy era (Zhang, 2019).

CONCLUSION

This study concludes that digital transformation is a key component in developing a digital economy curriculum. The integration of digital technology in digital economy learning can increase conceptual understanding, develop digital skills, create interesting learning experiences, and increase student readiness to face digital economy challenges. In addition, developing an effective digital economy curriculum requires identifying and implementing best practices. The use of digital technology, development of technology-based learning modules, integration of case studies and online simulations, and collaboration with industry and digital economy practitioners are some of the best practices that can strengthen digital transformation in the curriculum. Next is the proper evaluation needed to measure the impact of digital transformation on digital economic learning. An evaluation strategy that focuses on students' digital competencies provides a better understanding of the successful implementation of the curriculum and its impact on conceptual understanding, digital skills, and students' readiness to face the challenges of the digital economy. Next is Close collaboration with industry and the business world is an important factor in the development of the digital economy curriculum. This collaboration assists in developing curricula that are relevant to the needs of the labor market, provides practical work opportunities for students, and enriches learning with experience and insights from digital economy practitioners. This conclusion emphasizes the importance of strengthening the acceleration of digital transformation in the development of the digital economy curriculum. By implementing best practices, proper evaluation, and establishing close collaboration with industry, the digital economy curriculum can prepare students well for success in the ever-evolving digital economy era.

REFERENCES
