



## Agility in Islamic Education: Adapting to Social and Technological Changes in the VUCA Era

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### Abstract :

This study examines the agility of Islamic educational institutions in adapting to social and technological changes in the VUCA (volatile, uncertain, complex, ambiguous) era. With the rapid advancement of digital technology and the increasing complexity of global challenges, educational institutions must innovate and remain flexible to remain relevant and effective in delivering education. This research examines how Nurul Jadid University has adopted international collaboration, digital transformation, and entrepreneurial innovation as strategies to meet these challenges. This study highlights initiatives through a case study approach, including organizing international conferences, collaborating with the National Library of Indonesia (Perpusnas) to modernize libraries, and launching entrepreneurship clubs to prepare students for the digital economy. The research findings show that these initiatives have an important role in equipping students with the necessary skills to deal with global market uncertainty. This research emphasizes the importance of innovation and sustainable adaptation in educational institutions and provides a model for other universities to respond to the challenges of the VUCA world. This study contributes to a broader understanding of how educational institutions can maintain relevance and effectiveness in an increasingly complex and unpredictable environment.

## INTRODUCTION

In a world that is increasingly filled with uncertainty and rapid change, educational institutions face a considerable challenge to stay relevant and responsive. The era of VUCA (volatile, uncertain, complex, ambiguous) forced higher education to adopt a more dynamic and innovative approach (Naqvi, 2023; Taskan et al., 2022; Volderauer et al., 2025). These changes have changed the way we understand the challenges faced by educational institutions. Global uncertainty, rapid technological developments, and social and economic complexities demand higher education to transform more flexibly and creatively. Educational institutions must now innovate to remain relevant and responsive to these changes (Adedoyin & Soykan, 2023; Ebersberger & Kuckertz, 2021; Izumi et al., 2021).

Some universities have begun to implement international collaboration and the use of technology as a way to improve the quality of education. In addition, entrepreneurship is also considered an important element to equip students to face a job market full of challenges and uncertainty (Igwe et al., 2021; Mok et al., 2021; Ratten & Usmanij, 2021). In the Indonesian context, Islamic higher education faces similar challenges. Therefore, Islamic educational institutions need to integrate these elements of innovation in order to compete at the global level and provide relevant educational solutions in an increasingly complex world.

Previous research has provided valuable insights into how education can adapt to changes in the VUCA era. One relevant study is the study by Tight. (2021) that emphasizes the importance of international collaboration in higher education in response to globalization. This research supports the concept that higher education transfers knowledge and strengthens students' adaptation skills through international networks. In addition, another study suggests that digitalization in education allows for more efficient management of information resources, which can improve the quality of education in the context of an ever-changing world (Carstens et al., 2021; Espina-Romero et al., 2023; Rahimi & Oh, 2024). On the other hand, research by Bodolica and Spraggon (2021) emphasizes the need for educational institutions to develop students' entrepreneurial skills in order to innovate and respond to job market uncertainty. These studies show how educational institutions can transform to remain relevant amid global challenges.

While much research highlights the importance of international collaboration, digital transformation, and entrepreneurship in education, there is still a gap in the literature regarding the concrete application of these strategies in Islamic education, particularly in Indonesia. Moreover, although various initiatives have been implemented, little research has explored how Islamic educational institutions can address the challenges of the VUCA world by combining these three elements. This research aims to fill this gap by focusing on Nurul Jadid University (UNUJA) and the practices they apply to improve the quality of education. Although several studies have shown the potential for international collaboration and digitalization in improving the quality of education, not many have explored the impact of the synergy of these three factors in creating adaptive and innovative education in Islamic universities. This makes this research very relevant to answer the challenges Islamic higher education faces in Indonesia.

This research offers a unique contribution by examining how Islamic universities can adapt to social and technological change through international collaboration, digital transformation, and entrepreneurial development. The uniqueness of this research lies in its in-depth focus on Nurul Jadid University (UNUJA) as a concrete example of implementing these three elements. Unlike previous studies that only focused on one aspect, this study combines these three strategies to face global challenges. Thus, this research provides new insights into educational adaptation strategies and a model that other Islamic educational institutions can apply in responding to the uncertainties of the ever-changing global world. This research also plays an important role in filling the literature gap related to implementing adaptive strategies in Islamic education in Indonesia, especially in facing the challenges of the VUCA world.

This study examines how Nurul Jadid University implements educational agility strategies to face social and technological challenges in the VUCA era. The primary focus of this research is to explore how international collaboration, digital transformation, and entrepreneurial development can complement each other to strengthen the quality of education in Islamic educational institutions. By adopting a case study approach, this study aims to analyze the initiatives implemented, such as organizing international conferences, cooperating with the National Library in library modernization, and launching digital entrepreneurship clubs. The results of this research are expected to make a significant contribution to the Islamic education literature and provide recommendations for other higher education institutions in responding to the challenges faced by an increasingly complex and uncertain world.

## RESEARCH METHOD

This research was conducted in the context of higher education institutions in Indonesia, with a focus on Nurul Jadid University, which actively implements global innovation and collaboration to face the challenges of the VUCA (volatile, uncertain, complex, ambiguous) world. The focus on Islamic educational institutions in Indonesia is crucial as these institutions face unique challenges in integrating global trends and technological advancements while maintaining cultural and religious values. This study uses a case study approach (Chaudhry et al., 2023; Errida & Lotfi, 2021; Yazdani et al., 2021), which is well suited to explore the complexity of institutional responses to these challenges. By choosing this approach, this study can provide an in-depth overview of strategies to improve the quality of education through global collaboration, digital transformation, and entrepreneurial innovation. The case study approach allows for contextual data collection in real-world scenarios (Barambones et al., 2024; Duarte et al., 2021; Liu & Demosthenes, 2022), providing a comprehensive understanding of how higher education institutions in Indonesia are dealing with the dynamic changes in the VUCA world.

The data collection methods were semi-structured interviews, observations, and document analysis. Semi-structured interviews were conducted with various stakeholders at UNUJA, such as lecturers, students, and administrative staff, to gain insight into how they deal with social and technological changes in the Islamic education system. Observations are used to see firsthand classroom interactions and other academic activities that reflect adaptation to digital technology and social change. Document analysis is used to assess education policies, annual reports, and other documents that show structural and strategic changes in the institution. The data obtained from these various methods complement each other and allow research to gain a more comprehensive understanding of the adaptation of Islamic educational institutions to an increasingly complex and uncertain world.

The data was analyzed using the data analysis model of Miles and Huberman (Karimi-Ghartemani et al., 2022; Monaro et al., 2022; Suciati et al., 2023), which consists of three main stages: data reduction, data presentation, and conclusion drawn. In the first stage, the data collected through interviews, observations, and documents is filtered and simplified to focus on information relevant to the research. Irrelevant or redundant data will be eliminated, ensuring that only important data to answer the research question is preserved. Data presentation is carried out by arranging data in an easy-to-understand narrative, using diagrams or tables to make it easier to visualize patterns that appear. The final stage is the conclusion drawn, where researchers connect the findings found through data reduction and presentation and explore the relationships between existing themes and patterns.

## RESULT AND DISCUSSION

In the face of the ever-evolving social and technological challenges of the VUCA era, Nurul Jadid University (UNUJA) has shown a strong commitment to improving the quality of education through various strategic initiatives. This study focuses on three main aspects: collaboration and global networking, digital transformation in library services, and entrepreneurial innovation in the digital era, as shown in Figure 1.

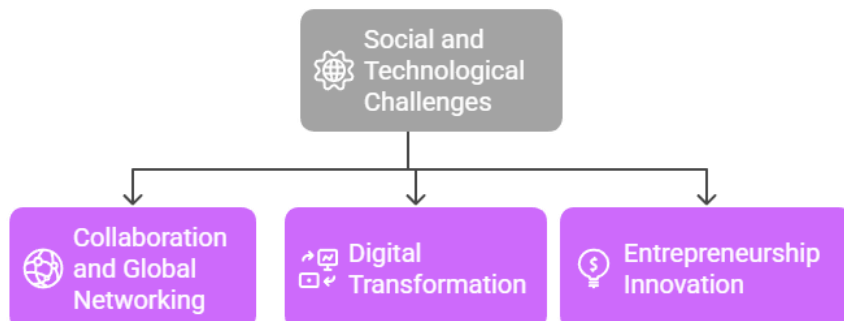


Figure 1. Key Focus of Research in the VUCA Era

### Global Collaboration and Networking in Education

Universitas Nurul Jadid (UNUJA) continues to strengthen global networks through the holding of an International Conference entitled "The Struggle for an Alternative Future: Navigating Global Challenges and Reimagining Societies." The conference involved speakers from various countries, such as Turkey, Pakistan, Thailand, and Singapore, and academics from leading universities in Indonesia.

This activity is an important platform for academics and practitioners to discuss global challenges and find innovative solutions in various fields, including education, social, and economic. The topics discussed are highly relevant to a world full of uncertainty and complexity, reflecting the characteristics of the VUCA era (volatile, uncertain, complex, ambiguous). By prioritizing international collaboration, this conference strengthens its commitment to improving the quality of education and preparing students and academics to face evolving global challenges.

Table 1. Global Collaboration and Networking in International Conferences

No.	Institution/Country	Topics Covered	Collaboration Objectives
1	Marmara University, Turki	Global Challenges in Islamic Education and Innovative Solutions	Improving the understanding of Islamic education at the global level
2	UIN KHAS Jember, Indonesia	Islamic Education in the Digital Era	Building technology-based education in Indonesia
3	UIN Sunan Gunung Djati, Bandung	International Collaboration in Multidisciplinary Education	Increase knowledge exchange in the field of education
4	Superior University, Pakistan	Globalization and Its Impact on Education	Strengthening education capacity in developing countries
5	Rajamangala University of Technology Krungthep, Thailand	Vocational Education and Technology in the VUCA Era	Preparing students for a dynamic job market
6	Spica Marine, Singapura	Global Education and the Challenges of Technology in Islamic Education	Enhancing the synergy between education and global industry

This conference not only expands international cooperation networks in the field of education but also strengthens the role of institutions as centres for multidisciplinary collaboration. Attended by a wide range of academic leaders and global practitioners, the event demonstrates UNUJA's commitment to continuously improving the quality of education by collaborating with international partners in the face of increasingly complex global challenges. This conference is tangible proof that UNUJA is committed to facing global challenges through international collaboration-based education, which is urgently needed to respond to the uncertainty and dynamics of the VUCA world. This can be seen in Table 1, which illustrates the participation of various international institutions, topics discussed, and the main objectives of each collaboration.

Table 1. describes the international collaborations undertaken at the conference, focusing on topics relevant to global challenges in education. Each institution plays a role in expanding educational horizons in Islamic education, technology, and job market readiness. This collaboration aims to increase the understanding of Islamic education at the global level, strengthen educational capacity in developing countries, and prepare students for a dynamic and challenging job market, especially in the face of the uncertainty and complexity of the VUCA world.

The conference involved various international institutions, which discussed topics relevant to educational challenges in the VUCA era (volatile, uncertain, complex, ambiguous). The collaboration aims to expand the understanding of Islamic education at the global level, increase educational capacity in developing countries, and prepare students to face a dynamic and uncertain job market. This is reflected in the various topics discussed, such as Islamic education, technology in education, and job market preparation. This international collaboration improves the quality of education and strengthens its position as an adaptive and innovative university responding to global challenges. This collaboration is a strategic step in facing the increasingly complex future challenges.

### **Digital Transformation in University Library Services**

Nurul Jadid University has taken an important step in the development of libraries by establishing strategic cooperation with the National Library of the Republic of Indonesia (Perpusnas RI). This collaboration aims to increase the role of libraries as the leading educational resource in higher education and strengthen information services for students and lecturers. By signing a Memorandum of Understanding (MoU) involving 90 universities in East Java, it is hoped that it can encourage further development in the use of information technology to improve the quality of library services in the VUCA (volatile, uncertain, complex, ambiguous) era.

As part of the implementation of this cooperation, various initiatives have been launched. One is information technology, which allows students and lecturers to access the national library's digital collections more efficiently. In addition, training for librarians in managing digital-based libraries is a top priority. Figure 1. describes the signing of the MoU attended by stakeholders, which became an important momentum in implementing this transformation. In addition, the national seminar and Library Camp 4.0 event held by the Indonesian Higher Education Library Forum (FPPTI) East Java also emphasized the importance of collaboration and innovation in strengthening the competence of librarians in the VUCA era.



**Figure 1. The National Library carried out the signing of the Memorandum of Understanding (MoU)**

This is strengthened by the information conveyed by one of the informants who stated, "Collaboration with the National Library allows us to access various digital collections that were previously difficult to reach (I-1)." Another informant added, "We also received adequate training in managing the digital library system (I-2)." Meanwhile, another librarian revealed, "This collaboration has significantly improved the quality of our library services, making it easier for students to access information quickly and accurately (I-3)."

The cooperation that occurred has a significant impact on the development of library services. Not only does it increase the accessibility of information resources for the academic community, but it also allows libraries to transform to be more modern, integrated, and relevant to today's technological needs. This initiative provides an opportunity to update and improve the quality of the existing library infrastructure and introduce a more efficient digital system. This effort is significant in facing the challenges in the VUCA (volatile, uncertain, complex, ambiguous) era, where the uncertainty and complexity of the world of education demands rapid and flexible adaptation. In addition, this collaboration aligns with efforts to meet national library standards, which are expected to encourage improvement in the quality of information services, support the learning process, and enrich students' academic experience. Thus, this collaboration contributes directly to the quality of education by ensuring better information resources, easier access, and more innovative services responsive to the times.

## Entrepreneurial Innovation in the Digital Era: The Development of Entrepreneurship Clubs

Universitas Nurul Jadid (UNUJA) officially launched the Entrepreneurship Club as a strategic step to prepare students to face the increasingly competitive world of work in the digital era. The soft launching of this event took place in the "Pantai Duta Meeting Room" attended by campus leaders and the first 40 members of the Entrepreneurship Club. The initiative aims to develop students' entrepreneurial potential by providing a platform to explore innovative ideas and hone practical skills needed in the dynamic world of work. This program also aims to provide space for students to adapt to changes in the global market and encourage them to become young entrepreneurs ready to face digital challenges. The launch of this Entrepreneurship Club is expected to produce a young generation that is innovative, creative, and highly competitive globally, as evidenced in Figure 2.

This was also strengthened by the results of interviews conducted with several related informants, among which were conveyed by the Vice Chancellor, who expressed his hope that the Entrepreneurship Club could become a centre of creativity for students in facing the challenges of the times. "We hope that this Entrepreneurship Club will not only be a gathering place for young entrepreneurs, but also a place to explore innovative ideas that can answer various challenges faced by society (I-3)". Meanwhile, the Head of the Business Center emphasized the importance of entrepreneurship in facing increasingly VUCA (volatile, uncertain, complex, ambiguous) global conditions.

"The digital age offers many opportunities, and the Entrepreneurship Club is a great place to take advantage of those opportunities (I-4)". In addition, the event also involves the election of the Club chairman and team building sessions, which are expected to strengthen cooperation between members and improve collaboration capabilities in the future.



Figure 2. Soft Launching Entrepreneurship

Launching the Entrepreneurship Club significantly prepares students to face an increasingly dynamic and challenging world of work, especially in the VUCA (volatile, uncertain, complex, ambiguous) era. This program not only focuses on developing practical business skills but also provides space for students to innovate, create creative solutions, and develop products or services relevant to the digital era's needs and developments. In the context of growing global uncertainty, this initiative encourages students to be more adaptive and creative in the face of rapidly changing market challenges. The Entrepreneurship Club is important in producing young people ready to face a competitive and dynamic market by providing a forum to develop innovative business ideas. This program is a strategic step to equip students with the skills needed in an uncertain world of work.

## Discussion

Findings related to international conferences organized by UNUJA support the theory of the importance of global collaboration in education. Knowledge exchange between countries can enrich academic perspectives and strengthen the university's position in facing global challenges (Bertello et al., 2022; Johnson, 2022; Ramaswamy et al., 2021). Through this conference, UNUJA expands its international network and prepares students to face an increasingly dynamic global job market. These findings reinforce the idea that higher education must prioritize cross-border collaboration to prepare students to face increasingly complex global challenges through the theory of globalization in education (Khalid & Kurowska-Pysz, 2024; Lorenzo, 2022; Marginson, 2022).

In addition, this collaboration also plays a role in strengthening educational resilience in a world full of uncertainty, as explained by experts who emphasize the importance of flexibility in education in the VUCA era (Shet, 2024; Shliakhovchuk, 2021; Yacob et al., 2023). Cooperation in developing digital-based libraries provides significant evidence of the importance of using technology to improve the accessibility of educational information. These findings support the theory put forward by Okunlaya et al. (2022), which emphasizes that technology can improve the efficiency and quality of library services in the digital age. The introduction of digital collections and technology-based librarian training has strengthened the capacity of libraries to support more flexible learning and be responsive to the needs of the times. In this context, the digital transformation implemented is very relevant to meet the demands of uncertainty and complexity in the world of education, especially in the ever-evolving VUCA era. This collaboration shows how educational institutions can adapt quickly through technology integration to improve the service and quality of education (Alenezi et al., 2023; Alzahrani et al., 2021; Mohamed Hashim et al., 2022).

The launch of the Entrepreneurship Club in response to increasingly dynamic global challenges shows the important role of innovation in creating creative and adaptive young entrepreneurs. These findings are in line with entrepreneurship theory that emphasizes the importance of business incubators for students to develop creative ideas that are relevant to the needs of the global market (Igwe et al., 2021; Khalid & Kurowska-Pysz, 2024; Marginson, 2022).

Providing a platform to hone entrepreneurial skills and innovate in the digital world contributes directly to developing a young generation ready to face the challenges of a rapidly changing market. This concept of entrepreneurship is particularly relevant in a world full of uncertainty, where adaptation and creativity are key to survival and growth. This study's findings open space for further research on the long-term impact of international collaboration and digital transformation in education. In-depth research on the role of technology in improving students' entrepreneurial skills in the VUCA era is also an area worth exploring. This research supports and expands theories related to the globalization of education, digitalization in libraries, and entrepreneurial innovation. These findings underscore the need for adaptation and flexibility in higher education, particularly in uncertain global challenges.

These findings significantly contribute to the existing literature by confirming that higher education must be more adaptive and innovative to meet evolving global challenges. Through international collaboration, digital transformation, and entrepreneurial development, educational institutions can overcome the uncertainty and complexity of a dynamic world, especially in the VUCA era. These findings broaden the understanding of how education can adapt rapidly to social and technological change, as well as how innovations in education can prepare students for an increasingly competitive and global job market. Thus, the results of this study add new insights to the higher education literature while providing direction for educational institutions to be more responsive and proactive in facing future challenges.

## CONCLUSION

Research on agility in Islamic education management amid social and technological changes in the VUCA era has revealed important strategies educational institutions implement. This study focuses on how Nurul Jadid University faces global challenges through international collaboration, digital transformation, and entrepreneurial innovation. The study's findings show that initiatives, such as organizing international conferences, collaborating with the National Library in library transformation, and launching digital entrepreneurship clubs, are crucial in preparing students to face increasingly dynamic challenges. These efforts prove educational institutions can adapt quickly and effectively through global networks, technology utilization, and entrepreneurial development. The significance of these findings lies in their contribution to improving the quality of education while preparing students to face evolving global challenges. Further research can explore the long-term impact of these initiatives on student success and institutional sustainability. The study also emphasizes the importance of continuous innovation and collaboration to keep educational institutions relevant and responsive to changing times.

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