The Implementation of the Doblin Innovation Model in Strengthening Competitive Advantage at Islamic Religious Higher Education Institutions in Madura

Abd. Warits
Universitas Annuqayah Sumenep, Indonesia
aries.ilham28@gmail.com

Abstract: This study examines the implementation of the Doblin Innovation Model in Islamic higher education institutions in Madura within the context of increasingly complex and dynamic educational challenges. The aim of this research is to analyze how the implementation of the Doblin Innovation Model is carried out to strengthen the competitive advantage of two institutions: Universitas Annuqayah and IAIN Madura. The methodology used is descriptive qualitative with a case study approach, involving the collection of primary data through in-depth interviews with relevant parties and secondary data from institutional documents. The findings indicate that the success of innovation implementation heavily depends on supporting factors such as leadership commitment, the availability of technology, and an open organizational culture. Additionally, the implementation of the Doblin Innovation Model is carried out through three models of innovation: the network model, the structural model, and the service model. These three models are integratively applied within the systems developed by each institution

Keywords: Each Doblin Innovation, Competitive, Advantages, Higher Education.

Abstrak: *Penelitian ini mengkaji fenomena penerapan Model Inovasi Doblin di perguruan tinggi keagamaan Islam di Madura dalam konteks tantangan pendidikan yang semakin kompleks dan dinamis. Tujuan penelitian ini adalah untuk menganalisis bagaimana implimentasi model inovasi Doblin dilakukan dalam upaya memperkuat keunggulan bersaing perguruan tinggi di dua perguruan tinggi yaitu di Universitas Annuqayah dan IAIN Madura. Metode yang digunakan adalah deskriptif kualitatif dengan pendekatan studi kasus, yang melibatkan pengumpulan data primer melalui wawancara mendalam dengan pihak-pihak terkait dan data sekunder dari dokumen internal perguruan tinggi. Hasil penelitian menunjukkan bahwa keberhasilan implementasi inovasi sangat bergantung pada faktor pendukung seperti komitmen pimpinan, ketersediaan teknologi, dan budaya organisasi yang terbukaa. Selain itu, implimentasi Model Inovasi Doblin yang digunakan dilakukan melalui 3 (tiga) model inovasi yaitu; model jaringan, model struktur dan model layanan. Ketiga model ini diterapkan secara integratif dalam sistem yang dibuat oleh setiap institusi yang bersangkutan.*

Kata Kunci: *Inovasi Doblin, Keunggulan, Bersaing, Perguruan Tinggi*

INTRODUCTION

In recent decades, higher education has undergone significant changes influenced by technological advancements, globalization, and increasing labor market demands. Universities, as educational institutions playing a crucial role in shaping highly skilled human resources, are now competing not only on a national scale but also internationally.[1] The competition between universities is becoming increasingly fierce with the rising mobility of students, the openness of information access, and the development of global education quality standards. Amidst this competition, innovation has become one of the keys for universities to survive and strengthen their position.

Moreover, the growing expectations from society for universities to produce graduates who are not only academically competent but also possess skills relevant to industry needs are driving higher education institutions to continuously innovate.[2] The innovations undertaken must encompass various aspects, from improving academic quality and enhancing educational services to more efficient institutional managemen.[3] Universities that can implement comprehensive and integrated innovations have a significant opportunity to become leading institutions amidst the dynamic changes of the times.

One innovation model that has garnered attention is the Doblin Innovation Model, which offers a holistic approach with ten types of innovations that can be applied across various industrial sectors, including higher education.[4] This model does not only focus on product or service innovation but also on innovations in processes, platforms, networks, and user experiences. This makes the Doblin Innovation Model highly relevant for application in universities to strengthen institutional competitive advantage in the modern era.

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[1] Rofiqi, Ah. Zakki Fuad, and M. Yunus Abu Bakar, "The Contribution of Azyumardi Azra's Thoughts and Its Implications to the Construction of Islamic Education," *FIKROTUNA; Jurnal Pendidikan Dan Manajemen Islam* 17, no. 1 (2023).

[2] Vetkina Anna et al., "The Innovative Potential of Digital Transformation of the Russian Higher Education System: Trends of the Competence Approach," 2018, https://doi.org/10.2991/ictppfms-18.2018.35.

[3] I N Krasovskiy et al., "Mechanism of the Innovation Development in the University," 2020, https://doi.org/10.2991/aebmr.k.200312.296.

[4] Fiona Boyle et al., "Innovating Engineering Education at Greenfield Sites: Transferable Insights from Doblin's Model of Innovation," in *Proceedings - Frontiers in Education Conference, FIE*, vol. 2022-October, 2022, https://doi.org/10.1109/FIE56618.2022.9962702.

To date, higher education institutions, which are the hope of the broader society, have not maximized their roles.[5] This is because not many innovative efforts have been made, making learning seem routine, unchallenging, and uninteresting.[6] Several factors contribute to this, including the low level of research conducted by lecturers, resulting in the knowledge taught to students remaining stagnant, with no new discoveries to discuss. Furthermore, community service activities are very minimal, causing the topics discussed in learning to be disconnected from the development of real-world issues.

This situation is a clear indication that the performance of higher education institutions, including Islamic Religious Higher Education Institutions (PTKI; both public and private), is facing fundamental issues regarding the quality of graduates. The high number of educated unemployment is evidence of the low quality of education, which is a result of the lack of breakthroughs and innovations. In fact, the professionalism of graduates in applying their knowledge is a key factor in the nation's competitiveness. The decline in the nation's economy is due to the poor quality of human resources managing economic resources.

Among all Islamic Religious Higher Education Institutions (PTKI) in Madura, Universitas Annuqayah and the State Islamic Institute of Madura (IAIN Madura) were chosen as the subjects of this research. Universitas Annuqayah, as a private PTKI rooted in pesantren tradition, has managed to develop well despite its various limitations. In 2022, Instika (prior to transitioning to Universitas Annuqayah) received an award from Kopertais IV Surabaya as the best institution in the Institutional Accreditation category with a "Very Good" rating. Additionally, Universitas Annuqayah also has two study programs with "Excellent" accreditation. These achievements are undoubtedly the result of innovations developed by the institution, which have elevated its competitive edge.

Meanwhile, IAIN Madura stands as the only PTKIN (public Islamic religious higher education institution) in Madura. Naturally, PTKINs have more resources and facilities compared to private PTKIs. Thus, it can be expected that PTKINs are able to develop more rapidly and in a more structured manner than PTKIS, which often face challenges related to funding and facilities. However, both Instika and IAIN Madura have been able to grow in parallel;

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[5] Nurul Hidayah, "Islamic Education Policy in the New Order Era," *Jurnal Belajea: Jurnal Pendidikan Islam* 9, no. 1 (2024): 1–12, https://doi.org/10.29240/belajea.v9i1.4202.

[6] Jue Wang, "Construction of the Integration Mode of Mass Entrepreneurship and Innovation Teaching and Practice in Local Universities," *International Journal of Educational Curriculum Management and Research* 4, no. 3 (2023), https://doi.org/10.38007/ijecmr.2023.040303.

with their distinct characteristics and traits, these two PTKIs seem to have a unique place in society, consistently becoming the top choice for the community.

This reality has sparked the researcher's desire to deeply examine the development efforts related to innovation management carried out by these two PTKIs, focusing on: how innovation concepts are formulated to create a competitive advantage, what strategies are employed in the implementation of the Doblin Innovation Model, and how the Doblin Innovation Model impacts the formulation of competitive advantage at PTKIs (IAIN Madura and Instika Sumenep) in building brand image as a distinguishing characteristic from other institutions.

The urgency of this research lies in the fact that many universities in Indonesia still focus on product and service innovation without paying attention to other equally important dimensions, such as process, system, and network innovation. With the increasing challenges and competition faced, universities need to adopt a more comprehensive and strategic approach to innovation in order to maintain their existence. The application of the Doblin Innovation Model in higher education can be a solution to this need, as it provides comprehensive guidance in formulating innovations across various crucial aspects of educational institutions.

Moreover, research related to the application of the Doblin Innovation Model in the context of higher education is still very limited, particularly in Indonesia. In fact, a deep understanding of how such innovation can be effectively implemented is greatly needed to help universities overcome various challenges, both in terms of competition and adaptation to changes in the external environment. Therefore, this research is expected to make a significant contribution to the literature on innovation in higher education.

The novelty of this research lies in the application of the Doblin Innovation Model, which is specifically focused on higher education a topic that has not been widely explored in previous research, especially in Indonesia. By identifying how each dimension of innovation in this model can be applied in the context of higher education, this study aims to provide a new perspective that can enrich innovation strategies in universities.

The purpose of this research is to analyze the implementation of the Doblin Innovation Model in strengthening the competitive advantage of universities. Through an in-depth analysis, this study will explore how innovations across various operational dimensions of universities can impact institutional competitiveness in the long term. Therefore, the benefit of this research is to provide strategic recommendations for universities in designing

and implementing more comprehensive and effective innovations. As a result, the findings of this research are expected to help universities become more adaptive, innovative, and superior in facing future challenges.

RESEARCH METHODOLOGY

This research employs a qualitative descriptive design with a case study approach. This design was chosen to provide a deep understanding of the implementation of the Doblin Innovation Model in higher education and how such innovations contribute to strengthening competitive advantage. This approach allows the researcher to comprehensively explore phenomena through observation, in-depth interviews, and document analysis, so the findings can describe real conditions in the field in a detailed and contextual manner.

The data used in this study consist of both primary and secondary data. Primary data were obtained through in-depth interviews with key individuals involved in strategic decision-making and innovation implementation at the universities, such as institutional leaders, lecturers, and management staff. Meanwhile, secondary data were collected from internal university documents, annual reports, quality audit results, and publications related to innovation strategies in higher education. The combination of primary and secondary data is expected to provide a more comprehensive picture of the application of the Doblin Innovation Model.

The data analysis technique used in this study is thematic analysis, where data obtained from interviews and documents are analyzed by identifying key themes that align with the ten dimensions of innovation in the Doblin Innovation Model. The data will be processed through data reduction, categorization, and interpretation to generate relevant findings. Each innovation dimension will be analyzed in depth to determine its contribution to the competitive advantage of the universities under study. The analysis will be conducted iteratively until significant patterns and relationships between innovation implementation and institutional competitiveness are found.

The research begins with the preparation stage, which includes gathering literature related to the Doblin Innovation Model and innovation strategies in higher education.[7] Following this, the researcher conducts initial observations to gain a general overview of the innovation conditions at the universities being studied. The next stage involves data collection through interviews and document analysis. Once the data is collected, the researcher will conduct an in-

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[7] Sungguh Ponten Pranata, "Digital Literacy, Skills, and Security: Impact on Digital Leadership in Higher Education," *Al-Tanzim: Jurnal Manajemen Pendidikan Islam* 8, no. 3 (2024): 775–91.

depth thematic analysis, where the categorized data will be analyzed to identify relationships between the implemented innovations and competitive advantage. The results of the analysis will then be presented in a report that illustrates the holistic implementation of the Doblin Innovation Model, along with strategic recommendations for universities in the future.

RESUL AND DISCUSSIONS

Competitive Advantage in Islamic Religious Higher Education Institutions in Madura

Competitiveness has become a crucial aspect in the development of higher education institutions worldwide. Amid rapid globalization, universities are required not only to compete locally but also at national and international levels.[8] The increasing mobility of students, cross-border collaborations, and competition to achieve higher rankings in various world university rankings push higher education institutions to continuously improve their quality and innovation. Institutions with strong competitiveness are more capable of attracting top students, securing research grants, and forging strategic partnerships with other institutions.

Competitiveness in higher education can be viewed from various perspectives, including academic quality, research, and innovation.[9] Competitive universities tend to be more successful in producing graduates who are ready to face the challenges of the workforce and contribute to society.[10] Excellent teaching quality, relevant curricula, and state-of-the-art research facilities are the key benchmarks for strengthening competitiveness. The stronger the competitiveness of a university, the greater its opportunity to become a center of excellence in the development of science and technology.

Not only at the global level, but universities in Indonesia are also increasingly facing fierce competition. In the local context, each university

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[8] Samuel Ankrah and Omar Al-Tabbaa, "Universities–Industry Collaboration: A Systematic Review," *Scandinavian Journal of Management* 31, no. 3 (2015): 387–408, https://doi.org/10.1016/j.scaman.2015.02.003.

[9] Okni Aisa Mutiara Sendi and Eli Susanti, "Efektivitas Penggunaan Aplikasi Google Classroom Dalam Meningkatkan Kualitas Pembelajaran PAI Mahasiswa IAIN Curup Pada Masa Pandemi Covid-19," *Belajea: Jurnal Pendidikan Islam* 6, no. 2 (2021), https://doi.org/10.29240/belajea.v6i2.3097.

[10] Tom Hargreaves et al., "Grassroots Innovations in Community Energy: The Role of Intermediaries in Niche Development," *Global Environmental Change* 23, no. 5 (2013): 868–80, https://doi.org/10.1016/j.gloenvcha.2013.02.008.

competes to improve academic quality, expand collaboration networks,[11] and provide relevant and comprehensive learning experiences for its students. Universities that are unable to compete will lag behind, both in terms of human resource development and in their contribution to national development.[12] Therefore, every university must be able to innovate and adapt to the dynamic changes occurring in the world of education.

Strong competitiveness also provides advantages for universities in terms of reputation. Universities recognized as superior tend to have a good reputation among academics, prospective students, and industries.[13] This reputation, in turn, will attract more interest from potential students and open opportunities for collaboration with industry and other academic institutions.[14] A strong reputation not only benefits the university itself but also its graduates, as they will be seen as quality graduates with high bargaining power in the labor market.

Universitas Annuqayah, as one of the Islamic higher education institutions in Madura, possesses a unique competitive advantage based on the integration of pesantren traditions with modern Islamic scholarship. As a pesantren-based university, Universitas Annuqayah emphasizes holistic education, which not only includes religious sciences but also modern knowledge relevant to contemporary needs. This integration enables students to gain a comprehensive understanding of Islamic teachings while acquiring the skills needed to adapt and compete in an increasingly complex world. This distinctive feature provides added value to Annuqayah in producing graduates who excel in Islamic scholarship and are prepared to face global challenges.

The strength of Universitas Annuqayah also lies in its pesantren-based educational approach, where character education and morality are the main focus. In the pesantren environment, which strictly upholds Islamic values, students not only acquire knowledge but are also trained to develop strong character and high moral integrity. This makes Annuqayah graduates highly

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[11] Muhammad Idris, "Pendidikan Islam Dan Era Society 5.0 ; Peluang Dan Tantangan Bagi Mahasiswa PAI Menjadi Guru Berkarakter," *Belajea: Jurnal Pendidikan Islam* 7, no. 1 (2022), https://doi.org/10.29240/belajea.v7i1.4159.

[12] Vinit Parida et al., "Managing the Front-End Phase of Process Innovation Under Conditions of High Uncertainty," *Quality & Quantity* 51, no. 5 (2016): 1983–2000, https://doi.org/10.1007/s11135-016-0376-4.

[13] Krasovskiy et al., "Mechanism of the Innovation Development in the University."

[14] Romana Rauter et al., "Open Innovation and Its Effects on Economic and Sustainability Innovation Performance," *Journal of Innovation & Knowledge* 4, no. 4 (2019): 226–33, https://doi.org/10.1016/j.jik.2018.03.004.

competitive in the religious field, recognized not only locally but also in various national forums.

On the other hand, IAIN Madura carries a different but complementary mission in the landscape of Islamic higher education in Madura. IAIN Madura aims to be a professionally strong and competitive institution, with a focus on applying local wisdom values. The local wisdom in Madura, deeply rooted in Islamic traditions and local customs, forms the foundation of curriculum development and teaching methods at IAIN Madura. This gives the institution a unique edge in producing graduates who can bridge local traditions with global demands. This approach strengthens IAIN Madura's position as an institution that not only emphasizes academics but also fosters the development of social and cultural values unique to Madura.

Additionally, IAIN Madura strives to enhance its competitiveness by adopting professional practices in campus management, program development, and improving the quality of faculty and facilities. With this strategy, IAIN Madura has become one of the leading Islamic higher education institutions in Madura, capable of competing nationally while maintaining its strong local identity. The combination of Islamic values, local wisdom, and professionalism makes IAIN Madura one of the institutions with significant competitive advantages in the Madura region.

Thus, Universitas Annuqayah and IAIN Madura each have their own competitive advantages built on their respective identities and missions. Universitas Annuqayah excels with its integration of pesantren-based scholarship, while IAIN Madura thrives on the synergy between local wisdom and professional modernity. These unique qualities position them strategically in producing graduates capable of meeting both local and global challenges.

Implementation of the Doblin Innovation Model at PTKI in Madura

Implementation of Innovation Management begins with the development of a long-term plan, established as the institution's grand vision, which is then documented as a Master Development Plan (RIP) applicable for the next 20-25 years.[15] This plan serves as the primary foundation for the institution's development, ensuring that the various flagship programs formulated are sustainable and lead the institution toward its envisioned Vision and Mission.

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[15] Min Lv et al., "Improving Education for Innovation and Entrepreneurship in Chinese Technical Universities: A Quest for Building a Sustainable Framework," *Sustainability* 14, no. 2 (2022): 595, https://doi.org/10.3390/su14020595.

Based on the RIP, the two institutions formulate a Strategic Plan (Renstra) that is valid for 5 years. The Strategic Plan includes a series of more technical and detailed activities with achievement indicators that the institution must reach, also serving as a basis for evaluating the level of achievement or target goals.[16] On the other hand, innovation is the driving force in institutional development, especially as needs and challenges of the times continue to evolve unpredictably.[17] However, how innovation is implemented, what form it will take, and where educational innovation will begin, must be well-formulated. Innovation is not only a necessity but a requirement for higher education institutions to keep pace with the increasingly diverse problems of society.

Innovation must be derived from the character and grand vision outlined in the institution's Vision and Mission, then formulated in the Master Development Plan (RIP) for the next 20 or 25 years, and further defined in the Strategic Plan (Renstra), which is implemented and evaluated every 5 years to assess the level of achievement of the planned innovations. In addition, before formulating the innovation activities to be implemented, a thorough analysis of needs, challenges, and the environmental conditions to be faced in the future is conducted.

Innovation requires meticulous planning and preparation, and during its implementation, it is essential to align perceptions about its importance and how it should be executed.[18][19] Planning is a crucial part of determining the success of innovation activities. Changes made without planning are unlikely to succeed and may even worsen the situation.[20]

The implementation of the Doblin innovation model applied at both universities is described as follows:

1. Network Model

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[16] Ran Li, "Research on the Influence of Deep Integration of Industry-University-Research on Enterprise Intellectual Capital—A Case Study of the Yangtze River Economic Belt," *American Journal of Industrial and Business Management* 13, no. 03 (2023): 154–62, https://doi.org/10.4236/ajibm.2023.133011.

[17] Muh Syauqi Malik and Maslahah Maslahah, "Revitalization of the Concept of Educational Axiology: Perspectives of Islamic Philosophy," *Belajea: Jurnal Pendidikan Islam* 6, no. 2 (2021), https://doi.org/10.29240/belajea.v6i2.2590.

[18] Vika Kartikasari et al., "Humanistic Approach in Islamic Religious Education Curriculum Development," *Jurnal Belajea: Jurnal Pendidikan Islam* 8, no. 2 (2023), https://doi.org/10.29240/belajea.v.

[19] Parida et al., "Managing the Front-End Phase of Process Innovation Under Conditions of High Uncertainty."

[20] Yang Yan, "Exploration and Practice of Maker Education Mode in Innovation and Entrepreneurship Education," *Frontiers in Psychology* 11 (2020), https://doi.org/10.3389/fpsyg.2020.01626.

One of the ten dimensions of innovation in the Doblin Innovation Model is Network, which emphasizes the importance of collaboration and strategic partnerships with external parties to strengthen an organization's competitiveness. In the context of Islamic Religious Higher Education Institutions (PTKI) in Madura, namely Universitas Annuqayah and IAIN Madura, the network dimension becomes a crucial element supporting institutional development. Both PTKIs apply networking strategies differently, yet they both utilize them to strengthen their positions in facing local, national, and global competition.

Universitas Annuqayah, as a pesantren-based campus, excels in building strong networks with various religious institutions, both nationally and internationally. Through an extensive network with pesantren, Islamic educational institutions, and other religious organizations, Universitas Annuqayah has been able to broaden its access to intellectual and spiritual resources. Jong explains that this collaboration not only aids in the exchange of ideas and knowledge but also opens opportunities to develop educational programs based on the rich Islamic tradition, making this campus a significant center for Islamic scholarly studies.[21]

Additionally, Universitas Annuqayah is actively building networks with other universities in Indonesia and abroad to strengthen academic competencies. Partnerships with international Islamic universities, such as those in the Middle East and Southeast Asia, enrich academic content and provide opportunities for students and faculty to engage in student exchanges and collaborative research. This network gives Annuqayah a competitive advantage, as its graduates not only have a strong academic foundation but also diverse academic experiences through interactions with the global scholarly community.

On the other hand, IAIN Madura employs a broader networking approach by leveraging local wisdom as capital to build partnerships with various local stakeholders. IAIN Madura has successfully established close relationships with local government, traditional institutions, and the Madura community to enhance the relevance of the education they offer. Through this network, IAIN Madura integrates local wisdom into curriculum development and research, thereby increasing the appeal and relevance of its academic programs to the local community.

The strategic partnership of IAIN Madura with local government also provides significant support in terms of infrastructure development, research,

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[21] Jörg Weking et al., "Practices for Open Business Model Innovation – An Innomediaries Perspective," 2020, 859–74, https://doi.org/10.30844/wi_2020_h6-weking.

and community service. In the long term, this network enables IAIN Madura to become an excellence center in local cultural and Islamic studies, while also strengthening its role in regional development. Additionally, IAIN Madura is actively building networks with other higher education institutions, both domestically and internationally, to improve academic quality and international collaboration opportunities.

2. Structural Model

In the context of Universitas Annuqayah and IAIN Madura, the application of the Doblin Innovation Model with a focus on the structure dimension plays a crucial role in enhancing institutional competitiveness. Structural innovation refers to how an organization is organized, including resource management, internal management, and governance arrangements to support more efficient and adaptive operations. For both Islamic Religious Higher Education Institutions (PTKI), implementing innovative structures is essential for maintaining sustainability, relevance, and excellence amidst increasing competition.

At Universitas Annuqayah, innovation in organizational structure is reflected in the close synergy between pesantren-based management and modern academic management. As a pesantren-based campus, Universitas Annuqayah integrates traditional management systems based on pesantren hierarchies with a more structured and performance-based academic management model. This innovation allows for quicker and more accurate decision-making at the leadership level, both in terms of Islamic scholarly aspects and academic operations. The structure also provides space for collaboration between pesantren managers and academics in creating policies that support student development from both spiritual and academic perspectives.

Additionally, Universitas Annuqayah employs a flexible organizational structure to adapt to changes and demands of the times. By continually adding new faculties and study programs that are relevant, and encouraging collaboration between units, Universitas Annuqayah can respond to the dynamic needs of the education market. This structural innovation is also evident in the achievement-based monitoring and evaluation system, which allows the university to continually improve based on feedback from various stakeholders, including students and the community.

Meanwhile, IAIN Madura stands out in implementing structural innovation that blends local wisdom values with modern higher education management. IAIN Madura organizes its institutional structure in a way that allows each faculty and department to run programs aligned with the culture and

traditions of Madura, while still meeting national professional standards. This arrangement not only supports the achievement of the institution's vision and mission but also strengthens IAIN Madura's position as a relevant higher education institution for the Madura community, both academically and culturally.

The organizational structure at IAIN Madura is also designed to support synergy among various study programs in integrating local wisdom and professionalism. Each faculty and study program is given autonomy to develop curricula and academic activities that respond to local needs while being guided by the institution's broader vision to produce graduates who are competitive at the national level. This structural innovation also allows IAIN Madura to diversify its resources, including enhancing access to external funding from both government and private sectors, which further strengthens its competitiveness.

3. Service Model

The Doblin Innovation Model enables higher education institutions to adopt innovative approaches in various services, including academic and non-academic services. In the context of Islamic Religious Higher Education Institutions (PTKI) such as Universitas Annuqayah and IAIN Madura, service innovation becomes a key aspect in enhancing their competitiveness. The services developed at both institutions not only improve the student experience but also increase operational efficiency, transparency, and connectivity among the academic community.

At Universitas Annuqayah, academic and administrative services have been reinforced through the development of the Academic Information System (SIAKAD). This system facilitates students' access to information related to class schedules, grades, and other academic administration in real-time. Additionally, the Student Information System (SIM) helps manage student data in a more structured manner, thus streamlining academic services. In terms of human resources services, Universitas Annuqayah has also implemented the Human Resource Information System (SIMPEG), which allows for more efficient management of lecturer and educational staff data. This service is supported by the Financial Information System (SIMKEU) to ensure transparency and accountability in financial management.

Another system that enhances service innovation at Universitas Annuqayah is the Facilities and Infrastructure Information System (SIMSARPRAS), which ensures effective management of campus facilities. During the new student admission process, service innovation is also applied through the Online New Student Admission System (SPMB Online), which allows prospective students to apply online without having to visit the campus.

This innovation increases accessibility for prospective students from various regions. Furthermore, Universitas Annuqayah also provides digital library services through the Library Information System (SILIB), which facilitates access to academic reading materials.

Technology-based services are increasingly important to optimize.[22] In this regard, Universitas Annuqayah applies it in broader contexts such as Tracer Studies, which help the university track and monitor graduates to understand the relationship between educational programs and job readiness. Online Graduation Services (WISON) are also implemented to provide convenience for students during the graduation process, especially during the pandemic.[23] Other digital-based services such as the official website, E-Journals, and various online learning platforms like Zoom Meeting, EDMODO, Google Meet, and Teleconferencing are crucial in supporting the teaching and learning process, particularly during the pandemic.

At IAIN Madura, similar service innovations are also applied to enhance the quality of education and academic services. The use of the Academic Information System (SIAKAD) and Online New Student Admission System (SPMB Online) speeds up administrative processes and ensures efficiency in managing student data. Systems such as SIMPEG and SIMKEU are also implemented to support transparent and structured management of human resources and finances. Additionally, IAIN Madura provides students with access to online classes through various platforms such as Zoom Meeting, Google Meet, and Teleconferencing, making learning more flexible and responsive to students' needs.

Thus, the implementation of the Doblin Innovation Model in services at Islamic Religious Higher Education Institutions (PTKI) in Madura demonstrates how innovation can significantly contribute to enhancing the competitiveness of higher education institutions. Through the application of various technology-based systems, ranging from the Academic Information System (SIAKAD), Human Resource Information System (SIMPEG), to online services such as Online New Student Admission (SPMB Online), Online Classes, and Online Graduation Services (WISON), both institutions have

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[22] Endroyono Endroyono et al., "Inovasi SIEC-ITS Dalam Implementasi Teknologi Informasi Dan [Tele]Komunikasi Mendukung Framework Smart-City Yang Berkelanjutan," *IPTEK Journal of Proceedings Series* 0, no. 1 (2017), https://doi.org/10.12962/j23546026.y2018i1.3335.

[23] Siti Rohmaturrosyidah Ratnawati and Wilis Werdiningsih, "Pemanfaatan E-Learning Sebagai Inovasi Media Pembelajaran PAI Di Era Revolusi Industri 4.0," *Belajea; Jurnal Pendidikan Islam* 5, no. 2 (2020), https://doi.org/10.29240/belajea.v5i2.1429.

successfully provided services that are more efficient, transparent, and responsive to the needs of students and the entire academic community.

Universitas Annuqayah stands out with its pesantren-based services integrated with modern technology, while IAIN Madura emphasizes local wisdom and professionalism in service innovation. Both PTKIs have implemented service models that prioritize student satisfaction and engagement, aligning with one of the key elements of the Doblin Innovation Model, which is customer engagement. The service innovations implemented based on the Doblin Innovation Model provide significant added value for PTKI in Madura. This not only supports the enhancement of academic and administrative quality but also strengthens their position as competitive educational institutions at both local and national levels. This innovation model also opens opportunities for both PTKIs to continually adapt and innovate in response to future challenges, especially in the era of digitalization and globalization of education.

Supporting and Hindering Factors in the Implementation of Innovation at PTKI in Madura

The implementation of innovation at Islamic Religious Higher Education Institutions (PTKI) in Madura, such as Universitas Annuqayah and IAIN Madura, faces various supporting and hindering factors that affect its success. Supporting factors play a crucial role in ensuring that innovation can be effectively applied, while hindering factors need to be addressed to optimize the implementation of these innovations.

One of the primary supporting factors is the commitment of the higher education institution's leadership to support innovation. At Universitas Annuqayah and IAIN Madura, support from the rectors and faculty leaders is key in driving change. This commitment is reflected in the allocation of adequate resources, including funding, policies, and the provision of technological infrastructure that supports innovation implementation, such as the development of Academic Information Systems (SIAKAD) and online services. This support allows innovations to be implemented more quickly and comprehensively across the campus environment.

Additionally, Gudem explains that the availability of advancing technology is also a major supporting factor.[24] Access to advanced information technology, both in terms of hardware and software, facilitates the implementation of systems such as Online New Student Admission (SPMB

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[24] Martin Gudem and Torgeir Welo, "From Lean Product Development to Lean Innovation: Finding Better Ways of Satisfying Customer Value," in *Advanced Concurrent Engineering*, 2010, https://doi.org/10.1007/978-0-85729-024-3_34.

Online), Online Graduation Services (WISON), and online learning platforms like Zoom, Google Meet, and EDMODO. The adoption of appropriate technology makes academic services more efficient and flexible, especially during the pandemic when learning had to shift online.

An organizational culture that is open to change among faculty, staff, and students is also a crucial element supporting the success of innovation. At PTKIs like Universitas Annuqayah, which is pesantren-based, there is openness to integrating religious traditions with technological innovations. This creates a synergy between traditional Islamic scholarship and modern learning systems, which is one of the advantages of PTKIs in Madura.

On the other hand, there are several hindering factors that can slow down or obstruct the implementation of innovation at PTKIs. One major hindering factor is the limited technological infrastructure in the region. Given that Madura is still considered a region with less optimized technological infrastructure compared to major cities, issues such as limited access to stable and fast internet often become obstacles for students and faculty in accessing online services. This can reduce the effectiveness of implementing innovations such as online classes and digital information systems.

Furthermore, the limited human resources (HR) skilled in technology also presents a challenge. Not all faculty and staff have adequate skills in using new technologies, which necessitates specialized training to improve their ability to operate newly implemented digital systems. The lack of sufficient training can slow down the adoption of innovations and make the transition process more difficult.

Another factor that can hinder the implementation of innovation is resistance to change. Although there is an open culture, some segments of the higher education institution, especially those accustomed to conventional systems, may show resistance to the adoption of new technologies. They may feel more comfortable with old methods and may not quickly adapt to the changes introduced by innovation. In this context, effective socialization and continuous capacity development become crucial to overcoming this barrier.

To address the aforementioned hindering factors, comprehensive development of resources becomes essential. One important step is to provide training and development for faculty and staff to enhance their skills in using the latest technology and innovative teaching methods. Additionally, investing in technological infrastructure and facilities that support innovation is crucial for creating an environment conducive to change.

Thus, the success of innovation implementation at PTKI in Madura depends on how well supporting factors, such as leadership commitment, availability of technology, and an open organizational culture, are maximized. On the other hand, hindering factors such as limited infrastructure, human resources, and resistance to change must be addressed with appropriate strategies to ensure that innovation can be implemented optimally and benefit the entire academic community.

CONCLUSION

This study discusses the application of the Doblin Innovation Model to strengthen competitive advantages at Islamic Religious Higher Education Institutions (PTKI) in Madura. The research aims to analyze how innovations across various operational dimensions can impact the long-term competitiveness of these institutions. The method used is qualitative descriptive with a case study approach, involving the collection of primary data through in-depth interviews and secondary data from internal documents. Data analysis is conducted using thematic analysis techniques to identify key themes related to the dimensions of innovation in the Doblin Model.

The findings indicate that the success of innovation implementation highly depends on supporting factors such as leadership commitment, availability of technology, and an open organizational culture, as well as challenges like limited infrastructure and resistance to change. The implementation of innovation at Universitas Annuqayah and IAIN Madura includes several important dimensions of the Doblin Innovation Model, including the network model, the structure model, and the service model. Therefore, this study is expected to provide strategic recommendations and advice for higher education institutions in designing and implementing more comprehensive and effective innovations, enabling them to be more adaptive and competitive in facing future challenges at both local and global levels.

REFERENCES

Ankrah, Samuel, and Omar Al-Tabbaa. "Universities–Industry Collaboration: A Systematic Review." *Scandinavian Journal of Management* 31, no. 3 (2015): 387–408. https://doi.org/10.1016/j.scaman.2015.02.003.

Anna, Vetkina, Kudryashova Tatyana, Oxana Fikhtner, Trifonov Vladimir, and Zhukova Elena. "The Innovative Potential of Digital Transformation of the Russian Higher Education System: Trends of the Competence Approach," 2018. https://doi.org/10.2991/ictppfms-18.2018.35.

Boyle, Fiona, Roger Hadgraft, Euan Lindsay, and Ron Ulseth. "Innovating

Engineering Education at Greenfield Sites: Transferable Insights from Doblin's Model of Innovation." In *Proceedings - Frontiers in Education Conference, FIE*, Vol. 2022-October, 2022. https://doi.org/10.1109/FIE56618.2022.9962702.

Endroyono, Endroyono, Achmad Affandi, Eko Setijadi, Gatot Kusrahardjo, and Djoko Suprajitno. "Inovasi SIEC-ITS Dalam Implementasi Teknologi Informasi Dan [Tele]Komunikasi Mendukung Framework Smart-City Yang Berkelanjutan." *IPTEK Journal of Proceedings Series* 0, no. 1 (2017). https://doi.org/10.12962/j23546026.y2018i1.3335.

Gudem, Martin, and Torgeir Welo. "From Lean Product Development to Lean Innovation: Finding Better Ways of Satisfying Customer Value." In *Advanced Concurrent Engineering*, 2010. https://doi.org/10.1007/978-0-85729-024-3_34.

Hargreaves, Tom, Sabine Hielscher, Gill Seyfang, and Adrian Smith. "Grassroots Innovations in Community Energy: The Role of Intermediaries in Niche Development." *Global Environmental Change* 23, no. 5 (2013): 868–80. https://doi.org/10.1016/j.gloenvcha.2013.02.008.

Hidayah, Nurul. "Islamic Education Policy in the New Order Era." *Jurnal Belajea: Jurnal Pendidikan Islam* 9, no. 1 (2024): 1–12. https://doi.org/10.29240/belajea.v9i1.4202.

Idris, Muhammad. "Pendidikan Islam Dan Era Society 5.0 ; Peluang Dan Tantangan Bagi Mahasiswa PAI Menjadi Guru Berkarakter." *Belajea: Jurnal Pendidikan Islam* 7, no. 1 (2022). https://doi.org/10.29240/belajea.v7i1.4159.

Kartikasari, Vika, Hasan Basri, Nur Zakiyah, and Abd Razak Zakaria. "Humanistic Approach in Islamic Religious Education Curriculum Development." *Jurnal Belajea: Jurnal Pendidikan Islam* 8, no. 2 (2023). https://doi.org/10.29240/belajea.v.

Krasovskiy, I N, V P Pilyavski, Snezhana P Shendrikova, and M V Nazrieva. "Mechanism of the Innovation Development in the University," 2020. https://doi.org/10.2991/aebmr.k.200312.296.

Li, Ran. "Research on the Influence of Deep Integration of Industry-University-Research on Enterprise Intellectual Capital—A Case Study of the Yangtze River Economic Belt." *American Journal of Industrial and Business Management* 13, no. 03 (2023): 154–62. https://doi.org/10.4236/ajibm.2023.133011.

Lv, Min, Zhang Hong, Paul Georgescu, Li T Tan, and Bing Zhang. "Improving Education for Innovation and Entrepreneurship in Chinese Technical Universities: A Quest for Building a Sustainable Framework." *Sustainability* 14, no. 2 (2022): 595. https://doi.org/10.3390/su14020595.

Malik, Muh Syauqi, and Maslahah Maslahah. "Revitalization of the Concept of Educational Axiology: Perspectives of Islamic Philosophy." *Belajea: Jurnal Pendidikan Islam* 6, no. 2 (2021). https://doi.org/10.29240/belajea.v6i2.2590.

Parida, Vinit, Pankaj C Patel, Johan Frishammar, and Joakim Wincent. "Managing the Front-End Phase of Process Innovation Under Conditions of High Uncertainty." *Quality & Quantity* 51, no. 5 (2016): 1983–2000. https://doi.org/10.1007/s11135-016-0376-4.

Pranata, Sungguh Ponten. "Digital Literacy, Skills, and Security: Impact on Digital Leadership in Higher Education." *Al-Tanzim: Jurnal Manajemen Pendidikan Islam* 8, no. 3 (2024): 775–91.

Ratnawati, Siti Rohmaturrosyidah, and Wilis Werdiningsih. "Pemanfaatan E-Learning Sebagai Inovasi Media Pembelajaran PAI Di Era Revolusi Industri 4.0." *Belajea; Jurnal Pendidikan Islam* 5, no. 2 (2020). https://doi.org/10.29240/belajea.v5i2.1429.

Rauter, Romana, Dietfried Globocnik, Elke Perl-Vorbach, and Rupert J Baumgartner. "Open Innovation and Its Effects on Economic and Sustainability Innovation Performance." *Journal of Innovation & Knowledge* 4, no. 4 (2019): 226–33. https://doi.org/10.1016/j.jik.2018.03.004.

Rofiqi, Ah. Zakki Fuad, and M. Yunus Abu Bakar. "The Contribution of Azyumardi Azra's Thoughts and Its Implications to the Construction of Islamic Education." *FIKROTUNA; Jurnal Pendidikan Dan Manajemen Islam* 17, no. 1 (2023).

Sendi, Okni Aisa Mutiara, and Eli Susanti. "Efektivitas Penggunaan Aplikasi Google Classroom Dalam Meningkatkan Kualitas Pembelajaran PAI Mahasiswa IAIN Curup Pada Masa Pandemi Covid-19." *Belajea: Jurnal Pendidikan Islam* 6, no. 2 (2021). https://doi.org/10.29240/belajea.v6i2.3097.

Wang, Jue. "Construction of the Integration Mode of Mass Entrepreneurship and Innovation Teaching and Practice in Local Universities." *International Journal of Educational Curriculum Management and Research* 4, no. 3 (2023). https://doi.org/10.38007/ijecmr.2023.040303.

Weking, Jörg, Janes Lupberger, Sebastian Hermes, Andreas Hein, Markus Böhm, and Helmut Krcmar. "Practices for Open Business Model Innovation – An Innomediaries Perspective," 2020, 859–74. https://doi.org/10.30844/wi_2020_h6-weking.

Yan, Yang. "Exploration and Practice of Maker Education Mode in Innovation and Entrepreneurship Education." *Frontiers in Psychology* 11 (2020). https://doi.org/10.3389/fpsyg.2020.01626.