

# Simkah 4.0 From The Perspective of Tam: The Dilemma of Technology and Digital Pedagogy Integration for Office of Religious Affairs

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## ABSTRACT

Digital curriculum innovation within the scope of the Ministry of Religious Affairs in the Office of Religious Affairs (KUA) refers to a technology-based learning framework to improve the quality of public services in the religious field, including premarital counseling and digital literacy. This qualitative study analyzes the challenges of technology integration in the public education ecosystem through a case study of the acceptance of SIMKAH 4.0 (the Ministry of Religious Affairs' digital innovation) by Marriage Registrars (PPN) or Penghulu. This study uses the Technology Acceptance Model (TAM) framework, specifically Perceived Usefulness (PU) and Perceived Ease of Use (PEOU), to identify functional barriers that affect the educational role of Penghulu. The case study was conducted in Hulu Sungai Utara, South Kalimantan, through in-depth interviews. Informants were selected based on their willingness, good technical mastery of SIMKAH, and direct involvement in public service interactions. Interviews were conducted with the Head of the Sungai Tabukan OFFICE OF RELIGIOUS AFFAIRS and a staff at member Office Of Religious Affairs (KUA) Banua Lawas employees as key informants. The findings show a dilemma of high SIMKAH PU integration (administrative efficiency) but low PEOU among senior staff and the public. Low public PEOU forced the Office Of Religious Affairs (KUA) to take over data input, which significantly eroded the Penghulu's time for Digital Pedagogy tasks (premarital guidance). The success of technology integration is highly dependent on the implementation of a systematic Digital Curriculum Model to bridge the literacy gap. The result is the formulation of a strategic Digital Curriculum Model for Office Of Religious Affairs (KUA) to ensure that SIMKAH 4.0 fully supports Educational Transformation in marriage services.

**Keywords:** *Digital Literacy, Digital Pedagogy, Office of Religious Affairs (KUA), SIMKAH 4.0, Technology Acceptance Model (TAM).*

## 1. INTRODUCTION

Digitalization in the integration of technology in public education in Indonesia continues to accelerate its digital transformation as a fundamental effort to improve the efficiency and transparency of public services. At the Ministry of Religious Affairs (Kemenag), this effort is realized through the modernization of marriage registration services with the Marriage Management Information System (SIMKAH) 4.0, which was launched simultaneously in 2019. SIMKAH 4.0 serves as the backbone of the Ministry of Religious Affairs' technology regarding marriage administration.

The application of this advanced technology not only brings introduces administrative changes but also requires a review of the Digital Curriculum and Pedagogy Model that has been attached to the role of Marriage Registrar (PPN) or Penghulu. (Setiawan & Ma'ruf, 2022). The Penghulu has a critical dual role in the

Ministry of Religious Affairs' Public Education: as a Technology Administrator (responsible for input, verification, and reporting of SIMKAH) and as a Digital Educator (tasked with providing premarital guidance and counseling). The conflict between these two roles is evaluated using the Technology Acceptance Model (TAM) framework. TAM, which focuses on Perceived Usefulness (PU) and Perceived Ease of Use (PEOU), is relevant for measuring system acceptance and identifying whether SIMKAH 4.0 truly functions as an effective educational and administrative tool or actually hinders it.

The central problem often encountered is the digital divide and the urgency of the digital curriculum model of technological innovation promoted by SIMKAH 4.0 faces implementation challenges rooted in the problem of the digital literacy gap, which is a barrier to the integration of technology in public education. Although the system is structurally in place, its acceptance in the field raises the dilemma that high PU (system usefulness) is not followed by uniform PEOU (collective user acceptance) among users. Concerns about the low digital competence of senior Office of Religious Affairs (KUA) staff and the communities they serve have led to operational practices that are not in line with the system design.

This dilemma highlights the failure to formulate an appropriate Digital Curriculum Model for Ministry of Religious Affairs staff and the public. If advanced technology has been provided, but staff and the public do not have adequate training or curriculum to use it independently, then innovation will be hampered and the workload will shift to individuals who are already digitally literate. This is the core of the issue of educational transformation through innovative curricula in the digital age, which is the focus of this study: technology must be integrated with an effective training curriculum model in order to support the optimization of the educational role (Digital Pedagogy) of religious leaders. (Rusli & Harahap, 2024). Based on the above background, this study aims to:

1. Analyze the Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) of SIMKAH 4.0 in determining the level of system acceptance among Penghulu
2. Identify how the implementation of SIMKAH 4.0 creates an integration dilemma between the administrative role and the optimization of the Digital Pedagogy role of Office of Religious Affairs (KUA) or Penghulu
3. Formulate recommendations for a systematic Digital Curriculum Model for training Penghulu competencies in order to bridge the digital divide and ensure that Technology Integration fully supports their educational role

The pinnacle of this innovation was the simultaneous launch of SIMKAH Generation 4 (SIMKAH 4.0) in 2019. This system is designed to achieve high data accuracy, national data integration, and standardization of marriage administration processes throughout Indonesia, thereby ensuring the quality of Islamic Family Law services.

The implementation of SIMKAH 4.0 places Marriage Registrars (PPN) or Penghulu in a key position. They have a dual role: they are responsible for recording and verifying official documents (the technological administrative aspect) while also acting as educators and counselors tasked with providing guidance, advice, and coaching to prospective brides and grooms (the digital pedagogy aspect). This technological integration, although positive in its objectives, creates implementation challenges that require in-depth analysis. The main challenge is to ensure that the adoption of the new digital system does not erode, but rather supports and strengthens the educational role of the Penghulu. This dilemma is often exacerbated by significant digital competency gaps between older and younger Penghulu, resulting in low efficiency for some PPN. If the digital system requires excessive effort or is not perceived to be in line with holistic service performance improvements, it can create dilemmas and suboptimal outcomes, which are the focus of this study.

To analyze the acceptance of the system and this role conflict, this study uses the Technology Acceptance Model (TAM) framework. This model evaluates users' willingness to adopt technology based on two main factors, namely Perceived Usefulness (PU), which is the extent to which Penghulu believe that SIMKAH 4.0 improves work quality, and Perceived Ease of Use (PEOU). PEOU is the perception of the extent to which the Penghulu believes that using SIMKAH 4.0 will be effortless, easy to learn, and intuitive to operate.

By analyzing these two perceptions, it can be identified whether SIMKAH 4.0 is truly accepted as a solution for performance improvement or as an obstacle. Based on this background and theoretical framework, this study formulates the following core questions: First, to what extent do the Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) of SIMKAH 4.0 influence the level of acceptance and adoption of the system by Penghulu? Second, how does the implementation of SIMKAH 4.0 create a dilemma between administrative efficiency and the optimization of the Digital Pedagogy role carried out by Penghulu?

Finally, based on these issues, this study aims to analyze Penghulu's perceptions of PU and PEOU and identify how SIMKAH 4.0 affects the integration between the administrative role and the Digital Pedagogy tasks of Penghulu at the OFFICE OF RELIGIOUS AFFAIRS (Research Objective). This study concludes by formulating recommendations to improve the digital competence of Penghulu and ensure that SIMKAH 4.0 can be a catalyst for their educational role to be optimized.

## **2. METHODOLOGY**

### **2.1. Research Design**

This study employs a qualitative approach with an interpretive case study design to gain a deep understanding (thick description) of the perceptions and dilemmas faced

by Marriage Registrars regarding SIMKAH 4.0. The research focuses on the Technology Acceptance Model (TAM) framework, specifically Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). The study was conducted at the Office of Religious Affairs (KUA) in Sungai Tabukan and Banua Lawas, Hulu Sungai Utara.

## **2.2. Participants of the Study**

The main participants in this study were the Head of the Office Of Religious Affairs (KUA) and Marriage Registrar (PPN) or SIMKAH operator staff. The sampling technique used was purposive sampling, including informants who had direct experience and represented generational comparisons (digital gap). The participants interviewed in depth consisted of:

1. Informant AB, Head of the Sungai Tabukan Office Of Religious Affairs (KUA) or Penghulu
2. Informant D, a staff member at Office Of Religious Affairs (KUA) Banua Lawas (representing operations/the younger generation and system operator)

## **2.3. Instrument**

The main instrument in this qualitative study is the researcher himself (Human Instrument). Supporting instruments include Semi-structured Interview Guidelines designed to explore in depth the perceptions of PU and PEOU SIMKAH 4.0, the challenges of the digital divide, and the impact of the system on the pedagogical tasks of the Penghulu.

## **2.4. Data Analysis Techniques**

The data analysis technique used is Interactive Model Qualitative Data Analysis (Miles, Huberman, & Saldaaa). The stages of analysis include:

1. Data Reduction (sorting interview data relevant to PU, PEOU, and the Digital Curriculum Model)
2. Data Presentation (organizing findings into narratives and quotations)
3. Drawing Conclusions or Verification (interpreting findings to answer research questions, particularly regarding the dilemma of technology-pedagogy integration under the TAM framework)

## **3. RESULT AND DISCUSSION**

### **3.1 Acceptance of SIMKAH 4.0 in the Perspective of the Technology Acceptance Model (TAM): The Dilemma of High PU vs. Low PEOU**

The acceptance or registration of *catin* (prospective bride) by Marriage Registrar (PPN)/Pengkulu (religious leader) to the Marriage Management Information System (SIMKAH) 4.0 was analyzed using the Technology Acceptance Model (TAM)

framework, which is widely recognized for predicting the acceptance and use of information systems (Davis, 1989). This model focuses on two main cognitive variables: Perceived Usefulness (PU) or the user's belief that using SIMKAH 4.0 will improve their work performance in terms of speed, accuracy, and output quality, and Perceived Ease of Use (PEOU) or the user's belief that using SIMKAH 4.0 will not require much effort, is easy to learn, and is free from technical complications (Wicaksono, 2022). The use of the TAM model in the use of SIMKAH has been carried out in various regions (2024a). An analysis of the findings of the High PU vs. PEOU dilemma, which varied in analyzing the acceptance of SIMKAH 4.0 at the Sungai Tabukan Office Of Religious Affairs (KUA) and a staff at member Banua Lawas Office Of Religious Affairs (KUA), showed that there was a clear dichotomy in Hulu Sungai Utara Regency: PU was recognized as high, but PEOU varied at the implementation level, which then created operational dependence.

The implementation of SIMKAH 4.0 in various Religious Affairs Offices (KUA) consistently confirms the high value of Perceived Usefulness (PU) in terms of administrative efficiency. Other studies show that the functionality of SIMKAH extends beyond marriage, divorce, and reconciliation matters to include data collection on waqf. The success of this program is measured by the achievement of fast, secure, and comprehensive data management, in accordance with the demands of digital public services. Within the framework of the Ministry of Religious Affairs' Education Transformation, the optimization of administrative efficiency serves as a fundamental prerequisite for the goal of minimizing the burden of manual data entry for Penghulu. The time saved through SIMKAH's efficiency is allocated to maximize and implement Digital Pedagogy and develop a Digital Curriculum Model in pre-marriage counseling, thereby reinforcing the role of Penghulu as educators focused on the digital literacy of prospective brides and grooms (Juneldi & Sururie, 2020). This creates a real opportunity to optimize their Digital Pedagogy competencies, which include the use of features such as Digital Marriage Cards and online registration as an integral part of the Digital Curriculum Model in pre-marital counseling. (S. K. Wibowo et al., 2023).

Not only that, this system is fundamentally recognized as improving the efficiency and accuracy of marriage administration. The Head of the Sungai Tabukan Office Of Religious Affairs (KUA), informant AB, even considers this system to be very convenient, which indicates its successful adoption at the leadership level: "It is very convenient because: 1. Marriage data is stored securely, 2. The possibility of errors/mistakes in printing marriage certificates is minimal... 3. For marriage reports to the District Ministry of Religious Affairs, data can be obtained more quickly in Simkah without having to retype it." (informant AB, Head of the Sungai Tabukan Office Of Religious Affairs (KUA)). This benefit is supported by informant D, a staff Office Of Religious Affairs (KUA) Banua Lawas clerk, who emphasizes operational efficiency

because the system eliminates manual work, "It's so easy, it really makes it easier for the Office Of Religious Affairs (KUA) because we no longer have to write by hand." (D, a staff Office Of Religious Affairs (KUA) Banua Lawas clerk). This consensus confirms that technology has successfully addressed the aspect of improving administrative quality, consistent with findings from similar studies on the evaluation of SIMKAH (Mubaarok & Sutedi, 2023).

However, the critical point of this study lies in the varying PEOU among staff and external users, varying PEOU, and the failure of the Low Public PEOU Digital Curriculum Model: Limited digital understanding is evident in the reluctance of prospective brides and grooms to register independently. The head of the Sungai Tabukan Office Of Religious Affairs (KUA) revealed that even though the independent registration feature is available, "no Catin has ever registered independently." This indicates the failure of the Public Education Curriculum Model to improve the PEOU of the community, so that the burden of data input remains with Office Of Religious Affairs (KUA) officials.

On the other hand, the issue of SIMKAH's Perceived Ease of Use (PEOU) is not only rooted in the technical constraints of the Office Of Religious Affairs (KUA), but also in the problem of literacy and the digital divide among the community. The community tends to lack the initiative or motivation to access SIMKAH educational materials independently (e.g., through YouTube or the Office Of Religious Affairs (KUA) website), and even feels unconfident in using technology. This passive tendency causes the community to always wait for instructions from Paciran Subdistrict officers, instead of utilizing the independent online registration feature. This phenomenon underscores the failure of Digital Pedagogy at the public level. Structurally, this low public PEOU forces Office Of Religious Affairs (KUA) officials who should be focused on pre-marital counselling to divert their time back to administrative data entry tasks, which is at the heart of the dilemma of technology integration in public services. (2025).

PEOU low-level senior staff, informant D highlighted the risk of data errors among staff with low PEOU: "The thing is, the old folks can make mistakes, and they can also forget how to do things [if the older folks can click the wrong thing, and they can also forget how to do things]." This concern shows that the Ministry of Religious Affairs' Internal Training Curriculum Model has not been effective in addressing the digital generation gap in competencies, a common challenge in technology integration. (Sari & Hidayat, 2023)

The critical point of this research lies in the varying PEOUs, which creates an urgency to formulate an appropriate Digital Curriculum Model. This raises implementation dilemmas related to the collective digital understanding of the Office Of Religious Affairs (KUA). Although the leadership feels that the PEOU is high, they realize that this mandatory system requires careful handling. Limitations in digital

literacy are evident in the difficulties faced by PPN/senior staff and the reluctance of prospective brides and grooms (Catin) to register independently. The head of the Sungai Tabukan Office Of Religious Affairs (KUA) stated that marriage registration is mandatory through SIMKAH, but no Catin has ever registered independently, indicating low PEOU among the community, so the burden of data input remains with Office Of Religious Affairs (KUA) officials. Furthermore, informant Dina, a staff at the Banua Lawas Subdistrict Office Of Religious Affairs (KUA), highlighted the risk of data errors among senior staff with low PEOU: "The thing is, the old folks can make mistakes, and they can also forget how to do it [if the old folks can click the wrong button, and they can also forget how to do it]." (Informant D, a staff Office Of Religious Affairs (KUA) Banua Lawas). The limited PEOU among senior staff creates an important role for younger staff. D, who represents the younger/Z generation and has a high PEOU, acts as an intensive assistant to ensure data accuracy. This dependence arises because of the risk of typos, which requires checking data from A to Z, which is the main responsibility of the PPN Assistant: "If we are the ones handling the marriage registration, then the Office Of Religious Affairs (KUA) registers everything from A to Z, so if there are typos or incorrect data, we young people sometimes help, but the task remains with the seniors..." ( informant D, a staff Office Of Religious Affairs (KUA) Banua Lawas). This PEOU difference is a key finding. Although the leadership has successfully adopted it, the Office Of Religious Affairs (KUA) operational dependence on young staff with high PEOU to mitigate the risk of errors by staff with low PEOU threatens the effective time of staff. This escalates into a conflict between SIMKAH administrative data input tasks and Digital Pedagogy tasks.

This respondent is supported by a broader similar study on the analysis of SIMKAH Gen 4 user acceptance in the Office Of Religious Affairs (KUA) of the West Sulawesi Ministry of Religious Affairs, which found that Perceived Usefulness (PU) has a significant influence on usage intent, with 98% of admin/operator respondents stating that they could accept the application because of its benefits. However, crucially, the study also showed that Perceived Ease of Use (PEOU) did not have a significant influence on the intention to use. These results indicate that field officers tend to prioritize the benefits and functionality of SIMKAH (PU), such as administrative efficiency and data accuracy, over ease of use (PEOU) (2024). Although the system is considered difficult or effort-intensive, officers continue to use it, a condition that confirms the qualitative findings in this study regarding the trade-off between administrative time and pedagogical tasks.

### **3.2 Integration Dilemma: SIMKAH 4.0 and Optimization of the Role of Digital Pedagogy Penghulu**

This subchapter analyzes how the digital administrative requirements of SIMKAH 4.0 affect the dual role of the Penghulu as administrator and educator (Digital Pedagogy). The findings show that there is an integration dilemma arising from varying PEOUs (as described in subchapter 3.1), which ultimately threatens the effective time for educational services. Theoretically, the implementation of SIMKAH is intended to improve the Quality of Public Services at the Office Of Religious Affairs (KUA), but in practice it has caused problems in marriage practices in the community (Anonymous, *Ganaya: Journal of Social Sciences and Humanities*), which are manifested in role conflicts.

On the other hand, the Positive Side of SIMKAH 4.0 as a Digital Catalyst offers significant advantages that should serve as a catalyst for efficiency and education, in line with the goal of improving public services. The online registration feature allows prospective brides and grooms (Catin) to book their wedding date and day independently from home. Furthermore, the online SIMKAH platform also provides digital marriage guidance in the form of clear written instructions and guidelines on how to register with the Office Of Religious Affairs (KUA). This impressive user interface is designed to provide transparent access to information and provide pre-marital educational resources at the beginning of the process.

Despite this high digital potential, role conflicts arise because the time that should be allocated for face-to-face guidance (pedagogical tasks) is often taken up by intensive assistance activities and SIMKAH data input. Complexity of Administrative and Genealogical Verification: In addition to basic data input issues, administrative complexity also increases due to the obligation to match the data listed online. This verification process is often difficult because genealogy data, dates of birth, and dates of marriage must be matched independently in the SIMKAH system before being verified with the physical Catin file. Determining genealogy is particularly challenging because the system requires that this data be entered online first, while legal confirmation and family genealogy can only be requested directly during the face-to-face stage when the physical file is submitted. These difficulties add to the problems in marriage practices (Anonymous, *Ganaya*) and slow down the workflow, even though the system is intended for efficiency (Anonymous, *Global Education Scientific Journal*).

Operational Dependency and Pedagogical Time Absorption: The limitations of PEOU among senior staff and the reluctance of Catin to register independently (even though booking features and guides are available) mean that registration is still handled entirely by Office Of Religious Affairs (KUA) officials. This dependency forces young a staffs informant D to prioritize completing administrative data over educational interactions with Catin. This is in line with findings in the *Al-Syakhsyiah Journal*, which

show that the implementation of SIMKAH in Office Of Religious Affairs (KUA) often still struggles with operational constraints. This condition often shifts the educational role of the Penghulu to a remedial role. The focus shifts from in-depth pre-marital guidance to re-checking files to ensure they are compatible with the digital system. Low collective PEOU and technology integration without a supporting digital curriculum model make it an administrative burden. Instead of supporting the educational role, it becomes an administrative burden due to low collective PEOU. This confirms that technological innovation must be accompanied by a revision of the digital curriculum so that the educational function of the Penghulu can be optimized, in line with the importance of technology integration to improve pedagogical competence (A. J. Wibowo & Rahmat, 2021).

### **3.3 Strategic Digital Curriculum Model: Recommendations for Technology Integration in Education**

Strategic recommendations in response to the PEOU dilemma and threats to Digital Pedagogy, with a focus on formulating a Digital Curriculum Model and Implementing Technology in Education with high Perceived Usefulness (PU) of SIMKAH 4.0, which is constrained by low Perceived Ease of Use (PEOU) among senior staff and the community, creating an integration dilemma and threatening the role of Digital Pedagogy Penghulu. These recommendations focus on three main pillars:

#### **A. Competency-Based Digital Curriculum Model**

Adaptive Upskilling Training: The curriculum model must be specifically designed to address low PEOU among senior staff, emphasizing basic error handling simulations (as per Dina's complaint). This program should focus on improving the digital competencies of Office Of Religious Affairs (KUA) staff. To ensure the success of the proposed digital curriculum and digital pedagogy model, the focus must shift from SIMKAH data input administration to improving the competencies of Office Of Religious Affairs (KUA) human resources. Needs analysis conducted in the development of e-learning for pre-marital guidance at the Office Of Religious Affairs (KUA) (2022) has confirmed the existence of competency gaps and the urgent need for digital learning platforms. These gaps must be addressed, as emphasized in the literature. (Muthoharoh, 2020), Educational transformation in the digital age requires reformulation of the curriculum and learning methods. Therefore, the Digital Curriculum Model at the Office Of Religious Affairs (KUA) must include a continuous training program for Penghulu. The main objective is to empower Penghulu to not only be proficient in using SIMKAH (improving internal PEOU), but also able to utilize digital features as educational media, so that they can effectively carry out their educational role to the community.

The Peer-to-Peer Coaching Model involves incorporating a peer-to-peer coaching model into the Office Of Religious Affairs (KUA) AFFAIRS's internal curriculum. This model utilizes young staff (digital natives) as coaches for senior staff to bridge the digital generation gap. Those with high PEOU serve as internal trainers or coaches for senior staff. This approach is more effective in bridging the digital understanding gap and directly helps mitigate the risk of input errors as internal education. Meanwhile, external PEOU education provides very simple educational media (local language video tutorials, infographics at the Office Of Religious Affairs (KUA) to increase PEOU among prospective brides and grooms, so that the burden of administrative data input can be shifted to the community.

### **B. The Use of Technology as an Educational Tool (Digital Pedagogy)**

The importance of restructuring the role of the Penghulu from administrator to digital educator must be supported by innovative education service management. Research on Islamic Education Service Marketing Management at the Office Of Religious Affairs (KUA) (Salim et al., 2024) shows that Office Of Religious Affairs (KUA) must adopt a management strategy that focuses on the quality of educational services, including premarital counseling. This approach is relevant to the recommendations of the Digital Curriculum Model proposed in this study, in which technology (SIMKAH) is not only an administrative tool but must also be managed as the main channel for effectively communicating and distributing educational content (Digital Pedagogy). This strategy ensures that digital curriculum innovations are accessible and absorbed by the community, thereby bridging the external PEOU gap.

The public education curriculum provides very simple educational media (local language video tutorials, infographics) to increase PEOU among prospective brides and grooms (Catin). This is part of the Office Of Religious Affairs (KUA) public education curriculum to build community digital literacy and support Technology Integration. SIMKAH as Data-Driven Education encourages marriage officiants to integrate SIMKAH features and data (e.g., marriage statistics, marriage age trends) as valid and contextual teaching materials in premarital counseling. Thus, SIMKAH transforms from a mere administrative tool into a Technology Model that supports an educational role.

### **C. Policy Adjustments (Pedagogical Integration)**

Pedagogical Task Time Allocation Policy: There needs to be internal regulations that clearly separate and protect the time allocated for Digital Pedagogical tasks (premarital counseling) from the demands of SIMKAH data input. Counseling time must be considered a priority, so that the educational function of the Penghulu is not displaced by administrative roles. SIMKAH as Data-Driven education encourages Penghulu to utilize the features and data generated by SIMKAH (e.g., marriage statistics, marriage age trends) as valid and contextual teaching materials in pre-marital counseling.

SIMKAH is transforming from a mere administrative tool into a catalyst that optimally supports the educational role of Penghulu.

#### 4. CONCLUSION

This study concludes that the implementation of SIMKAH 4.0, as a core digital technology innovation in the Office Of Religious Affairs (KUA), creates an integration dilemma caused by the digital divide (low PEOU) among senior staff and external users. Although the Perceived Usefulness (PU) of SIMKAH is high in terms of administrative efficiency, the low collective PEOU forces Office of Religious Affairs (KUA) officers to shift their time back to remedial administrative tasks. Structurally, this erodes the effective time of the Penghulu to carry out their Digital Pedagogy role (pre-marital counseling), thereby hindering the intended educational transformation.

To address this dilemma, digital educational transformation in Office Of Religious Affairs (KUA) requires a systematic and strategic Digital Curriculum Model. The main recommendations are: (1) Continuous digital competency improvement (upskilling) for Penghulu through simulation-based curricula and peer-to-peer coaching; and (2) Utilizing SIMKAH as a data-driven educational tool, where system features and data are directly integrated as pre-marital guidance material. Through these educational technology adjustments, the educational role of Penghulu can be optimized, and SIMKAH 4.0 can function fully as a catalyst, not an obstacle, in providing religious education services to the community.

#### REFERENCES

- Anonim. (2022). Analisis Kebutuhan Pengembangan ELearning Bimbingan Pra-Nikah Bimbingan Masyarakat Islam di Kementerian Agama. *Jurnal STKIP PGRI Jombang*.
- Davis, F. D. (1989). Perceived Ease of Use, and User Acceptance of Information Technology. *JSTOR*, 13(3).
- Jamaluddin, Wahyu, & A, A. S. (2024). Analisis Penerimaan Pengguna Sistem Informasi Manajemen Nikah (SIMKAH) Gen. 4 dengan Menggunakan Teori Technology Acceptance Model (TAM) pada Lingkup Kerja Kantor Wilayah Kementerian Agama Sulawesi Barat. *MANOR: Jurnal Manajemen Dan Organisasi Review*, 6(2).
- Juneldi, R., & Sururie, R. W. (2020). Penerapan Sistem Informasi Manajemen Nikah (SIMKAH) di OFFICE OF RELIGIOUS AFFAIRS Kecamatan Jatinangor Kabupaten Sumedang. *Jurnal Hukum Dan Peradilan Islam*, 1(2).
- Mubaarok, A., & Sutedi, S. (2023). Evaluasi SIMKAH Menggunakan Metode Technology Acceptance Model pada Kantor Urusan Agama Kecamatan Tanjung Karang Barat Bandar Lampung. *Jurnal Sistem Informasi Manajemen*, 1(1).
- Muthoharoh, M. (2020). Pembelajaran Pendidikan Agama Islam Berbasis ELearning di Era Diital 4.0. *Attanwir: Jurnal Kajian Keislaman Dan Pendidikan*.
- Novitasari, Santosa, I., & Lestari, S. (2025). Problematika Aplikasi Sistem Informasi Manajemen Nikah dalam Praktik Pernikahan pada Masyarakat Muslim di Kelurahan Blimbing. *Ganaya: Jurnal Ilmu Sosial Dan Humaniora*, 8(1).
- Rusli, B., & Harahap, B. (2024). Mengatasi Kesenjangan Digital Generasi: Peran Kurikulum Pelatihan MOOC dalam Peningkatan Kompetensi Digital Pegawai Pemerintah. *Jurnal Pendidikan Teknologi*, 10(2).
- Salim, A., Berlian, Z., & Zainuri, A. (2024). The Islamic Education Service Marketing Management at OFFICE OF RELIGIOUS AFFAIRS Penukal, Penukal Abab Lematang Ilir Regency. *TOFEDU: The Future of Educational Journal*, 3(5).

- Sari, N. P., & Hidayat, M. A. (2023). Analisis Keterbatasan Literasi Digital Staf Administrasi Pemerintah Daerah dan Implikasinya terhadap Efisiensi Pelayanan. *Jurnal Administrasi Publik*, 15(3).
- Setiawan, R. H., & Ma'ruf, M. (2022). Transformasi Layanan Publik Keagamaan: Studi Integrasi ICT dan Pelayanan Hukum Keluarga Islam di Era 4.0. *Jurnal Hukum Dan Teknologi*, 7(1).
- Wibowo, A. J., & Rahmat, D. (2021). Pengaruh Integrasi Platform Digital terhadap Peningkatan Kompetensi Pedagogi Digital bagi Penyuluh Agama. *Jurnal Komunikasi Dan Pendidikan Islam*, 5(1).
- Wibowo, S. K., Bahtiar, A. S., & Rahmantya, Y. E. K. (2023). Systematic Literature Review: Peran Penerapan SIMKAH (Sistem Informasi Manajemen Nikah) Terhadap Kualitas Pelayanan Publik di KUA. *Lembaga Penelitian dan Pengabdian Kepada Masyarakat Institut Pendidikan Nusantara Global*, 4(4).
- Wicaksono, S. R. (2022). Teori Dasar Technology Acceptance Model. *Seribu Bintang*.