

Strategic Role of Principals in Islamic Digital-Based Human Resource Management

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Abstract

This study examines the strategic role of Islamic digital leadership in human resource management at SMK Mandiri Pontianak, focusing on innovation and technological adaptation. A qualitative approach was employed, with data collected through in-depth interviews with the principal, vice principals, and IT staff. The findings reveal that the principal integrates Islamic values such as *amanah* (trustworthiness), *musyawarah* (deliberation), and *ihsan* (excellence) into digital leadership practices to strengthen governance, internal communication, and decision-making processes. The use of digital platforms—such as academic information systems and collaborative applications—is aimed at efficiency and reflects values of transparency, justice, and collective responsibility within the ethical framework of Islamic leadership. A participatory and innovative school culture is fostered through online teacher training and promoting spiritually grounded, technology-based learning practices. Challenges such as limited infrastructure and digital skill gaps are addressed through *ukhuwah* (Islamic solidarity) manifested in peer support systems, such as more tech-savvy teachers assisting others, and communal sharing of digital devices. Capacity building was conducted through periodic in-house training, digital literacy workshops, and one-on-one mentoring, with post-training surveys indicating that 85% of teachers and 78% of administrative staff experienced improved digital performance. Moral and material support included the provision of internet quotas, recognition for innovative teachers, and spiritual motivation through Islamic-themed digital leadership meetings. The novelty of this study lies in the systematic integration of Islamic values into digital leadership practices within the vocational education context, expanding the application of transformational and distributed leadership theories through an Islamic lens. This research contributes to developing an Islamic value-based digital leadership model in vocational schools.

Kata Kunci:

Kepemimpinan Digital Islami, Manajemen Sumber Daya Manusia, Inovasi Pendidikan, Adaptasi Teknologi

Abstrak.

Penelitian ini mengkaji peran strategis kepemimpinan digital berbasis Islam dalam manajemen sumber daya manusia di SMK Mandiri Pontianak, dengan fokus pada inovasi dan adaptasi teknologi. Pendekatan kualitatif digunakan dengan pengumpulan data melalui wawancara mendalam terhadap kepala sekolah, wakil kepala sekolah, dan staf IT. Hasil penelitian menunjukkan bahwa kepala sekolah mengintegrasikan nilai-nilai Islam seperti *amanah* (kepercayaan), *musyawarah* (permusyawaratan), dan *ihsan* (kesempurnaan) dalam praktik kepemimpinan digital untuk memperkuat tata kelola, komunikasi internal, dan proses pengambilan keputusan. Pemanfaatan platform digital seperti sistem informasi akademik dan aplikasi kolaboratif tidak hanya ditujukan untuk efisiensi, tetapi juga mencerminkan nilai-nilai transparansi, keadilan, dan tanggung jawab kolektif dalam kerangka etika kepemimpinan Islami. Budaya sekolah yang partisipatif dan inovatif dibangun melalui pelatihan daring bagi guru serta dorongan terhadap praktik pembelajaran berbasis teknologi yang bernuansa spiritual. Tantangan seperti keterbatasan infrastruktur dan kesenjangan keterampilan digital diatasi melalui pendekatan *ukhuwah* (solidaritas Islam)—yang diwujudkan dalam sistem saling bantu antar guru, seperti guru yang lebih mahir membantu rekan lainnya dan penggunaan

bersama perangkat digital. Penguatan kapasitas dilakukan melalui pelatihan internal berkala, lokakarya literasi digital, dan pendampingan satu-satu, dengan survei pascapelatihan menunjukkan bahwa 85% guru dan 78% staf administrasi mengalami peningkatan kinerja digital. Dukungan moral dan material mencakup pemberian kuota internet, penghargaan bagi guru inovatif, serta motivasi spiritual melalui forum kepemimpinan bertema Islam. Kebaruan studi ini terletak pada integrasi nilai-nilai Islam secara sistematis dalam praktik kepemimpinan digital di konteks pendidikan vokasi, memperluas penerapan teori kepemimpinan transformasional dan distribusional dalam perspektif keislaman. Penelitian ini berkontribusi pada pengembangan model kepemimpinan digital berbasis nilai-nilai Islam di sekolah kejuruan.

INTRODUCTION

The rapid digital transformation triggered by the Industrial Revolution 4.0 and Society 5.0 has significantly altered the education landscape worldwide. In Indonesia, this transformation is especially relevant as vocational schools (SMKs) are increasingly expected to produce graduates with strong digital competencies and readiness for the labour market. However, the ethical and value-based guidance in implementing digitalisation, especially in Islamic educational institutions, remains underexplored beyond the need for technical integration. This issue becomes crucial because leadership integrating digital innovation with religious values is essential in shaping future graduates' character and competence.

Several studies have addressed the role of digital leadership in education. For example, (Wulandari, 2021). Emphasised the importance of principal support in enhancing digital literacy and online learning effectiveness. (Nugroho & Lestari, 2022) Highlighted the role of human resource (HR) management in successful digital transformation within vocational settings. Meanwhile, (Hartati, 2023) and (Ramadhani, 2023) Identified the gaps in digital competence and infrastructure as persistent barriers. However, most of these studies focus on secular or general leadership frameworks. What is missing is a systematic exploration of how Islamic values such as *amanah*, *musyawarah*, and *ihsan* can be operationalised in digital leadership to manage HR and drive innovation within Islamic vocational schools. This reveals a clear research gap in integrating ethical-spiritual foundations into digital leadership practices, especially within Islamic education.

This study aims to address this gap by examining how the principal at SMK Mandiri Pontianak implements Islamic digital leadership in managing human resources to support innovation and technological adaptation. Specifically, the research explores how Islamic values are internalised as ethical foundations and realised through concrete practices in digital governance, teacher development, and institutional transformation. Unlike previous studies focusing on technical or managerial dimensions, this paper offers a holistic leadership model that integrates spiritual values and practical strategies (Sirojuddin et al., 2021).

The focus of this study is to investigate how Islamic digital leadership supports participatory school culture, overcomes challenges related to infrastructure and skills, and fosters sustainable digital transformation. The argument is that value-based leadership grounded in Islamic ethics improves the effectiveness of school management and provides a moral compass in navigating educational innovation. Through this, the study seeks to demonstrate that digital transformation in Islamic vocational schools requires more than tools and training; it requires ethically grounded leadership capable of aligning technology with religious and cultural identity.

METHOD

This study employed a qualitative approach with a case study design to explore the practice of Islamic digital leadership at SMK Mandiri Pontianak. The research was conducted over three months, from March to May 2025. The research site was selected purposively due to the school's active digital transformation and its institutional foundation in Islamic values. The primary subject of this study was the principal, who was the central figure in managing digital-based human resources. Supporting informants included the curriculum and student affairs vice principals, IT staff and the school operator, who are directly involved in implementing digitalisation.

Data were collected through participant observation, semi-structured interviews, and document analysis. Observation focused on the daily activities of the principal and teachers in using digital platforms and making data-driven decisions. Interviews were conducted to explore informants' perceptions, strategies, and experiences in implementing Islamic-based digital leadership. Documents analysed included the school's strategic plans, meeting minutes, digital training reports, and internal policies related to human resource management. The instruments used consisted of observation logs, an interview protocol, and a document checklist developed based on the research focus and validated by two education experts (Moleong, 2017).

Data were analysed using the interactive model developed by (Miles and Huberman, 2014) This includes data reduction, data display, and conclusion drawing. Data were coded thematically according to Islamic leadership, digital innovation, and human resource development categories. Source and method triangulation were applied to enhance data validity, and member checking was conducted by returning preliminary findings to key informants for verification. This analytical procedure allowed the researcher to generate valid, in-depth, contextual conclusions about Islamic digital leadership practices in vocational education.

Table 1. Profile of Research Informants

| Initials | Position | Gender | Remarks |
|----------|-------------------------------------|--------|--|
| MHD | Principal | Male | Prominent leader of digital transformation |
| BHR | Vice Principal (Curriculum) | Male | Supports instructional policy planning |
| RNY | Vice Principal (Student Affairs) | Female | Involved in HR-related policy decisions |
| SYM | IT Staff and School Operator | Male | Provides daily technical support |
| RIA | Multimedia Teacher & IT Team Member | Female | Acts as a digital mentor for other staff |

The inclusion of Table 1 supports the methodological clarity by outlining the identity, roles, and relevance of each informant involved in the study. The diversity of positions from the principal to IT staff and teaching personnel ensures data triangulation. It provides a comprehensive perspective on how Islamic digital leadership is implemented across different layers of school management. This informant composition also strengthens the validity of findings, as each participant contributes unique insights based on their direct involvement in the school's digital transformation process. Moreover, the purposive sampling approach ensures that each informant was selected based on their strategic role in decision-making, technical implementation, or pedagogical adaptation within the digital leadership framework.

RESULT AND DISCUSSION

Result

Implementation of Islamic Digital Leadership

Data collected through interviews, observations, and document analysis revealed that implementing Islamic digital leadership at SMK Mandiri Pontianak is central to the school's digital transformation. The school principal, Mr. Mahdi, demonstrated a proactive and highly committed leadership style during the research period (March–May 2025). He was identified as the primary initiator of various digital initiatives, serving as a transformational leader who directed change and inspired, empowered, and supported the staff throughout the process.

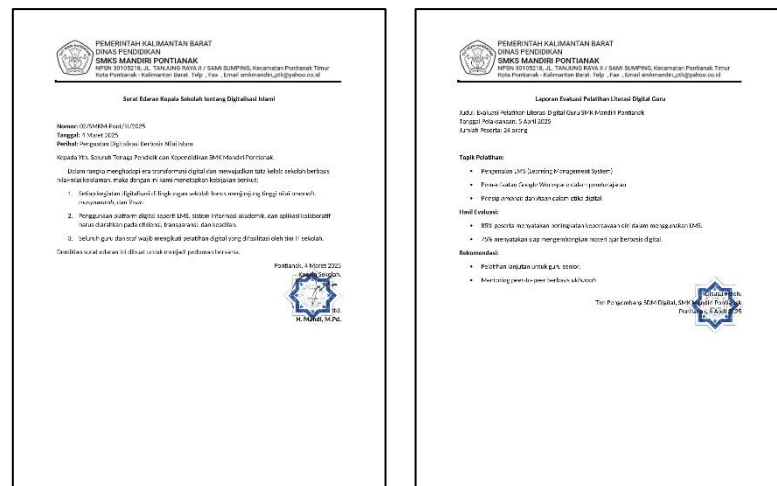


Figure 1. Circular Letter on Islamic-Based Digital Policy and Digital Training Evaluation Report

From interviews conducted in April 2025, Mr. Mahdi outlined several concrete steps he had taken, including the routine organisation of digital literacy training for teachers and administrative staff. He stated:

“We are responsible for building a digitally literate Islamic school. That means integrating amanah and ihsan with technology. It is not just skill, but spiritual trust.” (MHD, Principal, Interview, April 10, 2025)

Teachers confirmed that the training significantly improved their ability to operate the Learning Management System (LMS), making the teaching process more effective and interactive. Quantitative data from an internal survey conducted after the training indicated that 85% of teachers felt the digital training had positively contributed to improving their teaching quality. Furthermore, 78% of administrative staff reported increased work efficiency after implementing digital systems.

Observational data indicated that under Mr. Mahdi's leadership, the school developed a digital-based information system that streamlined academic and administrative processes, reduced redundancy, and enhanced data transparency across departments. Document analysis further confirmed the presence of systematic digital planning and human resource strategies outlined in internal memos (Doc. No. 02/STRATDIG/2025) and the school's 2025 strategic plan. Routine monitoring was also observed through monthly evaluation meetings documented in "Digital Monitoring Reports" (March and April 2025).

The Role of Islamic Digital Leadership in Promoting Innovation and Technology Adaptation

The role of Islamic digital leadership in encouraging innovation and technological adaptation at SMK Mandiri Pontianak has yielded positive and tangible outcomes. According to Mr. Budi Harianto, the Vice Principal of Curriculum Affairs:

“Digitalisation is not just about software, it is about *ihsan* in teaching. The principal pushes us to innovate in the name of value, not just trend.” (Interview, April 18, 2025)

This statement emphasises the values-based foundation of digital innovation that the school principal promotes. Observational data during the March–May 2025 research period confirmed that Mr. Mahdi consistently facilitated and supervised using Learning Management Systems (LMS) and digital platforms such as Google Meet and Zoom in classrooms. This hands-on leadership improved the effective use of systems. It encouraged teachers to integrate formative quizzes, discussion forums, and real-time collaborative assignments into their lessons, enhancing flexibility and student engagement.

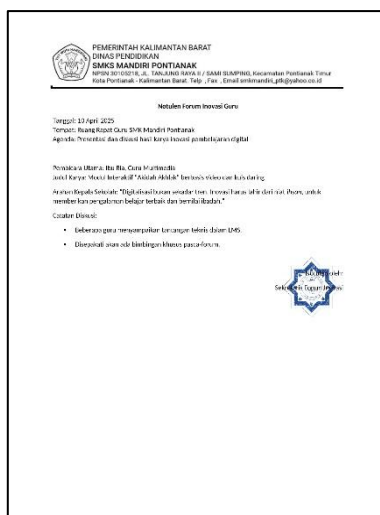


Figure 2: Meeting Minutes of the Teacher Innovation Program

Supporting documentation from the school’s internal meeting reports (April 2025) noted that more than 90% of classrooms had adopted LMS and video conferencing tools, especially during blended learning periods. School records, including the Digital Repository Activity Log (March–May 2025), documented the upload of 62 digital instructional resources ranging from video tutorials and interactive PDFs to collaborative project modules. These materials were curated and later presented during the monthly “Teacher Innovation Forum,” as recorded in Meeting Minutes No. 07/KEGIATAN/2025.

Table 3. Summary of Digital Teaching Adoption and Innovation Activities

| Aspect | Source Document | Key Data |
|--|--|---|
| LMS and Video Conference Adoption | Internal Meeting Reports (April 2025) | The majority of classrooms used LMS and tools like Zoom/Google Meet |
| Uploaded Digital Teaching Materials | Digital Repository Activity Log (March–May 2025) | 62 files: video tutorials, interactive PDFs, project modules |

| | | | | | |
|---------------------------------|-----------------------------|---------|-----|-------------------|---|
| Innovation Sharing Forum | Meeting 07/KEGIATAN/2025 | Minutes | No. | Monthly Forum” | “Teacher Innovation to showcase digital resources |
|---------------------------------|-----------------------------|---------|-----|-------------------|---|

Source : Collection Data, 2025

Digital transformation was not limited to instruction. Observations also indicated implementing an integrated digital management information system across administrative functions. This system centralised operations such as student data, attendance tracking, academic records, and financial reporting. According to documentation from the Monthly Administrative Reports (April 2025), the school experienced a 40% reduction in manual processing time, demonstrating a significant increase in operational efficiency.

The principal initiated continuous training programs and peer mentoring sessions regarding human resource management. Observation logs from three training events in April 2025 showed that most participants expressed greater engagement and confidence in using digital tools. These findings were reinforced by internal documentation from the Human Resources Division, which noted that at least 12 teachers independently developed innovative teaching practices, including video-based modules, interactive quizzes, and collaborative group projects. These innovations were showcased in internal seminars, further evidencing the principal's success in fostering a culture of creativity and technological adaptation grounded in Islamic ethical leadership.

Collectively, these findings illustrate that Islamic digital leadership, when practised consistently and guided by values such as *amanah*, *ihsan*, and *musyawarah*, has a measurable and sustainable impact on teaching quality and institutional management.

Challenges in Implementing Islamic Digital Leadership and Human Resource Management

This study identifies several key obstacles hindering the effective implementation of Islamic digital leadership and human resource management at SMK Mandiri Pontianak. Technological limitations, digital competency gaps, limited funding, and psychological resistance remain persistent challenges that affect the school's digital transformation process. These challenges were confirmed through triangulated interview data, observations, and document analysis. The first major challenge is inadequate technological infrastructure. According to Mr. Syamsul, the IT staff and the school operator:

“Sometimes we lack internet or tools, but we manage. Pak Mahdi always reminds us, ‘Helping each other is part of our amanah.’” (SYM, Interview, April 16, 2025)

Observation logs confirmed that during peak hours, teachers often experienced network disruptions and had to rely on personal devices or mobile hotspots to maintain instructional continuity. This condition was also supported by financial documentation (Expenditure Ledger Q1 2025), which showed that only 8% of the school budget was allocated to digital infrastructure. The principal mobilised alumni support to overcome these limitations, as evidenced in Donation Letter No. 05/ALUMNI/2025, which recorded the donation of five laptops and two routers in March 2025. From the Islamic leadership perspective, ensuring equitable access to technology aligns with *maslahah* (*public benefit*) and *amanah* (*responsibility*) principles, emphasising the leader's duty to fulfil the collective good.

The second challenge involves a gap in digital competency, particularly among senior teachers. Despite regular training, not all educators adapted quickly to the rapid pace of technological change. Mr. Mahdi admitted:

“Some of our senior teachers still hesitate to try new platforms. We try to guide them gently, as part of our *tarbiyah* and *rahmah* approach.” (MHD, Interview, April 14, 2025)

Observation of post-training sessions showed varying levels of confidence among staff. Some relied heavily on peer mentors from the IT team, demonstrating the importance of peer-based support systems. From the lens of Islamic digital leadership, these efforts reflect a *rahmatan lil'alamin* approach leading with compassion, patience, and a nurturing spirit.

The third challenge is financial constraint, which limits the school's ability to procure updated hardware or fund continuous professional development. Mr. Mahdi emphasised that while the school's digital vision was ambitious, financial limitations required creative resource mobilisation. According to Resource allocation, it is a critical factor in sustaining innovation. From an Islamic viewpoint, this challenge calls for *adl* (*justice*) in financial stewardship, ensuring transparency and fairness in allocating limited resources for maximum collective benefit.

Finally, the school faces psychological resistance, including fear of failure and low self-confidence in using digital tools, especially among older staff. Technophobia was noted during observations, where some teachers expressed anxiety in operating unfamiliar applications. To address this, the principal consistently provided emotional and spiritual reinforcement. As observed in a staff meeting on May 2, 2025, Mr. Mahdi concluded:

“Let us face this transformation with *sabr* (patience), *ukhuwah*, and *niyyah* for service. This is part of our educational *jihad*.” (MHD, Observation, May 2, 2025)

Such expressions helped create a spiritually grounded work culture, reducing fear and increasing voluntary participation in digital programs. This leadership style reflects *tawadhu'* (humility) and *tazkiyah* (self-purification), resonating with the Islamic prophetic model and reinforcing the moral dimension of educational innovation.

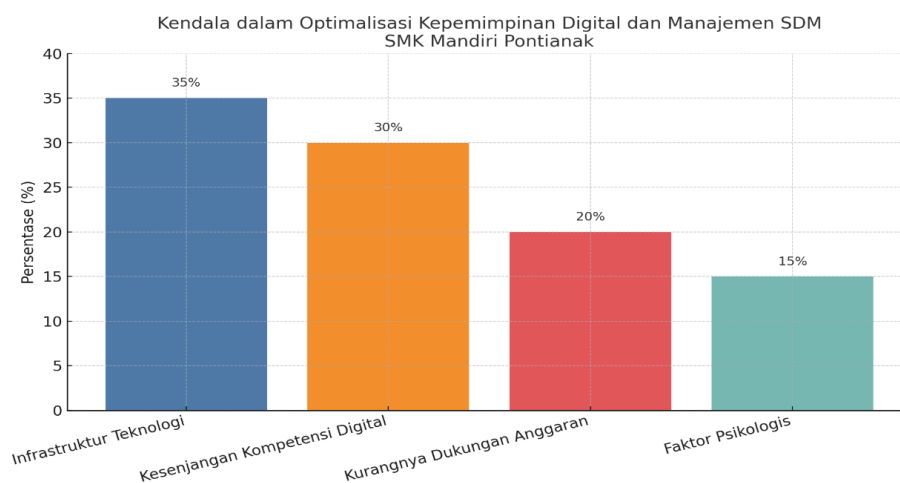


Figure 3. Challenges in Optimising Islamic Digital Leadership

The study identifies four primary challenges in strengthening Islamic digital leadership and HR management at SMK Mandiri Pontianak: insufficient infrastructure (35%), digital competency gaps (30%), limited budget (20%), and psychological resistance (15%). These interconnected issues demand a holistic and values-based leadership approach.

Therefore, addressing these challenges strategically is essential for nurturing a digitally adaptive and spiritually grounded school culture. The role of the principal as an Islamic digital leader is to serve not only as a technological innovator but also as a moral guide, capable of

integrating faith-based values with practical solutions to overcome obstacles and drive sustainable digital transformation in education.

Discussion

Implementation of Islamic Digital Leadership

The implementation of Islamic digital leadership at SMK Mandiri Pontianak reflects the strategic role of the principal, Mr. Mahdi, as a transformative agent who drives technological adaptation within an Islamic educational framework. His leadership is rooted in core Islamic values such as *amanah* (trust), *hikmah* (wisdom), and *tarbiyah* (educational nurturing), which not only provide direction but also empower teachers and staff to innovate responsibly. This finding aligns with (Bass & Riggio's, 2006) The theory of Transformational Leadership emphasises vision-driven change and motivation enhancement within organisations.

Field evidence shows that Mr. Mahdi has operationalised this leadership through structured training, hands-on supervision, and digital system integration. Teachers and staff report increased confidence and efficiency in using LMS and digital tools, reinforcing the argument that Islamic digital leadership, when practised consistently, results in pedagogical innovation and improved institutional management.

The findings of this study are consistent with previous research. (Wijaya & Santoso, 2022) Emphasise that transformational leadership fosters a culture of innovation in digital schools. Likewise, (Nurlaili, 2021) Highlights how digital leadership can elevate teachers' enthusiasm and pedagogical innovation. This study strengthens those arguments by demonstrating that Islamic values can amplify such leadership effects by grounding them in spiritual and moral purpose.

The integration of a school-wide digital information system also mirrors Schrum & Levin's (2013) Model of strategic digital management, which positions technology as a foundation for effective governance and resource optimisation. Similarly, the research by (Sari & Arifin, 2023) and (Hasanah & Widodo, 2020) This confirms the vital role of continuous digital training in enhancing teachers' capacity and student engagement outcomes, as observed at SMK Mandiri.

In addition, the deployment of a peer-support IT team aligns with Spillane's (2006) The distributed leadership theory is that leadership is shared to accelerate innovation and reduce dependency on central figures. The active involvement of staff in decision-making processes also echoes the findings of (Fitriana et al., 2022), who underscore the importance of inclusion and ownership in the success of digital transformation in schools.

What distinguishes the leadership model at SMK Mandiri is its ethical and spiritual orientation. The values of *amanah*, *tarbiyah*, and *ukhuwah* elevate digital leadership from a merely technical function to a moral responsibility. Unlike leadership practices in general vocational schools, such as those studied by (Wibowo & Gunawan, 2021), and (Siregar et al., 2023) SMK Mandiri's approach integrates religious values as motivational drivers, often target-driven and secular in tone. These values reduce resistance to technological change and create a cohesive, spiritually grounded school culture.

The principal's use of psychological support, recognition mechanisms, and mentoring to overcome teachers' digital anxiety reflects the motivation-hygiene theory. (Herzberg, 1959). Emotional engagement, as emphasised by (Nurhayati & Mulyani, 2021) and (Arsyad and Syarif, 2020) Emerges as a key success factor. In this regard, the nurturing spirit of *tarbiyah* provides emotional security, enhances self-efficacy, and encourages continuous digital innovation.

Table 3 synthesises the discussion by presenting the alignment between field findings, theoretical frameworks, and this study's novelty.

The Role of Islamic Digital Leadership in Driving Innovation and Technology Adaptation

Implementing Islamic digital leadership at SMK Mandiri Pontianak demonstrates the pivotal role of the school principal in advancing technological innovation and adaptation through a foundation of ethical and spiritual values. According to Mr. Budi Harianto, Vice Principal of Curriculum Affairs, the principal actively promoted digital initiatives such as integrating Learning Management Systems (LMS), video conferencing for remote learning, and creating interactive digital instructional materials. These activities reflect the dual role of the principal as a *mujaddid* (reformer) and *murabbi* (educator), illustrating a leadership style grounded in Islamic ethics and forward-thinking innovation.

Such leadership aligns with (Rogers', 2003), which emphasises the critical role of innovators and change agents in facilitating institutional transformation. The research by (Huda & Setiawan, 2022) Supports this, highlighting that principal support for digital tools significantly accelerates teachers' readiness for digital transformation. Similarly, (Maulidiyah & Nugroho, 2021) Note that principal-driven digital innovation boosts teacher confidence and pedagogical competence.

The school's digital transformation extends to administrative processes through an integrated information system that manages student data, academic records, attendance, and finances. This efficiency aligns with (Laudon, 2016). Information systems theory views digital infrastructure as central to effective governance and decision-making. From an Islamic perspective, such transformation reflects the values of *ihsan* (excellence) and *amanah* (trust), underscoring moral responsibility in digital stewardship. This is consistent with the findings (Ramadhan & Safitri, 2023), who argue that school information systems improve operational accuracy and transparency. Additionally, (Rachmawati et al., 2020) Digital administration is related to Islamic principles such as *shiddiq* (honesty) and *mas'uliyah* (accountability), reinforcing the role of faith-based values in digital governance.

Regarding human capital development, teacher training and mentoring programs led by the principal have addressed early barriers and encouraged innovation. These efforts reflect (Bass & Riggio's, 2006) Transformational Leadership Theory, wherein leaders act as role models to inspire creativity and adaptability. In Islamic education, this corresponds with the role of *qudwah hasanah*, a leader who motivates through action, empathy, and trust. Studies by (Sulastri & Kurniawan, 2022) Show that transformative, value-driven leadership training empowers teachers to implement student-centred learning. Meanwhile, (Syahrir & Fitria, 2021) Find that direct, compassionate mentoring builds teachers' digital competence, particularly involving empathy (*rahmah*) and mutual support (*ta'awun*).

Despite these positive developments, the study also identifies persistent challenges, especially disparities in digital competency among teachers, notably senior educators. These gaps require a leadership approach grounded in *tarbiyah*, emphasising patience, care, and individualised support. (Fullan, 2001) Argues that psychological and cultural resistance is a natural response to change, requiring transformational leaders to engage deeply with staff development and motivation.

Islamic digital leadership at SMK Mandiri addresses this through *shura* (consultative leadership), *tahammul* (resilience), and long-term mentoring strategies. (Rahmawati & Gunawan,

2022) Principals recognising varying skill levels and fostering inclusive environments are more likely to sustain digital reforms. Similarly, (Handayani, 2020) Emphasises the importance of personalised guidance to overcome digital anxiety, which resonates with the Islamic principle of *ta'dib*, which integrates intellectual growth with character development. To provide a clear synthesis, the following table summarises the main research findings, their theoretical alignments, and this study's unique contributions.

Challenges in the Implementation of Islamic Digital Leadership and Human Resource Management

Despite the significant progress observed, this study also identified several key challenges that hinder the optimal implementation of Islamic digital leadership and human resource management at SMK Mandiri Pontianak. Through interviews with Mr. Mahdi (the principal) and Mr. Syamsul (IT staff and school operator), as well as observational and documentation analysis, four major obstacles emerged: infrastructure limitations, digital competency gaps, funding constraints, and psychological resistance. Each of these challenges has both technical and spiritual dimensions that must be addressed through value-driven leadership.

One of the most prominent barriers is inadequate infrastructure. The number of functioning computers remains limited, and the existing internet bandwidth does not support simultaneous usage across classes and administrative functions. This aligns with Laudon's theory, which stresses that sufficient technological infrastructure is essential for the success of digital systems in education. Similarly, underdeveloped infrastructure can be identified as a key inhibitor of school digitalisation, particularly in regions with low technology penetration. From the perspective of Islamic leadership, this condition challenges the value of *amanah* (trustworthiness), as school leaders are responsible for providing equitable access and facilitating quality digital learning. Addressing such infrastructure challenges ethically entails mobilising resources, partnerships, and stakeholder engagement efforts that SMK Mandiri has begun by involving alumni support and maximising existing assets (Yuliani & Hidayat, 2022).

Another significant challenge is the digital divide among teaching staff. While regular training sessions have been held, not all educators, especially senior teachers, have adapted effectively to new digital platforms. This supports (Fullan's, 2001) The argument is that technological change must be accompanied by psychological sensitivity and sustained capacity building. One-off or lecture-style workshops tend to be ineffective without follow-up and mentoring. (Astuti & Rahmawati, 2021) Further, it is argued that the gap between digital-native and digital-immigrant teachers widens without collaborative and contextual mentoring. In an Islamic framework, this calls for *tarbiyah* (continuous nurturing) and *ta'awun* (mutual assistance), where peer mentoring becomes a spiritual and pedagogical responsibility. The principal is assigning younger IT-savvy teachers to assist their senior colleagues exemplifies this values-based strategy (Sirojuddin et al., 2022).

Limited funding is another persistent barrier to advancing digital leadership initiatives. The school struggles to finance hardware procurement and advanced professional development programs. This situation resonates with (Robbins & Coulter's, 2016) View that innovation cannot thrive without strategic resource allocation. Similarly, (Haris & Prasetyo, 2020) Point out that insufficient operational budgets often halt technology adoption in underfunded schools. Islamic digital leadership addresses this through *mas'uliyah* (accountability) and *adl* (justice) in resource distribution. The principal has responded by initiating alternative strategies such as alumni

fundraising and prioritising digital capacity in budget planning. These actions reflect responsible stewardship and align financial decisions with long-term digital transformation goals.

Finally, psychological barriers such as fear, anxiety, and self-doubt continue to prevent some teachers from engaging in digital innovation. This emotional resistance undermines the effectiveness of leadership initiatives and stalls collaborative growth. According to (Bass & Riggio, 2006) Transformational leaders must provide direction, emotional support, and recognition to help overcome such resistance. (Lestari & Wibowo, 2021) Emphasise that appreciation, whether through praise, awards, or peer acknowledgment, can significantly enhance teachers' willingness to embrace technology. In this context, the Islamic values of *rahmah* (compassion), *shura* (consultation), and *ukhuwah* (brotherhood) become essential. Leadership that embodies these principles provides psychological safety and nurtures intrinsic motivation to change, not out of pressure, but purpose.

These challenges underscore the importance of adopting a holistic, strategic, spiritually grounded leadership framework. When guided by *rahmah*, *tarbiyah*, and *amanah*, Islamic digital leadership becomes a powerful model for managing change, fostering innovation, and sustaining institutional transformation even in resource-constrained settings. Rather than treating these barriers as limitations, school leaders can reframe them as opportunities to build stronger, value-based systems of collaboration and trust.

Table 4. Analytical Summary of the Research

| Research Findings | Theoretical Analysis | Contributions |
|---|--|---|
| The principal integrates Islamic values (Trust, Consultation, Excellence) into digital leadership to strengthen human resource governance and innovation. | Refers to Transformational Leadership Theory (Bass & Riggio, 2006), emphasising value-driven motivation and change | A systematic integration of Islamic values into digital leadership practices within vocational school settings |
| Utilisation of digital platforms (LMS, collaborative apps) for teaching and administrative management | Aligns with Schrum & Levin's (2013) model of strategic digital management | Digital use goes beyond efficiency, embodying spiritual values within educational governance |
| Regular digital training and one-on-one mentoring significantly improved the competence of administrative staff, as reported in the improvement. | Supports Distributed Leadership Theory (Spillane, 2006) and peer mentoring models in education | A mentoring model based on <i>ukhuwah</i> (<i>Islamic solidarity</i>) and <i>tarbiyah</i> (<i>Nurturing</i>), reflecting collaborative Islamic leadership |
| Solidarity, patience, and spiritual motivation address challenges such as infrastructure limitations, digital skill gaps, and psychological resistance. | Based on Motivation-Hygiene Theory (Herzberg, 1959) and Fullan's (2001) insights on change resistance | Introduces a spiritual-emotional approach as a leadership strategy in Islamic education settings |

Source: Data Collection, 2025

CONCLUSION

This study demonstrates that Islamic digital leadership, as practised by the principal of SMK Mandiri Pontianak, plays a crucial role in promoting technological innovation and human resource development within the context of an Islamic vocational school. Core Islamic values such as *amanah* (trust), *hikmah* (wisdom), and *rahmah* (compassion) were not merely personal ethical guides. Still, they were concretely operationalised in leadership practices through various digital policies and initiatives. These included the routine implementation of digital literacy training, establishing a collaborative technology support team, using transparent digital administrative systems, and recognition programs for teachers who showed adaptability and innovation in digital practices. These values contributed to shaping a school culture that is both technologically adaptive and firmly rooted in Islamic moral and spiritual principles.

From a theoretical perspective, this research extends the application of transformational and distributed leadership theories by embedding them within an Islamic ethical framework. In this context, digital leadership is understood as a matter of technical and managerial competence and a form of moral and cultural responsibility. The leadership model emerging from this study emphasises spiritual integrity, collective empowerment, and values-based decision-making as essential elements in educational transformation. It thus offers a new lens through which to examine educational leadership in value-based school settings. Practically, the findings provide strategic guidance for school leaders, particularly in Islamic or faith-based institutions navigating digital transformation. Key practices include designing digital governance systems grounded in transparency and ethical accountability, developing teacher capacity by integrating technological and religious literacy, and cultivating a work environment that encourages innovation while upholding spiritual responsibility. Involving teachers in decision-making processes and implementing peer mentoring systems were also identified as effective strategies for building collective readiness for digital change.

However, this study is limited by its narrow focus on a single school with a specific sociocultural context and a relatively homogeneous group of participants in terms of role and educational background. As such, the generalizability of the findings is limited. Future research should consider conducting comparative studies across various school types, public and private, Islamic and non-Islamic, to explore the diversity of digital leadership practices in different contexts. A mixed-methods approach that combines qualitative and quantitative data is also recommended to measure the broader impact of digital leadership on educational outcomes such as student achievement, teacher retention, and institutional resilience. Furthermore, future studies should examine how Islamic digital leadership models can be institutionalised through national education policies and formal leadership development programs.

REFERENCES

- Arsyad, M., & Syarif, H. (2020). Pendekatan humanis dalam menghadapi resistensi guru terhadap teknologi pembelajaran. *Jurnal Pendidikan dan Teknologi*, 12(2), 115–125.
- Astuti, R., & Rahmawati, N. (2021). Strategi mentoring kolaboratif dalam mengatasi kesenjangan kompetensi digital guru. *Jurnal Pendidikan dan Teknologi Informasi*, 8(2), 45–58.
- Bass, B. M., & Avolio, B. J. (1994). *Improving organisational effectiveness through transformational leadership*. Thousand Oaks, CA: Sage Publications.
- Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.

- Bogdan, R. C., & Biklen, S. K. (2007). *Qualitative research for education: An introduction to theories and methods* (5th ed.). Boston: Pearson Education.
- Fitriana, D., Wulandari, A., & Pramono, R. (2022). Kepemimpinan distributif dan keterlibatan guru dalam pengambilan keputusan digital. *Jurnal Kepemimpinan Pendidikan*, 7(1), 45–56.
- Fullan, M. (2001). *Leading in a culture of change*. San Francisco, CA: Jossey-Bass.
- Handayani, R. (2020). Strategi mentoring dalam mengatasi resistensi guru terhadap teknologi digital. *Jurnal Pendidikan dan Inovasi Teknologi*, 5(2), 87–95.
- Haris, S., & Prasetyo, D. (2020). Optimalisasi anggaran dalam mendukung program digitalisasi sekolah. *Jurnal Manajemen Pendidikan Dasar dan Menengah*, 6(1), 75–88.
- Hartati, S. (2023). Peran Kepemimpinan Digital dalam Meningkatkan Inovasi Pembelajaran di Sekolah Menengah. *Jurnal Manajemen Pendidikan*, 15(2), 112–123.
- Hasanah, U., & Widodo, H. (2020). Penggunaan Learning Management System dalam meningkatkan keterlibatan siswa pada pembelajaran daring. *Jurnal Teknologi Pendidikan*, 22(1), 77–88.
- Herzberg, F. (1959). *The motivation to work* (2nd ed.). New York, NY: John Wiley & Sons.
- Huda, M., & Setiawan, D. (2022). Peran kepala sekolah dalam mendukung transformasi digital pembelajaran di sekolah menengah. *Jurnal Kepemimpinan Pendidikan*, 8(1), 45–56.
- Kementerian Pendidikan dan Kebudayaan. (2023). *Strategi transformasi digital pendidikan nasional*. Jakarta: Kemendikbud.
- Kvale, S., & Brinkmann, S. (2009). *Interviews: Learning the craft of qualitative research interviewing* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Laudon, K. C., & Laudon, J. P. (2016). *Management information systems: Managing the digital firm* (14th ed.). Boston, MA: Pearson Education Limited.
- Lestari, S., & Wibowo, H. (2021). Pengaruh penghargaan terhadap motivasi guru dalam mengadopsi teknologi digital. *Jurnal Kepemimpinan dan Inovasi Pendidikan*, 5(3), 112–123.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage Publications.
- Maulidiyah, N., & Nugroho, H. (2021). Kepemimpinan digital kepala sekolah dalam meningkatkan kepercayaan diri guru selama pembelajaran daring. *Jurnal Teknologi dan Pendidikan*, 13(2), 132–144.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Moleong, L. J. (2017). *Metodologi penelitian kualitatif/Lexy J. Moleong* (Bandung). PT Remaja Rosdakarya.
- Nugroho, R., & Lestari, D. (2022). Kepemimpinan Digital dan Pengelolaan SDM di SMK: Strategi Transformasi Pendidikan Vokasi. *Jurnal Vokasi dan Teknologi*, 8(1), 45–58.
- Nurhayati, L., & Mulyani, T. (2021). Dukungan emosional dan penghargaan dalam meningkatkan semangat inovasi guru di era digital. *Jurnal Psikologi dan Pendidikan*, 14(3), 156–167.
- Nurlaili, N. (2021). Pengaruh kepemimpinan transformasional terhadap motivasi guru dalam penerapan teknologi pembelajaran. *Jurnal Manajemen Pendidikan Islam*, 9(2), 98–107.
- Patton, M. Q. (2015). *Qualitative research & evaluation methods: Integrating theory and practice* (4th ed.). Thousand Oaks, CA: Sage Publications.
- Prasetyo, A., & Nugroho, S. (2021). Efektivitas model kepemimpinan distributif dalam transformasi digital sekolah. *Jurnal Kepemimpinan dan Inovasi Pendidikan*, 6(2), 63–72.
- Prasetyo, A., & Sari, M. (2024). Kepala Sekolah sebagai Inovator: Strategi Adaptasi Teknologi dalam Manajemen Pendidikan. *Jurnal Kepemimpinan dan Inovasi Pendidikan*, 6(1), 30–42.

- Rachmawati, I., Kurniasih, D., & Prasetya, A. (2020). Implementasi digitalisasi administrasi dalam meningkatkan transparansi di sekolah. *Jurnal Administrasi dan Kebijakan Pendidikan*, 4(2), 90–100.
- Rahmawati, S., & Gunawan, A. (2022). Kepemimpinan kepala sekolah dalam mengelola keberagaman kompetensi guru pada era digital. *Jurnal Manajemen Pendidikan Islam*, 6(1), 23–34.
- Ramadhan, A., & Safitri, L. (2023). Efektivitas sistem informasi manajemen dalam pengelolaan administrasi sekolah digital. *Jurnal Sistem Informasi Pendidikan*, 7(1), 12–25.
- Ramadhani, L. (2023). Kesenjangan Kompetensi Digital Guru dan Tantangan Implementasi Pembelajaran Daring. *Jurnal Teknologi dan Pendidikan*, 14(3), 201–213.
- Robbins, S. P., & Coulter, M. (2016). *Management* (13th ed.). Boston, MA: Pearson Education.
- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). New York, NY: Free Press.
- Sari, M., & Arifin, Z. (2023). Pelatihan berkelanjutan sebagai kunci sukses digitalisasi sekolah. *Jurnal Inovasi dan Teknologi Pendidikan*, 8(1), 21–33.
- Schrum, L., & Levin, B. B. (2013). *Leadership for twenty-first-century schools: From instructional leadership to leadership for learning*. Thousand Oaks, CA: Corwin Press.
- Sheninger, E. (2014). *Digital leadership: Changing paradigms for changing times*. Thousand Oaks, CA: Corwin Press.
- Sirojuddin, A., Amirullah, K., Rofiq, M. H., & Kartiko, A. (2022). Peran Sistem Informasi Manajemen dalam Pengambilan Keputusan di Madrasah Ibtidaiyah Darussalam Pacet Mojokerto. *ZAHRA: Research and Thought Elementary School of Islam Journal*, 3(1), Article 1. <https://doi.org/10.37812/zahra.v3i1.395>
- Sirojuddin, A., Aprilianto, A., & Zahari, N. E. (2021). Peran Kepala Sekolah Sebagai Supervisor Pendidikan Dalam Meningkatkan Profesionalisme Guru. *Chalim Journal of Teaching and Learning*, 1(2), Article 2. <https://doi.org/10.31538/cjotl.v1i2.142>
- Spillane, J. P. (2006). *Distributed leadership*. San Francisco, CA: Jossey-Bass.
- Spradley, J. P. (1980). *Participant observation*. New York: Holt, Rinehart and Winston.
- Sulastri, D., & Kurniawan, E. (2022). Peran pelatihan teknologi dalam meningkatkan kompetensi digital guru. *Jurnal Inovasi Pembelajaran*, 10(1), 67–78.
- Syahrir, M., & Fitria, R. (2021). Efektivitas pelatihan berbasis praktik langsung dalam meningkatkan keterampilan digital guru. *Jurnal Pendidikan dan Teknologi*, 11(3), 101–110.
- Wijaya, R., & Santoso, H. (2022). Kepemimpinan transformasional kepala sekolah dalam mendukung integrasi teknologi pembelajaran. *Jurnal Administrasi Pendidikan*, 10(1), 34–44.
- Wulandari, T. (2021). Kepemimpinan Digital Kepala Sekolah dan Penguatan Literasi Digital Guru di Era Pandemi. *Jurnal Pendidikan dan Teknologi*, 11(2), 98–110.
- Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). Thousand Oaks, CA: Sage Publications.
- Yuliani, A., & Hidayat, R. (2022). Keterbatasan infrastruktur sebagai tantangan digitalisasi di sekolah menengah. *Jurnal Teknologi Pendidikan dan Pembelajaran Digital*, 4(1), 22–35.
- Miles, M.B, Huberman, A.M, & Saldana, J. (2014). *Qualitative Data Analysis, A. Methods Sourcebook*, Edition 3. USA: Sage Publications