

Smartphones in Islamic Religious Education (PAI) Learning: A Mixed-Methods Study on Junior High School Students in Kendari

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Abstract

Although numerous studies have examined smartphone use in science, mathematics, and language learning, few have investigated its impact on Islamic Religious Education (PAI), a subject rich in spiritual and ethical values that differs markedly from cognitively oriented subjects. This gap is especially apparent in Eastern Indonesia, a region rarely represented in such research. This study therefore aims to analyze the impact of smartphone use on PAI learning among junior high school students in Kendari, Southeast Sulawesi, and to identify the factors that facilitate or hinder its effectiveness. A mixed-methods design was employed, combining a quantitative survey of 120 students with qualitative interviews with 10 PAI teachers and selected students; The data were analyzed using descriptive statistics and thematic analysis. The findings reveal the dual nature of smartphones in PAI learning: 78% of students reported easier access to learning materials and 65% felt more motivated, yet 72% experienced distraction from non-educational applications and 48% struggled to manage their study time. The qualitative data indicates that these problems stemmed primarily from inadequate supervision and the absence of clear usage guidelines rather than from the technology itself. This study extends technology acceptance models into religious education and underscores the need for a supportive ecosystem to optimize smartphone use in PAI learning.

Keywords: Digital Literacy, Mixed Methods, Smartphone Usage, Islamic Religious Education Learning, Self-Regulation

INTRODUCTION

Digital transformation has brought about fundamental changes in the global educational landscape, with smartphones emerging as one of the most widely adopted technological devices among learners across various levels of education (Arigiyati et al., 2021; Mayella et al., 2024; Amirullah & Hardinata, 2017). The integration of mobile devices into the teaching and learning process is no longer merely an ancillary phenomenon; rather, it has become an integral part of the contemporary educational ecosystem, including within the realm of Islamic Religious Education (PAI) (Pratidina et al., 2024; Danial & Muyasaroh, 2023; Kadir et al., 2024). Unlike general subjects that are more oriented toward the transfer of cognitive knowledge, Islamic Religious Education (PAI) possesses distinct characteristics, incorporating dimensions of character building, spiritual values, and ethics, that require a more cautious instructional approach when engaging with digital technology (Ismanto et al., 2017; Wihartanti et al., 2019). This situation makes the study of smartphone usage in Islamic Religious Education (PAI) a relevant and pressing issue requiring in-depth examination,

given that its implications extend beyond academic aspects to the moral development of the younger generation.

At the junior high school level, smartphone ownership and usage among students show a steadily rising trend, driven by the increasing affordability of mobile devices and the expansion of internet access to various regions, including eastern Indonesia, such as Kendari, Southeast Sulawesi (Nurdin, 2022; Wahab et al., 2025). This phenomenon presents a significant opportunity to optimize Islamic Religious Education (PAI) through the use of digital learning resources, such as interactive Quranic exegesis, videos on Islamic history, and educational quiz apps, which can enhance both accessibility and student engagement in the learning process. However, this potential is accompanied by inherent complexities, given that smartphones also serve as gateways to various non-educational content that risks diverting students' focus from their studies. Consequently, a comprehensive understanding of how smartphones are utilized in PAI instruction, considering both the opportunities and the challenges, forms a crucial foundation for developing religious education strategies that are adaptable to the digital era.

Although smartphones offer great convenience in accessing learning resources, their use by junior high school students in the context of Islamic Religious Education (PAI) does not always align with intended educational goals. Unrestricted access to non-educational applications; such as social media and online games, often serves as a significant source of distraction, thereby diminishing students' concentration levels during the learning process (Dewi et al., 2019). This situation presents a distinct paradox: on one hand, smartphones have the potential to enrich the Islamic Religious Education (PAI) learning experience through interactive multimedia content; on the other, the very same devices can act as major obstacles to achieving the focus and discipline required for religious study (Mahmud & Amirudin, 2025).

This issue becomes more complex when linked to the distinctive characteristics of Islamic Religious Education (PAI) as a subject that demands not only cognitive understanding but also the internalization of spiritual and ethical values (Sari, 2019). Excessive reliance on smartphones risks shifting students' learning orientation from the process of internalizing Islamic values toward the mere passive consumption of digital content, devoid of deep contextual understanding (Irwanto, 2017; Hasbiyati, 2020). Furthermore, the lack of clear usage guidelines and weak oversight mechanisms, on the part of both schools and parents, increase the risk of these devices being misused during learning activities (Hafis & Meliasari, 2021; Sipaayung & Munawaroh, 2025; Daulay et al., 2020). Thus, the fundamental question to be addressed in this study is how to comprehensively identify the impact of smartphone usage on Islamic Religious Education (PAI) learning, while also understanding the factors preventing such usage from optimally supporting the achievement of religious education goals.

Based on these issues, this study aims to comprehensively analyze the impact of smartphone usage on Islamic Religious Education (PAI) learning among junior high school (SMP) students in Kendari, Southeast Sulawesi, by examining both the positive and negative aspects arising from the use of these devices. Employing a mixed-methods approach that combines quantitative and qualitative data, the study seeks to provide a holistic picture of how smartphones influence the PAI learning process and outcomes, considering not only academic achievement but also dimensions such as engagement, motivation, and potential distractions.

More specifically, this study aims to achieve three primary objectives: first, to measure and describe the impact of smartphone usage on the Islamic Religious Education (PAI) learning process from the perspectives of both students and teachers; second, to identify the facilitating and inhibiting factors influencing the effectiveness of smartphone utilization within the context of religious instruction; and third, to formulate optimization strategies designed to maximize the benefits of smartphones while minimizing their negative

risks. By achieving these three objectives, the study is expected to contribute theoretically to the development of literature on technology-based PAI instruction, while also providing practical, applicable recommendations for teachers, schools, and education policymakers regarding the design of technology integration strategies that align with Islamic values.

Research on the use of smartphones in learning has expanded significantly over the past decade; however, the majority of existing literature still focuses on general subjects, such as science (Padilah et al., 2024; Fatimah, 2014; Setyawan & Fatirul, 2019), mathematics (Murni et al., 2023; Yuwono & Syaifuddin, 2017), and language (Syahmi et al., 2022). These studies generally highlight the impact of smartphones on cognitive achievement and academic skills, without much mention of the affective-spiritual dimension which is at the core of Islamic Religious Education (PAI) (Salehudin et al., 2020). Yet, the characteristics of Islamic Religious Education, which emphasize the internalization of values, character building, and spiritual engagement, demand an approach that goes beyond the mere measurement of cognitive effectiveness. The lack of attention to this context leaves a significant gap in the literature, particularly regarding how mobile technology interacts with learning processes deeply imbued with religious values.

This gap is further compounded by the limited geographical scope of previous studies, which have largely concentrated on major urban centers or western Indonesia, whereas the educational context in eastern Indonesia; including Kendari, Southeast Sulawesi, has received relatively little academic attention. Yet, the region's sociocultural characteristics, digital infrastructure accessibility, and the dynamics of religious education could potentially yield findings that differ from those of earlier research (Purnamasari et al., 2025). Thus, the combination of a specific focus on Islamic Religious Education (PAI) and a research setting in a region that has received limited study makes this research relevant for filling a gap in the literature, while simultaneously enriching the body of knowledge regarding technology integration in religious education within more diverse contexts.

This research offers novelty across three complementary aspects. First, its specific focus on Islamic Religious Education distinguishes it from the majority of prior studies, which tend to explore smartphone usage in general subjects, thereby enabling the capture of unique dynamics that emerge when digital technology intersects with learning grounded in spiritual and ethical values. Second, the use of a mixed-methods approach, integrating quantitative surveys and qualitative interviews, facilitates a more comprehensive understanding than single-design studies; numerical data on usage patterns are enriched by in-depth insights into the perspectives of students and teachers. Third, the selection of Kendari, Southeast Sulawesi, as the research site reinforces the study's originality, given that the educational context of Eastern Indonesia has rarely been the focus of similar research; consequently, the findings have the potential to enrich the diversity of perspectives within the literature on technology-based religious education.

The significance of this study lies not only in its theoretical contribution to the literature on Islamic Religious Education (PAI) in the digital era but also in its practical relevance for various educational stakeholders. For teachers and schools, the findings can serve as a reference for designing smartphone integration strategies that are more targeted and aligned with Islamic values; meanwhile, for policymakers, the results offer an empirical basis for formulating guidelines on mobile technology usage that account for both pedagogical and religious-ethical considerations. Thus, this study is expected to make a complementary contribution by both broadening academic horizons and offering practical solutions to real-world challenges in the field.

METHOD

Table 1. Summary of Research Methods

Aspect	Quantitative Strand	Qualitative Strand
Research Type and Design	Part of a <i>convergent parallel mixed methods</i> design	Part of a <i>convergent parallel mixed methods</i> design
Research Approach	Descriptive survey	Descriptive-phenomenological
Research Setting	Several junior high schools (SMP) in Kendari City, Southeast Sulawesi	Several junior high schools (SMP) in Kendari City, Southeast Sulawesi
Population/Sample/Informants	120 students (purposive sampling; criterion: used smartphone for PAI learning for ≥ 1 semester)	- 10 PAI teachers (≥ 3 years teaching experience, purposive sampling) - A subset of the 120 survey respondents (representing high, moderate, and low smartphone usage frequency)
Data Collection Technique	Structured questionnaire (accessibility, motivation, distraction, time management)	- Semi-structured in-depth interviews (30–45 minutes, audio-recorded) - Non-participant observation
Data Analysis Technique	Descriptive statistics	Thematic analysis (Braun & Clarke): data familiarization $\rightarrow$ initial coding $\rightarrow$ theme searching $\rightarrow$ theme review $\rightarrow$ theme naming $\rightarrow$ reporting
Data Integration	Methodological triangulation and joint display, comparing numerical and narrative findings across each dimension studied	
Data Trustworthiness	Expert judgment; instrument validity and reliability testing	- Source triangulation (teachers, students, observation) - Member checking - Thick description (transferability) - Audit trail (dependability & confirmability)
Cross-Validation	Cross-validation through consistency between quantitative and qualitative findings, a hallmark of validity in mixed methods design	

Adapted from (Creswell & Clark, 2018)

Research Type and Approach

This study employs a mixed-methods design using the convergent parallel design model (Creswell & Clark, 2018), specifically, quantitative and qualitative data collection is conducted concurrently and relatively independently, with the results subsequently integrated during the interpretation stage to gain a more comprehensive understanding of smartphone usage in Islamic Religious Education (PAI) learning. The quantitative strand aims to measure general patterns and trends through numerical data, while the qualitative strand is designed to explore in depth the participants' experiences, perceptions, and interpretations regarding the same phenomenon. A descriptive-phenomenological qualitative approach is employed, aiming to understand the phenomenon of smartphone usage as directly experienced and interpreted by teachers and students within their daily contexts. This combination of approaches was selected because quantitative data alone cannot capture the subjective nuances and complexities of participant experiences, whereas qualitative data alone does not allow for the generalization of patterns to a broader population.

Research Background

This study was conducted at several junior high schools (SMP) in Kendari City, Southeast Sulawesi Province. Kendari City was selected as the research setting because it represents educational characteristics typical of Eastern Indonesia, a region that has received relatively little attention in studies regarding the integration of digital technology into Islamic Religious Education (PAI) instruction. The specific schools were chosen based on factors such as the high rate of smartphone adoption among students, the availability of facilities supporting technology-based learning, and the schools' willingness to participate in the study. This setting offers a distinctive social and cultural context, given that the dynamics of religious education in Kendari City are shaped by the interplay between local values and the ongoing digitalization of education.

Research Population, Sample, and Informants

For the quantitative strand, the study population consisted of junior high school students in Kendari City who use smartphones for Islamic Religious Education (PAI) learning activities. The sample comprised 120 students selected via purposive sampling, based on the criterion of having used smartphones for PAI learning purposes for at least the past semester. For the qualitative strand, the informants consisted of two groups: teachers and students. Ten PAI teachers were included as key informants, selected through purposive sampling based on the criteria of having at least three years of teaching experience and having implemented or observed smartphone usage in the learning process. Additionally, a number of students from the initial group of 120 survey respondents were selected as interview informants, chosen to represent varying levels of smartphone usage frequency (high, medium, and low) to ensure a diversity of perspectives. The determination of the number of qualitative informants was based on the principle of data saturation (Guest et al., 2006), that is, interviews were concluded when the information obtained began to show a pattern of repetition without yielding significant new findings.

Data collection technique

Quantitative data were collected via structured questionnaires distributed to 120 students, covering items related to perceived accessibility, learning motivation, distraction levels, and time management skills regarding smartphone use for Islamic Religious Education (PAI) learning. Qualitative data were gathered through face-to-face in-depth interviews with teachers and students, guided by a semi-structured interview protocol focusing on three key aspects: experiences using smartphones for PAI learning, perceptions of the resulting positive and negative impacts, and views on strategies to optimize their use. Each interview session

lasted approximately 30 to 45 minutes and was audio-recorded following the participants' written consent. Additionally, non-participant observations were conducted within the school environment to directly observe students' smartphone interaction patterns during learning activities, thereby reinforcing and complementing the interview data.

Data Analysis Techniques

Quantitative data were analyzed using descriptive statistics to determine percentages and general trends regarding students' perceptions of smartphone use in Islamic Religious Education (PAI) learning. Qualitative data were analyzed using thematic analysis techniques following the stages developed by [Braun & Clarke \(2006\)](#), encompassing data familiarization, initial coding (open coding), theme searching, theme reviewing, theme naming, and final report preparation. After the two data strands were analyzed separately, the results were integrated using methodological triangulation and presented in a joint display format ([Fetters et al., 2013](#); [Guetterman et al., 2015](#)), enabling direct comparison between numerical and narrative findings across each dimension under study. This integration process aimed to produce a more holistic interpretation of the impact of smartphone use, in accordance with the fundamental principles of the convergent parallel mixed methods design.

Data Validity Test

The validity of the data in this study was assessed using distinct strategies for each strand, strategies that nonetheless complemented one another within a mixed-methods framework. For the quantitative strand, the validity of the questionnaire instrument was evaluated through expert judgment and validity-reliability testing prior to its field application. In the qualitative strand, data credibility was ensured through source triangulation, comparing data obtained from teachers, students, and field observations, as well as member checking ([Lincoln & Guba, 1985](#)), specifically, re-confirming interpretations with a subset of informants to ensure alignment between research findings and the actual experiences they shared. Data transferability is addressed through a detailed description of the research context ("thick description"), while dependability and confirmability are reinforced via an audit trail, a systematic documentation of the entire research process. A distinctive feature of validity in this mixed-methods design is methodological triangulation, specifically, the consistency of findings across quantitative and qualitative data, which serves as a form of cross-validation for the validity of the study's final interpretations.

Furthermore, the research process can be seen in the chart below:

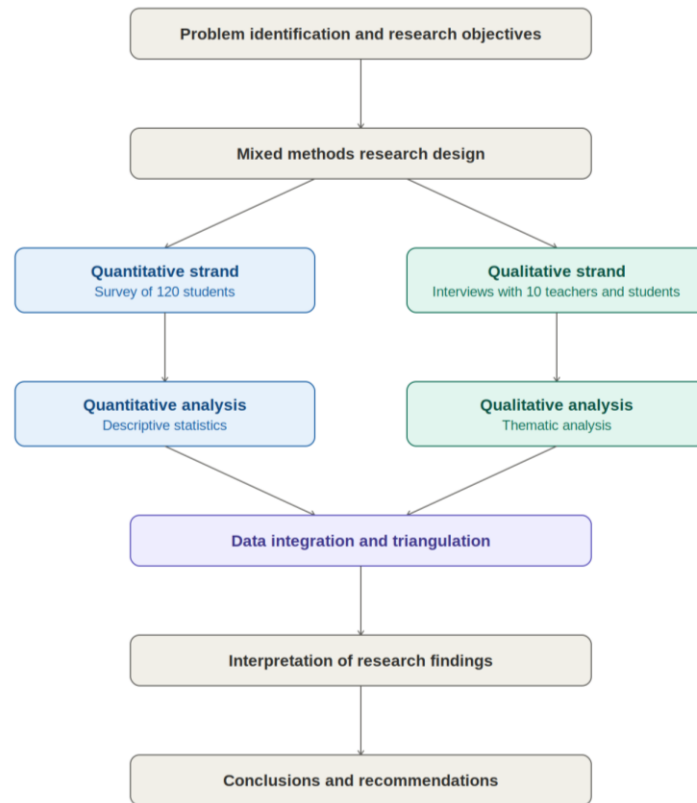


Figure 1. Research Flow Framework

RESULTS AND DISCUSSION

Results

Quantitative Results

Of the 120 students participating in the survey, 78% reported that smartphones facilitated their access to Islamic Religious Education learning materials, including digital resources such as Quranic exegesis, instructional videos, and interactive quiz applications. Additionally, 65% of students stated they felt more motivated to study PAI due to engaging multimedia content. On the other hand, the survey also revealed significant challenges: 72% of students admitted to being frequently distracted by non-educational applications; such as social media and online games, during study sessions, while 48% reported difficulties managing their study time due to excessive smartphone use. A summary of these quantitative findings is presented in Table 2.

Table 2. Summary of Quantitative Analysis Results (Descriptive Statistics)

Indicator	Percentage
Smartphones facilitate access to Islamic Religious Education materials	78%
Increased learning motivation due to multimedia content	65%

Distracted by non-educational apps	72%
Difficulty managing study time	48%

Qualitative Results

In-depth interviews with 10 Islamic Religious Education (PAI) teachers revealed that smartphone usage holds significant potential for boosting student interest in the subject. Teachers reported that students became more active in class discussions when assigned tasks that utilized learning apps. However, they also highlighted the challenge of monitoring smartphone use outside the classroom, noting that the devices tend to be used for activities unrelated to learning. Meanwhile, the students interviewed stated that smartphones helped them grasp difficult material through videos and interactive graphics, though they also acknowledged the need for better guidance and supervision from both teachers and parents to prevent misuse of the devices.

A thematic analysis of the interview data identified two main categories of themes; namely, factors supporting and factors hindering the use of smartphones in Islamic Religious Education (PAI) learning, as summarized in Table 3.

Table 3. Results of Qualitative Thematic Analysis

Theme	Sub-theme	Source
Supporting factors	Availability of PAI learning applications	Teachers, students
	Flexibility in the time and place of learning	Students
	Teacher support and guidance	Teachers
Inhibiting factors	Distractions from non-educational apps	Teachers, students
	Lack of supervision outside the classroom	Teachers
	Students' limited digital literacy	Teachers

Integration of Quantitative and Qualitative Findings

To obtain a more comprehensive overview, quantitative and qualitative findings are integrated into a joint display format, as presented in Table 4. This integration demonstrates that the numerical and narrative data consistently complement each other across three key dimensions: accessibility and motivation, distraction and time management, and usage governance.

Tabel 4. Joint Display (Integration of Quantitative and Qualitative Findings)

Dimensions	Quantitative Findings	Supporting Qualitative Findings
Accessibility and motivation	78% easy access; 65% increased motivation	Teacher: Students are more active in discussions using learning apps.
Distractions and time management	72% are distracted by non-educational apps; 48% struggle to manage their time.	Students: acknowledge the need for better guidance and supervision.
Usage governance	-	Teachers: difficult to monitor usage outside the classroom.

Discussion

The results of this study reveal a pattern that consistently confirms the dual nature of smartphones as instruments for Islamic Religious Education (PAI) learning. Quantitative findings regarding high levels of accessibility and motivation, if viewed in isolation, might suggest a straightforward, positive trajectory for smartphone integration in PAI instruction. However, when these data are considered alongside qualitative findings, a more complex picture emerges (Amir & Ondeng, 2026; Mursal, 2026). Teacher confirmation that students demonstrate more active engagement when tasks are linked to real-world applications directly

reinforces the quantitative data regarding increased motivation (Sugiarti et al., 2026; Chailani et al., 2025; Hartanti & Bambang, 2026). This type of convergence between numerical and narrative data is a key strength of the mixed-methods approach, as it enables cross-validation that cannot be achieved through a single type of data alone.

On the other hand, the finding that the majority of students report being distracted by non-educational apps and struggle with time management should not be interpreted as contradicting the aforementioned benefits; rather, it reflects the inherent trade-offs involved in using multifunctional technology. As devices designed to serve multiple needs, communication, entertainment, and learning, simultaneously, smartphones structurally create opportunities for distraction at the very same time they provide access to learning resources (Lase & Halawa, 2024; Fauziyah et al., 2025; Depita, 2024). This interpretation aligns with the perspective of self-regulated learning theory, which emphasizes that the effectiveness of a learning tool depends heavily on an individual's capacity to manage attention and time, rather than solely on the tool's technical features (Ahmad, 2023). Thus, the distractions reported by the students can be understood as an indication of suboptimal self-regulation skills among junior high school students, an age group that, in terms of cognitive and emotional development, is still in the process of establishing self-control. This interpretation is reinforced by the students' own admissions that they require better guidance and supervision, an acknowledgment demonstrating metacognitive awareness regarding their limitations in independently managing their smartphone usage.

Further analysis of the qualitative data also reveals that the challenge of distraction does not exist in isolation; rather, it is intertwined with institutional factors, specifically, weak oversight mechanisms outside the classroom (Azis, 2025). Teachers highlight the difficulty of monitoring student activity when smartphones are used outside of direct supervision, indicating that the issue of distraction is best understood as a matter of technology usage governance rather than solely an individual student issue (Hasyim, 2026; Darmawan & Musonawawi, 2026; Putri & Bahrodin, 2026). This perspective is crucial for distinguishing between a flawed causal interpretation, which suggests that smartphones inherently impair study concentration and a more accurate one: that negative impacts arise when technology use is not balanced by adequate support structures, such as usage guidelines, active supervision, or robust digital literacy.

The findings of this study contribute to the development of theory regarding technology integration in education, specifically by extending the application of the Technology Acceptance Model (TAM) to a domain that has received limited attention in mainstream literature: Islamic Religious Education. While most studies on the acceptance and impact of educational technology focus on subjects that are cognitively and academically oriented, this research demonstrates that the Technology Acceptance Model requires modification when applied to learning contexts deeply imbued with values and spirituality (Supit et al., 2024; Widad et al., 2026; Rosyidah et al., 2025). Specifically, these findings indicate that perceived usefulness in the context of Islamic Religious Education (PAI) is measured not only by the efficiency of information access but also by the extent to which the technology enriches students' spiritual experiences and their understanding of religious values, a dimension that has received limited exploration in conventional technology acceptance literature. Furthermore, this study contributes to blended learning models by demonstrating that the successful integration of technology into religious instruction relies heavily on balancing technology-enabled learner autonomy with face-to-face guidance that emphasizes role modeling; this pedagogical element is intrinsic to the Islamic educational tradition yet rarely appears as an explicit variable in generic blended learning models (Wassalwa et al., 2025; Makhmudah, 2024).

At a practical level, these findings offer concrete implications for three key stakeholder groups. For Islamic Religious Education (PAI) teachers, the results underscore the need to design learning activities that

intentionally leverage the multimedia capabilities of smartphones; such as through interactive videos on Islamic history or value-based quiz apps, while explicitly establishing classroom agreements regarding device usage limits during lessons. This approach moves beyond simply banning or unconditionally permitting smartphone use; instead, it points toward a pedagogical strategy that consciously manages the trade-offs between the benefits and risks identified in this study.

For schools, findings regarding inadequate supervision outside the classroom highlight the urgent need to formulate technology-use policies specifically tailored to the context of Islamic Religious Education (PAI), rather than relying on general policies applied uniformly across all subjects. Ideally, such policies should involve parents as partners in supervision, given that most student smartphone usage occurs outside school hours and beyond the reach of formal educational institutions. For curriculum developers, this research suggests the need to explicitly integrate digital literacy competencies into the PAI curriculum, ensuring that students are not only taught religious content but also equipped with the ability to navigate the digital environment ethically and wisely (Herawati et al., 2026; Hamidalloh & Hamdani, 2025; Wulandari et al., 2025; Aulia et al., 2026). By coherently integrating quantitative and qualitative findings, this study confirms that the successful use of smartphones in Islamic Religious Education (PAI) is not determined solely by the availability of technology, but rather by the quality of the supporting ecosystem, encompassing teacher pedagogy, school policies, and parental involvement, that surrounds the use of that technology.

The findings of this study have theoretical, pedagogical, and institutional implications for the integration of smartphones into Islamic Religious Education (PAI). Theoretically, the study extends the application of the Technology Acceptance Model (TAM) by demonstrating that perceived usefulness in PAI cannot be understood solely in terms of accessibility, efficiency, and learning motivation, but must also encompass the capacity of digital technology to support students' spiritual understanding, ethical awareness, and value internalization. Pedagogically, the findings imply that smartphones should be positioned as guided learning tools rather than unrestricted learning devices. PAI teachers need to design purposeful activities involving multimedia resources, digital Qur'anic materials, interactive quizzes, and contextual Islamic content while establishing explicit rules for responsible smartphone use. At the institutional level, schools should develop collaborative digital-use policies involving teachers, parents, and students, particularly because the major risks identified in this study, distraction, poor time management, and inadequate supervision, extend beyond the classroom. These implications indicate that effective smartphone integration depends not merely on technological availability but on the quality of the pedagogical, ethical, and supervisory ecosystem surrounding its use.

Despite its contributions, this study has several limitations that should be considered when interpreting the findings. First, the quantitative sample consisted of 120 junior high school students and the qualitative participants were drawn from several schools within Kendari City, Southeast Sulawesi; therefore, the findings may not be directly generalizable to students in other geographical, cultural, or educational contexts. Second, the cross-sectional design provides a description of smartphone use at a particular point in time and therefore cannot adequately capture changes in students' digital behavior, self-regulation, motivation, or spiritual development over longer periods. Third, although the study incorporated teacher interviews and non-participant observations, a substantial proportion of the quantitative evidence was based on students' self-reported perceptions, which may be affected by recall error or social desirability bias. Finally, the study examined existing patterns of smartphone use but did not experimentally test a specific intervention, digital learning model, or smartphone-management strategy. These limitations suggest that the findings should be interpreted primarily as contextual and exploratory evidence rather than as definitive causal evidence concerning the effects of smartphone use on PAI learning.

Future research should build upon these findings by expanding the geographical and methodological scope of investigation. Comparative studies involving junior high schools from different regions of Indonesia, particularly urban, rural, and other Eastern Indonesian contexts, would provide a stronger basis for examining the influence of sociocultural and infrastructural differences on smartphone-supported PAI learning. Longitudinal research is also recommended to examine how smartphone use, digital self-regulation, learning motivation, and spiritual-ethical development change over time. Furthermore, future studies could employ quasi-experimental or experimental designs to evaluate specific interventions, such as structured smartphone-use guidelines, digital literacy programs, parental supervision models, app-based distraction-control strategies, or value-oriented blended learning models in PAI. Mixed-methods research could also investigate the perspectives of parents and school administrators more systematically, thereby extending the present teacher-student perspective into a broader educational ecosystem. Such research would help determine not only whether smartphones can support PAI learning, but also under what pedagogical, ethical, and institutional conditions their use produces sustainable educational benefits.

CONCLUSION

This study reveals the dual nature of smartphones in Islamic Religious Education (PAI) learning among junior high school students in Kendari, Southeast Sulawesi: smartphones simultaneously facilitate access to learning materials and enhance motivation, yet also generate distractions that undermine students' self-regulation. The findings show that this negative impact stems not from the technology itself but from inadequate support structures; unclear usage guidelines, weak supervision, and limited digital literacy, shifting responsibility from individual students to institutional governance. Theoretically, the study extends the Technology Acceptance Model to religious education, showing that perceived usefulness in PAI encompasses spiritual and ethical dimensions, and enriches blended learning by balancing technology-enabled autonomy with face-to-face guidance. Practically, teachers should leverage smartphone multimedia within clear classroom usage agreements; schools need technology-use policies tailored to religious instruction and active parental partnership; and curriculum developers should integrate digital literacy into the PAI curriculum. Nevertheless, several aspects could not be fully addressed in the present study. The sample came from a single city, limiting generalizability; the cross-sectional design could not capture changes in usage patterns over time; reliance on students' self-reports may introduce social desirability bias; and no intervention model was empirically tested. Future research should therefore replicate the study across more diverse regions, employ longitudinal designs to track changes in smartphone use and its impact on spiritual development, and develop and evaluate app-based interventions that minimize distraction during PAI lessons. Overall, this study confirms that the successful integration of smartphones in religious education is determined not by the availability of technology itself, but by the quality of the surrounding support ecosystem.

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