

Exploring Virtual Reality in Pre-Hajj Training to Deepen Pilgrims' Sense of Spiritual Understanding

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Abstract

The Manasik Haji program was launched by the Indonesian Ministry of Religious Affairs to improve pilgrims' comprehension of Islamic-law-based Hajj rites. In response to global technological trends, institutions such as Umm Al-Qura University and the Grand Mosque of Saudi Arabia have launched virtual reality (VR) experiences that recreate the Hajj pilgrimage. This study explores how VR-based Pre-Hajj training contributes to ritual comprehension and spiritual immersion. A systematic literature study was conducted, as well as an analysis of articles from mass media that highlighted advancements in virtual Hajj practices. Findings show that, despite ongoing worries about authenticity, virtual reality (VR) holds great promise for assisting pilgrims in visualizing and internalizing ritual sequences, especially for those who have limited access to conventional training. This research contributes to the growing discourse on the intersection of technology and religion, offering new insights into how digital tools can enhance religious practice in a contemporary context.

Keywords: Virtual Reality; Spiritual Understanding; Pre-Hajj Training

Abstrak

Program Manasik Haji diluncurkan oleh Kementerian Agama Indonesia untuk meningkatkan pemahaman jamaah haji tentang tata cara haji berdasarkan hukum Islam. Menanggapi tren teknologi global, lembaga seperti Universitas Umm Al-Qura dan Masjidil Haram Arab Saudi telah meluncurkan pengalaman realitas virtual (VR) yang menciptakan kembali suasana haji. Penelitian ini mengeksplorasi bagaimana pelatihan Pra-Haji berbasis VR berkontribusi pada pemahaman ritual dan pendalaman spiritual. Sebuah studi literatur sistematis dilakukan, serta analisis artikel dari media massa yang menyoroti kemajuan dalam praktik haji virtual. Temuan menunjukkan bahwa, meskipun ada kekhawatiran tentang keaslian, realitas virtual (VR) sangat menjanjikan untuk membantu jamaah haji dalam memvisualisasikan dan menginternalisasi rangkaian ritual, terutama bagi mereka yang memiliki akses terbatas ke pelatihan konvensional. Penelitian ini berkontribusi pada wacana yang berkembang tentang persimpangan teknologi dan agama, menawarkan wawasan baru tentang bagaimana perangkat digital dapat meningkatkan praktik keagamaan dalam konteks kontemporer.

Kata Kunci: Realitas Virtual; Pemahaman Spiritual; Pelatihan Pra-Haji

Introduction

Hajj, one of the five fundamental pillars of Islam, holds immense spiritual significance for Muslims worldwide. It is a religious duty that every Muslim is obligated to perform at least once in their lifetime, provided they possess the physical, financial, and security means to undertake the journey (Alshaer, 2024). However, beyond these commonly recognized criteria of ability, another essential aspect is knowledge. Understanding the intricate rituals of Hajj is crucial for its successful and meaningful execution.

In recognition of this, the Indonesian government has established a systematic guidance program known as *manasik hajj*. This initiative is designed to equip prospective pilgrims with comprehensive knowledge of Hajj rituals and requirements before their departure (Ministry, 2019). This training program is delivered by professional instructors and ensures that pilgrims receive precise and extensive information in a comfortable learning atmosphere. Such systematic training is especially beneficial for people who would otherwise struggle to obtain credible information on Hajj.

The program offers direct guidance to registered pilgrims through certified professional instructors who are well-versed in Hajj rituals. This structured learning environment provides a solution for pilgrims who may otherwise lack access to detailed information about Hajj. This acknowledgment reflects the global importance of structured Hajj education and Indonesia's role as a leading nation in organizing Hajj pilgrimages. The Indonesian government's initiative to provide professional guidance is particularly important given the numerous challenges faced by pilgrims during Hajj. Many pilgrims encounter difficulties due to their lack of understanding and limited access to accurate and structured information. The Hajj pilgrimage, with its complex set of rituals, tasks, and responsibilities, can be overwhelming, especially for those who have not received proper training.

The relevance of this program is highlighted by the difficulties that many pilgrims experience during their journey. The complexities of Hajj ceremonies can be intimidating, especially for individuals who have not previously participated or prepared adequately. Research by (Jaman, 2010) found that many pilgrims encounter difficulties due to insufficient knowledge of the practical steps involved. Furthermore, a case study conducted by students from Institut Agama Islam Az-Zaytun Indonesia (IAI AL-AZIZ), focusing on KBIH in South Tangerang, highlighted a variety of challenges faced by pilgrims. Financial challenges, improper data registration, and, most crucially, low educational attainment, which frequently

impedes the effective absorption of materials delivered during manasik sessions (Tati Herawaty, Afrig, Meity Suryandari, 2022).

In response to these limitations, the advancement of digital technology offers new opportunities to enhance Hajj education. One notable innovation is the integration of virtual reality (VR) and the metaverse into religious learning. The metaverse, as described (Fadhillah & Murad, 2024) is a virtual space where users interact via digital avatars, simulating real-world experiences. VR systems create immersive environments in which users feel physically present and can interact with objects as if in the real world (González, hernández, & Chávez, 2011). These technologies offer special chances for hands-on learning, especially when it comes to intricate religious rites like the Hajj.

The application of the metaverse and virtual reality (VR) in the context of Hajj has become a topic of considerable interest. Since its re-emergence in 2021, VR technology has opened up new possibilities for simulating religious experiences (Lombardi & Lombardi, 2010). The effectiveness of any VR application is significantly influenced by its sense of presence and immersion (Slater & Wilbur, 1997).

The introduction of virtual reality and the metaverse into religious practice raises questions about the future of Hajj and the role of technology in religious observances. While VR and other digital tools offer new ways for individuals to engage with their faith, they also challenge traditional understandings of religious rituals, which are deeply rooted in physical experience and spiritual connection. This innovative approach allows pilgrims to familiarize themselves with the steps and sequences of the Hajj rituals in a practical and immersive way, reducing the cognitive burden associated with memorizing complex procedures (Achmad, 2020).

The Spiritual understanding, as a concept, permeates various aspects of human existence, extending beyond the mere physical or emotional experiences and delving deep into our mental, personal, and social lives. It encompasses both the material and immaterial realms, and people experience and express spirituality in numerous ways. Moreover, Spirituality relates to how individuals seek and relate to an ultimate or sacred reality (Cobb, Puchalaski, & B, 2012).

In Islamic spirituality, this relationship with the Divine is not just a theoretical construct but a lived reality that shapes one's identity and purpose. Seyyed Hossein Nasr describes Islamic spirituality as a relationship with Allah that profoundly influences an individual's self-worth, sense of meaning, and interconnectedness with both others and nature (Nasr, 1997). This relational quality of spirituality is not confined to solitary worship or private devotion; it extends to one's interaction with

the wider world, promoting a sense of balance and harmony with all aspects of life. Central to Islamic spirituality are the beliefs, rituals, daily living practices, and knowledge derived from the Qur'an and the life of the Prophet Muhammad, which form the core themes of Islamic religious practice (Bonab, Miner, & Proctor, 2013)).

The physical and emotional experiences of the journey serve as the foundation for the spiritual understanding of Hajj. In this perspective, including Virtual Reality (VR) into pre-Hajj training is more than simply a practical learning tool; it also promotes spiritual preparation. The role it plays in improving spiritual understanding is even more intriguing. Beyond merely a sequence of physical deeds, the Hajj is an emotional and spiritual trip that symbolizes a pilgrim's humility, sense of connection with fellow Muslims, and devotion to God. The goal of this spirituality is to become embellished by the Divine Qualities through attainment of those virtues which were possessed in their perfection by the Prophet and with the aid of methods and the grace which issue from him and the Quranic Revelation (Nasr, 1997).

This study emphasizes the need of combining technology with spirituality to improve our knowledge of religious activities in the digital age. As technology advances, virtual Hajj experiences emerge as a fascinating innovation, particularly for pre-Hajj preparation. While preliminary study indicates that virtual Hajj may encounter authenticity difficulties, such as retaining the sacredness and true essence of the trip, these immersive technologies nonetheless have tremendous potential to improve users' understanding of pre-Hajj rituals.

This research explores how virtual reality (VR)-based Hajj simulations might shape the spiritual preparedness of pilgrims before undertaking the sacred journey. As digital technology become more integrated with religious rituals, this study aims to determine whether immersive virtual experiences might inspire deeper thought and develop a greater emotional connection to the journey. By simulating the sacred sites and rituals of Hajj, such technologies have the potential not only to reduce anxiety and logistical concerns but also to help participants focus more intently on the metaphysical and spiritual dimensions of the journey. The study will examine at how these virtual encounters affect users' perceptions of virtual hajj training, their relationships with other pilgrims, and their sense of intimacy with God.

Research Methods

Design Research

This study employed a qualitative approach, utilizing digital ethnography and cross-literature reviews to investigate the discourse surrounding virtual reality in Pre-

Hajj training on the internet. The data comprised online texts and digital interactions, including social media conversations, ten Islamic news media outlets, official documents and press releases from religious authority websites, as well as educational forums (Kozinets, 2020). No physical participants were involved; rather, the focus of the analysis was on digital content published between 2020 and 2025. The data collection process utilized digital ethnographic observation and keyword-based searches in news media articles, using terms such as "VR Hajj training," "simulation virtual Hajj," "training Hajj online," and "virtual pilgrimage."

Data Collected

The collected data was analysed using a descriptive case study method, which allows for systematic and in-depth interpretation. The netnographic analytical process followed Kozinets & Gretzel's (2022) six movements initiation, investigation, interaction, immersion, integration, and instantiation (Kozinets & Gretzel, 2022).

Data Analyze

In analyzing the data, the findings from data collection are articulated through a descriptive case study method. This approach provides a systematic framework for researchers to comprehend the data and extract coherent, logical, and reasoned interpretations that effectively respond to each research question. "Systematic" denotes adherence to established patterns, sequences, or principles, while "rational and argumentative" signifies that interpretations are grounded in data, facts, and literature, thereby ensuring clarity and coherence in the outcomes (Creswell, 2013).

Result and Discussion

This discussion explores the integration of Virtual Reality (VR) into pre-Hajj training (manasik) in Indonesia, reflecting on regulatory structures, training effectiveness, technological innovations, and spiritual understanding of virtual pre-hajj training.

Exploring Virtual Reality in Pre-Hajj Training

In Indonesia, manasik hajj is regarded as a crucial element of the overall Hajj experience and is considered a fundamental right for every pilgrim. This is explicitly outlined in Law Number 8 of 2019 regarding the Organization of Hajj and Umrah, and it is further detailed in the Regulation of the Minister of Religious Affairs (PMA) Number 13 of 2021, particularly in Chapter IV concerning Pilgrim Development (Ministry, 2019). In the manasik sessions, pilgrims learn about the significance of group cohesion and are introduced to the structure and roles of group officials. This preparation ensures that if challenges arise during the pilgrimage in Saudi Arabia,

pilgrims can promptly report to and collaborate with their designated group officers, enabling the officials to effectively fulfill their responsibilities.

While the administrative success in organizing the Hajj is commendable, it does not automatically indicate the efficacy of the ritual implementation. The 2024 Hajj was deemed successful due to the execution of the 4-3-5 scheme: Four Prime Priorities for Hajj 2024, Three Ecosystem Developments to enhance Hajj's economic potential, and Five Innovations for Hajj 2024 (Qoumas, 2024). At first glance, this indicates effective organization. Nevertheless, beyond these achievements lies a critique of inefficiency, particularly regarding the costly ritual programs, as reflected by the substantial increase in the number of Hajj officers from 2,100 to 4,421. While some pilgrims managed to perform the Hajj independently without relying on Saudi officers, the success of the Hajj organization in 2024 was not solely due to the effective ritual arrangements.

However, the major aim of organizing the manasik, independence, appears to have not been met in terms of implementation and outcomes, and when pilgrims arrive in Saudi Arabia, they keep depending on the hajj authorities within the country (Aljohani, Nejaim, Khayyat, & Aboulola, 2022). Acknowledging these underlying challenges is essential to reveal the inefficiencies and shortcomings in the implementation of Hajj rituals. Given these issues, the emergence of digital technology presents potential solutions that the government should explore. The integration of digital advancements into daily life has expanded significantly. A notable turning point in this evolution occurred in 2021, when the concept of the metaverse resurfaced, introducing a groundbreaking virtual reality landscape.

In response, Umm al-Qura University and the Saudi government, working through the Exhibition and Museum Affairs Agency, developed a digital depiction of the Kaaba in the metaverse. In response to the announcement of the Virtual Hajj, several Indonesian religious authorities, including Muhammadiyah, Nahdlatul Ulama (NU), and the Indonesian Ulema Council (MUI), have expressed critical views by declaring it impermissible for fulfilling religious obligations. Muhammadiyah noted that while the use of virtual reality for educational or recreational purposes is allowed, a virtual Hajj is considered invalid, as it does not satisfy the essential requirements and pillars of the Hajj. Likewise, based on the Syafi'i school of thought, the physical presence of the pilgrim in the holy sites is mandatory, rendering any form of virtual pilgrimage religiously invalid. Members of the MUI Fatwa Commission echoed this sentiment, affirming that Hajj cannot be accomplished through wishful thinking, simulations, or circumambulating a virtual replica of the Kaaba.

In addition to focusing on the advancement of virtual reality for entertainment, they have begun to explore its potential in the field of education, helping participants better understand the material being presented. This includes the development of virtual reality (VR) experiences designed for the convenience of prospective pilgrims traveling to Saudi Arabia. Such initiatives are highly valued, as they represent an innovative solution to integrating religion with technology in the digital age. Given that this technology provides users with a secure, efficient, and immersive experience, it can be effectively utilized across various sectors, including the religious sphere, to enhance the Hajj experience for potential pilgrims. This is consistent with other studies' findings that VR technology has been used extensively. Apart from training, virtual reality has begun to permeate a variety of professions, including the military, medical surgery, and architecture (Abidin, Masmuzidin, Syahela, Hussein, & Mohaidin, 2022).

Through a chamber that may not be as large and expansive as the actual site, pilgrims can explore a virtual environment. This immersive experience allows them to engage with every aspect of the sacred sites in Makkah through virtual reality. By memorizing the context and practicing the reading materials essential for Hajj, they can fully appreciate and contemplate the space. When they eventually arrive in Saudi Arabia, they will find themselves familiar with the places they need to visit, aligning with the goals and aspirations of the manasik organizers.

This technique offers a more authentic experience than traditional methods. It is essential for providing guidance and clarity to pilgrims who may feel unsure or unprepared to attend Hajj. This is because virtual reality (VR) technology can create an immersive environment that accurately represents the Hajj experience in real time, enabling potential pilgrims to understand and engage with the circumstances they will face during their journey (Setiawan, Saputra, Murtadha, & Pinaldin, 2024).

Lastly, utilizing virtual reality technology to enhance Hajj training in Indonesia is a commendable, comprehensive, and successful invention. This presents an opportunity to enhance the traditional manasik system, which has proven challenging and yields suboptimal outcomes. With the aid of virtual reality, participants can directly experience potential accidents that frequently occur when navigating Mina or climbing Hiro Cave, using existing simulations developed by Virtual Reality experts, similar to those used in aircraft flight training.

The independence gained through training allows Indonesian pilgrims to be considered savvy travelers, equipped to address any challenges that may arise during their Hajj in Saudi Arabia. This training serves not only as a comprehensive

preparatory experience but also helps participants understand the context of the ritual actions involved. Additionally, it alleviates concerns for prospective Hajj or Umrah pilgrims, particularly for those undertaking the journey for the first time.

From the author's findings, it can be inferred that virtual reality (VR)-based Hajj training (manasik) can have a significant impact on potential pilgrims. Furthermore, a doctoral thesis by a student at Western Sydney University, titled "Virtual Reality Training for Hajj Pilgrims as an Innovative Community Translation Dissemination Medium," supports this perspective (Munshi, 2022).

Furthermore, the author seeks to identify the most effective media for disseminating community translations aimed at training prospective pilgrims who use English as their primary language. The study evaluates the effectiveness of three different media formats: the first is a printed booklet; the second is a Hajj guidance video provided by the Hajj authorities via the Manasik Academy online platform; and the third is a virtual reality (VR) prototype developed by the researcher, who is also a VR designer and developer, during the research period. These formats were implemented across three distinct groups.

The research revealed that the group using Virtual Reality as a learning medium for Hajj showed significantly better understanding, information retention, and participant feedback compared to the other two groups, indicating its potential to meet future needs (Munshi, 2022). While the study primarily focuses on English-speaking prospective pilgrims, the substantial insights they gain about the training context are applicable universally. Even if the training is delivered in English, there remains potential for VR developers in Indonesia to integrate and utilize Indonesian as the medium for virtual reality, which is certainly feasible.

Developers are increasingly enthusiastic about the potential of virtual reality as an educational tool for Hajj training. Several countries have already started to actively engage in projects aimed at enhancing the experience for both regular visitors and Hajj trainees. For example, Labbaik VR successfully launched a comprehensive Hajj training application for the Ministry of Islamic Affairs in Saudi Arabia on July 17, 2021. Previously, Labbaik VR had been independently used in Pakistan, where many pilgrims, mainly from rural areas, require effective and targeted training. Developers have stated that utilizing Virtual Reality for training can save a significant amount of time and effort in religious services in Pakistan. However, according to research conducted by Kholoud Munshi, there are still shortcomings in the effectiveness of virtual reality in providing understanding and experience, which present challenges for VR developers in the future.

By incorporating virtual reality (VR) and associated digital tools into manasik training, we can empower prospective pilgrims to engage in realistic yet controlled practice environments that enhance their understanding of rituals and boost their confidence. A 2022 study on a 360° VR system found that these platforms are “feasible to use and offer significant benefits for prospective pilgrims,” enabling them to learn without the limitations of time, location, or cost (Rossa, Hudallah, Sunarko, & Mulwinda, 2022). Complementing this, research has shown that VR surpasses textbooks by delivering immersive simulations where users can experience the tawāf physically before arriving in Mecca.

The opportunity to immerse oneself in virtual environments where the rituals occur enhances the sense of independence among potential pilgrims. When individuals are well-informed and given the chance to practice before embarking on their pilgrimage, they become less dependent on others for guidance and support during the Hajj or Umrah. Traditionally, many pilgrims, particularly those unfamiliar with the process or facing language barriers, often rely heavily on guides or fellow travelers to navigate the rituals. This reliance can sometimes lead to confusion or errors during the pilgrimage, which is a time-sensitive and highly structured experience.

In these circumstances, virtual reality-based training emerges as a transformative tool that empowers pilgrims with the confidence and independence to embark on their spiritual journeys. By enabling users to engage deeply with the ritual locations, the simulation familiarizes them with each stage of the pilgrimage in a realistic and immersive manner. Consequently, there is a reduced need for external guidance and a diminished risk of misunderstandings or errors. Ultimately, VR technology not only enhances the overall pilgrimage experience but also fosters a more prepared, autonomous, and spiritually enriching journey.

Sense of Spiritual Understanding of Virtual Pre-Hajj Training

Table 1. News Media Article

No	News Media	Dated Posted
1	Saudi Press Agency: “Islamic Affairs Ministry Introduces Multilingual 3D Virtual Reality Application for Teaching Hajj, Umrah Rituals	June 11, 2024
2	Islam Channel TV “The Tech Companies Providing Virtual Hajj Experiences”	23 July 2022
3	Arab News “Pakistani startup develops world’s first virtual reality Hajj simulator”	23 July 2022

Based on the information presented in the table above, it is evident that the implementation of virtual reality technology offers several opportunities for enhancing spiritual understanding. The intersection of faith and technology is profoundly transforming how Muslims worldwide prepare for and engage in sacred practices. Notably, Saudi Arabia, along with various technology companies and startups, is providing virtual alternatives for education and immersive experiences. In June 2024, the Saudi Press Agency reported that the Islamic Affairs Ministry launched a multilingual 3D virtual reality application designed to teach the rites of Hajj and Umrah. This initiative underscores Saudi Arabia's commitment to enhancing the religious experiences of the millions of Muslims who undertake Hajj and Umrah each year.

As the guardian of Islam's two holiest sites, Mecca and Medina, Saudi Arabia holds the responsibility of facilitating a seamless and meaningful experience for pilgrims engaging in these sacred rites. An analysis of feedback regarding the use of pre-Hajj training through virtual reality reveals several positive impacts on pilgrims, which are outlined in the following explanation.

Strengthening Emotional and Spiritual Engagement

The emotional significance of virtual pre-Hajj training is immense. Spiritual experiences are heavily influenced by emotions, and for many pilgrims, the Hajj represents a profoundly emotional journey. The rituals, the unique ambiance of Mecca, and the collective energy of millions of worshippers can evoke feelings of wonder, gratitude, and a sense of divine presence. By engaging in digital practice of the pilgrimage, pilgrims may experience some of these sentiments even before reaching Mecca. Research on the use of VR in various contexts has demonstrated that the immersive nature of the technology can trigger powerful emotional responses. By replicate the ambiance around the Kaaba, ensuring that the details would evoke a realistic representation of the site.

The virtual representation of the Kaaba and the Black Stone was developed using Unreal Engine, with detailed modeling achieved through 3D Max. Precise measurements and dimensions of both the Kaaba and the Black Stone were taken directly from Al-Masjid Al-Haram, with permission granted by The General Authority for the Affairs of the Grand Mosque and the Prophet's Mosque (Alshaer, 2024). Standing virtually before the Kaaba or experiencing the vastness of the Arafat plains can evoke deep feelings of humility, devotion, and spiritual awakening in preparation for Hajj. These emotions aid travelers in cultivating a mindset of submission to God, which is the ultimate objective of the pilgrimage. Pilgrims who participate in virtual

training often report a heightened sense of spiritual connection and preparedness for the journey, as they have already begun the process of meditation and introspection. Additionally, virtual Hajj experiences are garnering interest from IT companies for their educational potential. These experiences typically provide comprehensive explanations of the rituals' historical and spiritual significance.

For instance, during a virtual performance of Tawaf, viewers may receive a concise history of the Kaaba alongside explanations of its significance in Islamic culture. This blend of spiritual engagement with historical and theological education offers participants a deeper understanding of the Hajj pilgrimage. Additionally, it resonates with younger, tech-savvy Muslims who are accustomed to learning and interacting on digital platforms. By providing a digital extension of religious education, these virtual experiences make the values and rituals of Hajj more accessible to a global Muslim audience.

Balancing Intentions with the Spiritual Essence of Hajj

The primary purpose of Hajj is spiritual growth, encompassing repentance, self-reflection, and a renewed commitment to faith. Each stage of the pilgrimage holds great significance, from the stoning of the pillars, symbolizing the rejection of evil, to the collective prayer at Arafat, exemplifying obedience to God's will. Virtual pre-Hajj training helps pilgrims concentrate on these profound meanings and align their intentions with the spiritual essence of Hajj.

The simulation of the pilgrimage journey allows participants to familiarize themselves with the rituals, ease any anxieties, and foster emotional readiness. However, its true significance lies in its capacity to deepen spiritual understanding. Through virtual reality, pilgrims can engage with the symbolic meanings behind the rites, align their personal aspirations with the overarching purpose of Hajj, and approach the pilgrimage with enhanced awareness and commitment. As technology continues to evolve, its role in enriching spiritual traditions like Hajj is likely to expand, offering new avenues for individuals to connect with their faith and promote spiritual growth.

During the pilgrimage, participants must navigate several significant sites, including Mina, Muzdalifah, Mount Arafat, and the Kaaba, to carry out various holy rites. Many pilgrims, especially those undertaking the journey for the first time, often find the physical demands of the pilgrimage overwhelming. The challenges can include maneuvering through large crowds and performing rituals in confined spaces. This is where virtual reality proves immensely beneficial. It allows pilgrims to replicate the complete pilgrimage experience from the comfort of their own homes or training

facilities. This immersive technology simulates the actual physical conditions they would encounter during Hajj, including bustling crowds and a vibrant atmosphere. Pilgrims can virtually explore the pilgrimage's key locations, participate in essential rituals such as Tawaf (circumambulating the Kaaba), and familiarize themselves with the actual sites (Sumardani, Saraswati, Widiastuti, Komala, & Listyasari, 2020).

Moreover, pre-Hajj training through virtual reality allows users to acclimate to the physical challenges and large crowds they will experience, as it simulates similar environments. This kind of exposure in a controlled, virtual setting significantly reduces the anxiety or shock that pilgrims may face when they embark on their journey in reality. For many individuals, being amidst hundreds of thousands of people for the first time can provoke feelings of panic or fear (Alshaer, 2024). Pilgrims gain confidence by using virtual reality (VR), which provides a realistic yet controllable preview of this situation. Moving through crowded areas, comprehending the ceremonies' rhythm, and psychologically preparing for the Hajj's physical demands are all things they can practice.

Moreover, the immersive experience of virtual reality (VR) enables pilgrims to deeply reflect on the significance of the rituals they are about to undertake. During pre-Hajj training, VR provides pilgrims with the opportunity to grasp the meaning and history behind each ceremony, rather than merely memorizing its mechanical procedures. This enhanced understanding elevates their level of spiritual engagement. For instance, as pilgrims journey along the path of Sa'i, which lies between the hills of Safa and Marwah, they can contemplate the story of Hagar and her desperate search for water—a narrative that underscores the themes of faith and perseverance.

Therefore, pilgrims can utilize this time for spiritual meditation as they navigate these processes. They are encouraged to reflect on their journey's intentions, seek forgiveness for past transgressions, and mentally prepare to fully surrender to God's plan. This preparation allows pilgrims to approach Hajj with a pure heart and a mindset focused on spiritual growth. Consequently, enhancing virtual reality (VR) as a medium for pre-Hajj training not only serves as a tool for logistical and physical preparation but also acts as a bridge that fosters greater spiritual readiness. It helps pilgrims grasp the deeper purpose of their journey, ensuring that when the time comes for the actual pilgrimage, they are not distracted by anxiety or confusion but are instead fully engaged in the spiritual significance of the occasion.

In recent years, the intersection of spirituality and technology has emerged as a captivating topic of discussion. A significant way in which virtual reality (VR) can

enhance spiritual experiences lies in its ability to foster emotional engagement. For many pilgrims, standing before the Kaaba — the holiest site in Islam — is a moment of profound spiritual and emotional intensity. Similarly, a thoughtfully designed VR simulation of the Kaaba can evoke a strong emotional response even before the actual pilgrimage takes place. To cultivate a deeper sense of spirituality and commitment, these emotions are essential components of the spiritual mindset required for Hajj. By familiarizing pilgrims with the rites in advance, VR can help them embark on their journey with clarity and free from distractions (Saidi & Khoiri, 2024).

An atmosphere where genuine mindfulness can flourish is created by this clarity. Since virtual rehearsals have already taken care of the logistical issues, pilgrims can concentrate their mental energies on being physically there for every ritual, from the first Ihram to the last Tawaf (Rokhmad, 2016).

Heightened awareness encourages deeper spiritual contemplation, ultimately fostering personal growth throughout the journey. It is important to recognize that while technology cannot replace spiritual practices, it can act as a bridge. As technology continues to evolve, its role in religious and spiritual rituals is anticipated to expand significantly (Octaviani, 2017).

The spiritual significance of the Hajj remains unwavering, transcending any tools or technologies that may emerge over time. The pilgrimage is, and will always be, a profound journey of surrender, self-reflection, and communion with God. It epitomizes one of the essential pillars of Islam, urging pilgrims to detach from worldly concerns and concentrate solely on their relationship with the Divine. This sacred journey is deeply rooted in centuries of tradition, with each step representing profound spiritual truths that guide the pilgrim toward humility, repentance, and a renewed sense of purpose (Syahdaniya & Rifa'i, 2021). In this context, while virtual reality (VR) tools cannot replicate the intrinsic spiritual experience of Hajj, they can introduce a new dimension to this sacred journey. These tools may assist pilgrims in approaching the pilgrimage with greater clarity and heightened compassion, ultimately fostering a more transformative spiritual experience (Maharani, Sadiah, Mujib, & Mulqiyah, 2022).

By providing a virtual framework, virtual reality (VR) offers pilgrims a unique opportunity to prepare mentally, emotionally, and spiritually for the challenges and significance of their journey. Notably, VR's ability to enhance spiritual awareness may be its greatest advantage. It effectively bridges the gap between theoretical knowledge and practical experience, transforming a potentially daunting ritual into an accessible and meaningful process. This deeper level of preparation allows pilgrims to embark

on their pilgrimage with a heightened sense of purpose, awareness, and emotional readiness, making the actual experience more transformative and profound. Additionally, VR can alleviate the anxiety or uncertainty that first-time pilgrims may encounter by offering them a virtual preview of what to expect (Fitri, Solahudin, & Fitriani, 2023).

This heightened sense of confidence and familiarity enables pilgrims to concentrate more on the spiritual dimensions of their journey, rather than becoming overwhelmed by logistical details. Additionally, virtual reality (VR) can cultivate a sense of community among pilgrims, whether they are first-timers or seasoned veterans. By creating shared virtual environments, pilgrims can engage in meaningful discussions, share insights, and exchange personal reflections, fostering a collective experience of spiritual growth. This social aspect of VR reinforces the unity and fellowship that are central to the Hajj, reminding pilgrims that they belong to a larger, global community of believers. Ultimately, while VR cannot replicate the spiritual essence of Hajj, it can serve as a powerful tool to enhance a pilgrim's preparation and understanding. It provides a unique opportunity for reflection and connection, transforming the pilgrimage from a distant obligation into a deeply personal and transformative journey. As technology continues to advance, so will our approaches to age-old traditions; however, the essence of Hajj the journey of surrender, reflection, and communion with God will always endure (Sukayat, 2016).

Conclusion

In summary, the integration of virtual reality (VR) into pre-Hajj preparation represents a significant advancement in enhancing both the practical readiness and spiritual depth of prospective pilgrims. By demonstrating how VR simulations can foster greater autonomy, situational awareness, and understanding of rituals among participants, this study contributes to the growing body of research focused on immersive religious education. However, it is important to note that the findings are context-specific, largely reflecting the experiences of pilgrims from Indonesia, and may not be fully applicable to other socio-religious or cultural settings.

Future research should explore the psychological and emotional impacts of virtual immersion, alongside comparisons with traditional methods across different countries. It is also essential to investigate the long-term effects of virtual reality (VR) training on pilgrims' actual performance during the Hajj. Enhanced interdisciplinary collaboration is needed, particularly among technologists, religious scholars, and educators, to develop content that maintains theological accuracy and cultural relevance.

Moreover, policymakers in religious affairs ministries, along with Hajj organizers and Islamic education providers, are encouraged to consider the implementation and support of VR-based programs as part of the official pre-Hajj curriculum. To ensure the ethical and equitable scaling of these technologies, investments in digital infrastructure, educational materials, and partnerships with IT developers are vital. By addressing both the logistical and spiritual aspects of the Hajj journey, VR has the potential to transform pilgrimage preparation in impactful and sustainable ways.

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