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Implementation of Technology in Cash Waqf: A Structured Literature Review

Muhamad Husni Hasbulah^{1,*}, Mohd Sollehudin Shuib², Fathullah Asni³, Khalilullah Amin Ahmad⁴, Hasrul Hashom⁵, Wan Azani Mustafa⁶, Syamsuri⁷

- ¹ Faculty Muamalat and Islamic Finance, Kolej Universiti Islam Perlis (KUIPs), 02000 Kuala Perlis, Perlis, Malaysia
- ² Islamic Business School, Universiti Utara Malaysia (UUM), 06010 Sintok, Kedah, Malaysia
- ³ Faculty of Islamic Studies, Kolej Universiti Islam Perlis (KUIPs), 02000 Kuala Perlis, Perlis, Malaysia
- Faculty of al-Quran and al-Sunnah, Kolej Universiti Islam Perlis (KUIPs), 02000 Kuala Perlis, Perlis, Malaysia
- Language Center and General Studies, Kolej Universiti Islam Perlis (KUIPs), 02000 Kuala Perlis, Malaysia
- Faculty of Electrical Engineering Technology, Universiti Malaysia Perlis (UNIMAP), UniCITI Alam Campus, Sungai Chuchuh, 02100 Padang Besar, Perlis, Malaysia
- ⁷ Department of Islamic Economics Laws, University of Darussalam Gontor, Indonesia

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ABSTRACT

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Received 3 April 2024 Received in revised form 18 September 2024 Accepted 4 October 2024 Available online 31 December 2024 This structured literature review focuses on the implementation of technology in the context of cash waqf. The issue under consideration pertains to the necessity of conducting a thorough evaluation and integration of current scholarly investigations on the utilization of technology in the context of cash waqf. To address this, a systematic approach is employed, involving the collection and synthesis of relevant articles obtained from three databases (SCOPUS, ECONBIZ, and Mendeley). The findings of this study demonstrate the diverse methods in which technology is being incorporated into the cash waqf sector, encompassing digital platforms that facilitate donations as well as the utilization of cutting-edge financial instruments such as blockchain. The synthesis of the existing literature highlights the potential of technology to bring about significant improvements in the efficiency, transparency, and scope of cash waqf programs. In summary, this comprehensive analysis sheds light on the dynamic progression of cash waqf by examining its relationship with technology. It provides valuable perspectives on present patterns and potential avenues for further investigation and advancement in the crucial convergence of Islamic finance and contemporary technology.

Keywords:

Cash waqf; technology; waqf; literature review

1. Introduction

Cash Waqf plays a significant role in the domain of Islamic finance and philanthropy, serving as a crucial tool that embodies the fundamental principles of solidarity and economic fairness. Waqf, originating from Islamic heritage, embodies a longstanding philanthropic custom wherein individuals or institutions allocate their financial resources, typically in the form of assets or monetary funds, with the intention of enhancing societal welfare [1-4].

E-mail address: husni@kuips.edu.my

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 $[^]st$ Corresponding author.

Throughout history, cash waqf has been a significant factor in promoting socio-economic progress, education, healthcare, and the reduction of poverty in regions mostly inhabited by Muslims [5-9]. Nevertheless, considering the ongoing global advancements in the digital era, it is imperative that the traditional concept of cash waqf should also be able to adapt and evolve accordingly. The proliferation of technology has become pervasive across all aspects of contemporary existence, leading to the restructuring of economies, societies, and human behaviors. The advent of this technology has fundamentally transformed the way individuals engage with one another, conduct financial transactions, and contribute to the betterment of their own communities. Hence, it is undeniable that technology has begun to make a lasting impact on the implementation of cash waqf.

The utilization of Islamic social financial instruments, including cash waqf, is not exempted from being included alongside the quick and advanced development of technology. Hence, this comprehensive investigation is conducted to address the inquiry of how technology is being utilized in the context of cash waqf. This study is driven by the primary research purpose of methodically conducting a synthesis review of the current literature pertaining to the deployment of technology in cash waqf.

2. Literature Review

2.1 The Need for a Structured Literature Review on Technology in Cash Waqf

The inclusion of literature review is an essential component of academic research, as it allows the researcher to familiarize themselves with previous scholarly work, to discover areas that warrant further investigation, to evaluate a specific hypothesis, and to formulate novel hypotheses [9]. By conducting a comprehensive examination of the relevant literature, it has become evident that the existing body of work, when evaluated against a certain criterion, exhibits certain deficiencies, incongruities, and paradoxes [11]. The systematic literature review (SLR), often referred to as the structured literature review, has emerged as a promising methodology in the field of research management. Its purpose is to comprehensively examine and synthesize existing literature with the aim of advancing the discipline and promoting cohesion among researchers [12]. Systematic Literature Review (SLR) is a methodological approach that involves the synthesis, analysis, and integration of existing research findings to generate reliable and comprehensive outcomes pertaining to a specific research inquiry. This process can be executed by quantitative or qualitative means [13]. The primary objective of this endeavor is to systematically identify and integrate relevant scholarly investigations or prior inquiries in a comprehensive manner. This is achieved by employing structured, transparent, and reproducible methodologies at every stage of the undertaking [14].

To explore various facets of cash waqf in the literature, previous researchers have carried out a number of studies, including those by Alshater *et al.*, [15]; Anam *et al.*, [16]; Azizah *et al.*, [17]; Atan and Johari [18]; Aldeen *et al.*, [19]; Ninglasari [20]; and Zakaria and Mohd Zamro [21]. The study primarily examined the literature pertaining to cash waqf, with a particular emphasis on bibliometric studies. Notable contributions in this area include the works of Alshater *et al.*, [15]; Anam *et al.*, [16]; and Ninglasari [20]. The previous studies, such as those by Aldeen *et al.*, [19], have primarily focused on the current issues in the field of cash waqf. Additionally, Nur Azizah *et al.*, [17] have examined the prevailing trends and agendas pertaining to cash waqf. Furthermore, Zakaria and Muda [21] has specifically investigated the implementation of cash waqf in Malaysia, while Atan and Johari [18] have delved into the role of waqf in poverty alleviation.

The present study identified a gap in the existing literature about the debate over technology implementation in the field of cash waqf. Specifically, no previous research was found that specifically examined this topic using literature-oriented research as a technique. Hence, this

research endeavor aims to address the existing knowledge vacuum by conducting a comprehensive and methodical investigation into the intersection between technology-themed studies and cash waqf.

3. Materials and Methods

A systematic review is a research methodology employed to comprehensively evaluate and analyze all relevant past research findings related to a certain research endeavor, topic matter, or contemporary phenomenon [22]. The systematic review's analysis is seen as more complete due to its implementation, which is based on study findings and employs a relevant searching approach utilizing specified keywords. The processes involved in a systematic review typically begin with the formulation of research questions and objectives. This is followed by the systematic search and evaluation of relevant literature, involving a screening procedure. Subsequently, synthesis and analysis of the collected data are conducted. Finally, a final report is prepared [23].

The systematic review in this study adheres to the principles outlined in PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis). PRISMA offers a comprehensive framework for the methodology and reporting of the processes followed in systematic reviews. The use of PRISMA guidelines in this study is attributed to the three primary benefits associated with employing PRISMA, as outlined by Sierra-Correa and Cantera Kintz [24]. Firstly, this approach enables the researcher to effectively articulate and establish the research topic and study objectives. Furthermore, this aids researchers in establishing the requisite criteria for the inclusion or exclusion of literature in this study. Furthermore, it facilitates scholars' efforts to locate superior and more comprehensive databases within a specified timeframe. Hence, the Cooper *et al.*, [25] strategy has been employed to examine the outcomes of this investigation. This systematic review encompasses various stages, including the identification of the study's backdrop, research objectives, survey question, literature source search, criterion selection, data extraction, and data analysis [26].

3.1 Identification

The systematic review process encompasses three fundamental phases that are employed to choose several related papers for this investigation. The initial stage involves the identification of keywords and the subsequent exploration of connected and related terms using thesauri, dictionaries, encyclopedias, and previous scholarly investigations. Consequently, search queries are conducted on the Scopus, ECONBIZ, and Mendeley databases (see Table 1) following the selection of relevant keywords. During the initial phase of the systematic review procedure, the ongoing research endeavor demonstrated efficacy by effectively extracting a total of 520 papers from both databases.

Table 1Search string

Database	Search String	Total Number of Publication	Date of Acquisition
Scopus	TITLE-ABS-KEY (technology AND "cash waqf" OR waqf OR "waqf fund")	50	20/8/2023
ECONBIZ	technology AND "cash waqf" OR waqf OR "waqf fund"	451	20/8/2023
Mendeley	technology AND "cash waqf" OR waqf OR "waqf fund"	19	20/8/2023

3.2 Screening

The initial stage of the research process entails the careful evaluation of a pool of potentially pertinent research materials with the aim of identifying content that is congruent with the preestablished research inquiries. During the initial screening phase, a total of 368 publications were deemed ineligible and hence excluded from further analysis. Subsequently, in the second stage, a total of 97 papers were evaluated based on specific inclusion and exclusion criteria, as outlined in Table 2. It is important to acknowledge that the main factor considered for inclusion in this study is the literature, which includes many types of scholarly works such as research papers, reviews, metasyntheses, meta-analyses, books, book series, and chapters that are not covered in the most recent investigation. Furthermore, this study exclusively examined papers written in the English language within a certain timeframe spanning from 2006 to 2023, including a period of 17 years. As a result, a total of fifteen publications are rejected based on duplication criteria. Significantly, literature is chosen as the principal means of deriving practical advice.

Table 2Filtering based on inclusion and exclusion criterion

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Criterion	Inclusion	Exclusion		
Language	English	Non-English		
Timeline	2006 – 2023	< 2006		
Literature type	Article journal, Conference paper	Book, Chapter in Book, Review		
Publication Stage	Final	In Press		

3.3 Eligibility

The third level, called eligibility, has a total of 138 items ready. At this point, all article titles and important content were carefully examined to make sure they met the criteria for inclusion and complemented the current study's objectives. Therefore, 26 reports are omitted because they are not relevant due to the out of-field, title not significant and the abstracts are not related to the objective of the study. Finally, 30 articles are available for review as of this writing (see Figure 1).

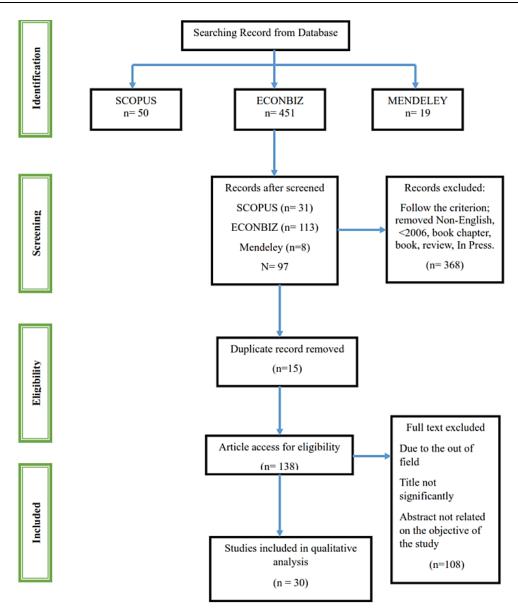


Fig. 1. Flow diagram of the proposed searching study [27]

3.4 Data Abstraction and Analysis

The data extraction procedure encompasses the retrieval of data from the chosen articles, guided by the study questions formulated by the researchers. This study employs a qualitative synthesis approach. The present study employed a thematic analysis approach to identify and develop specific themes derived from the articles that are then examined. According to Flemming *et al.*, [28], a theme analysis is considered the most appropriate method for integrating studies that employ various research designs. The objective of thematic analysis is to discern, examine, and elucidate the themes and categories derived from the gathered data [29].

The researchers conducted a comprehensive examination of 30 scholarly articles in order to identify statements or specific information that pertain to the topics discussed in the current study. In a similar manner, the authors and specialists systematically assess each technology within the context of cash waqf, draw conclusions, and develop overarching themes. The approach yielded several major subjects, namely digital platforms and fundraising, blockchain technology, future trends and developments, and the impact of technology on cash waqf.

Subsequently, the authors proceeded to reintroduce and expound upon each thematic element that had been previously introduced, as well as any related topics, concepts, or ideas. The primary author, together with the other contributors, engaged in the process of identifying and constructing thematic categories derived from the dataset within the specific framework of this research endeavor. In this particular instance, a log is maintained throughout the process of data analysis to document any analyses, perspectives, dilemmas, or other notions pertaining to the interpretation of the data. To address potential discrepancies in the process of theme design, the writers conducted a meticulous analysis of the outcomes. The authors address any potential differences that may arise between their respective themes.

As a result, the formulated thoughts underwent modifications to ensure their cohesiveness. The tests were undertaken by two specialists, namely Wan Azani Mustafa, who specializes in technology, and Mohd Sollehudin Shuib, who specializes in waqf, in order to ensure the authenticity and validity of the issues at hand. The expert review process was conducted to assess the clarity, significance, and appropriateness of each sub-theme, thereby demonstrating domain validity. Following this, the authors have made revisions based on their own judgement in response to input from readers and opinions from professionals.

4. Result and Finding

4.1 Digital Platforms and Fundraising

A technology-based infrastructure or software ecosystem known as a "digital platform" serves as an intermediary to link people and offers tools for communication, commerce, content sharing, and data exchange while facilitating a variety of online activities, interactions, and services. It is crucial in the context of fundraising because it serves as a channel for asking for and receiving financial contributions, frequently in the form of gifts or investments, from people, groups, or the general public to support certain causes, initiatives, or non-profit organizations. There are many different ways to raise money for a cause, from conventional strategies like direct mail campaigns and inperson events to cutting-edge digital tactics like online crowdsourcing, email marketing, and social media outreach. Its main goal is to secure the funding non-profit organizations, charities, and philanthropic initiatives require to fulfil their purposes and to provide a beneficial social impact. The intention to engage in online cash waqf is shown in Figure 2.

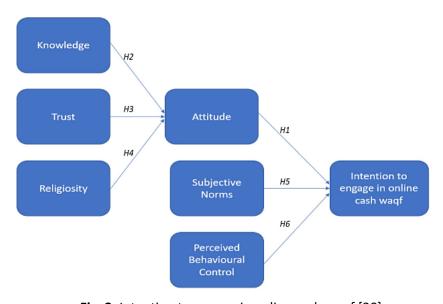


Fig. 2. Intention to engage in online cash waqf [30]

The utilization of technology through online digital platforms has the potential to enhance the accessibility of the general population, enabling them to actively participate in the implementation of cash waqf on an equitable basis [31-33]. This is based on data from the experience of Bank Muamalat Malaysia Berhad (BMMB), which has successfully boosted its cash waqf collection. Their success is determined by the contributions of their IT-savvy clients [31]. Beyond IT literacy, other elements play a role in how well this online digital platform is accepted. One's choice to conduct online waqf is significantly influenced by a number of factors, including perceived utility, considered simplicity of use, perceived religiosity, and volume of information [32]. Hence, it is imperative to enhance the efficacy of online digital platforms for cash waqf collection by focusing on improving user-friendliness and the availability of online information. This project is anticipated to assist waqf institutions in optimizing the collection of cash waqf [33]. Furthermore, it is imperative to augment the factors of knowledge, trust, and confidence by means of online information dissemination. This will effectively appeal to specific demographics, particularly the youth who possess familiarity with digital platforms, hence encouraging their active involvement in online cash waqf initiatives [34].

The convergence of online platforms and cash waqf fundraising has the potential to revolutionize the field of Islamic generosity. Numerous research papers have provided insights into the dynamic nature of digital tools in augmenting the management of cash waqf and tactics for fundraising. According to Bustami and Hakim [34], effective information technology usage is a crucial factor. This study highlights the significance of collecting and managing cash waqf using various digital platforms such as social media, websites, and mobile phone contacts. The implementation of digital integration enhances operational efficiency, facilitating individual participation in waqf initiatives. The role of media information on cash waqf giving is illustrated in Figure 3.

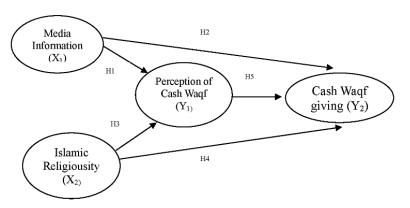


Fig. 3. Role of media information on cash waqf giving [35]

Additionally, the utilization of media marketing is identified as a potent catalyst for effectively involving the Muslim community in financial waqf initiatives. The research conducted on media promotion and community engagement underscores the substantial impact of media campaigns in augmenting awareness and participation in cash waqf. This highlights the crucial significance of digital platforms in the distribution of information and mobilization of support for philanthropic endowers [35].

Crowdfunding models also emerge as a promising avenue within cash waqf fundraising. Research delving into crowdfunders' behavior suggests that technology acceptance models positively impact the intentions of the contributors [36-38]. These models offer a convenient and accessible way for individuals to participate in waqf projects. However, challenges related to shariah compliance on peer-to-peer (P2P) platforms need careful consideration [39-40].

In summary, the integration of digital platforms with cash waqf fundraising is having a transformative impact on the landscape of Islamic generosity. The utilization of technology, media advertising, crowdfunding models, and shariah-compliant platforms is influencing the advancement of fundraising methodologies. Considering the ongoing evolution of these tactics, it is imperative to uphold a harmonious equilibrium between innovation and adherence to Islamic principles. This approach is crucial in order to preserve the efficacy of cash waqf as a potent instrument for philanthropic endeavors in the digital age.

4.2 Blockchain Technology

Applying blockchain technology in the context of cash waqf means setting up a decentralized and open digital ledger system. This system is used to track and verify transactions related to waqf contributions and rewards. Every transaction in the system is cryptographically protected and linked to the one before it, creating an immutable chain of blocks. The system runs on a decentralized network of computers known as nodes. This system ensures that all cash waqf transactions are securely recorded, making them readily accessible to key stakeholders and impervious to fraud. As a result, it enhances trust in the management and distribution of waqf funds, as well as accountability and transparency. Transparency, security, and decentralization are three of the main characteristics of blockchain technology, making it a powerful tool for improving the management of cash waqf and fostering more confidence between contributors and beneficiaries. Blockchain technology is illustrated in Figure 4.

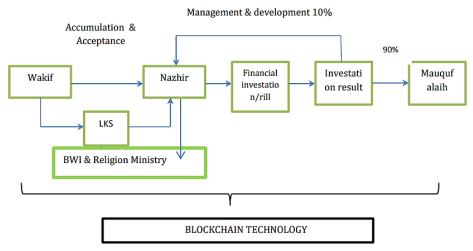


Fig. 4. Blockchain technology-based cash wagf management model [41]

Enhancing accountability and transparency within the system is possible with the use of blockchain technology in Indonesia's cash waqf industry. According to Zulkarnaen *et al.*, [41] blockchain technology has the potential to address various crucial aspects of waqf management. In order to do this, data security must be strengthened, seamless data integration has to be made possible, and real-time reporting should be possible. For the greatest levels of accountability to be maintained in the management and distribution of cash waqf monies, these reforms are essential.

The transparency and security elements that are built into blockchain are in line with Waqf's guiding principles. Waqf management can foster higher stakeholder trust by implementing blockchain for both donors and recipients [42]. Transactions are tamper-proof because of the immutability of blockchain records, which is crucial when working with charitable funds. Additionally, because blockchain is decentralized, it lowers the possibility of fraud and corruption, making it an

appropriate technology for improving the accountability of cash waqf. However, as the second study points out, adopting blockchain in the Islamic financial sector, particularly cash waqf, is not without its difficulties. The integration of blockchain technology may be hampered by the intricacy of Islamic banking products and the frequently cloudy nature of their implementation. For blockchain to be implemented successfully, regulatory clarity and standardized procedures are essential. To solve these difficulties, solid frameworks that link blockchain with Islamic financial concepts must be created [43].

In conclusion, blockchain technology has the potential to revolutionize cash waqf's accountability and transparency. Its traits, which provide strong security, transparency, and immutability, are in line with the ideals of waqf. To fully utilize blockchain in the Islamic financial sector, and more specifically in cash waqf management, it will be essential to overcome issues such as regulatory clarity and standardization.

4.3 Future Trends and Innovations

Future trends and innovations in the context of technology and cash waqf refer to developing techniques and technological advancements that are redefining how cash endowments are administered and employed for charitable purposes. These trends cover the deployment of digital platforms, fintech integration, blockchain applications, and data-driven decision-making, all of which are positioned to enhance transparency, efficiency, and accessibility in cash waqf management.

The expeditious integration of digital platforms by charitable organizations in Indonesia that operate within the Islamic framework signifies an inclination towards forward-thinking approaches in the realm of philanthropy. The current shift towards digital transformation is not solely a reactive measure to address the COVID-19 pandemic but rather offers insight into the significant role that technology will assume in shaping the future landscape of philanthropic contributions. With the continuous advancement of the technology, it is probable that these organizations will pursue additional innovations in order to augment their influence and to extend their scope [41]. The utilization of geospatial technology in the management of Iraq's waqf exemplifies a discernible inclination towards heightened levels of accountability and openness. In the foreseeable future, it is plausible that this strategy might potentially establish itself as the prevailing method for overseeing waqf assets on a global scale, thereby guaranteeing transparency and accountability in the utilization of philanthropic resources [44]. The example of Thailand shows an emerging pattern of democratization in the realm of philanthropy, specifically through the utilization of crowdfunding platforms. This is consistent with a wider worldwide trend towards charity that is more inclusive and accessible. In forthcoming times, crowdfunding platforms that are propelled by technology could perhaps emerge as a predominant avenue for revitalizing waqf and providing sustenance to philanthropic endeavors [45]. The utilization of multi-sensor technologies and Geographic Information Systems (GIS) in Malaysia's waqf administration represents a progressive and visionary innovation. This method not only optimizes operations but also establishes the foundation for more effective and evidence-based management of waqf holdings. Integrated systems that combine many functions may potentially become indispensable instruments for effectively managing endowment assets in the future [46].

The idea of Tazkiah Bank embodies a prospective paradigm for Islamic banking that integrates crowdfunding with technology-driven decision-making. This novel methodology possesses the capacity to revolutionize the management of endowments, enhancing their flexibility and enabling them to successfully tackle economic difficulties [47]. The phenomenon of financial technology (fintech) promoting financial inclusion on a global scale is also observed within the domain of Islamic

philanthropy. Islamic fintech has the ability to offer a viable and enduring solution for effectively addressing the financial requirements of marginalized communities in the future. This aligns with the overarching objective of advancing financial inclusion [48]. The significance of the cooperation between conventional institutions and technology-driven entities is underscored by the collaboration between Sharia cooperatives and fintech startups in Indonesia. The partnership model has the potential to serve as a paradigm for the manner in which Islamic finance institutions navigate the dynamic and evolving financial environment [49]. Both Malaysia and Indonesia recognized the significance of waqf as a catalyst for promoting economic development. In the forthcoming era, with the persistent advancement of technology and innovation, waqf assets have the potential to assume a more substantial function in promoting sustainable development and stimulating creativity [50]. The urgent need for comprehensive legal frameworks in the digital era is indicative of a recognition of the evolving philanthropic environment. In subsequent periods, it is plausible that these regulations may undergo further development in order to ensure that charitable organizations effectively and openly utilize technology [51].

Usman and Ab Rahman [53] discuss a prominent forthcoming development in the realm of education finance, specifically focusing on the growing significance of waqf, an Islamic endowment, as a means of financing higher education in Malaysia. The study highlights the increasing prominence of waqf as a novel and alternative means of financing higher educational institutions (HEIs). The trend demonstrates the ability of waqf practices to effectively respond to current demands and is a novel strategy for tackling financial obstacles within the realm of higher education. Thaker et al., [54] investigates a prospective trend in waqf finance through an analysis of the implementation of the Crowdfunding-Waqf Model (CWM) as a solution to the liquidity challenges encountered by waqf institutions in Malaysia. This study examines the behavioral intentions of donors or crowd funders, highlighting the impact of elements such as perceived usefulness and simplicity of use on individuals' intentions to participate in the waqf finance model. The phenomenon exemplifies the increasing significance of technology and crowdfunding in the reconfiguration of waqf finance's future trajectory. Lastly, Berakon et al., [55] present a novel Islamic investment product known as Cash Waqf-Linked Sukuk (CWLS), which effectively combines cash waqf instruments with sovereign sukuk. This study utilizes contemporary technology and the technology acceptance model (TAM) framework to investigate the public's intentions to engage in retail customer wish list services (SWR). The progressive tendency indicates a potential merging of financial innovation, technology, and waqf practices, thereby expanding the influence of CWLS beyond the Muslim community to a more diverse group of investors. This serves as a demonstration of how innovation is influencing the future trajectory of waqf finance and investment.

In a nutshell, the debates shed insight on the potential impact of different innovations and trends on the trajectory of Islamic generosity and the management of waqf. The advancements in charity giving have been significantly facilitated by the integration of technology, which has played a pivotal role in enhancing operational effectiveness, promoting accountability, and fostering inclusiveness. As the ongoing evolution of these tendencies persists, it is anticipated that the charitable sector will undergo a notable shift, enhancing its capacity to cater to the needs of marginalized populations and making significant contributions towards broader societal objectives.

4.4 Impact Technology in Cash Waqf

The impact of technology within the setting of cash waqf pertains to the deliberate utilization of digital tools and data-driven methodologies to optimize the favorable social and economic consequences derived from cash endowments. The process entails utilizing technological

advancements, such as fintech platforms and data analytics, to efficiently direct cash waqf contributions towards projects and initiatives that demonstrate a concrete and quantifiable influence on society. This approach aligns with the philanthropic objectives and principles of Islamic finance.

The study titled "Analysis of Google Play Store's Sentiment Review on Waqf Digital Platform Using Fasttext Embedding" explores the interface between the world of technology and monetary waqf. It demonstrates the changing waqf donation scenario as technology permits people to make contributions online through digital platforms. The study suggests a sentiment analysis approach to improve the user experience and acquire knowledge from these online interactions. Based on user reviews of waqf digital platforms, this model uses fastText embedding, a natural language processing approach, to automatically categorize user feelings into good, negative, or neutral categories [56]. However, this change necessitates efficient monitoring and analysis of user feelings and input. The proposed sentiment analysis approach, which makes use of fastText embedding, represents the adaptation of sophisticated natural language processing methods to comprehend and classify user sentiments, which can offer insightful information to enhance and optimize digital waqf platforms.

The use of fastText embedding shows its efficacy in capturing the subtleties of user feelings when compared to traditional models like Bag of Words (BOW) and Term Frequency-Inverse Document Frequency (TF-IDF). This state-of-the-art technology is being used in the study to improve user engagement and experience on waqf digital platforms and in turn promoting greater donations to this admirable cause [56]. This initiative fits into a larger trend of using technology in charitable endeavors, giving cash waqf the chance to flourish and adjust to the shifting tastes and behaviors of donors in the digital world [57].

In conclusion, the integration of cash waqf and technology is becoming more and more important in today's digital environment. The decision to implement cutting-edge techniques, such as sentiment analysis with fastText embedding, demonstrates the dedication to enhance the effectiveness and efficiency of waqf digital platforms. Technology's contribution to improving transparency, accessibility, and user engagement in cash waqf is anticipated to increase as it continues to change how we interact with financial systems and charitable causes, potentially increasing the impact of this admirable type of Islamic giving.

5. Discussion and Conclusion

The most important development in cash waqf has been the implementation of digital platforms. Digital platforms, such as websites and mobile apps, have enhanced accessibility for contributors and made it simple and secure for them to make contributions, according to numerous studies. These solutions frequently offer real-time tracking and reporting, which improves accountability and transparency. Additionally, algorithms for sentiment analysis, like fastText embedding, have been put forth to measure user sentiment and input, allowing waqf institutions to continuously enhance their online presences. The main lesson to be learned from this is that cash waqf fundraising has been transformed by digital platforms, which have made it more effective, convenient, and transparent [58-60].

Blockchain technology has a lot of potential for cash waqf, especially in terms of promoting transparency and accountability [61-64]. Waqf funds can be used as intended with the use of blockchain's decentralized and irreversible record, lowering the possibility of fraud or poor administration. Smart contracts can also automate the distribution of waqf funds in accordance with predetermined norms, cutting down on administrative costs. However, issues like regulatory frameworks and standardization still exist. Although the use of blockchain in cash waqf is encouraging, these obstacles still need to be addressed.

Technology in cash waqf has a bright future. To forecast donation trends, customize donors' experiences and improve fundraising tactics, predictive analytics, artificial intelligence, and machine learning can be used. Moreover, we can anticipate a rise in the use of internet channels for cash waqf as digital literacy among Muslim communities rises. Additionally, collaborations between fintech businesses and waqf institutions are anticipated to grow, bringing fresh approaches to waqf management and fundraising. To fully utilize technology for cash waqf, academics and practitioners must stay aware of these trends.

The impacts of technology on cash waqf are significant [64-65]. Waqf institutions' donor base has increased thanks to the use of digital platforms, particularly among the younger, tech-savvy population. Waqf management could benefit from increased trust, transparency, and effectiveness thanks to blockchain technology. In terms of trends, integrating cutting-edge technologies promises to further revolutionize fundraising and management. On the other hand, it's crucial to deal with issues like regulatory frameworks and make sure that technology-driven solutions are in line with the tenets and goals of cash waqf. Overall, the way that technology affects cash waqf is changing, and there is a lot of room for improvement.

The structured literature study concludes through evidence that the implementation of technology in cash waqf is a dynamic and transformational process. Fundraising has become more transparent and accessible because of digital platforms, and blockchain technology promises to strengthen accountability. Predictive analytics and AI are two future developments that point to continuous expansion and innovation in cash waqf. Although technology has generally had a good effect on cash waqf, issues with regulation and standardization still need to be resolved. Technology's involvement in cash waqf is anticipated to grow as it develops, supporting the expansion and sustainability of this admirable type of Islamic giving. It is important for researchers and practitioners to work together to fully utilize technology while preserving the cash waqf ideals.

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