

# THE ROLE OF INNOVATION AND THE ENTREPRENEURSHIP ECOSYSTEM IN CREATING SUSTAINABLE DEVELOPMENT OF ISLAMIC ENDOWMENT (Waqf) : A SYSTEMATIC REVIEW

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## ABSTRACT

**Background:** A more focused examination of the specific themes of waqf, innovation, and entrepreneurship is needed to deepen our understanding of their role in promoting the sustainability of waqf institutions and benefiting the community.

**Purpose:** This study attempts to present literature works over 50 years related to sustainable waqf development from the perspective of innovation and entrepreneurship ecosystem (EE).

**Design/methodology/approach:** This study employed a two-step qualitative methodology. First, a bibliographic analysis was conducted. Second, a content analysis of all reviewed articles was performed.

**Findings/Result:** This study discovered that process and product innovation was the most frequently carried out by previous research. Meanwhile, position and paradigm innovation are still uncommon. The study proposes that the mediating role of EE between innovation and sustainable waqf development, as well as highlighting how factors of sharia compliance, governance, transparency and accountability, community engagement, and stakeholders' collaboration can moderate this relationship.

**Conclusion:** This study contributes to the literature on waqf and entrepreneurship by providing valuable insights for academics seeking to develop sustainable waqf models and innovations. Practically, this study can inform various stakeholders in formulating strategies to promote sustainable waqf development and contribute to national economic growth.

**Originality/value (State of the art):** To the author's knowledge, previous research has yet to specifically discuss the waqf theme concerning innovation and entrepreneurship ecosystem (EE) in supporting the growth and sustainability of waqf development.

**Keywords:** sustainable development, innovation, entrepreneurship ecosystem, waqf, systematic review

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## INTRODUCTION

Waqf innovation in the context of developing and empowering various waqf assets has piqued the interest of many researchers to maintain the primary of waqf principles, such as perpetual (Chowdhury et al. 2011), intergenerational development (Kahf, 2014), supporting the sustainable development (Al-Jayoussi, 2012) and achievement of all 17 SDGs (Budalamah et al. 2019). The sustainability of waqf and its assets development is inextricably linked to professional waqf management in developing entrepreneurship capacity and business through continuous innovation. Waqf development is also critical to the sustainability of waqf institutions and the delivery of their benefits to the community. Ensuring the sustainability of waqf development requires protecting and preserving waqf assets, increasing their productivity, and ensuring the continuous delivery of their benefits (Hassan et al. 2020). Therefore, waqf managers (*nazir*) must be able to generate greater socio-economic impact through their entrepreneurial efforts (Malecki, 2018), innovation, employment, and wealth creation (Khatami et al. 2022).

Aside from internal factors, the entrepreneurship ecosystem (EE) will influence entrepreneurs' success in realizing innovation (Isenberg, 2010, 2011; Liguori et al. 2019). Existing research categorizes EE into six areas: policy, finance, culture, support, markets, and human capital (Isenberg, 2011). According to innovation theory, the need for waqf-related innovation includes, among other things, achieving the goal of more robust growth of waqf assets and broader beneficiary coverage (Ascarya, 2022). Thus, research and development activities have become a critical process and component for waqf institutions to achieve the goals of waqf innovation.

Previous studies are constantly proposing new methods and processes for developing waqf assets so that their management becomes more effective, efficient, and transparent, one of which is using technology as part of the waqf innovation process. Online waqf and crowdfunding models are being studied not only in Muslim-majority countries such as Indonesia (Kasri & Chaerunnisa, 2021; Masrizal et al. 2022) and Malaysia (Amin et al. 2014), but also in Thailand (Zain et al. 2019). On the other hand, central issues related to trust and accountability (Fauzi et al. 2022; Hasan et al. 2022; Shukor et al. 2019), community knowledge and literacy,

and professionalism in waqf management (Fauzi et al. 2022) encourage the adoption of increasingly advanced technologies such as financial technology (Zakariyah et al. 2023) and blockchain (Mohaiyadin et al. 2022) so that it is expected to increase awareness and the waqf distribution process. Mahbubi (2022) argued that in reaching success during covid-19 pandemic, millennial entrepreneurs hold several main characteristics, namely innovative, critical thinking, visionary, cooperative, enthusiastic, and willingness to learn and share.

Some previous studies have conducted systematic reviews of waqf themes in general and broad focus, such as categorizing primary research themes and trends for waqf studies (Alshater et al. 2022; Sukmana, 2020). On the other hand, discussion of a systematic review that addresses specific waqf themes is scarce, including accountability in waqf institutions (Ainol-Basirah & Siti-Nabiha, 2023) and the relationship of waqf to the concept of social innovation and the SDGs (Budalamah et al. 2019; Dirie et al. 2023). To the author's knowledge, previous research has yet to specifically discuss the waqf theme concerning innovation and entrepreneurship ecosystem in supporting the growth and sustainability of waqf development.

Hence, this study attempts to present literature works related to waqf development from the perspective of innovation and EE by exploring its evolution through a combination of bibliometric analysis and content analysis of the most interrelated articles. The definition of innovation in this study includes all aspects of waqf operations, from fundraising and asset management to program delivery and beneficiary outreach. Whereas, this study defines sustainable waqf development as waqf development that is sustainable in the long term, both financially and socially. This means that waqf institutions should generate enough income to cover their costs and provide a return to their donors, while also using their resources to support social and economic development in the communities they serve. The entrepreneurship ecosystem can play a role in supporting waqf development.

This study will answer the following research questions in order to achieve the research objective: What are the research trends related to waqf innovation and the support of the entrepreneurship ecosystem? What are the main topics of innovation type and area of entrepreneurship ecosystem discussed in the previous literature in relation to sustainable waqf development?.

The findings from two research questions will then serve as the foundation for the proposed conceptual framework, guiding future research. The author’s knowledge and analytical skills are required to determine the categorization based on the most dominant discussion in the paper.

This study reviewed documents published over the past 50 years (1980-2023). The data was gathered in November 2023. The Scopus database was chosen as the data source for this study due to its established reliability and credibility for bibliometric analysis (Bretas et al. 2022; Rathi et al. 2022).

## METHODS

This study used a systematic review methodology to synthesize and analyze the existing literature on waqf development and its relationship with innovation and the entrepreneurship ecosystem. The methodology combined bibliometric analysis and content analysis to provide a comprehensive and in-depth understanding of the topic (Figure 1).

A critical step involved developing a keyword selection strategy, which was refined through consultation with waqf experts to ensure its validity. The final stage is data collection, which includes several key terms such as “Islam\*” AND “endowment” OR “waqf” OR “awqaf” AND “entrepreneur\*” OR “ecosystem” OR “technology” OR “digital” OR “sustainability” OR “innovation”. The data search strategy and data collection process yielded 139 documents, including 88 articles, 24 book chapters, 14 conference papers, 7 books, and 5 reviews.

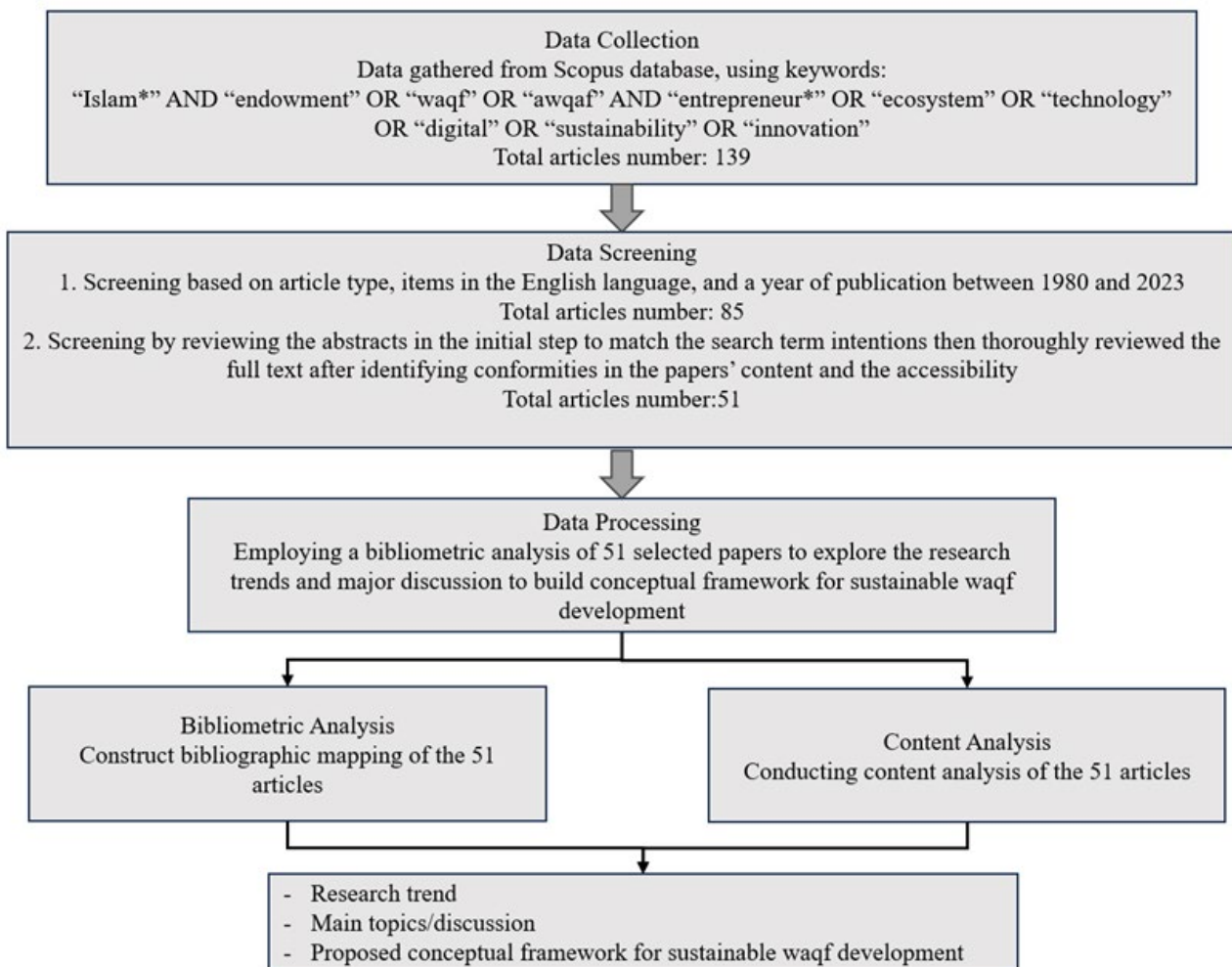


Figure 1. Methodological framework used to review the previous research in this study

To better reflect scientific results and relevance and be understood globally, the screening stage applies review criteria only to documentary article types in English. Although this study set the search year range criteria starting from 1980, documents related to the study topic that emerged from the search results in Scopus only appeared with publication years above 2000. This study excludes paper review articles; only research article types will be analyzed. The screening criteria produced 85 documents to enter the analysis stage. Second, we read the paper's abstract and a thorough review process on the full text of the paper to match the search with the sustainable development of waqf theme. From the two stages of data screening, 51 papers entered the data analysis stage.

The 51 selected papers will then be subjected to a bibliometric analysis and content analysis to investigate research trends and significant topics of interest. At this point, categorization was carried out to answer the research questions, conclude the findings, present them in tables, and analyze the results.

This study aims to analyze existing research on waqf development, innovation, and entrepreneurship over the past 50 years (1980 to 2023). After a thorough screening process, 51 articles were selected for further analysis. Through bibliometric and content analysis of these papers, we aim to identify significant research trends and topics related to waqf, innovation, and entrepreneurial ecosystem. The findings of this analysis will help us answer our research questions and propose a conceptual framework to describe the relationship

between innovation, the entrepreneurship ecosystem, and sustainable waqf development.

## RESULTS

### Research trends related to waqf innovation and the support of the entrepreneurship ecosystem: Bibliographic Result

Figure 2 shows that Islamic microfinance, Islamic social finance, cash waqf, and sustainability are the most frequently mentioned terms and have the strongest links. Malaysia and Indonesia are the countries with the most research related to the current study theme. Figure 2 shows six clusters of bibliographic results:

- Cluster 1 (red): accountability, blockchain, crowdfunding, endowment, financial inclusion, fintech, islamic finance, islamic fintech, waqf, zakah.
- Cluster 2 (green): bmt (baitul maal wat tamwil), cultural influence, imfi (islamic micro finance), islamic microfinance, islamism, microfinance, performance measurement, stakeholder.
- Cluster 3 (blue): cash waqf, financing, micro enterprises, philanthropy, productive waqf, sustainability thematic analysis.
- Cluster 4 (yellow): covid-19, healthcare, infaq, islamic social finance, waqf management, zakat.
- Cluster 5 (purple): Indonesia, intention, Malaysia, technology acceptance.
- Cluster 6 (light blue): islamic philanthropy, social entrepreneurship, venture philanthropy.

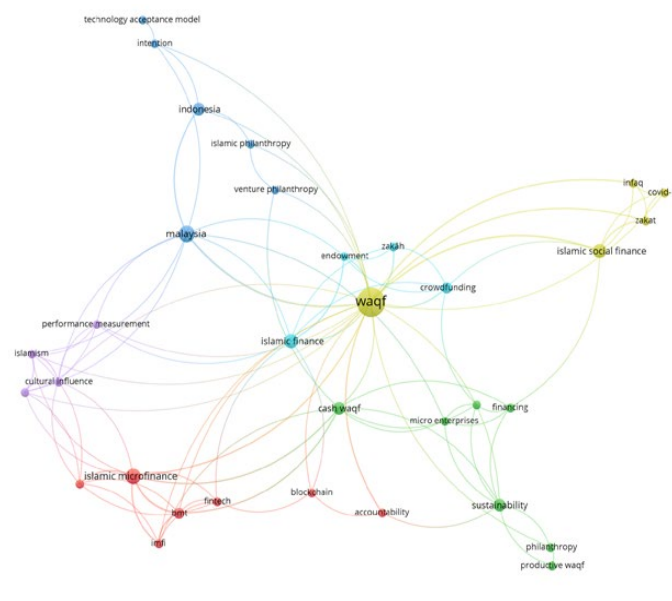


Figure 2. Co-occurrence Map of Author Keywords on waqf innovation theme from VosViewer for 51 papers



Table 1. Cluster categorization by authors based on 4Ps of Innovation from bibliographic mapping

Product/services	Process	Position	Paradigm
<ul style="list-style-type: none"> <li>• Cash waqf</li> <li>• Productive waqf</li> <li>• Endowment</li> <li>• Islamic microfinance</li> <li>• Imfi</li> <li>• BMT</li> </ul>	<ul style="list-style-type: none"> <li>• Microenterprises</li> <li>• Financing</li> <li>• Philantropy</li> <li>• Zakah/zakat</li> <li>• Infaq</li> <li>• Islamic social finance</li> </ul>	<ul style="list-style-type: none"> <li>• Islamic fintech</li> <li>• Fintech</li> <li>• Blockchain</li> <li>• Crowdfunding</li> <li>• Performance measurement</li> <li>• Accountability</li> </ul>	<ul style="list-style-type: none"> <li>• Islamic philanthropy</li> <li>• Venture philanthropy</li> <li>• Sustainability</li> <li>• Islamism</li> <li>• Cultural influence</li> <li>• Technology acceptance model</li> <li>• Intention</li> </ul>

Table 2. Statistic of published journal related to waqf innovation, entrepreneurship ecosystem, and sustainable waqf development

Journal	Abbreviation	Frequency	Journal	Abbreviation	Frequency
JIABR	Journal of Islamic Accounting and Business Research	2	EEA	Estudios de Economia Aplicada	1
AS	Administrative Sciences	3	QRFM	Qualitative Research in Financial Markets	1
IJIMEFM	International Journal of Islamic and Middle Eastern Finance and Management	3	ILR	Indonesia Law Review	1
IJES	International Journal of Ethics and Systems	1	IJICC	International Journal of Innovation, Creativity and Change	1
IJWHIK	Ijtihad: Jurnal Wacana Hukum Islam dan Kemanusiaan	1	IJECS	Indonesian Journal of Electrical Engineering and Computer Science	1
IJAEFA	International Journal of Applied Economics, Finance and Accounting	1	O	Opcion	1
JMPCS	Journal of Muslim Philanthropy and Civil Society	1	AEJ	Academy of Entrepreneurship Journal	1
AJIS	Academic Journal of Interdisciplinary Studies	1	JITM	Journal of Information Technology Management	1
E	Economics	1	IJIMS	Indonesian Journal of Islam and Muslim Societies	1
JIM	Journal of Islamic Marketing	1	JKAUIE	Journal of King Abdulaziz University, Islamic Economics	1
ISRAIJIF	ISRA International Journal of Islamic Finance	9	RIBF	Research in International Business and Finance	1
AIJHI	Al-Istinbath : Jurnal Hukum Islam	1	ASL	Advanced Science Letters	1
IQ	Islamic Quarterly	1	H	Humanomics	2
AIJHDPS	Al-Ihkam: Jurnal Hukum Dan Pranata Sosial	1	IJSE	International Journal of Social Economics	2
JIMEF	Journal of Islamic Monetary Economics and Finance	5	EJISDC	Electronic Journal of Information Systems in Developing Countries	1
JECD	Journal of Economic Cooperation and Development	1	JP	Jurnal Pengurusan	1

## Innovation Type In Waqf Development

### 1. Product Innovation

Cash waqf is one example of waqf product innovation that has had a significant impact on the lives of Muslims all over the world. It began in the early second century Hijriyah with the fatwa of Imam az Zuhri to support the development of Islamic da'wah, social, and educational facilities (BWI, 2021). Cash waqf is becoming more popular due to its greater flexibility (Chowdhury et al. 2011; Thaker, 2018). As human needs change over time, waqf managers must continue to innovate. They must also be able to maintain the value of waqf funds so that they can be invested in alternative investment instruments that offer higher returns on investment while also reducing risk (Sulaiman et al. (2019). The form of waqf assets can be proposed to be more widespread into cryptocurrencies and not just traditional physical assets such as gold, silver, and land (Bintarto et al. 2022).

Driven by cash waqf innovation several centuries earlier, research on product and process innovation has been conducted extensively in the past 50 years, motivated by diverse backgrounds and objectives. The use of cash waqf as an innovative product can help provide financing schemes for small and medium-sized enterprises (SMEs) entrepreneurs (Ascarya, 2022; El-Ghattis, 2015), micro-enterprises with commercial objectives (Abdul Rahman et al. 2016; Abdullah & Ismail, 2017; Ascarya et al. 2023; Ibrahim et al. 2021; Thaidi & Rahman, 2022; Thaker, 2018), social enterprises (Islam et al. 2023; Sulistyowati & Anshori, 2019), educational institutions (Khairuddin & Ishak, 2023; Usman & Ab Rahman, 2023; Winarsih et al. 2019), and other public facilities such as healthcare (Raja Adnan et al. 2022). Specifically, cash waqf empowerment has also been targeted to support business start-ups (El-Ghattis, 2015), women micro-entrepreneurs (Rusydiana et al. 2022; Soemitra et al. 2022), agriculture sector business actors (Majid, 2021), waqf entrepreneurs (Laila et al. 2022), micro-takāful products and services (Mikail et al. 2017), human capital development among micro entrepreneurs (Thaker et al. 2021), and even for forest conservation purposes (Yaakob et al. 2017). Meanwhile, for broader goals, namely achieving various sustainable

development goals such as education, health, poverty, and the environment, Zawawi et al. (2023) conducted an investigation into various waqf-based models that have been developed in Saudi Arabia and Indonesia.

Product innovations that incorporate the use of technology can not only create new waqf products/services, but can also improve existing products and services related to waqf. Ascarya & Sakti (2022) suggest that micro-fintech companies could develop new micro-fintech products and services that are tailored to the needs of IMFIs/BMTs and their clients. Islamic fintech products and services can also be developed to meet the specific needs of different groups and sectors (Hudaefi, 2020). Specifically, Berakon et al. (2022a) suggest that digital Sharia banks could develop new cash waqf products and services that are tailored to the needs of younger generations. Furthermore, Mohaiyadin et al. (2022) and Alaeddin et al. (2021) discuss the potential for product innovation in the field of waqf management using blockchain technology. Apart from that, the use of technology to help collect waqf funds in financing various waqf projects to make them more effective and efficient is also proposed by using on-line platforms (Berakon et al. 2022b; Faturohman et al. 2020) and crowdfunding (Hapsari et al. 2022; Zain et al. 2019).

### 2. Process Innovation

Cash waqf management in several countries often experiences problems. For this reason, process innovation plays a critical role in enhancing waqf management, enabling it to efficiently address diverse societal needs (Islam et al. 2023; Jouti, 2019; Usman & Rahman, 2023). Effective process innovation can improve the performance (Masruki et al. 2019; Noordin et al. 2017), productivity, and institutional accountability (Awaludin et al. 2018; Janom et al. 2019; Thaidi & Rahman, 2022; Usman & Rahman, 2023; Zawawi et al. 2023) of waqf management, and provide a greater impact on society (Ascarya & Masrifah, 2023; Piliyanti et al. 2022) by fulfilling the Sustainable Development Goals (Hudaefi, 2020). Waqf process innovation can also support waqf-based entrepreneurial sectors to generate social and economic value (Anas et al. 2019; Iman & Mohammad, 2017; Rahman et al. 2016), supported by increasingly open access to social financing (Islam et al. 2023).

The presence of technology in process innovation in the next few decades will provide many benefits, such as improved efficiency and transparency in waqf management, for example by developing a waqf registration system to track and manage waqf assets (Usman and Rahman, 2023). The discovery of blockchain technology can lead to a more accountable and transparent manner in managing waqf funds (Alaeddin et al. 2021; Mohaiyadin et al. 2022). Zawawi et al. (2023) found that several waqf institutions in Saudi Arabia and Indonesia are using blockchain technology to track and manage waqf assets. For the development of the business world, Khairuddin & Ishak (2023) suggest that an Islamic crowdfunding platform could be developed to connect student entrepreneurs with potential investors using waqf funds. Technology also made it easier for people to donate to waqf institutions and other charitable causes during the COVID-19 pandemic in Indonesia (Ascarya, 2022; Piliyanti et al. 2022), one of which is supported by an efficient and transparent crowdfunding platform (Hapsari et al. 2022; Zain et al. 2019). Crowdfunding can also help to reach a wider range of donors and to raise funds for a wider range of waqf projects. The use of modern fundraising methods in waqf institutions will help waqf institutions in their fundraising efforts (Shulthoni & Saad, 2018).

Digital Sharia banking systems allow users to donate cash waqf online and to track their donations in real time (Amin et al. 2014; Berakon et al. 2022a, 2022b; Faturohman et al. 2020). Hudaefi (2020) investigated how Islamic fintech can promote the Sustainable Development Goals (SDGs). By implementing several steps, Ascarya & Sakti (2022) propose a new and innovative process for designing micro-fintech models for IMFIs/BMTs. Jannah et al. (2020) suggest the streamlining of the registration process, using new technologies, and providing training and support to waqf institutions to support the sustainable management of forests. Janom et al. (2019) review the success factors of waqf information management systems (WIMS) in Malaysia, including: top management support, user involvement, data integrity and security, system quality and usability, and system quality and usability. Investment support in process innovation that prioritizes human intellectual capital and development will further strengthen capacity and competence in sustainable waqf management (Laallam et al. 2020; Thaker et al. 2021).

In terms of improving institutional quality, process innovation can increase accountability through the implementation of Corporate Waqf Core Principles in the development of waqf in Indonesia (Huda and Santoso, 2022). Process innovation which contains the concept of collaboration with microfinance projects and commercial institutions such as Tazkiah Banks (El Ghattis, 2015) will further strengthen efforts to resolve various social problems such as poverty, unemployment, and financial exclusion (Ibrahim et al. 2021; El Ghattis (2015) proposed Tazkiah Banks as a process innovation in the Islamic social finance sector.

### 3. Position Innovation

The results of the innovation type category from 51 review papers do not show much discussion of position innovation. In this study, we further define the position innovation for waqf development as the repositioning of waqf products/services or the establishment of a new market to support waqf development. Ascarya et al. (2023) discuss the potential of cash waqf to support integrated Islamic social and commercial microfinance in achieving sustainable microfinance institutions that provide both social and economic benefits to their clients. Meanwhile, Ascarya & Masrifah (2023) propose a number of new strategies for implementing cash waqf systems in Baitul Maal wat Tamwil (BMTs). The role of technology such as Islamic fintech can be positioned as an innovative way to promote sustainable development since it helps to address a number of challenges faced by developing countries, such as poverty, unemployment, and financial exclusion (Hudaefi, 2020). In developing new products and services that meet the needs of their beneficiaries, waqf institutions can use Intellectual Capital (IC) to position themselves as leaders in the field of sustainable development and social impact investment (Laallam et al. 2020). Islamic organizations can also use waqf to fund their social responsibility programs to build trust and credibility, and to attract and retain donors (Darus et al. 2017). Education and awareness-raising campaigns for waqf entrepreneurship may serve as a viable and attractive investment opportunity by providing support and resources to waqf entrepreneurs (Laila et al. 2022). Finally, by combining the resources and expertise of different stakeholders, Islamic social finance ecosystems can provide a more comprehensive and effective approach to social finance (Jouti, 2019).



#### 4. Paradigm Innovation

Although paradigm shift into contemporary paradigm of waqf plays an important role in waqf innovation to realize the goals of waqf development, there have not been many paradigm innovations in the last 50 years because it is indeed challenging and not easy. A new way of thinking about empowering waqf in the social enterprise sector by using venture capital strategies and other Islamically aligned ventures has been proposed by Alias (2012). However, venture capital is a risky investment, and not suitable for all waqf funds. Venture Philanthropy (VP) is another paradigm innovation to support social enterprises in promoting social and economic development in Muslim-majority countries (Zakaria et al. 2013). Apart from social purposes, waqf fund investments into for-profit businesses can be managed in the form of Tazkiah Banks, which differ from traditional Islamic banks in several ways (El-Ghattis, 2015).

Innovation cannot be separated from the capacity of waqf managers, so investment in intellectual capital such as knowledge, skills, and relationships of waqf institutions is critical to achieve its goals (Laallam et al. 2020). In the era of increasingly advanced technology, cryptocurrency has been proposed to become the subject of waqf property, requires a paradigm shift in the form of waqf assets, which generally take the form of physical assets such as gold, silver, and land (Bintarto et al. 2022). A significant departure from traditional microfinance models by using waqf funds in the Islamic micro-investment model (IMIM) has paved the way for various waqf innovations that can contribute to the development of microfinance and the promotion of financial inclusion (Rahman et al. 2016). Shifting the use of cash waqf from previously only for traditional religious and charitable activities to become a source of financing for micro enterprises can also support economic development, social welfare (Mohd Thas Thaker, 2018), and alleviate poverty by providing long-term support that helps people to develop sustainable livelihoods (Islam and Ahmad, 2022). The involvement of all actors, including individual institutions and projects in an integrated manner are the key to the success of a sustainable Islamic social finance ecosystem (Jouti, 2019). Apart from that, a paradigm shift requires reform of legal aspects and regulatory frameworks to provide better understanding to the public (Huda and Santoso, 2022).

#### Entrepreneurship Ecosystem Supporting Waqf Development

The presence of a supportive entrepreneurship ecosystem can aid in the acceleration of waqf innovation, which is critical for achieving the goal of sustainable waqf, which includes waqf assets, institutions, and benefit distribution. For example, the implementation of waqf innovation continues to face challenges in terms of access and connectivity to all available resources (Jouti, 2019; Shulthoni & Saad, 2018). Financial access issues are the most common, and they are an area of EEs that is very important in sustainable waqf development. Waqf development will be sustainable if waqf assets are preserved and maintained, are productive and generate income, and the waqf continues to benefit its beneficiaries over time (Hassan et al. 2020). Meanwhile, sustainable *awqāf* practices and operations of its managing institutions are primarily influenced by the nazir's accountability created in the environment of good governance (Awaludin et al, 2018).

The review of previous research indicate that there are quite a lot of main areas of the entrepreneurship ecosystem (EEs) that support the implementation of waqf innovation to create sustainable waqf development, explicitly or implicitly. The first EEs area, namely "Policy," is described in more detail into "Transformation of regulatory" factor and "Supportive policy and regulatory environment" factor. Next, in the EEs area is related to Finance, there are two factors, namely "Financing access and "Financial incentives". For the "Market" area, it can be represented by "Accessibility to resources" and "Connectivity of resources, networking, and expansion. Meanwhile, the "Culture" area is only found in several previous studies, namely through "Innovation culture". The discussion regarding the "Human Capital" area can be further translated into the "Human capital development and improvement of HR quality" factor and the "Assistance/mentorship/education" factor. Furthermore, the "Support" area is also a critical one, represented by the "Initiatives and programs" factor, "Entrepreneurship and business development" and "R&D investment".

#### Sustainable Waqf Development

From the results of the 51 reviewed articles, 12 factors were identified that can explain sustainable

waqf development, namely “Religious responsibility fulfillment”, “Broader impact to beneficiaries”, “Sustainability of waqf benefit distribution”, “Waqf-based entrepreneurship growth”, “Long-term economy growth”, “Long-term waqf investment”, “Community development”, “Growing demand for waqf empowerment”, “Growing awareness of sustainability”, “Addressing social challenges”, “Higher competitiveness”, and “Performance improvement”.

### Proposed Conceptual Framework

We propose the mediating role of EE between innovation and sustainable waqf development, as well as highlighting how factors of sharia compliance, governance, transparency and accountability, community engagement, and stakeholders’ collaboration can moderate this relationship. Figure 4 illustrates the relationship between the three main

constructs and the emergence of new constructs. Eight main topics in innovation are of concern in research: product/service development, management practices, new programs/activities, establishment of partnerships, the contemporary paradigm of waqf, new business design and model, technology investment, and technology adoption. The proposed conceptual framework also provides a more detailed overview of the 12 main areas of EE topics and the 12 main areas of sustainable waqf development topics.

Innovation can influence the occurrence of sustainable waqf development, yet it must also consider the entrepreneurship ecosystem as a mediating variable. We also highlight the aspect of governance, sharia compliance, transparency and accountability together with community engagement and stakeholders collaborative action will serve as moderating variable of the relationship among innovation, entrepreneurship ecosystem and sustainable waqf development.

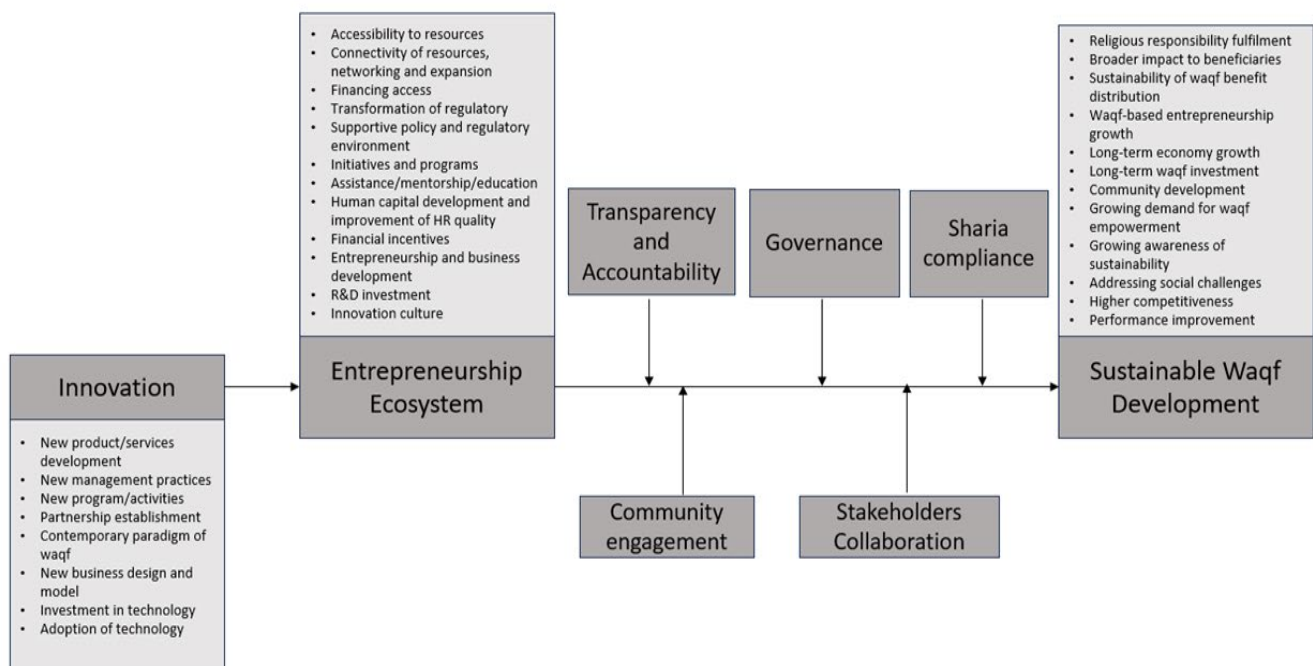


Figure 4. Proposed conceptual framework of the sustainable waqf development

## Managerial Implication

The main driver for this research is the importance of developing sustainable waqf in promoting the sustainability of waqf institutions and distributing their benefits to the community. Sustainable waqf development is a comprehensive approach to waqf development that considers environmental, social, and economic factors. The role of waqf managers in realizing sustainable waqf must be supported by their entrepreneurial abilities, mainly to conduct innovation. Apart from internal factors, the role of the entrepreneurship ecosystem (EE) will also greatly determine the success of waqf managers in achieving their goals. For this reason, examining the relationship between the three, namely innovation, EE, and sustainable waqf development, is critical. These findings are critical for all parties interested in developing waqf and for waqf theory and entrepreneurship. Waqf institutions, policymakers, and other stakeholders also can develop more effective approaches to promote sustainable waqf development by better understanding how these factors interact.

## CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

This study reviewed 51 articles with the primary goal of investigating previous research related to sustainable development of waqf. It discovered that process and product innovation was the most frequently carried out by previous research. Meanwhile, position and paradigm innovation are still uncommon. Although entrepreneurship ecosystems are not explicitly mentioned in all papers, the six areas of EE can be found in previous research and significantly impact waqf development efforts. Previous research has identified market, human capital, finance, and policy factors as the primary influences on sustainable development of waqf.

The first critical point is that the relationship between waqf, entrepreneurship, and innovation is an under-researched area over the last 50 years. Therefore, implying plenty of room for future research to aid in the development of waqf. The three constructs of innovation, entrepreneurship ecosystem, and sustainable waqf development are all interconnected concepts in all of the reviewed articles. In order to

achieve sustainability, the development of waqf must be linked to Nazirs' entrepreneurial ability to create innovation and the supporting ecosystem. Waqf institutions must constantly innovate in order to stay ahead of the curve, attract new donors, and generate new sources of income in today's rapidly changing world. The entrepreneurship ecosystem has the potential to play a critical role in fostering innovation in the waqf sector. The entrepreneurship ecosystem can assist waqf institutions in developing and implementing innovative ideas by providing them with access to finance, human capital, market access, supportive policy environment, culture and infrastructures. Sustainable waqf development ultimately can help to create various benefits for people and the economy.

Beyond preserving waqf value, previous research highlights the significant societal role of waqf innovation. Waqf innovation can be used to support a wide range of sustainable development initiatives, such as education, healthcare, poverty alleviation, environmental protection, and community development. Technology-driven innovation can also be used to promote entrepreneurship and innovation culture among students in educational institutions. Waqf promotes social innovation, addresses social challenges, and brings tremendous benefits by designing and delivering new financial products, services to support social businesses, conventional social businesses enterprises, higher education, and community protection through financing forest conservation.

### Recommendations

The limitation of this study is that we only used the Scopus database to carry out further analysis using the bibliometric analysis method because of its advantages in terms of completeness, reliability, and technical ease. As a result, future studies may include searches from other databases to broaden the scope of this study's review. In this study, the scope of the innovation space refers to Bessant and Tidds' (2013) 4Ps. Further research into broader categories and types of innovation can be conducted using theoretical references and other empirical frameworks. Determining the categorization of research into the 4P's context truly depends on the authors' expertise and skills, so that future use of expert advice from WAQF can be carried out. Furthermore, empirical studies are required to put the conceptual framework proposed in this study to the test.

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