Revitalizing Communities: Proposing Mosque-Driven Circular Economy Empowerment Model

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Abstract
The mosque has so far been known only as a place of worship such as prayer and recitation by Muslims. History records that during the time of the Prophet, the mosque was also the center of government, economic center, education center, and others. Some mosques are also tourist areas that provide more economic value so that they can improve people’s welfare. However, tourist areas often cause problems related to waste, water use, and others. Understanding of the circular economy that can provide sustainable benefits is still not widely known and implemented, including for managing mosques. This study aims to analyze and propose an optimization model for mosque-based circular economic empowerment to achieve a sustainable economy. The research uses a qualitative approach with literature studies and in-depth interviews with related parties. The results of the study show that empowering mosques based on a circular economy will not only have a positive impact on places of worship but also the economic, social, and environmental sectors. For example, managed mosque waste can provide economic value. In addition, the use of ablution water can be reused for land irrigation and fish farming. The synergy between the government, universities, communities, and the industrial world can be carried out to implement this mosque-based circular economy. The results of this study can be used as a basis for recommendations and a pilot project for implementing mosque-based circular economic empowerment.

Keywords: Circular Economy; Empowerment; Mosque; Sustainability

Abstrak
INTRODUCTION

The mosque is the center of Muslim civilization from the time of the Prophet Muhammad. The function of this civilization still needs to be improved because it has started to experience a shift. The mosque is currently not a center of society to develop civilization and science in a comprehensive manner. Thousands of mosques have been built with the beauty and splendor of their buildings, but it should also be noted that the main function of the mosque as a center of civilization must provide the widest possible benefits for the people. However, this is still not the main goal. Indicators of the prosperity of the mosque do not depend on the splendor and extent of the building, but on the activities of the mosque which can be felt by the surrounding community so that the community's needs are met and the activities of the residents are centered on the mosque (Nurfatmawati, 2020).

Indonesia as a country with a majority Muslim population reaches more than 80% and is expected to continue to grow (Pew Research Center, 2011). Therefore, various mosques continue to be built and developed, including in the province of West Java. The establishment of a mosque is a major requirement for the smooth running of Muslim worship.

Based on data on the opendata.jabarprov.go.id page, the number of mosques in the Simas Application by Regency/City in West Java is 49,435 mosques covering 19 districts and 8 cities. The five regions with the highest number of mosques are in Cianjur Regency (5,533 mosques), Bandung Regency (5,325 mosques), and Sukabumi Regency (5,226 mosques), Tasikmalaya Regency (4,059 mosques), and Garut Regency (3,261 mosques) (Jabar Open Data, 2021). The following is data on the number of mosques by district/city in West Java:
Various types of mosques in Indonesia show the uniqueness of Islamic values that are practiced in this country. Apart from being a place of worship, the mosque is also a tourist attraction, as happened at the Great Al Jabbar Mosque in Bandung. The mosque is a tourist mosque area with many visitors not only from the local community but also tourists from various regions who can be a source of economic empowerment for the surrounding community. A mosque with a tourist attraction in fact not only has a positive impact but can also cause several problems. This problem is related to the cleanliness of the mosque area which is not maintained due to the accumulation of garbage due to the uncontrolled interest in visiting the community.

During the two months since it was officially opened, a total of 98 tons of garbage have been removed from the Great Mosque of Al Jabbar. As a result, in the third month, the Great Al Jabbar Mosque was temporarily closed for the reorganization and maintenance process, as well as solving problems related to street vendors who filled the mosque area (Alhamidi, 2023). Many street vendors enter the mosque area and only 5% of them are residents (Fikri, 2023). The waste produced reaches 2 tons per day so waste management is one of the concerns for the managers of the Great Al Jabbar Mosque (DPRD Bandung, 2023).

Apart from Bandung being one of the centers of tourist areas in West Java, the City of Tasikmalaya is also a tourist destination known as the City of Santri. This is due to the large number of Islamic boarding schools in the region. Tasikmalaya City also has various mosques which are also an attraction for tourists, one of which is the Great Tasikmalaya Mosque which is in the middle of a tourist center and has become an icon of Tasikmalaya City. This mosque was completed in 1888 so its
current age has reached 135 years (Saefuloh, 2022). The Grand Mosque is also surrounded by dozens of micro and small businesses that provide various foods and drinks for visitors. However, the management of these business actors is not directly related to the mosque's economic empowerment program.

According to the Majlis Ugama Islam Singapore (MUIS), mosque managers and congregations are the key to the prosperity of a mosque (Nurfatmawati, 2020). From a business perspective, the community is the main customer of the mosque whose needs and expectations need to be served. Therefore, services that fulfill both can maintain the mosque's function as a community center (Sapri et al., 2016). Today’s society is easy to follow trends for tourism including religious tourism, so the services and functions of mosques need to pay attention to the economic empowerment potential of this ummah to restore the function of mosque civilization. This is also supported by a high Muslim population and digitization of information so that the experience of visiting a mosque can be easily shared which then invites massive community interest.

The existence of various micro and small business actors around the mosque, especially in tourist mosques, receives less special attention because they do business independently without any supervision from mosque management. In fact, if the mosque is willing to innovate to be able to cooperate with these business actors, then the function of economic empowerment can be achieved. In addition, mosque management can also provide literacy regarding how protecting the environment, including the area around the mosque, is important. The waste generated from these various businesses can also be reused through recycling or other processes if the mosque has an economic division that specifically fosters business actors around the mosque area. If the mosque has sufficient financial resources, the mosque can also provide business funding assistance to actors through microfinance institutions with *qardhul hasan* and profit-sharing schemes. Mosque management can also cooperate with Baitul Maal wa Tamwil (BMT) if the mosque does not have a sharia cooperative or BMT under it.

Research related to mosque management and empowerment has been carried out before (Amaliah, 2019; Hius et al., 2014; Jaafar et al., 2013; Nurfatmawati, 2020; Ridwanullah & Herdiana, 2018; Sapri et al., 2016; A. Saputra & Kusuma, 2017; E. Saputra & Agustina, 2021). However, the majority of the discussion relates to economic empowerment in general or the local community's economy. Studies on circular economy-based mosque empowerment which pay attention to environmental aspects have not yet been carried out.

Saputra & Agustina (2021) conducted research with case studies at the Yogyakarta Jogokaryan Mosque related to local economic empowerment. The research found that the four impacts of the role of the mosque institution on local economic development, namely expanding opportunities for small communities to work and entrepreneurship, expanding in increasing income, empowering micro business institutions in the production and marketing process, and empowering
partnership network institutions between the government, private sector, and local communities. Research conducted by Azmi & Kandar (2019) guides the construction of mosques that are more environmentally friendly and sustainable.

According to earlier studies, the majority of community empowerment initiatives based in mosques concentrate on boosting the economy. However, the circular economy also needs to be carried out by mosques that are currently running, especially with visitors reaching thousands every day because they include tourist destinations such as the Great Mosque of Al Jabbar Bandung and the Great Mosque of Tasikmalaya City. West Java is one of the provinces with the largest Muslim population in Indonesia, reaching 48.03 million people in 2022 (Rizaty, 2023).

This study aims to analyze how mosque management understands the concept of circular economy and mosque empowerment programs that have been carried out so far. The novelty of this study is the authors propose a model for optimizing mosque-based circular economic empowerment to achieve a sustainable economy. If the circular economy can also be realized, understood, and implemented through mosques, it is hoped that it can invite people to be more conscious about caring for the environment. This is especially related to awareness of reducing and managing waste wisely to implement human relations with God (hablun min Allah), relations with fellow human beings (hablun min an-nas), and also human relations with nature, the environment or other living things (hablun min al-'alam). The three principles of this relationship can also guide each activity or program whether it has an impact not only economically, but also socially and environmentally based on Tawheed.

LITERATURE REVIEW

Community Economic Empowerment

Empowerment can be interpreted as a process of changing a state of incapacity or powerlessness into a state of being able, empowered, and strong. In this context, empowerment means giving individuals, organizations, and communities the ability to control their own lives. In general, this empowerment is a process to achieve prosperity (Mahruddin et al., 2018). More specifically, economic empowerment is a process that aims to increase the independence, capacity, and economic accessibility of communities or groups who are in vulnerable or marginalized situations (Margayaningsih, 2016).

The main focus of community economic empowerment is to provide opportunities, skills, knowledge, and resources to individuals or groups so that they can take control of their own economic lives. Economic empowerment involves efforts to increase the capacity and independence of individuals, groups, or communities in an economic context (Yulianah, 2021). The aim is to provide access, opportunities, knowledge, and resources needed so that they can actively
participate in economic activities, develop businesses, increase income and achieve long-term economic sustainability. Through economic empowerment in the community, several problems such as poverty, social inequality, and economic dependence can be reduced or overcome. Economic empowerment should not only focus on social and welfare issues but also consider environmental aspects and sustainable goals to achieve a sustainable economy.

**Circular Economy**

One of the things that is currently the focus of attention is the implementation of a circular economy. This is because the challenges of climate change are so real, that it is necessary to look at opportunities for sustainable economic growth. Low-carbon development and circular economy implementation are important strategies today (Bappenas, 2022). Nonetheless, discussions on the circular economy are still dominated by government institutions and industry. Meanwhile, garbage, waste, and environmental problems related to the circular economy occur in all aspects of life including households, public service places, and also places of worship such as mosques.

This circular economy is a concept that aims to optimize the use of natural resources, the value of using products, and their components repeatedly so that no resources are wasted. The circular economy concept is a change in perspective from a linear economic approach that emphasizes production, use, and disposal into a more sustainable model. The circular economy provides opportunities for reprocessing or recycling, so that waste can be remade into different products or even the same product. This will certainly encourage a sustainable economic system (Agustin & Rianingrum, 2021).

The main principle of the circular economy is sustainable product design, where there is consideration of the product life cycle, including the selection of environmentally friendly materials and minimizing the use of hazardous materials (Dwiningsih & Harahap, 2022). In addition, paying attention to energy efficiency by applying more efficient technology and good waste management practices also needs attention. Waste generated in a production process can be used as input for other production processes. This process includes the collection, segregation, and treatment of waste to recover economic value from materials that can still be used.

**Mosque Empowerment for a Sustainable and Fair Economy**

So far, the mosque is still understood by the community only as a place to carry out *ubudiyah* activities, referring to spiritual activities to get closer to Allah SWT, such as praying and reciting the Alquran. History records that at the time of Rasulullah SAW, the mosque was used as the center of government, economy, education, and others (Khikmawati, 2020). Referring to this, currently, the existence of a mosque is expected to become a center for community activities (Ridwanullah & Herdiana, 2018). Mosques are not only a means of maintaining good relations
with Allah (*hablun min Allah*), but are also related to *muamalah* (*hablun min an-nas*) to improve the quality of welfare of the surrounding community with development and empowerment programs.

West Java Province itself has 49,435 mosques spread across cities and regencies. Some mosques in West Java have tourist attractions that have economic value and can improve the welfare of the surrounding community. The empowerment of this tourist mosque is one of the efforts to optimize the role of the mosque, especially in *muamalah* activities. In addition to worship, mosques also offer cultural, historical, and tourist experiences to the community. The role of the mosque as a tourist area which has been studied in various literature has a positive impact, especially because it supports the development and growth of the regional economy. Tourist mosques can be a source of sustainable income for local communities (Amri et al., 2022).

Tourist areas often cause problems related to waste, water management, and so on. The circular economy concept is not widely known and implemented for mosque management, even though this concept is capable of providing sustainable economic benefits. Continuity refers to the ability to maintain continuity of some entity, result, or process over time. Fulfillment of the economy in a sustainable manner is defined as an effort to meet the current needs of society without compromising the ability of future generations to meet their own needs (Arfah & Arif, 2021). The concept of a sustainable economy has principles that are fair for all aspects. A fair economy refers to an economic system that pays attention to economic benefits that are distributed fairly and evenly. This concept proposes equal and inclusive treatment of all individuals and groups in economic terms, thereby reducing socio-economic disparities and promoting distributive justice (Rizhan, 2018b). To achieve an equitable economy, opportunities and access to resources must also be available to everyone without discrimination so there is no inequality.

A sustainable and fair economy is an interrelated concept and aims to build an inclusive, fair, and environmentally friendly economy. In practice, a sustainable and fair economy complements and influences one another. A sustainable economy encourages the use of resources that are responsible and environmentally friendly, while a fair economy ensures that the benefits of economic development are distributed equally and fairly to all levels of society, including vulnerable and marginal groups. In pursuing a sustainable and equitable economy, it is important to consider social, economic, and environmental aspects simultaneously, and integrate these principles into sustainable policies, business practices, and decision-making. Samekto in Rizhan (2018) explains five principles of justice, namely between generations, within one generation, early prevention, protection of biodiversity, and internalization of environmental costs. Therefore, when we can protect the environment today, future generations can get justice for living in a protected environment.
RESEARCH METHOD

This study used a qualitative approach with descriptive analysis through observation and interviews. A qualitative approach is carried out by carrying out a research process and understanding a social phenomenon and human problems. The researcher builds a holistic picture, analyzes words, reports detailed views of informants, and conducts studies in natural situations (Cresswell, J.W. & Creswell, 2018). Meanwhile, Yusuf (2019) defines qualitative research as an inquiry strategy that emphasizes the search for meaning, understanding, concepts, characteristics, symptoms, symbols, and descriptions of a phenomenon; focus and multimethod, is natural and holistic; prioritizing quality, using various methods, and presented narratively. Data collection techniques were carried out from both primary and secondary data. Primary data comes from observation and in-depth interviews with related parties. Researchers visited the Great Mosque of Al Jabbar Bandung and the Great Mosque of Tasikmalaya City to observe how the activities at the mosque and also saw implementation related to building design, electronic devices used, and environmental care around the mosque. While secondary data comes from books, various previous studies, report data, and information from relevant websites.

This research includes several stages, namely: first, collecting secondary data for literature study and primary data with in-depth interviews with various related parties. Second, data reduction by focusing research related to mosque-based environmental awareness and community economic empowerment. Third, display data and concluding. This research also proposes a model for mosque sustainable design to achieve a sustainable economy. This research focuses on how the awareness of Muslims towards the economic empowerment of mosques and their relation to environmental issues. Researchers also collected data from various YouTube videos related to mosque management with environmental awareness such as the use of renewable energy technology, mosque water management, waste management in mosques, and others.

Interviews were conducted with open questions and conveyed real information. Researchers also made observations at two mosques in Tasikmalaya City and Bandung Regency which are mosques with tourist areas. The research was conducted from April to May 2023. The research informants consisted of:
1. Dede Bayanudin (Management of the Great Mosque of Tasikmalaya City)
2. Acep Zoni Saepul Mubarak (Deputy Secretary of the Indonesian Ulama Council, Tasikmalaya City)
3. Erdy Hardiman (Management of the Great Mosque of Al Jabbar Bandung)
RESULTS AND DISCUSSION

Tourism Mosque Concept

Tourism refers to the activities of a person or group traveling to another place, outside their place of residence. This tour is closely associated with activities to relieve fatigue from daily activities. The driving factors for tourism activities vary, such as economic, social, cultural, and even aesthetic factors or just to satisfy curiosity (Zulkurnaini et al., 2019). Three elements form the basis for the development of a tourist spot known as the 3A concept, namely attractions, accessibility, and amenities. These three elements must be considered in the development and management of sustainable tourism.

Attractions refer to the attractiveness of the place, such as natural objects, history, culture, architecture, or unique activities that can attract tourists to visit. Accessibility relates to easy access to tourist attractions, including adequate infrastructure such as roads and vehicles. Lastly are amenities, referring to service facilities available to meet the needs of tourists, referring to accommodation (lodging), health facilities, shopping centers, and other supporting facilities (Palupiningtyas et al., 2022).

From an Islamic perspective, tourism aims to contemplate and be grateful for the beauty of Allah SWT's creation, to always increase faith and strengthen motivation in fulfilling every obligation (Ulya & Futaqi, 2022). Related to mosques, very close tourism is religious tourism, where which refers to travel activities dedicated to visiting and exploring mosques to deepen understanding of Islamic religious teachings. This tour can also explore spiritual experiences by increasing the faith of visitors.

The tourist mosque itself is a term for mosques that have appeal as tourist attractions. This mosque is a popular tourist destination for people, so apart from being a place of worship, tourist mosques have prominent characteristics, such as unique architecture, natural beauty, as well as significant historical value (Miarsih & Wani, 2018). Some mosques have links with historical events or famous figures in Islamic history. Because of this, many visitors want to come to the mosque to explore and understand the historical heritage of Islamic civilization.

The mosque is one of the landmarks of a city or district, for example, the Great Mosque of Tasikmalaya which is strategically located in the center of Tasikmalaya City. The mosque is often a stopover for people who are on their way or visiting Tasikmalaya because it has a large parking area. Apart from that, the Tasikmalaya Grand Mosque also has a cool garden and a pond filled with fish equipped with a fountain. The Tasikmalaya Great Mosque has a long history since it was first built in 1888, and is a waqf from Prince Sumedang.

The mosque building has an Islamic philosophy such as five roofs which depict the five pillars of Islam and the obligation to pray five times a day. The Great Mosque of Tasikmalaya also has the largest drum and has received an award from
the Indonesian World Record Museum (MURI) as the largest drum in Indonesia. With some of these attractions, it is natural that many people who are not only from the city of Tasikmalaya visit to enjoy the beauty of the mosque. The Tasikmalaya Great Mosque is also open to the public with several routine programs being carried out, one of which is a study program every Wednesday morning (Bayanudin, 2023).

Apart from the Great Tasikmalaya Mosque, several mosques in West Java Province have a lot of potential to attract tourists, one of which is the Al Jabbar Great Mosque which was just inaugurated on December 30, 2022. Even before it was officially opened to the public, this West Java Province Grand Mosque has attracted a lot of public interest because it stands in the middle of a retention pond or pond. If the water level has reached the maximum point, the Al Jabbar Grand Mosque will appear like a floating mosque. Masjid Raya Al Jabbar also provides a very wide open space so that apart from worshiping, the mosque has been designed for the development of Islamic treasures with the concept of tourism (Hardiman, 2023).

People from inside and outside the city of Bandung come to Masjid Raya Al Jabbar to worship there and enjoy its beauty. The activities carried out started from walking in the area around the mosque which is very wide to taking pictures because of the aesthetic location, and then there are also several facilities available such as odong-odong to surround the mosque area. On the ground floor, there is also a digital-based Rasulullah SAW gallery that can be accessed after buying a ticket in an application that was launched, namely Sapawarga. This attraction makes economic empowerment live around the mosque, such as parking, lodging, and sellers who are outside the main mosque area (Hardiman, 2023).

The empowerment of mosques as tourist destinations will certainly have an impact on many aspects, including sources of regional income which will increase significantly with the increasing number of visiting tourists. In addition, the presence of a tourist mosque can encourage business opportunities and the development of tourism infrastructure around it, such as hotels, restaurants, souvenir shops, and other services that support the tourism industry (Destriana & Harahap, 2020).

The Urgency of the Role of the Mosque for the Welfare of the People

The mosque has an important role as a center of empowerment to improve the quality of life for Muslims as a whole. The mosque is a gathering place for people, where they learn from each other, share, and build a strong community in establishing Islamic brotherhood. The main role of the mosque is related to ubudiyah affairs (worship to Allah swt). The mosque is a means for the people to carry out prayers, recite the Alquran, istighatsah, and so on (Qadaruddin et al., 2016).
Each mosque must have routine programs related to this, such as the Tasikmalaya Great Mosque which holds large recitations and joint dhikr on Wednesday every week. Apart from that, almost every day there are other study events held by parties who have collaborated with the mosque (Bayanudin, 2023). The Al Jabbar Grand Mosque also has a routine program, namely dawn studies and midday studies, and especially on Friday nights, *istighatsah* and *yasinan* are held from after Maghrib until just before evening (Hardiman, 2023).

In addition to increasing the worship of Allah SWT, the study that presents this *ustadz* is also a means of improving religious education for the people. By attending the study at the mosque, Muslims will be given a deeper understanding of the Islamic religion so that they can practice it in their daily lives. Religious education provided at the mosque also helps in the formation of good morals and increases the social awareness of Muslims (Purwaningrum, 2021).

The mosque also serves as a means for various social activities, for example being a place for collecting and distributing zakat, *infaq*, and alms to help people in need. Mosques are institutions that are capable of organizing social programs, such as the Great Tasikmalaya Mosque which held a program to collect rice from residents to be distributed to the poor and dhuafa. This program takes place routinely every year, even this rice collection can reach 25 tons (Bayanudin, 2023). This social program will certainly have a positive impact on society, where the mosque tries to bridge the distribution of wealth from people who have excess to people who need it to reduce economic inequality. As stated by Rizhan (2018a) the concept of a fair economy is related to equal and inclusive treatment of individuals and groups in economic terms.

The mosque also plays a role in empowering the people's economy. Mosques have their charm to visit, especially the various mosques that have unique architectural designs or have certain historical values (Ramadhan et al., 2019). As in the Great Mosque of Al Jabbar, where the grand mosque not only offers a place to worship but also a place for tourist destinations with all the facilities that are qualified. This of course will have a significant impact on infrastructure development around the mosque along with business opportunities to empower the people. Mubarak (2023), Deputy Secretary of The Indonesian Ulema Council, City of Tasikmalaya explained this.

The potential of the people in mosque-based economic empowerment has opportunities that can be developed in a positive direction; it is just that so far it has not been explored further. This is related to people's awareness of *muamalah* activities which is still low and its human resources do not have full assistance.

This explanation proves that the mosque management has so far focused only on matters of worship. He has experience as a companion for an entrepreneurial program in collaboration with several mosque managers in 39 sub-districts in the Tasikmalaya Regency area and got good results Mubarak (2023). If fostered and directed properly, mosques have good opportunities related to...
muamalah because mosques are places where people gather. Optimally empowering mosques can increase economic independence and welfare of the people as a whole. Mosques as centers of civilization need to pay attention to the implementation of a fair and sustainable economy to achieve prosperity. Economic, social and environmental aspects need to be considered by mosque management in achieving an even distribution of the economy.

**Mosque Empowerment Program**

Mosque empowerment is an initiative that aims to strengthen the role and function of mosques in serving the community and improving the welfare of Muslims themselves (Irham, 2019). The mosque empowerment program can be carried out by several related parties so that it has a positive impact in accordance with the motto of the DMI (Indonesian Mosque Council), namely "prospering and prospering the mosque", where when the mosque is empowered, the community is prosperous. Bayanudin (2023) as the caretaker of the Great Mosque of the City of Tasikmalaya explained on this.

The Tasikmalaya Grand Mosque used to have several facilities, such as an early childhood education center which has now been transferred to the Dakwah Building which is opposite the mosque. There was also a clinic complete with an ambulance, as well as a library on the second floor with a book collection of up to 5000 copies. In fact, the Great Mosque of Tasikmalaya won the General Champion for the Mosque of Empowerment of the People in West Java because it had an innovation by establishing a cooperative in 2007.

This explanation proves that there have been efforts to empower mosques as social facilities to embrace people. However, after being implemented, many factors stopped the program midway, such as the unpreparedness of the facilities and human resources. Of the many programs that had existed at the Tasikmalaya Grand Mosque, now the ambulance can still be used by the local community to borrow it by coordinating in advance with the mosque management. In addition, the library collection books are still there, but they are no longer displayed to the public.

Apart from developing social programs, mosques can also become tourist destinations with their attractiveness, such as at the Great Al Jabbar Mosque. Since its official establishment, the high public interest in visiting the floating mosque in the city of Bandung has caused several problems and has become an evaluation from the government, such as Mr. Ridwan Kamil as Chairman of the Mosque Prosperity Council (DKM) of the Al Jabbar Grand Mosque as well as the Governor of West Java Province. Hardiman (2023) as the caretaker of the Al Jabbar Great Mosque explained this.

During the first two months, the situation was almost out of control because traders spilled over to the Great Mosque of Al Jabbar, and even entered it. Apart from that, visitors also brought food to *botram* (eating together) inside the Grand Mosque, there are almost no sacred boundaries, thus making the mosque area as a
whole dirty. So in the third month, the Great Al Jabbar Mosque was closed to the public (sterilized), especially controlling the street vendors.

The inauguration of the Al Jabbar Grand Mosque on December 30 2022 has indeed attracted the attention of many people. This is related to some of the facilities that can be enjoyed, such as the Bandros Bus (Bandung Tour on Bus) which is provided free of charge, but in the end, the managers are overwhelmed because of the influx of visitors. As a substitute, currently, in the area of the Great Mosque of Al Jabbar, there is odong-odong that visitors can use at a rate of Rp. 5,000 to go around the Great Mosque of Al Jabbar (Hardiman, 2023).

Another facility available at Masjid Raya Al Jabbar is the Rasulullah SAW gallery which is operationally open on Wednesday-Sunday with a capacity of 120/day divided into 6 sessions. The gallery is located on the ground floor of the mosque, and containing history and information related to Islamic values with an almost 100% digital-based approach. During the first month, the visit is free, but thereafter they are given a rate of around IDR 50,000/person for periodic maintenance fees. These tickets can be purchased in the Sapawarga application with cashless payments (Hardiman, 2023).

Regarding street vendors, now the Great Al Jabbar Mosque area is sterile and even visitors are not allowed to bring food/drinks from outside to maintain the cleanliness of the mosque, but there are still traders outside the mosque area. The trader independently set up stalls there and did not cooperate with the Al Jabbar Great Mosque. Visitors who continue to arrive every day have opened up business opportunities for many people, up to a turnover of IDR 2,000,000/day (Hardiman, 2023). Likewise, at the Tasikmalaya Grand Mosque, where traders who were around were not facilitated by the mosque and this was directly related to the Satpol PP and the Department of Transportation (Bayanudin, 2023).

Visitors who arrive every day also make the parking area full and this is also one of the incomes for the mosque and the parking attendants who are deployed. The average number of visitors during Eid al-Fitr in 2023 could reach 22,061 people per day (Humas Jabar, 2023). The Great Mosque of Al Jabbar is still in the process of building an electronic parking machine, while the Great Mosque of Tasikmalaya has implemented the parking machine. With this machine, the revenue for the mosque will also increase because it will reduce the illegal parking system. As stated by Rizhan (2018a), an economy that pays attention to benefits through a fair and equitable distributed system can reduce socio-economic disparities. This integrated parking system allows mosques to obtain higher financial resources which can also benefit more people and not only benefit certain groups.

The mosque empowerment program has so far been carried out through the development of several social programs. Mosque empowerment aims to encourage active community involvement in mosque activities (Hadi, 2022). By involving Muslims and the surrounding community in decision-making, program planning and
implementation of mosque activities, a participatory climate will be created that strengthens the sense of belonging and togetherness in carrying out the functions of the mosque. If properly managed and empowered, a mosque can become an economic center that drives the local economy by developing small businesses and growing the economic independence of Muslims.

Environmental Awareness in Mosque Management

Sustainability in preserving the environment in mosque management needs to be built through environmental awareness by integrating environmental principles. This can protect natural resources, reduce negative impacts on the environment, and provide long-term benefits for the mosque and the surrounding community. Awareness of the environment in mosque management does not only aim to protect the natural environment but also reflects Islamic values about protecting the earth as a mandate from Allah SWT.

Environmental preservation in Islam is studied in *bid'ah fiqh* or environmental *fiqh* which includes Islamic knowledge and provisions regarding human behavior towards their environment to achieve benefit and avoid harm (Utama et al., 2019). This is in line with maqashid sharia (objectives of religious law) which is further developed through hifdzul bi'ah (preserving the environment). This discussion is a development of *maqashid sharia* which so far tends to be more human-oriented. Environmental jurisprudence views that the human relationship with the natural world is a unity that cannot be separated. Humans are part of the universe and are created from the elements in it so that this relationship cannot be separated (Istiani & Purwanto, 2019). Mubarak (2023) the Deputy Secretary of The Indonesian Ulema Council, City of Tasikmalaya explained this.

MUI as a collection of Muslim scholars and clerics conducts outreach related to environmental jurisprudence on a person-to-person basis, not structurally towards mosque managers.

As explained above, the MUI itself has not conducted massive outreach related to environmental *fiqh*. However, the DKM as the caretaker of the mosque continues to carry out various programs related to social worship for the welfare of the people, including protecting the environment in the mosque area. The Tasikmalaya Grand Mosque provides trash cans where plastic, cardboard, or other items that can be recycled will be sorted and taken back by the relevant officers. At the time of its official opening, the Great Al Jabbar Mosque for visitors experienced problems related to waste and has currently recruited 90 security and cleaning officers to maintain the conduciveness of the mosque (Sudrajat, 2023). Then based on our observation, in the area of the Great Mosque of Al Jabbar, separate trash cans have been provided, yellow for inorganic and green for organic waste. Later, the waste will be managed again by the cleaners at the Great Al Jabbar Mosque, especially for plastic waste that is sold or reprocessed. Regarding waste management by the mosque, this is indeed a dilemma because if the human
resources are not ready, then other problems will arise. Mubarak (2023) explained on this.

I had experience at Perum Sindanggali as a mosque caretaker who worked with RT (Neighborhood) and RW (Hamlet) parties to then open a waste bank. For one year, the program has been running effectively because it is managed by the mosque's administrators. In fact, the money from the garbage bank has become infaq money for the mosque and it has been possible to obtain a motorcycle facility to transport garbage from the relevant agency. However, it turns out that the problem arose due to the accumulation of garbage and a lack of human resources. The shelters also had to move around because many refused, because even though the waste is mostly plastic, the volume of waste per day is so large that it cannot be accommodated.

Based on this experience, during the first year the waste bank program has been running, collectors have also existed, even from the program they can earn income, but in the end, it doesn't work. Da'wah about waste is easier for the community so that in the end they want to sort out the waste that can be sold (plastic, bottles, cardboard, etc.) to be handed over to the mosque. However, the problem that arises is that once collected, the plastic waste must be reprocessed, such as being separated according to type and then dried before being collected by collectors, so that accumulation cannot be avoided (Mubarak, 2023).

Mosque management is also inseparable from the management of ablution water. Based on the results of interviews with mosque administrators as informants, both the Tasikmalaya Great Mosque and Al Jabbar Great Mosque have not carried out special management of reusable ablution water. As for the Great Mosque of Al Jabbar, the ablution water channel will directly enter the reservoir surrounding the mosque. Hardiman (2023) explained this.

The reservoir has an aesthetic value because when it reaches its maximum limit, the Great Al Jabbar Mosque seems to be floating. Apart from that, the reservoir also functions as a water reservoir in the event of a drought for the mosque as well as residents, as well as flood control in the East Bandung area, especially Gedegebe which has been known as a flood area. At the front of the mosque, there is also a pond that has been sprinkled with fish.

So far, the Great Mosque of Al Jabbar is still maximizing the function of the reservoirs around it. The plan is for the reservoir to become a tourist attraction as well because there is a replica of The Prophet Nuh’s ship which can be visited in the area behind the mosque to the left. So apart from being a retention pond, the reservoir will later become an attraction for tourists. Optimizing environmental functions is also accompanied by maintenance, such as for plants around mosques (Herdiman, 2023).

Regarding environmental sustainability at the Great Mosque of Al Jabbar, park maintenance is handled directly by the West Java Province People’s Welfare Bureau according to their duties and functions. In addition to prioritizing aesthetic value, plants around the mosque should be selected and estimated from the start.
regarding their benefits to ensure that no party is harmed by planting these trees. Due to the fact, that after so many years a tree that is easily weathered can suddenly fall and it is feared that it will harm the people around the mosque (Herdiman, 2023).

Environmental awareness is also related to the environmentally friendly design of mosques and resources. If the status of the mosque is state-owned, then everything related to the operational costs of the mosque including electricity will be borne by the state, but if the status of the mosque is a waqf like the Tasikmalaya Great Mosque, then there will only be a discount from the PLN. It is undeniable that the biggest mosque expenditure is electricity so its use is also sought to be as effective as possible, such as the use of air conditioners such as air conditioners which are only turned on during certain events which bring large numbers of worshipers to save energy (Mubarak, 2023). Uniquely, the design at the Tasikmalaya Grand Mosque has perforated walls for smooth air circulation, so this indirectly becomes an environmentally friendly design.

The Urgency of a Mosque-Based Circular Economy

The mosque is one of the centers where people gather, especially for worship for Muslims. At the time of the Prophet, all activities were centered in the mosque and this needs to be a concern until now. However, according to Adil et al. (2013), the challenge in managing mosques today is how management can run effectively and precisely. In addition, the takmir of the mosque or the Mosque Prosperity Council (DKM) as the manager of the mosque also has three important roles, namely management (idarah), prosperity (‘imarah) such as worship, education, social and commemoration of holidays, as well as the role of maintenance and provision of facilities (ri’ayah). Therefore, in the implementation of a mosque-based circular economy, the role of managers and the awareness of the congregation of the mosque itself are very much needed.

The Bappenas study shows the impact of climate change on Indonesia so that it has the potential to reduce GDP by 544 trillion during 2020-2024. Indonesia has pursued low-carbon development with a national emission reduction target of 27.3% in 2024 and its strategy is a circular economy intervention with a target of 22.5% in 2018. This economic system seeks to maintain the value of products, materials, and natural resources in the economy as long as possible while still producing economic growth (Bappenas, 2022). Therefore, mosque-based community empowerment needs to be pursued towards a circular economy to help the government achieve this target and this is also in line with the Sustainable Development Goals (SDGs).

The five sectors that are the main potential for implementing a circular economy are food and beverages, construction, electronics, textiles, and retail in the form of plastic packaging (Bappenas, 2022). These five things are also very close to meeting the needs of the community, including in the mosque area such as the
construction of mosques, the use of electronics in mosques, prayer equipment, and many food and beverage businesses around the mosque. Efforts to empower a mosque-based circular economy can be carried out, for example, with garbage and waste sorting and processing systems from the mosque. If it can be processed properly, it can generate income to distribute benefits to people in need as well as for the operational and maintenance costs of the mosque.

Mosque-Based Circular Economy Empowerment Optimization Model for Sustainable Economy

Several circular economy applications have been carried out by one of the mosques in Indonesia as the first Green Mosque in the world, namely the Istiqlal Mosque in Jakarta. The Istiqlal Mosque is also referred to as an eco-friendly mosque that implements the use of solar panels as a source of electrical energy so that the use of electrical energy can be reduced by up to 23%. In addition, the mosque also uses low-flow faucets, thereby reducing water use by 36% and also managing water used for ablution. Then, the mosque also made material savings of up to 81% by maintaining existing materials such as marble, stainless and natural stone during renovations (Istiqlal, 2022). After being renovated, the Istiqlal Mosque received a Green Building Excellence Certificate in Design for Greater Efficiencies (EDGE) (Al Jazeera, 2022).

![Use of solar panels and low-flow faucets](image)

**Figure 2. Circular Economy Implementation at the Istiqlal Mosque**

Source: Al Jazeera (2022)

Previous research conducted by Azmi & Kandar (2019), proposed a sustainable mosque design model with four main design factors, namely layout and volume, exact Qibla direction, spatial pattern, and level of user activity and type of clothing. The following is a design model proposed by Azmi & Kandar (2019):
Based on the model in Figure 3, it can be concluded that when planning the construction of a mosque it is necessary to pay attention to location, materials and resources, water and energy efficiency, indoor environmental quality, and post-use. In addition, the community also needs to be educated to increase awareness regarding the environment. In this study, a circular economy design is proposed for mosques that have been established so that mosque management can pay more attention to sustainable aspects and can empower the community’s economy with the hope of increasing the welfare of the people. The proposed model is as follows:

**Figure 3. Sustainable Mosque Design**
Source: Azmi & Kandar (2019)

**Figure 4. Mosque-Based Circular Economy Empowerment Model**
Source: Authors (2023), adopted from Azmi & Kandar (2019)
The mosque-based circular economic empowerment model can be carried out by taking into account five aspects, namely energy, water, materials, environmental quality, and the users themselves. First, to save energy, there needs to be awareness of the use of electronic devices. This is similar to what was done at the Tasikmalaya Grand Mosque by not turning on the lights and air conditioning when not needed. Air Conditioner is only used when there is a grand study or Friday prayers and other activities with a large number of worshipers filling the mosque. In addition, there needs to be an effort to shift from fossil-based energy sources that have been through the National Electricity Company (Perusahaan Listrik Negara/PLN) to renewable energy sources, such as what Istqilal Mosque did with solar panels. Second, in water management, it is expected to use a tap or tap filter so that the water flow is lower so that not much is wasted. In addition, the water used for ablution needs to be channeled to a separate place so that it is not mixed with other materials so that it can be used to water plants or to irrigate ponds in the mosque area.

Third, related to design development, if a renovation is carried out later, it is necessary to pay attention to the materials used so that they take advantage of the materials that are already available. In addition, it is necessary to maximize the function of air vents, doors, and windows so that air circulation is fresher and healthier. Fourth, waste management needs to be carried out in an integrated manner so that the separation between wet waste, dry waste, or organic and inorganic waste needs to be carried out by every manager or visitor to the mosque. Mosque youth can be empowered to carry out routine activities in waste management so that they have economic value and can also invite the surrounding community including school students around the mosque. Fifth, one of the important aspects is the human resources themselves, managers, worshipers, and visitors to the mosque. Therefore, to increase the awareness of each individual regarding the environment, literacy and education are needed, for example by having posters that can be reached, such as in the ablution area, entrances, visitor gathering places, and other strategic areas. Education also needs to be carried out in routine activities such as studies, discussions, and routine lectures every Friday regarding calls for environmental preservation.

The mosque-based circular economic empowerment model is expected to support the realization of a fair and sustainable economy, especially in West Java. In addition, this empowerment model is also expected to pay attention to the equal rights of both men and women to gain access to play a role in the prosperity of the mosque. Women's potential can be optimized, because it is easier to mobilize the masses, for example, a group of women can help process plastic waste into crafts, participate in cleaning places of worship, and also promote da'wah for Muslim studies. The Prophet also allowed women to attend educational class studies at the mosque (Wahab, 2008).
A survey conducted in 2021 by the United Nations Development Program (UNDP) with the Ministry of Cooperatives and SMEs, as well as Indosat Ooredoo which involved 3,000 respondents from MSME actors, showed that 95% of respondents were interested in carrying out environmentally friendly business practices, with stronger women-owned businesses interests (Bappenas, 2022). In addition, when women have the opportunity to be involved more broadly in the idarah, ‘imarah, and ri’ayah mosques, the issues of women and children can also receive the attention of the mosque. Currently, gender-responsive mosques are urgently needed so that the protection and welfare of women and children can also be addressed through mosque empowerment. Although, structurally, women's access as mosque caretakers is currently still limited (Nurjamalah, 2018).

As the motto of the Indonesian Mosque Council (DMI) is Empowering Mosques, Prosperous Communities, the policy makers related to the prosperity of mosques are from the central level such as the Indonesian Mosque Council (DMI), the Indonesian Ulema Council (MUI), and the Mosque Prosperity Council (DKM) which are the mosque managers can directly synergize in the implementation of a circular economy for a sustainable economy. During the discussion conveyed in an interview with the administrators of the Tasikmalaya Grand Mosque, Mr. Abay B stated that DKM as the manager would follow if there were directives from the center regarding efforts to preserve the environment in the mosque area while still paying attention to Islamic rules and by the teachings of the Alquran.

If this model can be optimally pursued by mosques in West Java, especially mosques with visitors and tourists, then the hope for a sustainable economy can be achieved. The model can also have an impact not only economically, but also socially and environmentally. Economically, the resulting impact is of course an increase in income and the opening of employment opportunities. Then, with the independence of the mosque, the mosque can distribute more benefits to people in need so that its social impact can be achieved. Apart from that, another important thing is environmental impact because circular economy empowerment pays attention to environmental sustainability and also awareness of energy use and water management.

**Mosque-Based Circular Economy Implementation Efforts**

Some efforts that can be made by mosque managers, especially at the Great Mosque of Al Jabbar Bandung and the Great Mosque of Tasikmalaya City with the number of visitors from within and outside the city based on an analysis of the results of interviews and literature, include:

1. Mosque managers can budget for a water filter at the faucet to reduce the pressure of the water flow so as to save water consumption.
2. Mosque managers can implement waste segregation and seriously provide examples and educate visitors. In addition, mosque managers can work with
youth mosques, groups of active women or related parties to increase the added value of waste that can be reprocessed or sold to certain parties.

3. Mosque managers can cooperate with related parties to use technology that allows ablution water to have a special place so that it is not contaminated so that it is clean and can be reused, such as for watering plants and irrigating fish ponds in the mosque area.

4. Mosque managers can pay attention to the plants around the mosque so that apart from having aesthetic value they can also be used as fruit or vegetable plants with the utilization of certain lands. In addition, plants that can grow indoors also need attention so that they can increase the amount of oxygen in the room.

5. It is necessary to pay attention to improving the functions of doors, windows, and air ventilation so that the circulation inside the mosque is healthier and fresher so that it does not require the use of air conditioners and lights during the day.

6. It is necessary to provide distilled water that can be drunk immediately and visitors are encouraged to bring their water containers to reduce plastic waste.

**CONCLUSION**

The function of the mosque as the center of Muslim civilization needs to be preserved. One of the efforts made is to empower mosques so that they can have a sustainable impact not only for places of worship but also for overcoming the problems of other people. It is hoped that optimizing the empowerment of a mosque-based circular economy can create a sustainable economy, not only for the current ummah but also for the ummah in the future. The empowerment model in this study was proposed with the hope that mosque management can more comprehensively provide significant benefits in economic, social, and environmental aspects. People's problems require solutions with synergy between various parties. Mosque managers, local governments, communities, and academics can optimize mosque-based circular economic empowerment as an integrated and sustainable program.

Several things can be recommended from this research. First, there is a need to increase literacy related to the circular economy for DMI, MUI, and DKM as well as the government and society in general. Second, the reuse of existing mosque facilities and infrastructure can be optimized so that they can provide added value that can create jobs or improve the welfare of the people through joint programs with the local government, community, and universities. Third, it is necessary to increase the direction of the concept of mosque-based economic empowerment so that it can better adapt to the needs and also current developments.
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