



Sadaqah Waste Management Initiative: Trash to Treasure (T2T) Sadaqah

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ABSTRACT

Malaysia grapples with a significant challenge in managing its waste, dealing with a daily arrival of 30,000 tons of waste. The country urgently seeks solutions to prevent its landfills from reaching capacity by 2050. Therefore, an effective and sustainable waste management system must be established to address Malaysia's waste management crisis. In this context, the "Trash to Treasure (T2T) Sadaqah" initiative emerges as a transformative approach weaving together environmental responsibility, social empowerment, and economic growth. Integrating efficient waste management system with the Sadaqah principle could encourage widespread adoption of responsible waste practices and charitable giving. This is good adoption as from an Islamic perspective, environmental care aligns with the principles of giving Sadaqah. The objectives of this study include reducing waste generation, minimizing environmental impact, empowering communities through resource recovery, and promoting a circular economy by turning waste into valuable resources. Additionally, the initiative aims to create innovative waste-to-Sadaqah platforms connecting surplus resources with underprivileged communities. Methodologically, the study employs qualitative research design, specifically focusing on semi-structured interviews. Through purposive sampling, diverse perspectives from individuals and waste management experts are captured. Findings highlight Sadaqah as a strong motivator for participation in waste management, driven by its religious significance and potential rewards. However, there is a concern about transparency, fairness, and potential misuse of Sadaqah emerges. To address these concerns, the study explores the use of digital platforms (application) displaying regular reports on Sadaqah amounts collected and distributed to Asnaf, aiming to increase transparency and build trust in the waste management system.

1.0 Introduction

1.1 Research Background

According to Bernama (2022), Malaysia's population is estimated to grow at a rate of 2.4% with an addition of 600,000 people every year, which will increase the amount of waste that will be sent into landfills. In this context, Malaysia is heavily dependent on landfilling as a method of waste disposal (Shakil et al., 2023). According to the National Solid Waste Department, Malaysia currently has 165 landfills, eight sanitary landfills, and three inert landfills for materials such as sand and concrete (Daim, 2022). However, the continuous amount of waste sent to landfills poses

a significant impact on the nation's landfills as it is rapidly reaching capacity, leading to environmental damage, health risks, and economic burdens (Kaza et al., 2018).

Therefore, Malaysia government has implemented a various approach to enhance the waste management and promote the sustainable waste management practices. This approach been developed to driving significant advancements in Malaysia's waste management sector. In this line, the Malaysian Government continues to promote a more effective way of waste management by encouraging the reuse and reduce method and ultimately reducing landfill wastes (Malaysian Investment Development Authority, 2023). While government approaches are essential, individual actions are equally important in making a significant impact. In this, society needs to play a crucial role in ensuring a cleaner environment and a sustainable future. However, the limited knowledge on waste management practices among society contributes significantly to several negative impacts. According to Fadhullah et al. (2022), poor waste disposal practices can restrain the progress towards a sustainable waste management practice. Therefore, the role of society is very important as an initial step in managing waste.

1.2 Problem Statement

Waste management is a major challenge for Malaysia with an increasing amount of waste (Phooi et al., 2022). According to International Trade Administration (2022), Malaysia disposes of more than 30,000 tons of municipal solid waste (MSW) daily which amounts to 1.17 kilogram of waste daily per capita in 2022. Food waste contributed the most significant component of MSW, followed by plastic, paper, mixed organic, wood, and others. With an estimated 30,000 tons of municipal solid waste (MSW) generated daily, Malaysia faces significant challenges in effectively managing its waste as most of the waste went into landfills in the past decade. Due to that, Malaysia's landfills are filling to capacity, putting the country in danger of running out of space for the disposal of solid waste by 2050 (Daim & Radhi, 2023).

The increment amount of waste in Malaysia is aggravated by inconsistent individual waste management practices among Malaysian that arise due to the limited knowledge on the waste management practices among society about proper waste segregation and recycling procedures that leading to confusion and inconsistent practices. According to Nizam et al. (2022), separation waste in Malaysia is not yet to be a culture among society. Due to that, the recycling rate in Malaysia is low standing at around 33.17% in 2022 as the waste output outpaces the country's recycling rate (Zainal, 2023). The continuous decline in recycling rate might leads Malaysia is not able to achieve a national recycling rate of 40% on all solid waste by 2025.

Food waste behaviour also is a serious issue that affects the social, economic, and environmental aspects of Malaysia (Phooi et al., 2022). Despite being aware of the causes and impacts of food waste, many Malaysians continue to waste food daily at alarming rates, especially during festive seasons and events. Fadhullah et al. (2022) discover that 74.3% of households dispose of food waste debris as waste and 18.3% dispose of plastic materials as waste. In this line, there is still significant gap remain in empathetic the complex dynamics of waste management practices among society in Malaysia. By addressing this gap, Malaysia can transition towards a more sustainable and circular economy, where waste is minimized and the recycling rate increase.

In the context of Islam, the concept of giving Sadaqah aligns well with the importance of taking care on the environment. Sadaqah is a fundamental aspect of Islamic teachings, emphasizing the responsibility of Muslims to contribute to the welfare of society and to help those in need. However, there are still limited practices on giving of Sadaqah which hinders poverty alleviation, hinders social support, and restricts the fulfilment of religious obligations (Kakar et al., 2022). According to the Zubairi and Siddiqui (2019), most individuals making donations only when seasonal donations periods such as Ramadhan as they felt motivative to give Sadaqah during that time. Addressing this issue is crucial to encourage widespread adoption of sadaqah and maximize

its positive impact. Therefore, an efficient and sustainable waste management system among society need to be developed in Malaysia that integrates waste management with the concept of Sadaqah by channelling charitable contributions through waste management system.

1.3 Objectives

In a world grappling with environmental challenges and escalating waste production, the concept of “Trash to Treasure (T2T) Sadaqah” emerges as a transformative initiative that harmonizes environmental sustainability with the noble principles of charitable giving. Sadaqah, an Islamic term for voluntary charity, holds significant importance in promoting social welfare and compassion within the Muslim community. The objective of “Trash to Treasure (T2T) Sadaqah” is to achieve the following objectives:

1. To reduce waste generation and environmental impact, while simultaneously empowering communities through resource recovery and redistribution.
2. To promote a circular economy within communities by transforming waste into valuable resources, facilitating Sadaqah fulfilment through waste-based charity initiatives.
3. To nurture a culture of mindful consumption, waste reduction, and responsible disposal, while encouraging Sadaqah as a natural extension of environmental awareness.
4. To develop innovative waste-to-Sadaqah platforms that connect surplus resources with underprivileged communities, maximizing the impact of charitable contributions.

1.4 Significance of Product

The innovative "Trash to Treasure (T2T) Sadaqah" initiative extends far beyond mere waste transformation, encompassing a variety of societal benefits that resonate across diverse segments of the population. Foremost, it serves as a linchpin in environmental conservation efforts. By redirecting waste away from landfills and repurposing it into valuable resources, the program addresses the pressing environmental challenges of waste generation and resource depletion. Through the efficient utilization of existing materials, T2T Sadaqah fosters resource conservation, reducing the strain on virgin resources and alleviating associated environmental burdens.

In terms of social impact, the T2T Sadaqah initiative distinguishes itself through its direct support to the Asnaf, providing crucial financial assistance derived from the sale of recycled materials. This aid offers a lifeline to individuals and families in need, empowering them to improve their living conditions and fulfill basic needs. This financial empowerment plays a pivotal role in breaking the cycle of poverty, paving the way for a more promising future. Moreover, T2T Sadaqah contributes significantly to community transformation by enhancing neighborhood aesthetics and functionality. Through initiatives promoting cleaner streets, waste reduction, and environmental awareness, T2T Sadaqah creates a healthier and more pleasant living environment. This improved physical environment correlates with enhanced mental well-being, strengthened social bonds, and a heightened sense of community ownership. A notable aspect of T2T's Sadaqah initiative is its support for social entrepreneurship in providing a platform for innovative ideas to address environmental and social challenges.

Social entrepreneurs, empowered by T2T Sadaqah, play a pivotal role in driving sustainable job creation, waste management solutions, and environmental consciousness, contributing to a more equitable and sustainable society. From a governmental perspective, T2T Sadaqah aligns seamlessly with sustainable development agendas and environmental protection goals. Its contribution towards national and international targets, including the Sustainable Development Goals, is significant. Improved waste management not only reduces reliance on landfills but also leads to substantial cost savings for governments, mitigating environmental impacts such as greenhouse gas emissions and land pollution.

2.0 Literature review

2.1 Theory of Environmentally Behaviour

The Theory of Environmentally Responsible Behaviour (ERB), proposed by Hines et al. (1986) emphasizes the role of intention in influencing environmentally responsible behaviour. In the Environmental Responsible Behaviour model, the internal control center is highlighted as having a substantial impact on the intention to act, thereby influencing an individual's environmentally responsible behaviour. The model also emphasizes the interrelationships between the control center, attitudes, and intention to act. Akintunde (2017) argues that the control center directly affects an individual's attitudes, leading to an enhanced intention to act and improved behaviour. The focus of the theory is on understanding the interactions among various parameters that influence an individual's behaviour, rather than isolating the impact of a single variable. ERB is understood as a representation of people's environmental concerns, readiness to take pro-environmental action, and perceived ecological knowledge (Cottrell & Graefe, 1997). For example, ERB is commonly characterized as individual acts made to address environmental challenges and safeguard the environment (Stern, 2000).

The concept posits that ERB is the result of a combination of three factors: knowledge, attitudes, and a control center, all of which contribute to the desire to behave environmentally responsibly as illustrated in Figure 1. Knowledge refers to an individual's grasp of environmental concerns. This can involve scientific knowledge about how the environment operates as well as understanding the environmental consequences of human activity. The Figure 1 places knowledge at the top, implying that it sets the groundwork for ERB. Attitudes express a person's sentiments and views about the surroundings. Someone who has strong pro-environmental views may be more inclined to participate in ERB. The Figure 1 displays attitudes below knowledge, demonstrating that an individual's grasp of environmental concerns influences their sentiments and opinions.

The control center depicts the aspects that impact a person's ability to put their knowledge and attitudes into practice. This might involve a person's perception of their capacity to make a difference (self-efficacy) as well as societal standards. The control center is located in the center of the Figure 1 because it combines information, attitudes, and other elements (represented outside the circles) to determine the intention to act appropriately. The model also demonstrates that ERB is impacted by both personal and societal influences. Personal responsibility is an individual's sense of commitment to safeguard the environment. Social entrepreneurs are individuals who apply business principles to address social and environmental issues. Government measures can also influence ERB. All of these elements can have an impact eventually influencing the intention to behave ethically. For example, during a pandemic, the widespread use of disposable surgical face masks resulted in a significant waste flow into the environment. This spike in mask waste causes considerable concerns because they are often constructed of non-biodegradable polymers and are frequently discarded without appropriate recycling processes in place (Abidin et al., 2022). This circumstance emphasizes the significance of taking into account the environmental impact of our actions, as well as our personal and social responsibilities.

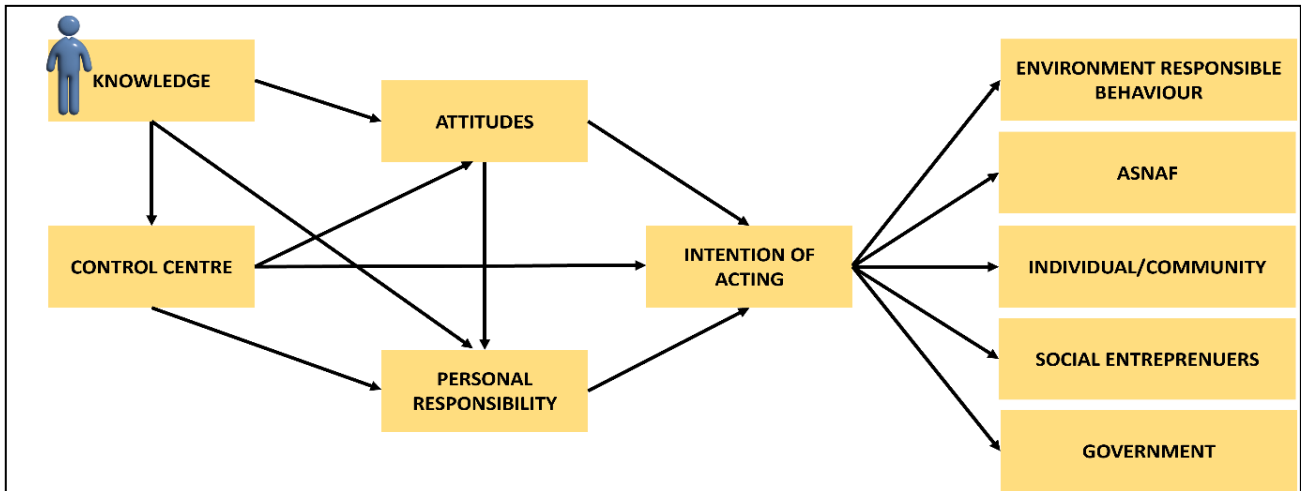


Figure 1: Theory of Environmentally Responsible Behaviour

2.2 Empirical Literature

The challenges of the environment confronting society have been increasingly as a consequence of rapid population growth (Chien et al., 2023). The growing all over population and consumption patterns generate an extensive amount of waste, placing strain on waste management systems and landfills (Daim & Radhi, 2023). Hence, the most crucial phase in waste management is waste processing and separation at the source (Fadhullah et al., 2022). According to Abubakar et al. (2022), the negative impacts of waste generation and uncontrolled dumping include air and water pollution, land degradation, methane and hazardous leachate emissions, and climate change. These impacts impose enormous environmental and public health costs on residents, with marginalised socioeconomic groups bearing the majority of the burden. Improper waste management may end in the release of dangerous chemicals and pollutants, contaminating the air, water, and soil which caused a variety of serious health problems (Omang et al., 2021).

Nevertheless, one's waste can be the other's raw material. That closely describes the circular economy notion. Adopting circular economy concepts can open up potential for waste reduction in which waste may be viewed as a valuable resource, with prospects for material recovery and reuse via recycling, composting, and waste-to-energy technologies. Kalkanis et al. (2022) highlights that recycled and recovered materials can be reengineered which helps in reducing the energy and water demands of repurposing while also creating productive supply chains for these resources as well as generate profits from it. Organic waste contains many beneficial materials for agriculture and farming, as well as nutritious elements for vegetables and fruits. According to Abu et al. (2022), composting methods for organic waste management are significant to environment as they convert food waste into beneficial organic fertilizer, in which helping reduce harmful carbon dioxide and methane emissions by diverting waste from landfills. Anaerobic digestion converts vast quantities of organic waste into fertilisers, energy, electricity, and heat (Tsapekos et al., 2021). In addition, plastics, rubber, leather, wood, and packaging materials discovered in waste streams have a significant calorific value and can be used to substitute non-renewable energy sources in industrial or power operations, increasing process energy efficiency and minimising the usage of non-renewable energy sources (Kalkanis et al., 2022). Therefore, sustainable cities and communities, along with responsible consumption and production are required to attain excellent health and well-being, clean water and sanitation (Debrah et al., 2022).

Charity is a vital obligation that Muslims must fulfil (Jalil et al., 2023; Rizal & Amin, 2017; Mohammad Hatta & Abu Samah, 2015). Embracing Sadaqah as part of environmental awareness helps create a more holistic approach to sustainability, benefiting both the environment and the well-being of the community. This is because Sadaqah encompasses all acts of charity and good deeds and is not limited to issuing or donating tangible objects (Yandri et al., 2023). In this

instance, collecting waste is construed as kindness as this way can prevent it from damage the environment.

3.0 Methodology

3.1 Research Design

The study employs a qualitative research design to explore the perception of the developed product that has been built. This specially focuses on semi-structured interviews. The interview conducts in drawing meaningful conclusions on the implementation of a successful waste-to-sadaqah system that can integrate seamlessly with the community's values and practices. Additionally, it will be integrated to facilitate collaborative problem-solving and develop a sustainable waste management system that incorporates Sadaqah principles.

3.2 Data Sampling

This study employs a purposive sampling strategy to achieve the aforementioned objectives in this study. This study focuses on three interviewees from different states, representing different demographics and socio-economic backgrounds in which one management person from KDEB Waste Management (KDEBWM) Sdn Bhd and the other belongs to the age of 20s. This sampling strategy helps in providing rich and diverse perspectives on waste management practices.

3.3 Research Instrument

Prior to the interview, a set of inquiries has been formulated as a guide of the interviews to ensure consistency while allowing for flexibility in getting richer details. The principal objective of the interview is to gain a comprehensive understanding of the interviewees' perspectives that will help in developing a successful and impactful waste management system that integrates Sadaqah principles effectively. This serves as a highly efficacious means of delving into participants' experiences, enabling the interviewees to acquire profound insights into the subject matter.

Table 1: List of Interviewee Questions

1.	How effective could integrating Sadaqah principles be in motivating individuals and communities to participate in a waste management system?
2.	Is there a risk of misuse or exploitation within such a system, and how can it be mitigated?
3.	What are the most suitable waste types and resource recovery methods for integration with Sadaqah initiatives within this specific community?
4.	What infrastructure and partnerships are needed to effectively implement a waste-to-sadaqah system on a local level?
5.	How can we encourage widespread adoption and cultural acceptance of this system within the community?
6.	What strategies can be employed to ensure the long-term sustainability and scalability of this initiative?
7.	What are your advice on specific innovative waste-to-sadaqah platform designs and technological solutions?
8.	What are the best practices from existing waste management and Sadaqah-related initiatives that could be adapted or incorporated?

3.3 Data Collection

This study collects data primarily through semi-structured interviews. This qualitative approach allows this study to explore interviewees' in-depth opinions and motivations beyond simple satisfaction ratings. This involves conducting focus groups interviews with several residents and environmental experts to gather variety information and opinion as well as recommendations on the waste management system. To minimize interviewer bias and ensure data collection answer the objectives in this study, additional questions might be asked during interviews to clarify and further expand the certain answers. Besides, it is to encourage them to further share their opinions related to waste management practices align with Sadaqah concept.

3.4 Data Analysis

Thematic analysis will be used to analyse the collected interview data. The data from the interviews will be analysed to gain valuable insights into the development of successful and impactful waste management system while integrating the concept of Sadaqah. This approach can lead to the development of innovative solutions and initiatives that address both environmental and social challenges.

4.0 Discussion of analysis and findings

4.1 Introduction

Since the respondents were carefully chosen, there was less chance of misunderstandings or misinterpretations and more significant insights that were based on pertinent knowledge. Participants' informed permission was carefully sought in advance, highlighting their freedom to decide whether or not to participate in the study. Prospective participants were given thorough descriptions of the study technique so they could decide for themselves how involved they wanted to be. Furthermore, a thorough list of interview questions was distributed well in advance, allowing for careful planning and preparation.

4.2 Description of Innovation

The Trash to Treasure (T2T) Sadaqah initiative stands as a pioneering venture at the intersection of Islamic finance and waste management. The initiative aligns with Sustainable Development Goals (SDGs), promising to foster environmental improvement, empower marginalized communities, and catalyze social entrepreneurship. Trash to Treasure (T2T) Sadaqah also introduces a specialized application that not only facilitates waste collection and recycling but also integrates charitable giving seamlessly into the process. Users can request waste collection through the application, where users need to select the types of waste to be collected and choose a convenient date and time for pickup. Users are able to proceed to do Sadaqah with funds from recycled items that being credited to their e-wallet account, but the funds restricted in-app transactions only. This setup enhances transparency in charitable giving, as users are actively involved in directing their donations and can track the flow of funds within the application, ensuring that their contributions go directly to the intended recipients.

Furthermore, the application also provides educational resources on waste management, announcements about environmental campaigns, and a recycle game to engage users and promote awareness. Through innovative financing mechanisms and sustainable waste management practices, Trash to Treasure (T2T) Sadaqah creates a circular economy model that promotes social, environmental, and economic development. Overall, the Trash to Treasure (T2T) Sadaqah offers a comprehensive solution for users to participate in waste management efforts while supporting charitable initiatives, fostering accountability, transparency, and community engagement.

4.3 Benefits of the Product

The innovative products and features introduced by the Trash to Treasure (T2T) Sadaqah initiative offer numerous benefits to individuals, society, and the environment, revolutionizing both charitable giving and waste management practices. Firstly, from an individual perspective, the Trash to Treasure (T2T) Sadaqah application provides a convenient and accessible platform for users to engage in charitable activities. By allowing users to register and contribute waste materials voluntarily, the application empowers individuals to make a tangible difference in their communities. Users can easily specify the type and quantity of waste they wish to donate, as well as the frequency of their contributions, providing them with flexibility and control over their charitable endeavors.

From a societal standpoint, the Trash to Treasure (T2T) Sadaqah initiative promotes community involvement and cohesion by encouraging collective action towards common goals. By providing updates and announcements about waste management campaigns and environmental initiatives, the application fosters awareness and mobilizes individuals to take proactive steps towards improving waste management practices and environmental sustainability. Furthermore, the Trash to Treasure (T2T) Sadaqah initiative delivers significant environmental benefits by promoting sustainable waste management practices and reducing the ecological footprint of waste disposal. Through features such as waste collection and recycling and upcycling activities, the

initiative diverts waste from landfills and incinerators, minimizing environmental pollution and conserving natural resources.

4.4 Result from Primary Sources

Several responses were collected from three individuals who partook in the interview session. The study sample consists of three interviewees, each representing a distinct demographic group. Namely, one interviewee hails from the work management of recycling waste KDEBWM Sdn Bhd, while the other belongs to the age of 20s. They emphasized the spiritual rewards associated with charitable giving, as well as the societal benefits of protecting the environment and reducing waste. Moreover, interviewees underscored the importance of valuing items accurately to ensure a fair and equitable distribution of charitable contributions.

Furthermore, discussions with interviewees delved into potential risks associated with the initiative, particularly regarding the misuse or exploitation of funds. Concerns were raised about the assurance of genuine distribution of funds to those in need, highlighting the importance of implementing robust governance structures and accountability standards. Interviewees emphasized the need for transparency and community outreach to mitigate such risks and ensure fair distribution of resources. Interviewees also provided insights into the most suitable waste types and resource recovery methods for integration with Sadaqah initiatives within specific communities. While all waste types were considered suitable for integration, interviewees noted the importance of considering the varying prices of each waste type and tailoring resource recovery methods accordingly.

Discussions also touched upon the infrastructure and partnerships needed to effectively implement a waste-to-Sadaqah system on a local level. Interviewees highlighted the importance of waste collection centers, recycling facilities, and awareness campaigns as necessary components of the infrastructure required to execute such a system successfully. Moreover, partnerships with local organizations and community engagement were deemed essential for fostering widespread adoption and cultural acceptance of the initiative.

Interviewees shared valuable insights into strategies for encouraging widespread adoption and cultural acceptance of the initiative within communities. This emphasized the importance of developing customized educational initiatives that highlight the advantages for both the community and the environment. Additionally, interviewees underscored the need for user-friendly platform designs and technological solutions to enhance participation and engagement. Moreover, interviewees provided advice on leveraging best practices from existing waste management and Sadaqah-related initiatives to inform the design and implementation of the Trash to Treasure (T2T) Sadaqah initiative. They highlighted the importance of integrating community engagement and education into the initiative, as well as partnering with neighborhood organizations and leveraging social media influencers to amplify outreach efforts.

4.5 Novelty

The "Trash to Treasure (T2T) Sadaqah" initiative's creative approach on waste management represents a paradigm leap in sustainable practices. Through the use of a specialised application, this innovative approach enables people to actively engage in waste recycling, helping to preserve the environment. One of the distinguishing features of the Trash to Treasure (T2T) Sadaqah application is its incorporation of a philanthropic component, allowing users to contribute to charitable causes through the Sadaqah feature. This dual-purpose functionality underscores a holistic approach to waste management, where economic incentives are seamlessly integrated with social responsibility. The integration of financial contributions towards charitable endeavors amplifies the social impact of waste recycling, presenting a novel and socially conscious business model.

Moreover, the business ecosystem surrounding the "Trash to Treasure (T2T) Sadaqah" initiative extends its benefits beyond individual users. By selling recyclable waste to waste entrepreneurs, the business not only supports the recycling industry but also generates revenue. For non-recyclable waste, the initiative explores innovative avenues, such as converting it into fuel for electricity generation, which can be sold to electricity utility companies. Furthermore, the initiative delves into the realm of organic waste management by utilizing food waste to produce compost organic fertilizer. The resulting organic fertilizer can be marketed, generating additional revenue streams for the business. This multifaceted approach to waste management, encompassing recycling, energy generation, and organic fertilizer production, underscores the novelty and comprehensive sustainability of the "Trash to Treasure (T2T) Sadaqah" initiative, positioning it as a forward-thinking and socially responsible solution in the waste management landscape.

4.6 Social Responsibility / Social Benefits

The "Trash to Treasure (T2T) Sadaqah" application not only revolutionizes waste management but also serves as a robust platform for cultivating social responsibility and incorporating the spirit of Sadaqah, or charitable giving, into everyday actions. This innovative application becomes a powerful tool to raise awareness among people about the critical importance of responsible waste disposal and recycling. Through its user-friendly features and engaging interface, the application transforms into an educational hub that fosters a heightened understanding of environmental conservation and sustainable practices, all within the framework of Sadaqah. Users receive real-time updates on the environmental impact of their recycling efforts, such as reductions in landfill waste, decreased greenhouse gas emissions, and the conservation of valuable resources. The application not only facilitates responsible waste management but also incorporates Sadaqah into the process by allowing users to direct a portion of the proceeds from recycled materials to charitable causes. The application transparently showcases the positive outcomes of these charitable contributions, from providing financial assistance to families to supporting community development projects.

In addition to its core functionality, the application includes an extensive educational component, offering users valuable insights into the intricacies of waste management and the ethical dimensions of charitable acts. Users can access tips on effective recycling, learn about the environmental benefits of reducing waste, and understand the larger implications of their daily choices. Moreover, the application serves as a storytelling platform for sharing success stories related to both waste management and charitable contributions. Users can celebrate achievements such as the amount of waste diverted from landfills or the positive impact of their Sadaqah contributions.

4.7 Commercialization Value

Modern consumers are no longer satisfied with just purchasing a product. They crave a deeper connection with the brands of their choice. This has increased the demand for socially responsible and environmentally conscious practices. As consumers become more aware of the environmental and social impact of their choices, they are actively seeking out brands that align with their values such as sustainability and good behavior. This desire goes beyond simply purchasing a product. People want their daily actions to have a positive impact.

The Trash to Treasure (T2T) Sadaqah initiative offers three unique benefits: environmental management, social benefits through Sadaqah, and a user-friendly platform that seamlessly integrates these values into waste management. T2T Sadaqah are taking advantage of this trend. This innovative initiative allows them to demonstrate their commitment to a sustainable future and social responsibility. By integrating T2T Sadaqah principles into their business philosophies, companies can increase customer loyalty, attract a new generation of environmentally and socially conscious consumers, and ultimately strengthen their market position.

Moreover, the philanthropic element gives the initiative an added appeal, positioning T2T Sadaqah not only as sustainable but also as philanthropists. This dual effect serves as a powerful differentiator in a competitive market by increasing brand value and attracting purposeful consumers looking to align their purchasing power with positive changes in society. Additionally, the collaborative nature of this initiative provides exciting opportunities for T2T to sponsor environmental and social projects, further strengthening their commitment to a better future. Through co-branding campaigns and partnerships, T2T Sadaqah not only achieves positive publicity, but also actively contribute to the betterment of society.

For individuals, the commercial value of the T2T Sadaqah initiative lies in its ability to transform everyday actions into meaningful contributions. Sadaqah's user-friendly interface and integrations make recycling waste a purpose-driven activity that gives users pride in contributing to a cleaner environment and supporting charities. This renewed sense of purpose increases the perceived value of the initiative and fosters continued engagement and loyalty. Fundamentally, the T2T Sadaqah initiative is more than just waste management. This allows individuals to actively participate in building a more sustainable and socially responsible world by recycling one recyclable item at a time.

4.8 Framework and Process Flow

4.8.1 Trash to Treasure (T2T) Sadaqah Management Workflow

Trash to Treasure (T2T) Sadaqah is a pioneering waste management platform designed to revolutionize waste management practices and foster a circular economy in Malaysia. This approach allows individuals and investors to contribute funds without anticipating profits, ensuring a community-driven approach to addressing environmental challenges. T2T's mission is its commitment to sustainable waste management and community engagement. T2T Sadaqah operates a comprehensive waste collection and sorting system, encouraging community members to pre-sort their waste into recyclable, organic, and non-recyclable categories for efficient processing. Through this collaborative effort, T2T Sadaqah promotes environmental awareness, reduces landfill waste, and cultivates a shared responsibility for a cleaner, greener future among community members.

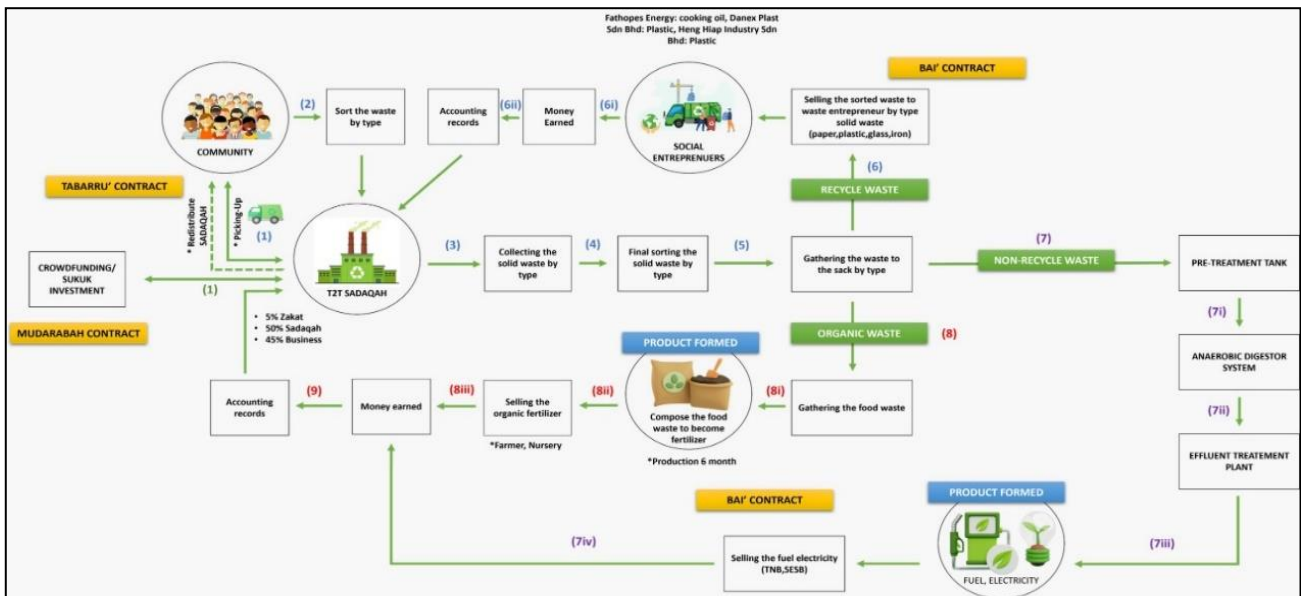


Figure 2: Workflow and Process flow of Trash to Treasure (T2T) Sadaqah Management

After meticulous sorting, T2T Sadaqah embarks on a journey of waste transformation, maximizing the value of each material. Recyclable materials such as paper, plastic, glass, and iron are sold to waste entrepreneurs through Bai' contracts, fostering a sustainable market for recycled goods. Non-recyclable waste undergoes a different yet equally valuable process, entering

anaerobic digester systems that convert organic matter into biogas—a renewable and clean-burning fuel. This biogas is then utilized for electricity or heat generation, reducing reliance on traditional energy sources, and contributing to a more sustainable energy landscape. Additionally, T2T Sadaqah recognizes the significant portion of waste constituted by food waste and addresses it through composting. Through a six-month composting process, organic waste is transformed into nutrient-rich organic fertilizer, providing farms and nurseries with a sustainable alternative to chemical fertilizers. By selling recyclable materials, generating biogas, and producing organic fertilizer, T2T Sadaqah not only contributes to environmental conservation but also creates a valuable economic cycle that benefits both the environment and the community.

T2T Sadaqah operates with transparency and accountability, meticulously documenting profits, and expenditures to ensure ethical business practices. Committed to the principles of Islamic finance, T2T Sadaqah allocates a portion of its earnings towards various charitable purposes, reflecting its dedication to serving the community beyond profit maximization. These allocations demonstrate T2T's holistic approach to business, balancing financial viability with social and environmental responsibility. In conclusion, Trash to Treasure (T2T) Sadaqah embodies a paradigm shift in waste management, leveraging innovative solutions and community engagement to promote sustainability and environmental stewardship. Through its integrated approach, T2T Sadaqah not only addresses the pressing issue of waste generation but also fosters a culture of environmental consciousness and social responsibility in Malaysia.

4.8.2 Contracts in Trash to Treasure (T2T) Sadaqah

Trash to Treasure (T2T) Sadaqah issuing Sukuk to raise funds for a specific business venture or project. Investors who are interested in participating in the Sukuk issuance review the offering prospectus and terms of the Mudarabah contract. Community users register on the Trash to Treasure (T2T) Sadaqah application and have the option to voluntarily contribute waste to the initiative. During the registration process, users may specify the type and quantity of waste they wish to contribute, as well as the frequency of their contributions. This could include recyclable materials, non-recyclable materials, and organic waste. Once registered, users collect and segregate the specified waste materials according to the guidelines provided by the application. In accordance with the Bai contract, the "Trash to Treasure (T2T) Sadaqah" initiative engages in the sale of various types of waste.

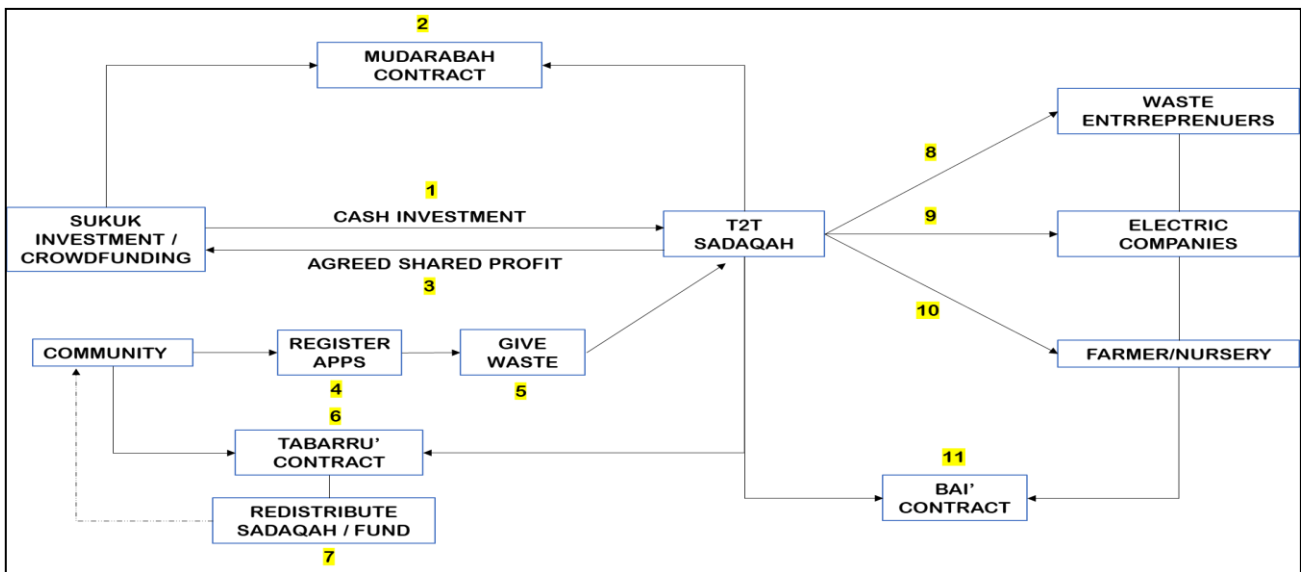


Figure 3: Workflow of Mudarabah, Tabarru' and Bai' Contract

5.0 Conclusion and future research

In concluding the exploration of the transformative "Trash to Treasure (T2T) Sadaqah" initiative, it emerges as a pioneering force, surpassing conventional waste management practices.

This creative initiative not only skillfully addresses environmental concerns but also extends its impact to communities and embodies the spirit of charitable giving through Sadaqah. It goes beyond the ordinary, forging a narrative where waste is not just discarded but becomes a valuable resource, symbolizing collective efforts from individuals to major organizations. The remarkable response and active engagement from users, businesses, and communities underscore the initiative's relevance and positive influence. It serves as a testament to the growing awareness that individual actions reverberate beyond personal spheres, influencing both the environment and society at large.

This journey of the "Trash to Treasure (T2T) Sadaqah" initiative is a compelling narrative of innovation, collaboration, and the transformative power of collective action. It signifies a paradigm shift in how waste is perceived and managed, fostering a holistic approach that intertwines environmental consciousness with charitable endeavours. As the initiative continues to evolve, its impact is poised to resonate even further, inspiring individuals, businesses, and communities to join hands in building a sustainable and compassionate future. In the pursuit of revolutionizing waste management and fostering a culture of environmental responsibility, the "Trash to Treasure (T2T) Sadaqah" applications stand as a beacon of innovation. To further amplify its impact and reach, a set of strategic recommendations have been outlined. Firstly, implementing comprehensive awareness campaigns is vital for expanding the application's reach. Collaborating with media outlets, social influencers, and community leaders can effectively disseminate information about the application's objectives, benefits, and success stories. Utilizing various channels, including social media platforms such as Facebook, Twitter, and Instagram, will allow for the creation of engaging content that educates and encourages broad participation.

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Author Contributions

N.A. Hamizan, M.F. Mohammad Hatta, S. Ramli: Research Background, Problem Statement, Methodology, Description of Innovation, Trash to Treasure (T2T) Sadaqah Management Workflow; **N.A.A. Satar, M.F. Mohammad Hatta, S. Ramli:** Objectives, Significance of Product, Literature review, Social Responsibility / Social Benefits, Commercialization Value, Conclusion and Recommendations; **N.Z.A. Arazmi, M.F. Mohammad Hatta, S. Ramli:** Benefits of the Product, Result from Primary Sources, Novelty, Contracts in Trash to Treasure (T2T) Sadaqah.

Conflicts of Interest

The manuscript has not been published elsewhere and is not under consideration by other journals. All authors have approved the review, agree with its submission, and declare no conflict of interest in the manuscript.

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