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Optimizing the Use of Social Crowdfunding in SMEs to Encourage the Implementation of Circular Economy (CE) Practices

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ABSTRACT

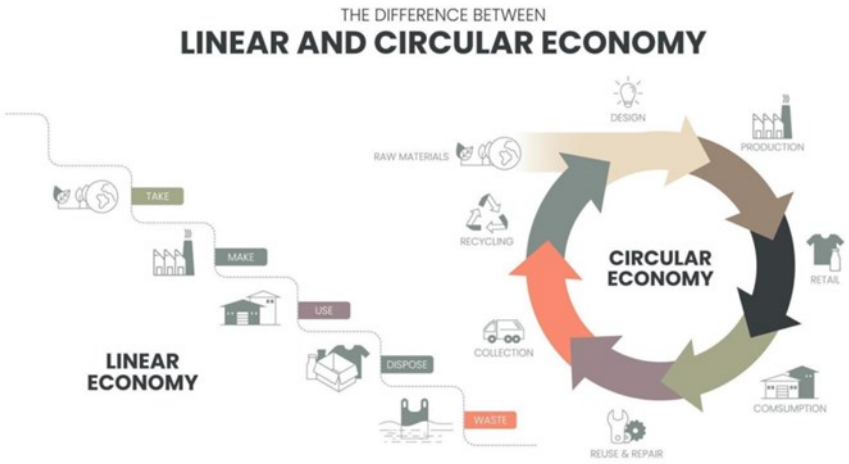
Circular Economy (CE) offers an alternative to the linear economy (take-make-dispose) by adopting a make-use-recycle approach. While CE practices have primarily focused on technological and manufacturing changes, large businesses can more easily implement these practices due to their resources. However, small and medium-sized enterprises (SMEs) often struggle with CE implementation due to limited resources, particularly funding. FinTech Crowdfunding, especially donation-based (social crowdfunding), presents a viable funding alternative for SMEs. This research aims to develop a theoretical model using the Willingness to Participate Theory and the AIDA model for understanding and promoting CE practices among SMEs through the use of social crowdfunding. A survey was conducted with 69 SME actors. The research findings have led to the development of a model incorporating three key determinants: funding resources, community engagement, and entrepreneurial spirit. These factors are identified as antecedents that significantly influence SME awareness and willingness to adopt CE practices. The proposed model highlights how these elements can enhance SME participation in Indonesia. This model can serve as a foundation for future research in this area.

Keywords: AIDA Model; Circular Economy; SMEs; Social Crowdfunding; Willingness to Participate

INTRODUCTION

At the COP 21 and COP 26 meetings, Indonesia expressed its commitment and efforts to overcome economic, social, and environmental problems through low-carbon development and encouraging circular economy (CE) practices. CE is an alternative to move from a linear/traditional economy (take-make-dispose), where economic actors ensure that resources can be used as long as possible, extract maximum value from use, and then recover and regenerate products and materials at the end of each service life (make-use-recycle) (Annika & Gold, 2021; Ellen MacArthur Foundation, 2013). Figure 1 below shows the difference between linear economy and CE. Based on Figure 1 it is clear that in CE practices recycling is very crucial rather than only disposal and waste.

Figure 1. The Difference Between Linear Economy and CE



Source: Ellen MacArthur Foundation (2013)

CE is an economic system that addresses global challenges such as climate change, biodiversity loss, waste, and pollution. Every responsible company must address possible problems in three stages, they are (1) purchasing raw materials and production, (2) consumption and use of final products, and (3) collection and processing of consumption waste. To implement economic transformation immediately, especially supporting the green economy, Indonesia has adopted the CE concept into its development vision and strategy. Indonesia's Vision 2045 has elaborated the CE concept as a future policy. As a first step in implementing the CE concept, the Indonesian government in collaboration with the United Nations Development Programme (UNDP) prioritizes five industrial sectors, namely food and beverages, construction, electronics, textiles, and plastics (UNDP, 2021). In the National Action Plan, the government includes CE in the 2025-2029 RPJMN. In an implementation context, the Ministry of Industry has established five main principles of the CE concept, namely reduce, reuse, recycle, recover, and repair. These five principles can be implemented by reducing the use of raw materials from nature (reduce), optimizing the use of materials that can be reused (reuse), and the use of materials resulting from the recycling process (recycle) or from the recovery process (recovery) or by carrying out repairs (repair).

Figure 2. CE Concept

Source: Ellen MacArthur Foundation (2013), Ministry of Industry (2020)

Figure 2 illustrates how CE practices contribute to environmental sustainability by recycling raw materials (indicated by the green color). These practices play a fundamental role in protecting the environment and ensuring sustainability for future generations.

Practically, addressing the challenges and imbalances with current conditions will require significant collective effort. The fifth approach to CE practices, known as the 5R approach, is primarily focused on technological and manufacturing changes. Large businesses can accommodate CE practices due to their substantial resources. However, for Small and Medium-Sized Enterprises (SMEs), the implementation of CE is still not optimal. SMEs can experience quicker impacts from CE practices compared to larger businesses for two main reasons: their closer proximity to the final consumer and their decentralized production systems (Rizos et al., 2016; UNDP, 2021). A recent study by Boyer et al. (2021) emphasizes the need to further explore the motivators and barriers for SMEs in adopting CE practices, particularly considering the impact on end consumers.

It can be stated that CE practices require active participation from SMEs. SMEs in Indonesia are a very important supporter of the Indonesian economy, namely being able to absorb around 97% of employment opportunities and making a significant contribution (61.7%) in the formation of the Gross Domestic Product (GDP) (Central Agency of Statistics [BPS], 2021). SMEs have become an important part of the economic system in Indonesia because the number of business units is greater than large businesses with a ratio of 5.6 thousand large businesses and 64.14 million SMEs. SMEs are considered capable of collecting 60.42% of total investment in Indonesia and have high economic resilience to support crises and maintain the stability of the economic system.

The implementation of CE practices in SMEs cannot yet be implemented optimally because it is believed to require quite burdensome funding. One phenomenon that is still the main obstacle for SMEs to show optimal performance is prime access. Currently, the Industrial Revolution 4.0 is driving the transformation of the financial services business towards digital technology-based technology known as financial technology (FinTech).

According to several experts (Indriana et al., 2022; Mollick, 2014; Nizar, 2017), FinTech is a technology-based financial service that acts as a solution in developing applications, products, or business models in the financial services industry. In recent years, this FinTech phenomenon has encouraged the emergence of various new services in the financial sector, including crowdfunding services. Crowdfunding is the practice of raising

funds or investments by utilizing sites or websites (Gerber & Hui, 2013; Mollick, 2014). One of the concepts of crowdfunding which is aimed at funding social activities is social crowdfunding. The phenomenon of utilizing social crowdfunding is known as donation-based crowdfunding, where fundraisers do not expect anything in return. Crowdfunding was born from the social spirit of humanity.

In crowdfunding, one of the roles that plays a role in attracting donors is the project campaign itself. In the context of this research is CE practice for SMEs. Many studies have been conducted on crowdfunding, but the use of the concept of crowdfunding to support SMEs implementing CE practices is still not widely carried out. One of the problems that arises is that the mindset of many people (SME actors) is still illiterate (low literacy) and education has not yet been developed because socialization is still low. Research results show that Indonesia has a financial literacy index of 21.84% which indicates that the community's ability to use knowledge and skills to manage financial resources effectively is not yet optimal (Apriliani et al., 2019; Ibrahmim et al., 2021). The point is that socialization and education on the use of FinTech (crowdfunding) by the government or other stakeholders is still not optimal. Not only from the macro aspect (government, investors, etc) but also from the micro aspect (SME actors) shows that there is no indication that there is awareness of the use of crowdfunding and the perception of its benefits is still low. The research results of Rahmawati (2019,s2021) show that SMEs' awareness of the existence of crowdfunding is still low due to a lack of socialization from both the government and platform organizers.

Integrating the Willingness to Participate Theory with the AIDA model provides a robust framework for enhancing the understanding and promotion of CE practices among SMEs through social crowdfunding. The Willingness to Participate Theory focuses on the factors that influence an individual's or organization's readiness to engage in specific activities, such as adopting sustainable practices. It emphasizes the importance of understanding motivational drivers and barriers to participation. On the other hand, the AIDA model, which outlines the stages of Attention, Interest, Desire, and Action, offers a structured approach to effectively communicate and persuade stakeholders. The synergy between these theories enhances the ability to design targeted interventions and support mechanisms that encourage SMEs to integrate circular economy principles into their business models.

This research seeks to create a theoretical model that integrates the Willingness to Participate Theory and the AIDA model to better understand and promote CE practices among SMEs by leveraging social crowdfunding. The significance of this research lies in its development of a theoretical model that combines the Willingness to Participate Theory and the AIDA model to enhance the understanding and promotion of CE practices among SMEs. By integrating these frameworks with social crowdfunding, the research aims to provide a comprehensive approach to fostering SME engagement in CE initiatives. This model is significant because it addresses the critical need for effective funding solutions and stakeholder involvement in the successful implementation of CE practices. It offers valuable insights into how social crowdfunding can be utilized to support SMEs, thereby promoting sustainability and environmental conservation. The research not only advances theoretical knowledge but also provides practical strategies for encouraging SMEs to adopt and participate in circular economy practices, contributing to both academic research and real-world applications.

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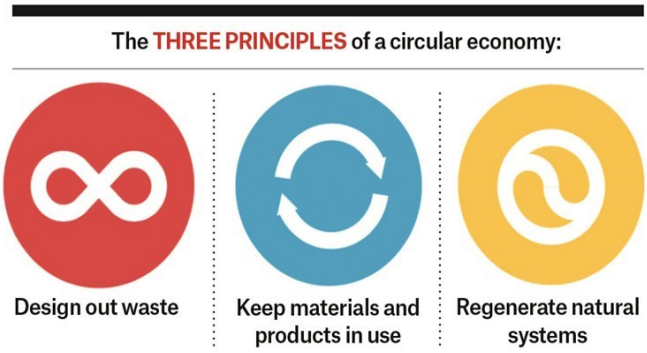
LITERATURE REVIEW

Circular Economy (CE) Concept

CE is a concept that prioritizes the principles of make-use-recycle. The World Economic Forum (n.d.) defines CE as a regenerative and restorative system aimed at utilizing discarded resources for reuse, including the use of renewable energy. According to experts (Camacho-Otero et al., 2017; Kirchherr et al., 2017; Silva et al., 2019; Wastling et al., 2018), CE is an economic system designed to reduce, reuse, and improve materials throughout the production, distribution, and consumption processes. This activity can be implemented at the micro level (companies and consumers), meso level (eco-industrial areas), and macro level (city, region, country) with the aim of achieving a sustainable economy, creating a high-quality environment, economic prosperity, and social justice.

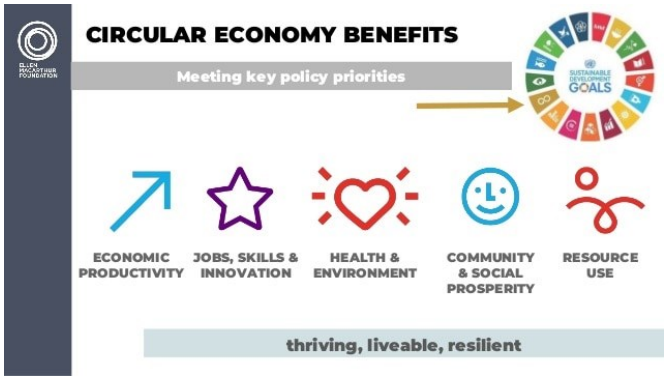
Figure 3. CE Principles



Source: Ellen MacArthur Foundation (2013)

The Ellen MacArthur Foundation (2013) and Gerber & Hui (2013) emphasize that CE redefines economic growth to benefit society at large, building economic, natural, and social capital through a circular model. Figure 3 illustrates that CE is based on three principles, they are (1) design out waste and pollution so that materials can be reused, (2) keep materials and products in use by designing them to be reused, repaired, or remanufactured, and (3) regenerate natural systems by returning nutrients to the soil and other systems, thus increasing natural resources.

Figure 4. CE Benefits

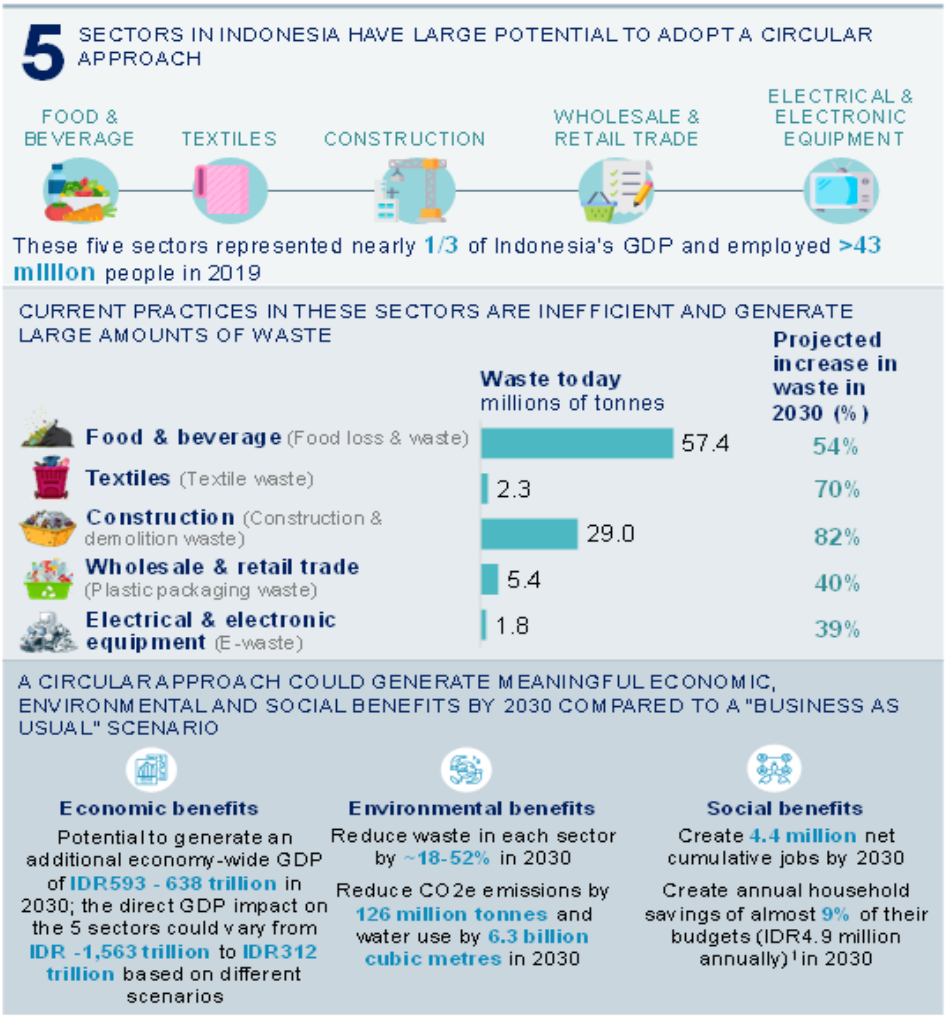


Source: Ellen MacArthur Foundation (2013) & Maya et al. (2022)

Figure 4 demonstrates the benefits of CE and its role in supporting Sustainable Development Goals (SDGs). According to Figure 4, CE offers five key benefits: economic productivity, innovation, health and environmental improvements, community and corporate social responsibility (CSR), and efficient resource use.

Indonesia is one of the countries that has adopted the CE concept as outlined in the Indonesia Vision 2045. To support this vision, the government has implemented important policies as an implementation guide for all relevant stakeholders. The Ministry of National Development Planning/BAPPENAS in collaboration with UNDP prepared a document entitled "The Economic, Social, and Environmental Benefits of Circular Economy in Indonesia" (UNDP, 2021). There are five priority sectors that are planned to adopt the CE concept, namely food and beverage, textiles, construction, trade-retail, and electronics (see Figure 5). These five sectors contributed a third of GDP and employed more than 43 million people in 2019. Judging from the amount of waste produced, the 2 sectors that contributed the most pollution were (1) food and beverages contributed 57.4 million tonnes of waste and (2) construction contributed 29 million tonnes of waste. Indonesia's decision to implement the CE concept is very important because it provides positive benefits in 2030, namely (1) from an economic perspective it contributes to GDP of IDR 593-IDR 638 trillion, (2) the environmental side can reduce waste pollution by 18-25%, and (3) the social side can increase job opportunities by around 4.4 million.

Figure 5. Sector Economy Circular



Source: UNDP (2021)

Financial Technology (FinTech): Social Crowdfunding

According to Nizar (2017), Mollick (2014), Nasoha et al. (2023), and Zulfahmi & Ginting (2023), FinTech is a technology-based financial service that provides solutions for developing applications, products, or business models in the financial services industry.

FinTech is a technological innovation in financial services that can produce business models, applications, processes, or products with material effects related to the provision of financial services. Based on reports from Karnadi (2021), the number of FinTech companies in Indonesia continues to increase every year to 691 units in 2019 and 758 units in 2020.

It cannot be denied that FinTech in Indonesia is experiencing very significant growth and has great potential for development as illustrated by the diversity of new services in the financial sector. One of the innovative services is information technology-based Crowdfunding. UNDP (2024) introduced one of the crowdfunding models used in a social context, namely social crowdfunding which allows people to get involved in social projects to contribute resources in overcoming social problems, and in various humanitarian activities. One type of social crowdfunding is donation-based crowdfunding, which is based on donations (social crowdfunding). Donation-based crowdfunding is a mass fundraising activity where people give money for activities offered by creative businesses, the world of entertainment, or certain organizations. According to several experts, donation-based crowdfunding is the simplest and most popular type of crowdfunding. In this model, funders donate for philanthropic purposes. These donations are usually made to social and charitable initiatives, with funders not expecting a return on their investment (Mollick, 2014). Donations can also be made to profit-oriented enterprises, but pure donation platforms are rare and generally focus on requests from charities and non-profit organizations (Bradford, 2012). Donation-based crowdfunding offers convenience, namely wide coverage of news to the public via the internet, cheap publication costs, and quick access to donations along with the increasing popularity of creative work.

Platforms of Social Crowdfunding

Gofundme.com

It is a crowdfunding platform that operates in the field of fundraising or the largest fundraiser in the world, with more than USD 9 billion raised from more than 120 billion fundraisers. GoFundMe's mission is to help raise funds for individuals and businesses and raise funds for social relief.

Kitabisa.com

It is an online donation platform that can gather public attention and is able to become one of the largest crowdfunding platforms in Indonesia. Since its inception from 2013 until May 2020, this platform has succeeded in raising tens of thousands of funds and has transparency in audit reports which can be openly accessed by the public every year via their website. Kitabisa.com has succeeded in facilitating 63.9 thousand fundraisers and 3.8 million users (both fundraisers and donors). Kitabisa.com is a charity fundraising platform that has various features, such as donation, zakat, mutual care, and fundraising features. Apart from that, Kitabisa has a feature that allows donors to interact with fundraisers through the "Prayers of #GoodPeople" feature. There is even a feature that works like an alarm to remind users to donate.

Related Theories

This research utilizes the Willingness to Participate Theory (Van Stekelenburg & Klandermans, 2017) and the concept of AIDA. Figure 6 illustrates the essence of the theory, which explores why individuals choose to participate or not participate in a business model. This decision is influenced by identity, cognition, motivation, and emotions, which mediate between collective identity and collective action. Based on Figure 6, the willingness to participate results from the combination of two grand theories: attitude theory and motivation theory.

Figure 6. Theory of the Willingness to Participate

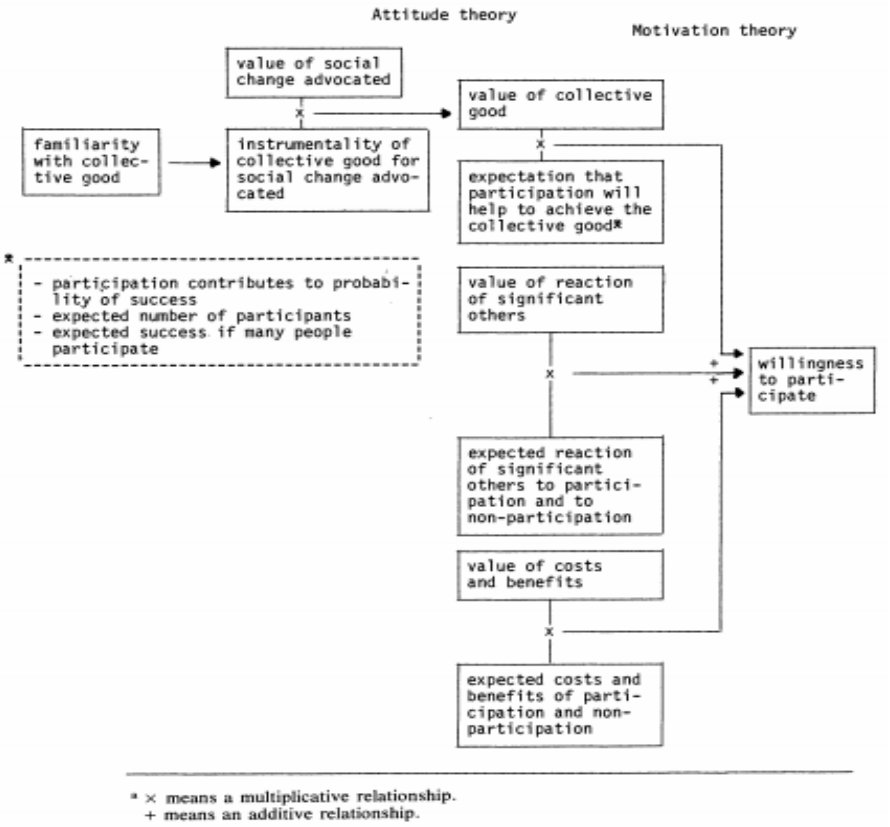
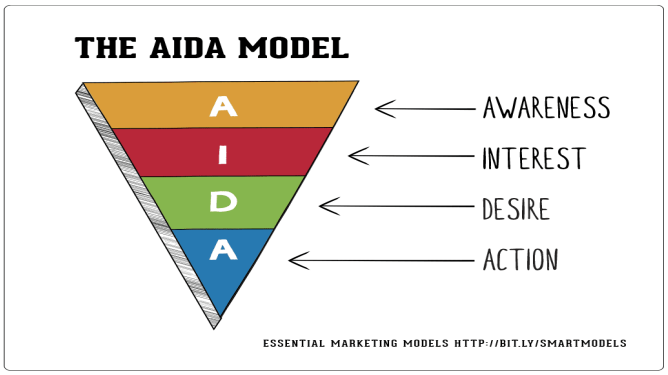


Figure 7 illustrates the AIDA concept, also known as the AIDA Model. Based on the figure, there are steps that could trigger behavior (action) such as building awareness, which creates interest and desire. This desire automatically triggers action, leading to a decision to buy or not buy.

Figure 7. The AIDA Model



Source: Vrontis et al. (2021)

RESEARCH METHOD

Research Design

This research focuses on SMEs' acceptance of CE practices in Indonesia using donation-based crowdfunding funds. The research design employs mixed methods: (1) Descriptive Non-Experimental, which involves an objective search for information without any special treatment of respondents; and (2) Descriptive analysis, which provides a detailed examination of the collected data. The mixed methods approach combines both

quantitative and qualitative techniques to provide a comprehensive understanding of the subject.

Research Method

Exploring the factors that influence SMEs' acceptance of CE practices (reduce, reuse, recycle, recovery, repair) related to consumer environmental consciousness, product knowledge, utilization (quality, price, reliability), intention to use the product, readiness to accept circular products and the willingness (willingness) of SMEs to become agents of change as marketing influencer specialists. Exploring SMEs' understanding of social crowdfunding in terms of regulations, awareness, knowledge, expectations, and preferences to support business sustainability.

Data Collection

This research involves a comprehensive analysis of various aspects related to consumer behavior theories and the factors influencing SMEs' acceptance of CE practices across different countries, with a focus on the implementation of CE in Indonesia. Document analysis is employed to investigate FinTech crowdfunding practices, particularly social-based crowdfunding donations, as potential funding solutions to accelerate CE practices in MSMEs. To gain insights from key stakeholders, interviews are conducted with experts from the government, business sector, non-governmental organizations (environmentalists), and academia, as these groups possess the necessary resources and play crucial roles in CE implementation in Indonesia. Additionally, the study identifies factors influencing MSMEs' acceptance of CE practices by integrating two core theories. This approach helps in pinpointing variables such as attitudes, subjective norms, behavioral control, intention, and behavior (readiness and willingness to be agents of change), which are essential for developing a robust model for CE practice adoption.

Research Sites

This research utilizes a survey method. Questionnaires were distributed in several industrial centers, particularly within the creative industries in Jogjakarta and surrounding areas, such as Wooden Batik (Krebet), natural fiber and woven crafts (Gamplong), and Leather-Manding and Jumputan (Annual). Additionally, interviews with 15 experts were conducted in their respective locations within the Jabodetabek area. The experts involved come from a diverse range of institutions, including the Ministry of Industry, Ministry of Cooperatives and SMEs, Business Actors, Bappenas, Ministry of the Environment, lecturers and researchers from universities, company CEOs, and Walhi (an NGO).

Data Types and Sources

The data used is secondary and primary. Secondary data is a reference from various sources to identify factors that influence SMEs' acceptance of CE practices and understanding of the use of FinTech–Donation Crowd Funding. Primary data is obtained from respondents (SMEs).

Data Collection Techniques

Data collection was conducted using a questionnaire distributed via Google Forms. The questionnaire includes several variables such as funding resources, community engagement, and entrepreneurial spirit, all measured using a Likert scale. Sampling was performed using a non-probability sampling method, specifically judgment sampling, wherein the researcher predetermined the criteria for selecting the required respondents.

Data Processing and Analysis Techniques

Descriptive analysis aims to present demographic, psychographic, and sociographic data of respondents so that they can produce consistent data patterns and the results can be studied and interpreted (Kuncoro, 2013).

RESULTS

Demographic Information

Table 1. Respondents' Demographic Information

Characteristics	Frequency	Percentage (%)
Position		
Managers	40	57.9
Owners/Directors	10	14.5
Employees/ Staff	19	27.6
Educational Background		
Undergraduate (Diploma & Bachelor)	40	57.9
Others (Senior High school)	29	42.1
Number of Employees		
50-100 Employees (Small)	61	88.4
>100 Employee (Medium)	8	11.6
Duration of Business		
<5 Years	14	20
10 Year	31	45
20 Years	21	30
>20 Years	3	5

According to Table 1, the study included a total of 69 respondents from SME sectors, comprising 40 managers (57.9%), 10 owners and directors (14.5%), and 19 employees or staff (27.6%). Regarding educational background, 40 respondents (57.9%) held undergraduate degrees and 29 respondents (42.1%) were from another educational background (senior high school). The majority of respondents (88.4%) were involved in small businesses with 50 to 100 employees, while 8 (11.6%) were from medium-sized businesses with more than 100 employees. Additionally, most participants (75%) reported having been engaged in business activities for 10 to 20 years.

SMEs' Understanding of CE Implementation

Table 2. SMEs' Understanding of Reduce Practices

Statement		Understand	Do Not Understand
1.	Willing to save electricity usage in production activities.	60 (87%)	9 (13%)
2.	Willing to use raw materials efficiently.	14 (20.3%)	55% (79.7%)
3.	Willing to implement waste optimization through selection and sorting, and proper waste disposal.	7 (10.1%)	62 (89.9%)

The understanding of CE practices among respondents (SMEs) was measured using three CE principles: reduce, reuse, and recycle. "Reduce" involves minimizing the use of natural resources; "reuse" focuses on optimizing the use of materials that can be used again; and "recycle" pertains to utilizing materials from the recycling process. In terms of reduction, 87% of respondents understand the importance of saving electricity and water. However, when it comes to the efficient use of raw materials, 79.7% of respondents admitted to a lack of understanding. Similarly, regarding waste optimization through selection and sorting, and proper waste disposal, 89.9% of respondents indicated they were unclear on how to implement these practices (see Table 2).

Table 3. SMEs' Understanding of Reuse Practices

Statement		Understand	Do Not Understand
1.	Willing to reuse waste materials for other uses (producing energy, fertilizer, craft materials, etc).	65 (94.2%)	4 (5.8%)
2.	Willing to produce product differentiation to reduce excessive waste disposal.	66 (95.7%)	3 (4.3%)

Regarding the understanding of CE practices related to reuse, 94.2% of respondents indicated that they grasp the concept of repurposing waste materials for other uses, such as energy, fertilizer, and craft materials. Additionally, some respondents (95.7%) recognize that the principle of reuse can be applied to create product differentiation, thereby reducing excessive waste disposal (see Table 3).

Table 4. Understanding Recycling Practices

Statement		Understand	Do Not Understand
1.	Willing to buy recycled production equipment (equipment made of plastic, wood, etc.).	69 (100%)	0 (0%)
2.	Willing to use recycled production materials (plastic equipment, wood, etc.).	69 (100%)	0 (0%)

Respondents, particularly SMEs, demonstrated a good understanding of CE practices in the context of recycling. Most expressed a willingness to purchase recycled production equipment, such as plastic and wood tools, and to use recycled production materials (see Table 4).

Social Crowdfunding in SMEs Context

Table 5. SMEs' Understanding of Social Crowdfunding

Option	Frequency	Percentage
Not Understand	33	48%
Neutral	22	32%
Understand	14	20%
Total	69	100%

An interesting finding from this research, as shown in Table 5, is that SMEs have a limited understanding of social crowdfunding. Specifically, the table reveals that 48% of respondents admitted to not fully comprehending the concept. This indicates a significant gap in knowledge that could affect SMEs' ability to effectively utilize social crowdfunding for their initiatives.

Interviews with several SMEs revealed that optimal use of social crowdfunding requires: (1) sufficient funds to practice CE principles effectively; (2) the advantage of not having to repay funds due to the social nature of crowdfunding; (3) an opportunity to foster entrepreneurial spirit; (4) the chance to engage with stakeholders such as investors, the community, and other entrepreneurs; and (5) the potential to build collaborations and partnerships with other SMEs to encourage the widespread implementation of CE practices.

Although the understanding of social crowdfunding among SMEs is still limited, those who have utilized it reported an increase in usage: from 27.5% in 2018-2019 to 50.7% in 2020-2021, as illustrated in Figure 8 below.

Figure 8. The Year the Companies Start Utilizing the Social Crowdfunding

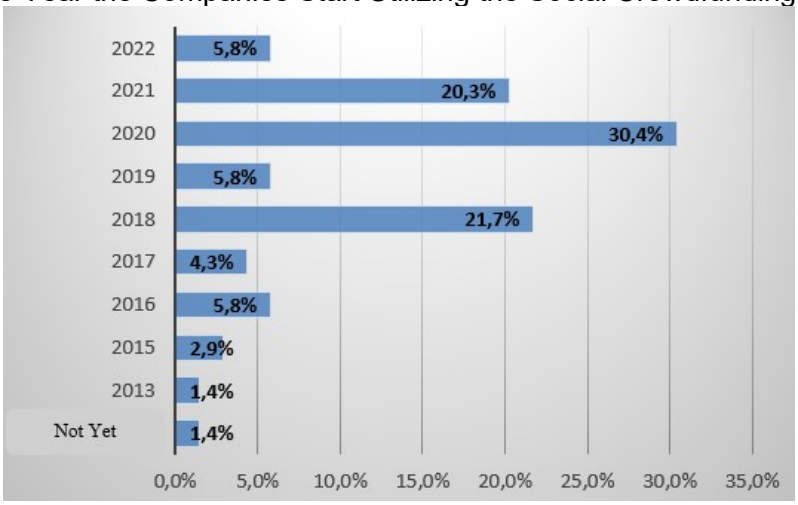


Table 6. Social Crowdfunding Serves as an Alternative Funding Source for SMEs to Implement CE Practices

Statements		Scale				
		SD	D	N	A	SA
1	Social crowdfunding is an alternative source of funding.	0 (0%)	0 (0%)	32 (46.4%)	22 (32.3%)	15 (21.3%)
2	Social crowdfunding improves capital market performance.	0 (0%)	0 (0%)	19 (27.6%)	35 (50.4%)	15 (22%)
3	Social crowdfunding provides benefits of environmental conservation (CE).	0 (0%)	0 (0%)	22 (31.9%)	28 (40.1%)	19 (28%)

Based on Table 6, which examines the potential of social crowdfunding as an alternative source of funding for SMEs, the majority of respondents (53.6%) expressed agreement and strong agreement with this idea. Additionally, when it comes to capital market performance, the table indicates that a significant portion of respondents (72.4%) view it positively. Furthermore, in terms of the benefits of social crowdfunding for addressing funding needs, the data shows that most respondents (68.1%) agree and strongly agree that social crowdfunding can effectively support educational events aimed at raising awareness and understanding of environmental conservation benefits.

Table 7. Social Crowdfunding Enhances the Community Engagement

Statements		Scale				
		SD	D	N	A	SA
1	Social crowdfunding is accessible to all funding sources.	0 (0%)	0 (0%)	20 (28.9%)	25 (36.3%)	24 (34.9%)
2	Social crowdfunding builds networking.	0 (0%)	0 (0%)	26 (37.7%)	29 (42%)	14 (20.3%)
3	Social crowdfunding connects members of the community.	0 (0%)	0 (0%)	19 (27.6%)	32 (46%)	18 (26.4%)

Table 7 reveals that social crowdfunding is widely regarded as accessible to various funding sources, with 71.2% of respondents agreeing or strongly agreeing with this view. Additionally, 62.3% of respondents believe that social crowdfunding effectively builds networking opportunities, while 72.4% agree or strongly agree that it fosters connections among community members.

Table 8. Social Crowdfunding Increases the Entrepreneurial Spirit

Statements		Scale				
		SD	D	N	A	SA
1	Social crowdfunding enhances the entrepreneurial spirit.	0 (0%)	0 (0%)	5 (7.2%)	35 (50.7%)	42.1 (42.1%)

Table 8 shows that most respondents (92.8%) agree and strongly agree that social crowdfunding has the potential to encourage and build the entrepreneurial spirit of SMEs by fostering a creative and innovative approach to business opportunities, without compromising environmental impact.

DISCUSSION

Based on the respondent profiles, most are managers, directors, or owners from small and medium business groups who have been operating for 10 to 20 years. The findings reveal that majority of SMEs have utilized social crowdfunding, indicating that while the implementation of CE practices through social crowdfunding is underway, it is not yet widespread. When examining how CE practices are implemented, it is evident that the principles of reduce, reuse, and recycle are well-practiced. However, the recovery and repair principles remain challenging to implement due to their technological requirements and the need for substantial funding.

The explanation regarding SME actors' understanding of CE practices, a common thread can be drawn that the application of CE practices in the context of reuse, reduce, and recycle has been put into practice. Respondents cannot understand the efficient use of raw materials and the behavior of avoiding the use of plastic well. These findings may indicate that CE practices related to technology (raw material efficiency and plastic utilization) are still beyond the reach of SMEs. This condition is an important finding of the importance of providing a comprehensive understanding to SMEs about implementing CE practices, especially regarding recovery and repair. SME actors' understanding of CE practices which are still in the business-as-usual stage (reuse, reduce, and recycle) is reflected from the time they start.

From the results of the descriptive analysis, an interesting insight was obtained, namely that CE practices related to technology (recovery and repair) require extra work which requires funding. For example, procuring machines to process waste, and preparing waste disposal related to upstream and downstream implementation of CE practices. For SMEs, these practices require quite large funds or capital. Therefore, the alternative to accessing free funds by accessing FinTech social crowdfunding is the right alternative solution so that the implementation of CE practices has a long-lasting and sustainable impact.

On the other hand, the research reveals an interesting finding based on Table 5: SMEs generally have a limited understanding of social crowdfunding, with 48% of respondents indicating they do not fully grasp its concepts. This indicates that the use of social crowdfunding to support CE practices among SMEs is not yet optimal. This result is consistent with the findings of Argo and Rachmawati (2021) who identified three main

issues contributing to this lack of understanding. First, SMEs face difficulties accessing technology for websites, using social media, and acquiring the necessary skills. Second, they struggle with communicating effectively with investors to showcase the positive impact of CE practices on their business activities. Third, there is a lack of adequate funds and support to implement CE practices successfully.

Based on the results from the Likert-scale questionnaire, several perspectives of SME actors regarding the use of social crowdfunding to implement CE practices were identified.

Social Crowdfunding as a Financing Mechanism for SME Environmental Initiatives
The implementation of CE practices by SMEs faces significant challenges, primarily due to the substantial funding required. One major obstacle hindering optimal performance is limited access to resources, particularly in leveraging social crowdfunding. Social crowdfunding, also known as donation crowdfunding, originates from a spirit of social responsibility and community support. According to Table 6, which assesses the potential of social crowdfunding as an alternative funding source for SMEs, a majority of respondents (53.6%) agreed or strongly agreed that it holds promise in this role. The table also shows that 72.4% of respondents view social crowdfunding positively in terms of its impact on capital market performance. Furthermore, the data indicates that 68.1% of respondents believe social crowdfunding is beneficial for addressing funding needs, particularly for supporting educational events that promote awareness and understanding of environmental conservation. This suggests that while social crowdfunding could significantly aid SMEs in their CE efforts, challenges related to funding and access remain crucial issues to address.

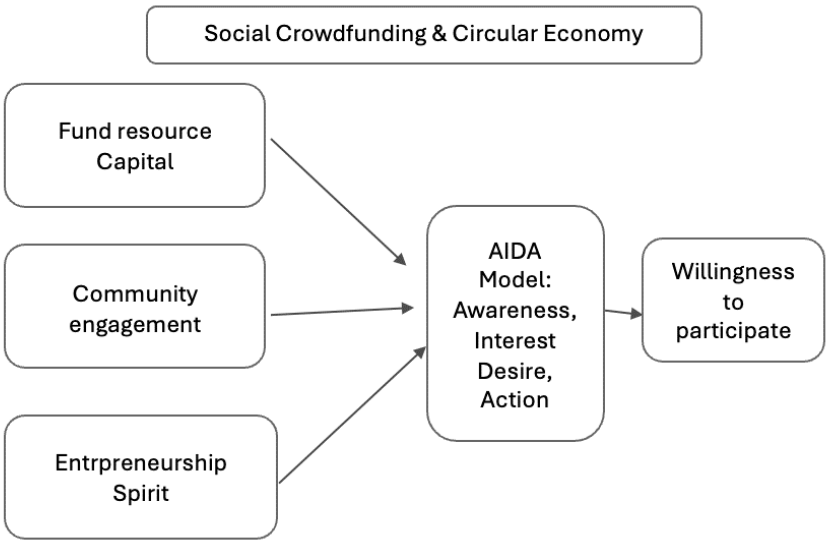
Social Crowdfunding Enhances the Community Engagement
Community engagement plays a crucial role in the development of CE concepts, as it fosters social connections and enhances the effectiveness of CE initiatives. Successful CE implementation is often assessed by the effectiveness of program communication, highlighting the importance of building robust engagement. According to Brodie and Hollebeek (2013), two key factors for building engagement are interaction engineering—encompassing participation, connection, and intensity—and user experience, which includes emotional, cognitive, and behavioral aspects. Table 7 supports this perspective by demonstrating that social crowdfunding is viewed as a valuable tool for accessing diverse funding sources, with 71.2% of respondents agreeing or strongly agreeing on its accessibility. This suggests that social crowdfunding can significantly broaden the reach of CE practices among SMEs. Moreover, social crowdfunding is effective in facilitating networking opportunities for SMEs, particularly in advancing CE initiatives related to environmental preservation, with 62.3% of respondents acknowledging its role in building connections. Additionally, an intriguing finding is that social crowdfunding strengthens community integration, as evidenced by 72.4% of respondents agreeing or strongly agreeing that it fosters connections among community members. This underscores the importance of community engagement in not only supporting CE practices but also in enhancing social cohesion and collaboration.

Social Crowdfunding Increases the Entrepreneurial Spirit
Utilizing social crowdfunding to support environmental conservation practices, such as those associated with the CE, can significantly foster an entrepreneurial spirit among SMEs. This approach allows SMEs to seize creative and innovative business opportunities while addressing CE-related challenges. According to Table 8, an overwhelming majority of respondents (92.8%) agree or strongly agree that social crowdfunding has the potential to encourage and enhance the entrepreneurial spirit of SMEs by promoting a creative and innovative approach to business opportunities, all

while maintaining a focus on environmental impact. This finding highlights the increasing recognition that SMEs must prioritize environmental conservation through CE initiatives. Such practices not only positively impact a business's reputation but also open doors to global market opportunities, further integrating sustainability into the core of business operations and expanding their reach and influence.

Based on these findings, this research suggests a theoretical model for understanding and promoting CE practices among SMEs through the use of social crowdfunding (see Figure 9). This model draws upon concepts from the Willingness to Participate Theory and the AIDA model, offering a framework to accelerate the adoption of CE principles within SMEs contexts.

Figure 9. The Proposed AIDA Model



CONCLUSION

To achieve widespread and impactful implementation of CE practices, it is essential to engage all relevant stakeholders comprehensively. SMEs play a crucial role in this process through their business practices, including producing environmentally friendly products, utilizing recycled raw materials, and managing waste in an environmentally beneficial way. Implementing CE practices—such as reuse, reduction, recycling, recovery, and repair—requires significant support, particularly in terms of funding. The rise of FinTech and the availability of social crowdfunding offer promising alternatives for providing free funds to SMEs to support their CE initiatives. Survey results from 69 SME actors indicate a positive trend, with some SMEs already integrating CE principles into their operations, such as reuse, reduction, and recycling, thereby contributing to environmental conservation. To encourage broader adoption of CE practices, it is vital to provide SMEs with education and information about social crowdfunding as a viable funding solution.

This research aims to develop a theoretical model for promoting CE practices among SMEs by integrating the Willingness to Participate Theory and the AIDA model with social crowdfunding. The model identifies three key determinants—funding resources, community engagement, and entrepreneurial spirit—that significantly impact SMEs' awareness and willingness to adopt CE practices with the help of social crowdfunding. Adequate funding is crucial for effectively implementing CE practices, while community engagement helps to build awareness and support for these initiatives. A strong

entrepreneurial spirit fosters the innovation and motivation necessary for sustainable practices. By illustrating how these determinants interact to boost SME engagement with CE and social crowdfunding, the model offers a comprehensive framework for promoting CE practices in Indonesia.

The theoretical model not only enhances the understanding of the factors driving SME participation in CE but also provides a foundation for future research. It outlines how social crowdfunding can be leveraged to support and accelerate CE adoption among SMEs, offering a structured approach for further exploration and refinement of strategies to promote sustainable business practices.

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DECLARATION OF CONFLICTING INTERESTS
The authors declared no potential conflicts of interest.

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