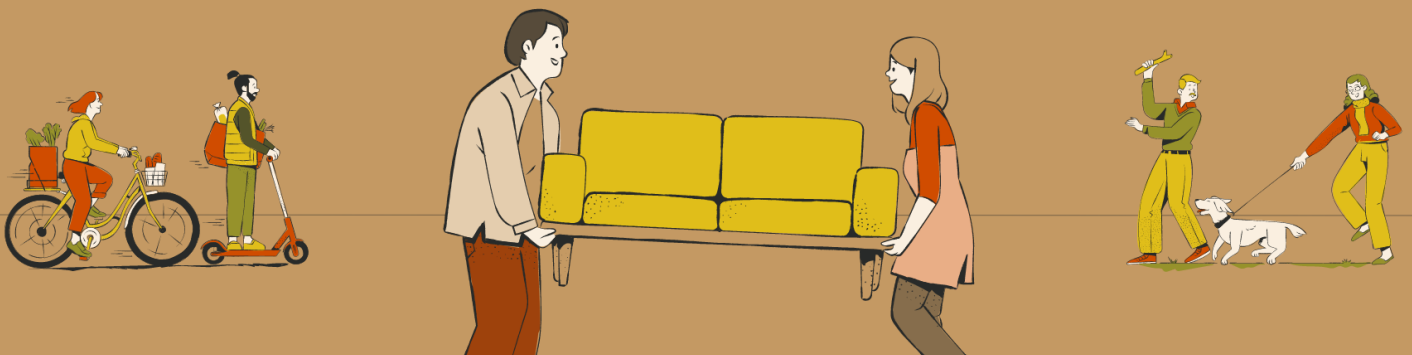


Motivating “Sharing” to Enhance Circular Community in Bali, Indonesia

A Participatory Action Research on Balinese Community

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With gratitude,
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Executive Summary

Bali, Indonesia, faces significant challenges due to the rapid growth of tourism and modernization, which threaten traditional community values and practices. The erosion of traditional environmental practices and the commercialization of cultural values undermine the community's intrinsic motivations for sustainable living. The problem lies in finding effective ways to motivate sharing within Balinese communities to support circular community principles, leveraging traditional cultural values to enhance sustainability and resource efficiency.



Figure 1 The Group Workshop with Balinese Community

humans, nature, and the spiritual realm), and the Banjar structure (community organization) are fundamental in promoting sharing and supporting communal cooperation. The community workshop co-create a **Barter Market** as an intervention, and the data analysis identified 13 community values, including Adat (Traditional Customs), Harmony in both Banjar and non-Banjar communities, Justice & Equity, Ngayah, Solidarity, Responsibility, and a sense of Belonging and Ownership, as central to motivating sharing behaviors.

Recommendation for the community to foster sharing through the Barter Market, employ pulling, facilitating, and matching strategies. The pulling strategy attracts participants by leveraging Adat and Banjar structures, involving traditional leaders, integrating events with ceremonies, and promoting Ngayah. The facilitating strategy establishes clear governance, ensures transparency and safety, emphasizes face-to-face transactions, and builds trust through digital platforms and rewards. The

To address this problem, a **Participatory Action Research (PAR)** approach was employed, engaging local community members. The **Circular Value Flower (CVF)** framework was used to guide the co-creation of an intervention. The study involved conducting desk research to understand the current landscape of circular practices in Bali, performing **semi-structured one on one interviews** with community members to explore cultural practices and values related to sharing, and facilitating a **community workshop** to co-create an intervention aimed at motivating sharing behaviors.

The **main findings** highlight the potential of Bali's cultural wisdom, strong social networks, availability of shareable goods, and community skills to enable sharing intervention that support a circular community. Traditional practices such as Ngayah (voluntary community service), Tri Hita Karana (harmony between

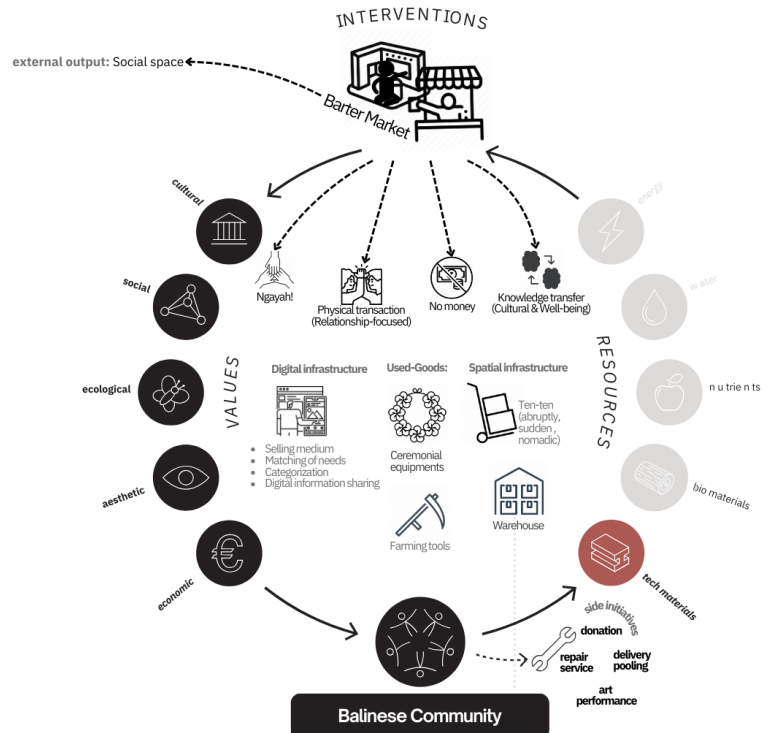


Figure 2 Intervention: Barter Market

matching strategy links participants by creating a database of needs and offers, matching based on community backgrounds, and encouraging self-disclosure to build trust and empathy.

Recommendations to enhance the CVF framework's effectiveness in Bali, start with individual values before discussing common values to create interventions with multiple value creation. Address group dynamics and hierarchy in workshops to ensure all voices are heard. Integrate well-being aspects for better resonance and ensure accurate translation and cultural relevance. Facilitators should test steps in the native language to correct errors and improve interview techniques with open-ended questions. Encourage participation, especially in ex-colonized countries, also by respecting verbal communication preferences and reducing the writing burden. Researchers should unlearn biases and embrace co-learning with the community for a collaborative research process.

In term of **societal contribution**, this research fosters circular communities and sustainable practices in Bali through a barter market intervention that aligns with cultural values. By integrating traditional Balinese practices, the study offers practical insights for diverse cultural contexts and shifts the responsibility for climate change from individuals to communities. **Scientifically**, the research added 13 key Balinese community values to sharing motivation cycle (Ho & Yanagisawa, 2023) and incorporates personal and well-being aspects into the the Circular Value Flower (CVF) framework (Smit & Leclercq, 2022). The study enriches academic discourse on circular economies and community engagement, using workshops, interviews, and an expanded CVF framework, and combines Participatory Action Research (PAR), providing both theoretical and practical insights for community-led sustainable interventions.

Finally, **reflecting** on this study, it reveals how Balinese traditional cultural practices inherently embodied sustainability, emphasizes that traditional values inherently promote ecological balance and social well-being, suggesting that contemporary sustainability models should align with these practices for a holistic approach to development. Additionally, the research shifts the narrative of climate change responsibility from an individual to a collective level. By incorporating diverse perspectives and traditional knowledge, the study advocates for epistemic justice in addressing socio-technical problems, ensuring inclusive and equitable solutions that integrate environmental, social, and economic dimensions.



Figure 3 Workshop Participants with the Final Detailed Intervention Sheet

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Abstract

This research addresses the revitalization of Balinese cultural values, which inherently embody circular economy principles and support sustainable communities. The key problem tackled is the decline in communal sharing and the shift towards individualistic behaviors, exacerbated by modernization and tourism, which undermine traditional practices and increase waste. Using a Participatory Action Research (PAR) approach, the study involved desk research, interviews, and a community workshop to co-create an intervention. A major finding is the effectiveness of a barter market intervention, which aligns with traditional values like *Ngayah* and *Tri Hita Karana*, promoting non-monetary exchanges and fostering community bonds. The study recommends employing pulling, facilitating, and matching strategies to enhance participation and integration of well-being aspects in the Circular Value Flower (CVF) framework. This research provides practical insights for fostering sustainable practices and emphasizes the need for collective responsibility in climate change adaptation, making it relevant for researcher, policymakers and community leaders aiming to promote circular economies in culturally diverse contexts.

Keywords: Balinese, circular economy, sharing, Participatory Action Research, *Ngayah*, *Tri Hita Karana*, sustainability, community, Circular Value Flower (CVF).

1. Introduction

The past traditional community practices of sharing, and consuming only what's necessary mirror the principles of the circular and sharing economies (Atstaja et al., 2022; Bardhi & Eckhardt, 2012). This culture, nurtured by close community ties, encourages resource efficiency and minimal consumption. These practices contrast with modern trends of overconsumption and individualism, which lead to resource depletion and environmental harm (Zieseimer et al., 2021).

The emergence of the sharing economy signifies a transformation by combining traditional community sharing values with modern consumption habits. However, the sharing economy also has sparked some criticism. According to Belk (2014), the current characteristics of the sharing economy, such as monetary incentives, the expectation of reciprocity, and, ultimately, a lack of community, are in opposition with the original definition of *sharing*, which should encompass generosity and connection among families and friends.

The critics extend further, for instance, the perception of second-hand items as less than regular choices limits their appeal (Parguel et al., 2017), the weak local focus and inadequate consideration of environmental impact in the digital P2P marketplaces model result in logistical challenges such as extended delivery distances and increased carbon footprints, creating additional barriers to circular economy (Luo et al., 2020; Parguel et al., 2017) and social norms can be incompatible with Access-based Consumption (Arekrans et al., 2022).

1.1 Problem Statement

The preservation and revitalization of Balinese cultural values are critical as they inherently embody circular economy principles and support the building of a more sustainable community. However, multiple issues collectively hamper the maintenance and reinforcement of a circular economy in Bali. The decline in communal sharing and the shift towards individualistic and transactional behaviors reduce the effectiveness of community-based circular practices. The erosion of traditional environmental practices further challenges the sustainable methods that were once integral to Balinese culture. The commercialization of cultural values undermines the community's intrinsic motivations for sustainable living.

Community values and shared values in Bali have been undergoing a complex evolution influenced by various factors. The influx of tourists has led to compromises in cultural values to accommodate the large numbers of foreigners (Bell, 2014). The rapid urbanization and growth of the tourism industry in Bali have led to a substantial increase in waste generation, posing environmental and sustainability concerns (Widyarsana et al., 2021).

From the interviews with local community as an exploratory phase for this research, the "narrowing of solidarity" is reflected in the experiences of various community members as they observe a decline in traditional sharing practices (personal communication, April 2024). An Archeologist and Cultural Activist notes that economic progress and changing times have shifted sharing from a village-wide practice to a more family-wide one. The Hamlet Head of Umadesa describes how modern lifestyles and professional commitments reduce opportunities for communal sharing, emphasizing the rarity of borrowing items and the decline in daily interactions. Similarly, a Lecturer in Anthropology highlights the transition from voluntary help to transactional interactions (personal communication, April 2024). Collectively, these observations illustrate a reduction in the communal bonds and cooperative spirit that once characterized their communities.

The "change of essences" reflects shifts in traditional practices and values in the Balinese community, often due to economic factors, modern influences, or external pressures (personal communication, April 2024). The Village Head of Bengkel discusses how economic temptations can lead to disregarding traditional rituals, like cutting and selling rice before the *Ngusaba* ceremony, thus altering the cultural essence of gratitude towards Dewi Sri (the God of prosperity).

Similarly, the shift from backyard composting to waste problems highlights a loss of critical thinking in traditional environmental practices. The Archeologist and Cultural Activist note how the commercial and touristic framing of cultural practices like Tri Hita Karana can dilute their original meanings, turning deeply rooted customs into superficial displays for economic benefit. A Clothing Swap Party Organizer points out how sharing economies, initially meant to foster communal support, have transformed into profit-driven models. Lastly, the use of plastics and commercial products in rituals, as observed by a Facilitator of Cutleries Rental Service, illustrates how convenience and economic pressures are leading to the erosion of traditional handmade practices and their underlying values (personal communication, April 2024). These changes reflect a broader trend where economic and modern pressures reshape the cultural and traditional landscape of Balinese society. The preservation of Balinese cultural values amidst modernization and globalization remains a critical concern. Especially as the traditional values are in line with circularity and help build a more sustainable community.

Recent years have seen an expansion in the body of literature addressing topics such as the circular economy, sustainability, sharing, community values, and culture in the Global South, a region with a culture that is more comparable to Bali's. I categorized the academic papers on these topics into themes to pinpoint a knowledge gap (detailed in Appendix 12.1 Literature Review Method).

- The sharing theme highlight the importance of design in fostering sustainable behaviors, particularly sharing, in community-sharing spaces, while Belk, (2014) differentiates between genuine and profit-driven sharing platforms (Belk, 2014; Ho & Yanagisawa, 2023).
- This theme addresses the intersection of well-being and sustainability, emphasizing how material and relational consumption can enhance subjective well-being (Ho & Yanagisawa, 2023; Tsurumi et al., 2021).
- The community, stakeholder, and social theme investigates the role of community engagement and stakeholder collaboration in promoting sustainability and resource management (Agyeiwaah, 2020; Beck et al., 2023; Belk, 2014; Bharti, 2021; Kucukvar et al., 2021; Tira & Türkoğlu, 2024; Tsurumi et al., 2021)
- The circularity theme focuses on the principles of circularity and their application in promoting environmental and social sustainability (Agyeiwaah, 2020; Arekrans et al., 2022; Beck et al., 2023; Ho & Yanagisawa, 2023; Kucukvar et al., 2021; Pu et al., 2021; Tira & Türkoğlu, 2024).
- The sharing economy, offers both theoretical and empirical insights. They highlight barriers to access-based consumption, the need for supportive infrastructure and policies, its role in managing over-tourism, its impact on low-income populations, its potential for inclusive growth, and its contribution to sustainability (Agyeiwaah, 2020; Arekrans et al., 2022; Belk, 2014; Bharti, 2021; Pu et al., 2021).

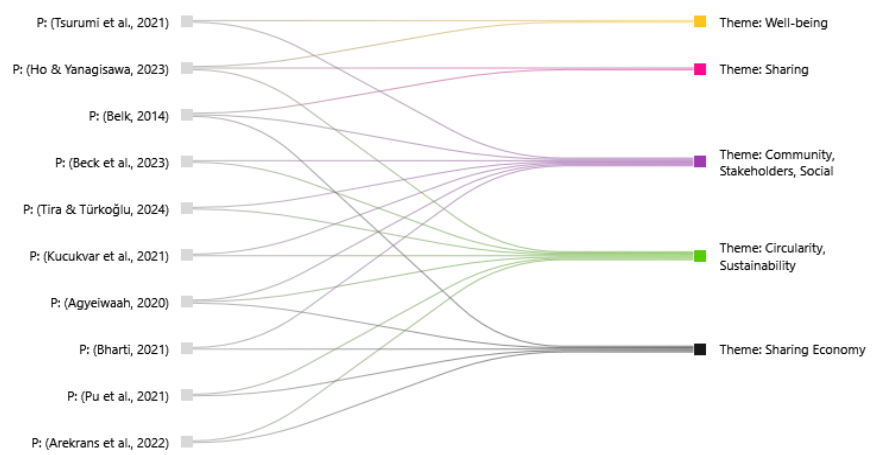


Figure 4 Clusters of Academic Papers on circular economy, sustainability, sharing, community values, and culture in the Global South

While the concept of the sharing economy is relatively new, it fundamentally echoes the age-old values of human cooperation and communal support that have been intrinsic to traditional societies for centuries. However, current research does not adequately explore how modern sharing economy practices can learn from and be bolstered by these traditional community values. Specifically, there is a significant gap in understanding how the sharing economy can integrate and be supported by the rich cultural heritage and communal principles of traditional communities like those in Bali. The Balinese community's deep-rooted practices of sharing and mutual aid, which have been fundamental to their social structure for generations, offer invaluable insights. Learning from these traditions can help cultivate a more sustainable and authentic sharing economy that thrives by reconnecting with its communal roots.

1.2 Research Objectives and Questions

Although the principles of sustainability and the sharing economy are widely discussed, there remains a notable gap in adapting these principles to Bali's unique cultural and social environment. Factors to motivate traditional communities to embrace sharing practices in line with cultural values are limited. Effective implementation strategies that account for local cultural dynamics and community-specific factors are essential for promoting sharing.

This research aims to fill these gaps by pursuing two primary objectives:

1. Co-create an Intervention that can motivate sharing through a community workshop:

Community-led initiatives play a crucial role in promoting circularity and sustainability within local contexts. Tira & Türkoğlu (2024) provides compelling evidence on the importance of community-led initiatives in circularity-based heritage revitalization, highlighting how communities drive efforts to preserve and repurpose resources, contributing to sustainability. By engaging community members in initiatives that promote sharing and sustainable practices, a sense of collective responsibility towards the environment can be fostered, leading to the establishment of circular communities that prioritize resource efficiency and waste reduction.

A community workshop chosen in a vital role in identifying intervention that authentically benefit the community, ensuring that the intervention is tailored to meet the community's needs and values and minimize external biases. The utilization of the Participatory Action Research (PAR) approach underscores the significance of methodologies that authentically engage with and prioritize the voices of the communities under study. By utilizing the Circular Value Flower Framework (CVF) to guide the intervention design through a community workshop, I aim to ensure that the intervention respects the knowledge and rights of local communities, making it culturally relevant and effective.

2. Identify Community Values that Motivate Sharing within the Balinese Context:

This objective is to explore the cultural, social, and economic factors that can encourage Balinese communities to engage more in sharing practices. By means of individual one on one interviews and conducting a workshop with a diversity of participants from the local community, I intend to find implicit values and insights that the Balinese community deemed important or that influence, contribute to, or impact the motivation to share more.

These objectives culminate in the central research question: **How to motivate sharing within Balinese communities to support a circular community?**

To thoroughly address this research question, the following sub-questions are formulated:

1. What are the key conceptual frameworks and values that define “sharing” and “community” in the context of circularity?
2. What is the current Balinese landscape's potential for sharing intervention to support a circular community?
3. What are the key Balinese cultures around sharing in order to support a circular community?
4. How can the Circular Value Flower be used as a design tool to co-create an intervention?
5. What are community values within the Balinese context that can motivate sharing to support a circular community?

Sub-questions 1-3 are crucial for establishing the research foundation. **SQ1** aims to develop a conceptual framework and to identify the key values that underpin these concepts and that will guide the formulation of interview questions and guide the mapping of factors that will be identified from the interview and workshop’s dialogue and observations to motivate “sharing” in **SQ4**. **SQ1** will be answered through a literature review. **SQ2** is a process to learn about the current landscape of the problem context in Bali through desk research and **SQ3** through interviews. This is an effort to understand the community more and the relevancy of this research to them. The insights from this immersion in

Balinese culture will help me, as a researcher, nail more effective communication and prompts for the final community workshop to answer SQ5.

1.3 Relevance

1.3.1 Academic Relevance

This research aims to bridge a significant gap in the literature on sustainability and the sharing economy by focusing on the unique cultural and social context of Bali. Although these principles are extensively explored globally and in Global South, there is a lack of studies that adapt and apply them to traditional communities in Bali. By investigating the factors that promote sharing within Balinese communities and developing culturally relevant intervention, this study contributes to the broader academic discourse on sustainable practices and community engagement. It also provides a novel application of the Circular Value Flower (CVF) in a new cultural setting, enriching the understanding of its effectiveness and adaptability. This research, therefore, offers valuable insights for scholars in sustainability, cultural studies, and community development, potentially informing future studies and policy-making in similar contexts.

1.3.2 Social and Societal Relevance

The findings of this research have significant implications for both the local community in Bali and broader societal efforts toward circularity. By identifying and addressing the unique cultural dynamics that influence sharing practices, this study supports the preservation of Balinese cultural values while promoting circularity practices. The development of effective community workshop and intervention will provide practical tools and strategies for local leaders, stakeholders, and policymakers to foster a more sharing-oriented society. These initiatives can lead to improved resource management, strengthened community bonds, and enhanced social cohesion. Moreover, by demonstrating how traditional communities can successfully integrate sustainability principles, this research can serve as a model for other regions with similar cultural contexts, contributing to global efforts in promoting sustainable and equitable development.

1.4 Report Structure

This section illustrates the overall structure of this thesis. **This chapter** introduces the topic of the thesis, along with the research problem, objectives, and research questions. **Chapter 2** will answer SQ1, provides an overview of the conceptual framework on key concepts and key values related to sharing motivation and community, leading to the development of an initial code book. **Chapter 3** presents the methodology of this research, detailing the research approach, design, data collection methods, analysis tools, and the validity and reliability of the study. **Chapter 4** answers SQ2, explores the current landscape of circular communities in Bali, providing insights into system enablers, resources, initiator ambitions, participant selection, and spatial and digital elements through desk research. **Chapter 5** answers SQ 3, delves into Balinese culture through interviews, highlighting key cultural values that promote sharing within circular communities. This chapter includes demographic details of participants and thematic analysis using Atlas.ti. **Chapter 6** analyzes the data gathered from interviews and workshop, highlighting the factors within the Balinese context that drive sharing motivation in circular communities, supported by thematic analysis and insightful quotes. **Chapter 7** answers SQ5 by synthesizes the outcomes of **Chapter 6** into research contributions, drawing connections between key factors influencing sharing motivation in the Balinese context. **Chapter 8** answers SQ4, presents the societal contributions and intervention strategies resulted from the Balinese community workshop and alignment with community feedback to promote sharing. This chapter includes the results of the group workshop, detailing the urgency, values, resources, categorizing, and specific intervention proposed. **Chapter 9** offers recommendations for the community and the CVF. Finally, **Chapter 10** delivers the discussion and conclusions of the research, addressing the main research question, societal contributions, scientific contributions, reflections, suggestions for future research, and links to the MSc CoSEM program.

2. Conceptual Framework

In this chapter, I will establish a conceptual framework to explore the concepts of "sharing" and "community" within the context of circularity, particularly focusing on Balinese cultural specifics. The goal is to answer the first Sub Research Question: "What are the key conceptual frameworks and values that define "sharing" and "community" in the context of circularity?" that will guide the formulation of interview questions and the mapping of factors from data collection. This framework will help understand how community values in Balinese society influence and motivate sharing behaviours, ultimately supporting the sustainability of a circular community.

Chapter 2 is structured as follows: 2.1 Key Concepts covers foundational concepts related to the circular economy, circular communities, and the sharing economy. 2.2 Findings on Community Sharing and Circularity integrates findings from literature on circularity, sustainability, and sharing, with a focus on the Global South. 2.3 Connection with Balinese Cultural Specifics examines Balinese cultural norms and practices that align with the principles of a circular community. 2.4 Key Values presents the key values defining sharing and community. Finally, 2.5 Research Framework: Circular Value Flower (CVF) introduces the Circular Value Flower (CVF) as a design method for fostering circular economy principles within communities.

2.1 Key Concepts

This section delves into the concepts that underpin the concepts of the circular economy, circular communities, and the sharing economy. These concepts provide a critical framework for understanding how sustainable practices can be integrated into community dynamics to promote resource efficiency, environmental stewardship, and social well-being.

The **circular economy** is a system in which materials are never wasted and nature is replenished. *"A circular economy keeps items and materials in circulation through activities such as maintenance, reuse, refurbishing, remanufacturing, recycling, and composting. The circular economy addresses climate change and other global issues such as biodiversity loss, waste, and pollution by separating economic activity from the use of scarce resources"* (Ellen Macarthur Foundation, n.d.).

The central idea of a **Circular Community** is to create systems where resources are reused, recycled, and reintegrated into the community, minimizing waste and reducing the environmental footprint. This involves a collaborative approach where local stakeholders, including residents, businesses, and municipal authorities, work together to manage resources sustainably (Smit & Leclercq, 2022).

The concept of **Circularity** integrates economic, social, and environmental sustainability by emphasizing the reuse, recycling, and regeneration of resources, contrasting with the traditional linear "take-make-dispose" model (Tira & Türkoğlu, 2024). It involves community engagement and cultural heritage preservation to drive economic and social cohesion, promoting sustainable urban development through access-based consumption models like sharing and collaborative consumption (Arekrans et al., 2022). Circularity faces barriers such as cultural resistance and regulatory challenges, requiring supportive regulations, technological advancements, and stakeholder collaboration to overcome (Agyeiwaah, 2020). Integrating well-being into circular economy practices highlights the importance of both physical and mental health in sustainable practices, fostering community engagement and reducing environmental impact (Ho & Yanagisawa, 2023). Practical examples, such as the community-led revitalization of the Medina of Tunis and circular design in construction, demonstrate the real-world application of circular principles (Tira & Türkoğlu, 2024). Ultimately, circularity represents a holistic approach to sustainability, necessitating collaborative efforts, innovative policies, and community involvement to achieve long-term sustainability and social benefits (Agyeiwaah, 2020).

The fundamental concept of the **Sharing Economy** is based on collaborative consumption, resource optimization, and community-driven sustainability. Research studies such as the work by Ho & Yanagisawa (2023) highlight the potential for well-being and sustainability within the circular economy through sharing practices, emphasizing the positive impact of sharing on individual and societal welfare. Pu et al. (2021) also contribute to this field by focusing on sustainable development in the sharing economy, stressing ecosystem thinking and the assessment of sharing business models' environmental impact. These studies collectively emphasize the transformative role of sharing in promoting economic efficiency, environmental stewardship, and social well-being within communities.

Community values are the ethical standards and norms that guide interactions within a social group, fostering cooperation and shared responsibility. Studies by Pu et al. (2021) emphasize the importance of aligning economic activities with community values such as equity and environmental stewardship to promote sustainability. Additionally, Beck et al. (2023) highlight the role of stakeholder engagement in building sustainable communities, underscoring the significance of shared values like inclusivity and social responsibility in driving collective action towards common goals. These works collectively emphasize the pivotal role of community values in shaping behaviors and decisions within communities, ultimately contributing to their well-being and long-term sustainability.

In addition to modern concepts, **indigenous and traditional perspectives** offer valuable insights into community values and sustainable practices. Concepts such as **Ubuntu** from Sub-Saharan Africa emphasize the interconnectedness of all people and the importance of caring, sharing, compassion, communalism, and communal solidarity, reflecting a worldview characterized by humaneness and a sense of togetherness (Hlatshwayo, 2016). Similarly, the term "**harambee**" refers to a common practice in Kenya wherein people contribute to communal initiatives or assist friends and family members in times of distress or with special financial needs (Kamoche, 2019). In South America, **Sumak Kawsay** or **Buen Vivir** from the Andean cultures highlights living in harmony with nature, social justice, and collective well-being, prioritizing the rights of communities and the environment over individual profit (Leon, 2015). In Asia, the Balinese philosophy of **Tri Hita Karana** underscores the balance between humans, nature, and the spiritual realm, promoting sustainable living and community harmony (Sudama, 2020). In Oceania, the Māori concept of **Utu** highlights the maintenance of balance and harmony within society (Marsden, 2019). These indigenous values collectively emphasize the ethical standards and norms that guide interactions within communities, fostering cooperation, shared responsibility, and a deep respect for the environment, which are essential for promoting long-term sustainability and resilience in circular communities.

2.2 Findings on Community Sharing and Circularity

This section integrates findings from the academic knowledge gap analysis of the body of literature that is shown in Chapter 1 Problem Statement, addressing the circular economy, sustainability, sharing, community values, and culture in the Global South, a region with cultural practices comparable to Bali's. By analysing these studies, I aim to illustrate the connections between community values, sharing behaviours, and their role in promoting circularity.

2.2.1 Community Sharing and Well-being:

Community and sharing are interconnected concepts that have garnered significant attention across various disciplines. A study on material and relational consumption (such as sharing with your community) to enhance subjective well-being highlights the significance of sharing and social connections in enhancing individuals' happiness and overall well-being (Tsurumi et al., 2021). Engaging in sharing resources, whether material or relational, not only contributes to personal happiness but also strengthens the social fabric of the community, creating a positive cycle that encourages further sharing.

Belk (2014) explores the nuances of sharing in the context of Web 2.0, distinguishing between genuine sharing and pseudo-sharing. According to Belk (2014), the current characteristics of the sharing economy, such as monetary incentives and the expectation of reciprocity are in opposition with the original definition of sharing, which should

encompass generosity and connection among families and friends. Genuine sharing cultivates a sense of community and reciprocity among individuals, while pseudo-sharing may not foster the same level of social cohesion.

Ho & Yanagisawa (2023)'s study on "Design for Well-Being and Sustainability" explores the relationship between well-being and sharing behaviors within a peer-to-peer sharing and reuse platform in the circular economy (Ho & Yanagisawa, 2023). The research indicates that components of allocentric well-being, such as gratitude, contribution, and altruism, are linked to engaging in sharing behaviors, while egocentric components like pleasure and attachment are outcomes of sharing. This suggests that individuals who feel gratitude and altruism are more likely to participate in sharing practices, highlighting a direct connection between well-being and sharing behaviors.

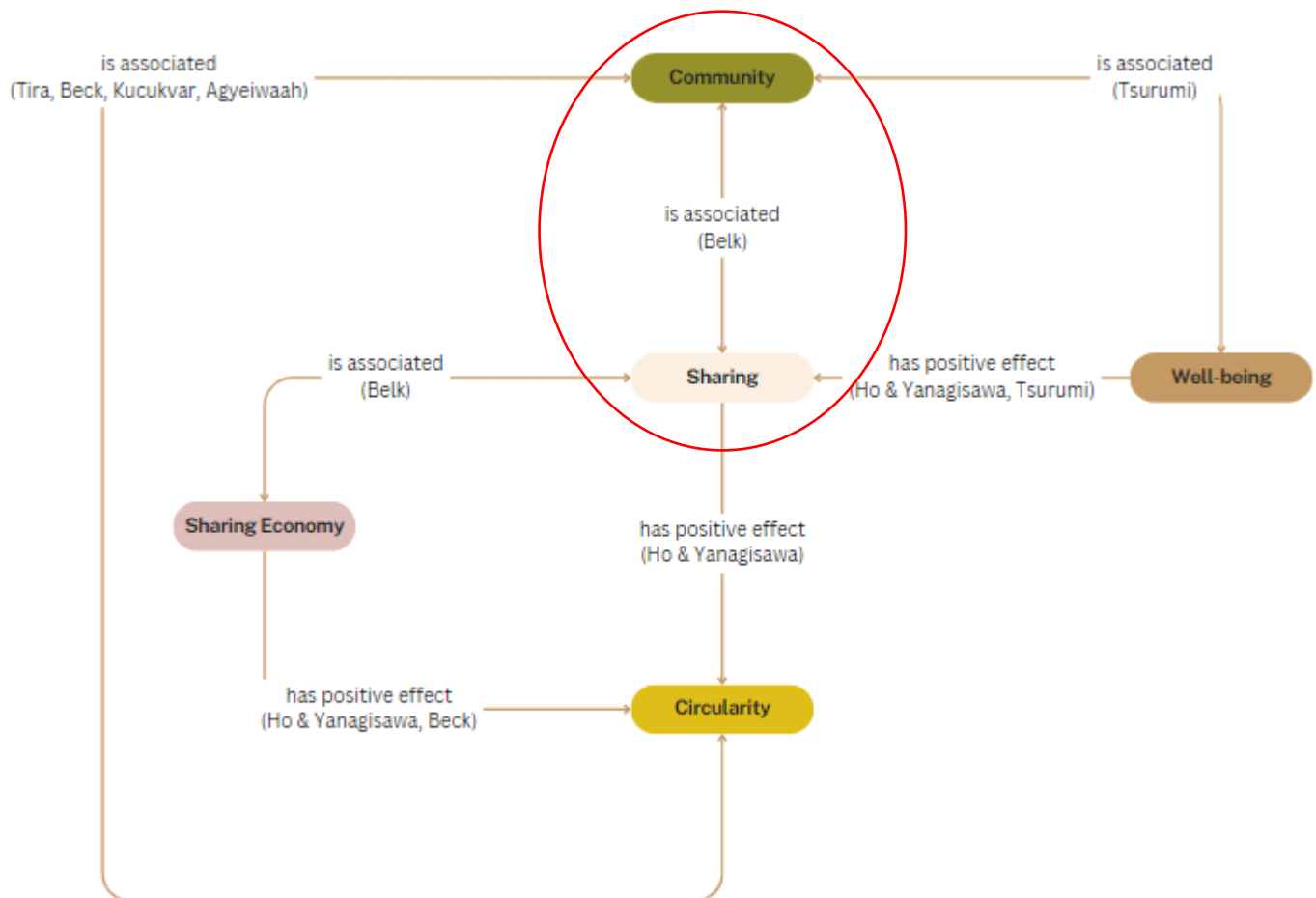


Figure 5 Relations between Community, Well-being, Sharing, Sharing Economy, and Circularity. Focus of this research is circled by the red line.

2.2.2 Sharing Economy and Circularity

The concept of sharing, particularly within the sharing economy, plays a significant role in promoting circularity and fostering circular communities. Sharing resources, goods, and services through platforms that facilitate peer-to-peer interactions can lead to a more sustainable utilization of resources and a reduction in waste generation. Ho & Yanagisawa (2023) emphasize the importance of developing well-being within the circular economy through sharing and reuse platforms, highlighting the potential for these systems to contribute to sustainability. By enabling individuals to access resources they need without having to own them outright, sharing platforms can promote a more efficient use of existing resources, thereby reducing the overall environmental impact associated with production and consumption.

Pu et al. (2021) further support the positive impact of sharing systems by suggesting that they can create win-win situations by reducing perceived scarcity and reciprocity risks. This reduction in perceived scarcity can lead to a shift in consumer behaviour towards collaborative consumption, where individuals are more willing to share and exchange goods rather than solely possess them. Such a shift can contribute to a more circular economy by extending the lifespan of products and reducing the need for continuous production of new goods, ultimately leading to a decrease in resource depletion and waste generation.

Community-led initiatives play a crucial role in promoting circularity and sustainability by preserving and repurposing resources, fostering a sense of collective responsibility, and prioritizing resource efficiency and waste reduction (Tira & Türkoğlu, 2024). Furthermore, the sharing economy can help achieve sustainable development goals by creating stakeholder value and building resilient, inclusive, and environmentally friendly cities through smart technologies and community engagement (Beck et al., 2023).

2.2.3 Research Focus and Limitation

In conclusion, **when a community embraces sharing, it naturally becomes more circular, utilizing resources more efficiently and sustainably.** This practice not only extends the lifespan of products and reduces waste but also fosters stronger social bonds and a heightened sense of collective responsibility. Communities that actively share resources, whether material or relational, experience enhanced well-being, as these practices promote happiness, reciprocity, and social cohesion. Thus, the integration of sharing within community dynamics is crucial for achieving both circularity and overall well-being, creating resilient and thriving societies. Through community-led initiatives and stakeholder engagement communities can work towards building a more circular and resilient society that benefits both present and future generations.

This research will focus on **how community and sharing values in Bali can be leveraged to foster more circular practices.** While the impact on circularity is implied from the concepts and findings discussed, **the primary focus will be on understanding and enhancing sharing behaviors and community values.**

2.3 Connection with Balinese Cultural Specifics

Balinese society is renowned for its strong community ties, rooted in the concept of "gotong royong" in Indonesian language or "Ngayah" in Balinese language, which emphasizes mutual assistance and cooperation among community members (Arif & Lessy, 2022). This cultural norm embodies the idea of collective responsibility and solidarity, where individuals come together to support one another and contribute to the well-being of the community as a whole.

In Balinese culture, the notion of community extends beyond mere social interactions; it encompasses shared values, traditions, and a deep sense of belonging to a larger social fabric (Laksana, 2016). The preservation of cultural heritage and customs plays a vital role in maintaining social cohesion and fostering a sense of identity among Balinese communities (Darma et al., 2021).

The Balinese concept of "Tri Hita Karana" further exemplifies the interconnectedness between humans, nature, and the spiritual realm, emphasizing harmony and balance in all aspects of life (Sudama, 2020). This holistic worldview underscores the importance of maintaining harmonious relationships within the community and with the environment, reflecting a deep-rooted respect for nature and a sustainable way of living (Sudama, 2020). By embracing these cultural values, Balinese communities promote social cohesion and environmental stewardship, aligning with the principles of a circular community.

Moreover, the Balinese practice of "subak," a traditional system of cooperative water management for rice cultivation, exemplifies how collective action and shared resources are essential for sustaining agricultural practices and ensuring food security (Arif & Lessy, 2022). The cooperative nature of subak reflects the spirit of collaboration and reciprocity that underpins Balinese community life, emphasizing the importance of working together for the common good (Arif

& Lessy, 2022). This communal approach to resource management aligns with the principles of a circular economy, where resources are shared, reused, and managed sustainably within the community.

In conclusion, the cultural richness and social fabric of Balinese society provide a compelling example of how a tight-knit community, characterized by shared values, collective responsibility, and cultural heritage, can lead to increased sharing behaviors and contribute to the development of a more circular community. By drawing upon Balinese cultural specifics, we can glean valuable insights into how community cohesion, rooted in traditions of cooperation, mutual support, and respect for nature, can pave the way for sustainable practices and inclusive development within a community.

2.4 Key values

In this section, I will present the key values that define sharing and community within the context of a circular economy in Bali. These key values were identified through choosing application **of two conceptual frameworks: Ho & Yanagisawa's (2023) framework on sharing motivations** and the principles of **El Buen Vivir (Leon, 2015) on community values**. By integrating these frameworks, I aim to develop a comprehensive understanding of the factors that influence sharing behaviours and community cohesion in Balinese society. These key values will form the basis for my data collection methods, including interview questions and workshop design, to explore how sharing can be enhanced to sustain a circular Balinese community.

2.4.1 Sharing

Ho & Yanagisawa (2023) - Motivations for Sharing

Ho & Yanagisawa (2023)'s research provides a conceptual framework that examines the intersection of well-being and sustainability in peer-to-peer sharing platforms within the circular economy. They developed their framework by systematically reviewing 168 literature focusing on well-being components suitable for peer-to-peer sustainable product-service systems. This framework models well-being components within peer-to-peer sharing platforms, emphasizing how allocentric and egocentric well-being aspects influence sharing behaviors. Identifying various well-being aspects that motivate sharing behaviors is critical for understanding and enhancing sharing practices in a community setting.

Aspect Definitions

Pleasure: Defined as a positive effect fundamental to the perception of well-being (Kringelbach, 2010), pleasure plays a significant role in sharing by generating personal satisfaction and joy. This emotional reward motivates individuals to engage in sharing activities.

Attachment: Described as a close bond between a baby and a caregiver that fosters a sense of connection and security (Bowlby, 1999), attachment in sharing contexts helps develop bonds with community members and shared resources. This sense of belonging and security encourages frequent sharing.

Trust: An attitude where one believes and relies on others to behave as expected in uncertain and vulnerable situations (Lee & See, 2004). Trust reduces perceived risks in sharing relationships, enhancing cooperation.

Empathy: A mental process where emotions are elicited by others' traits and conditions (Cuff et al., 2016). Empathy enables individuals to understand and share others' feelings, fostering a supportive environment conducive to sharing.

Contribution: Defined as a positive impact on others that fulfills human needs for autonomy, relatedness, and competence (Martela & Ryan, 2016). The desire to contribute positively motivates individuals to share resources and support communal efforts.

Gratitude: A feeling of thankfulness when receiving favors, kindness, help, and support from others (Tesser et al., 1968). Gratitude reinforces sharing cycles, encouraging reciprocation and continued sharing.

Engagement: A state of being immersed in an activity or experience, often referred to as “flow” (Csikszentmihalyi, 1990). Engagement in community activities enhances participation and commitment, leading to more frequent sharing behaviors.

Compassion: A caring attitude and willingness to help others who are suffering (Bierhoff, 2005; Strauss et al., 2016). Compassion promotes a culture of support and mutual aid, vital for fostering sharing within communities.

Altruism: A behavior rather than an emotion, which benefits others at the expense of oneself (Fehr & Fischbacher, 2003). Altruistic behaviors enhance communal bonds and support a culture of sharing, as individuals prioritize the well-being of others over personal gains.

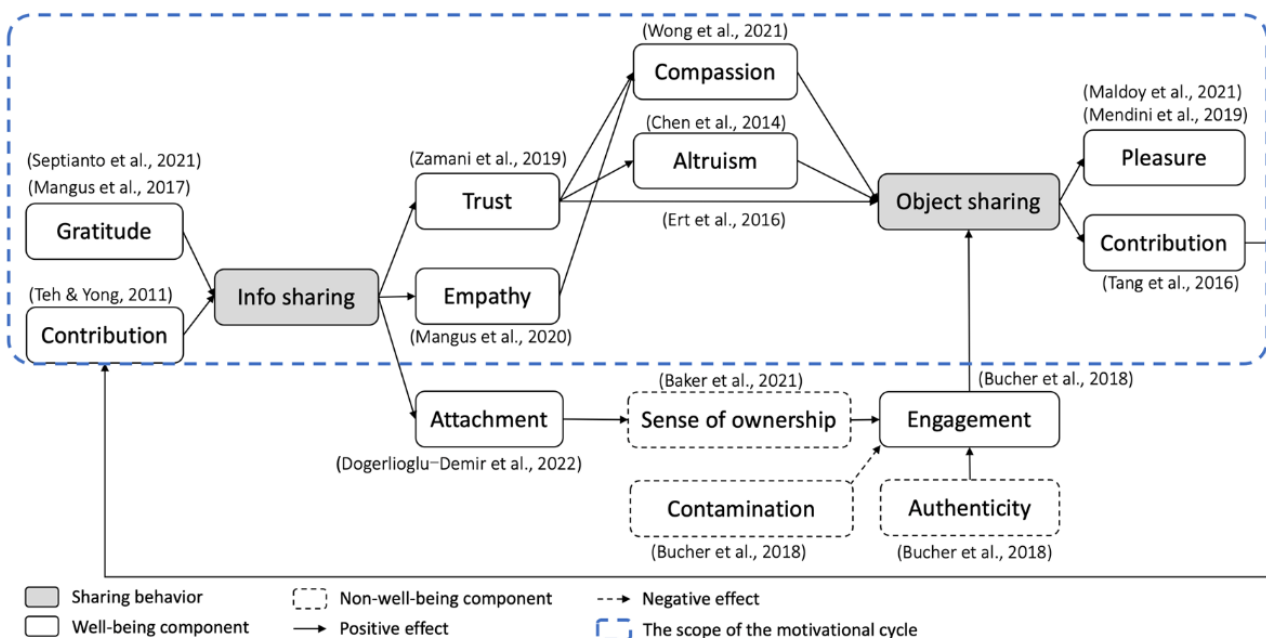


Figure 6 The relationships among well-being components in sharing context (Ho & Yanagisawa, 2023, page 9)

Effectiveness of Ho & Yanagisawa's Framework for Research on Circular Balinese Communities

- 1. Comprehensive Understanding of Motivations:** By examining intra-personal, inter-personal, and extra-personal components, this framework provides a holistic understanding of the various factors that motivate sharing behaviors. This is crucial for designing intervention that effectively promote sharing within communities.
- 2. Alignment with Balinese Cultural Values:** The identified components of sharing motivations align well with the cultural values of Balinese society, such as harmony, solidarity, and reciprocity. This cultural congruence enhances the relevance and applicability of the framework in the context of Balinese communities.
- 3. Promotion of Well-Being and Sustainability:** By focusing on well-being and sustainability, the framework addresses both the personal and communal benefits of sharing. This dual focus ensures that sharing practices not only contribute to individual happiness but also support broader goals of environmental sustainability and resource efficiency.
- 4. Empirical Basis:** The framework is grounded in empirical research by Ho & Yanagisawa (2023), providing a robust conceptual framework for further study. This empirical basis ensures that the identified components are well-supported by existing literature and can be reliably used in data collection and analysis.
- 5. Facilitation of Circular Economy:** The components of sharing motivations directly support the principles of a circular economy, where resources are shared, reused, and circulated within the community. By enhancing sharing behaviors, the framework helps to reduce waste and promote sustainable consumption patterns.

Conclusion

By adopting the sharing motivation framework proposed by Ho & Yanagisawa (2023), this research can effectively explore and enhance sharing behaviors within Balinese communities. The identified components provide a comprehensive and culturally relevant basis for understanding and promoting sharing, thereby supporting the development of a sustainable and resilient circular community.

2.4.2 Community

Leon (2015) - El Buen Vivir as Community Values

El Buen Vivir, originating from the indigenous worldviews of Latin America, particularly from Andean peoples like the Quechua and Aymara, provides a holistic approach to sustainable development that aligns closely with the cultural values and practices of the Balinese people. Given that Bali's society is deeply rooted in indigenous traditions, the principles of El Buen Vivir are particularly relevant and can offer valuable insights for enhancing sharing and sustaining a circular community in Bali.

Relevance of El Buen Vivir to Balinese Communities

Balinese society emphasizes strong community cohesion, environmental stewardship, and social harmony, which are integral to their indigenous cultural practices. These values are in harmony with the principles of El Buen Vivir, making it a suitable conceptual framework for this research.

Community Values of El Buen Vivir

Harmony: Harmony, a core value of El Buen Vivir, promotes balance and peaceful coexistence among people, communities, and nature. It is based on living in consonance with oneself, with others, and with the environment. In the context of community, harmony fosters a sense of interconnectedness and mutual respect, encouraging individuals to work together for the common good. In Balinese culture, the concept of Tri Hita Karana (three causes of well-being) promotes harmony among humans, nature, and the spiritual realm, strengthening community bonds.

Solidarity: Solidarity implies collaboration, mutual support, and shared responsibility among society's members. It manifests in the willingness to assist those in need and in building relationships based on reciprocity and empathy. In the community context, solidarity builds trust and cooperation, essential for a close-knit community. In Bali, the practice of Ngayah (mutual assistance) exemplifies solidarity, as community members come together to help each other in various tasks and events.

Justice: Justice aims to ensure equality of rights, opportunities, and treatment for all individuals. It relates to social equity, the elimination of inequalities, and the defense of human rights. In the community, justice ensures fair treatment and inclusivity, critical for maintaining social cohesion. In Balinese communities, the equitable distribution of resources and responsibilities helps prevent conflicts and promotes unity.

Respect: Respect involves acknowledging the dignity, rights, and differences of each individual and social group. It is expressed through appreciation of cultural diversity, protection of nature, and respectful treatment of all living beings. Within a community, respect for each other's roles and contributions fosters a sense of belonging and community pride. In Bali, respect for cultural practices and traditions strengthens communal bonds and ensures the continuity of social norms.

Equity: Equity seeks to ensure the fair distribution of resources, opportunities, and benefits within society. It aims to remove barriers that create inequalities and promote the inclusion of all population sectors. In the community, equity helps bridge gaps between different members, fostering a sense of unity and collective responsibility. In Balinese

villages, equitable access to communal resources, such as water through the subak system, ensures that all members benefit fairly.

Responsibility: Responsibility entails taking account of the consequences of our actions and decisions, both individually and collectively. It relates to environmental care, active participation in the community, and commitment to the common welfare. In the community context, responsibility promotes active participation and accountability, essential for cohesion. In Bali, community members take responsibility for communal tasks and decision-making, ensuring that everyone's needs are considered.

How El Buen Vivir Principles Support a Circular Economy

1. **Harmony with Nature:** Encourages sustainable practices and environmental preservation, fundamental to the circular economy's emphasis on reducing waste and reusing resources.
2. **Solidarity and Reciprocity:** Fosters a culture of sharing and mutual support, which is essential for the circular economy where resources are circulated within the community.
3. **Justice and Equity:** Ensures fair access to resources, preventing exploitation and overconsumption, thus supporting sustainable consumption patterns.
4. **Respect and Responsibility:** Promotes responsible use of resources and respect for natural systems, aligning with the principles of environmental sustainability and resource efficiency.

Conclusion

Using El Buen Vivir as the base for this research is ideal because its values and principles align closely with the indigenous cultural practices of the Balinese people. The emphasis on harmony, solidarity, justice, respect, equity, and responsibility resonates with Balinese traditions and provides a robust framework for enhancing sharing behaviors and sustaining a circular community. By integrating these principles, this research can effectively promote a more sustainable and resilient community in Bali.

2.5 Research Framework: Circular Value Flower (CVF)

The Circular Value Flower (CVF), developed by Smit & Leclercq (2022), is a design method aimed at fostering circular economy principles within communities by emphasizing sustainability, community engagement, and the redesign of systems for resource flow closure. Its applicability to the research on improving sharing in the Balinese community is founded on its community-centric approach, adaptability to diverse cultural contexts, and emphasis on circular economy principles. The Circular Value Flower is a means for communities to implement circularity activities at their neighbourhood level.

How I would use it:

- 1) I will use CVF as an analysis tool to assess initial potential impact assessment, reported in Chapter 4 Circular Community Landscape in Bali.

Despite its design-oriented nature, CVF's flexible framework is applicable for an analysis (Smit & Leclercq, 2022), offering a structured approach to assess sharing models and community values within Bali's unique cultural and social landscape.

CVF is represented by a tiered graphic that begins from the inside-out, with 1) the community's urgencies and ambitions or the System Enablers, then progresses to a layer of 2) participating actors, 3) system resources, 4) Spatial & Digital Elements and finally a layer of 5) varied community values.

In chapter 4, I will breakdown the Balinese current landscape using the CVF layers to answer what is the potential of Bali's current landscape on sharing intervention to support a circular community?

2) I will use CVF tool to facilitate the group workshop, reported in Chapter 8 Societal Contributions: Intervention. The Circular Value Flower may also be used to assist local initiators in achieving their circular goals in a sustainable manner (Smit & Leclercq, 2022). The consequence of co-creative sessions based on the layers of the Circular Value Flower is a map, known as 'Value Flower Field Maps', that allows to observe the process, the parties' interdependence, and the recommended intervention at a glance (Smit & Leclercq, 2022).

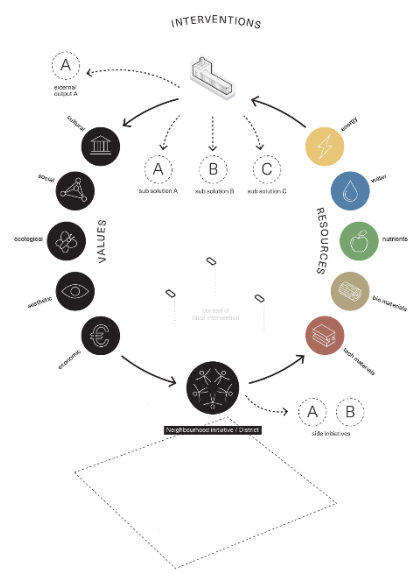
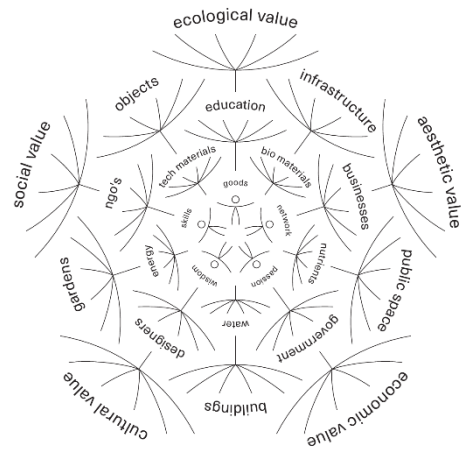


Figure 7 Circular Value Flower and Value Flower Field Maps (Smit & Leclercq, 2022)

2.6 Conclusion

The sub-research question addressed in this chapter is: **"What are the key conceptual framework and values that define "sharing" and "community" in the context of circularity?"**

The conclusion of key conceptual framework is when a community embraces sharing, it naturally becomes more circular, utilizing resources more efficiently and sustainably.

By selecting a framework developed by Ho & Yanagisawa (2023) and adapting *El Buen Vivir* as discussed by Leon (2015), I have identified the key values that underpin sharing and community in the context of a circular economy. These values include:

Community Values: Harmony, Solidarity, Justice, Respect, Equity, Responsibility

Sharing Values: Pleasure, Attachment, Trust, Empathy, Contribution, Gratitude, Engagement, Compassion, Altruism

These key values will be utilized in the next research phase to formulate interview questions and design workshop. By focusing on these values, I aim to gather insights into how sharing can be enhanced to sustain a circular Balinese community.

3. Methodology

This chapter describes the research methodology employed in this study, detailing the research design, data gathering methods, and measures taken to ensure validity and reliability. The structure of this chapter is organized as follows: **Section 3.1** describes the qualitative approach and the Participatory Action Research (PAR) framework used in the study, highlighting the importance of community involvement in the research process. **Section 3.2** outlines the specific data needs and methods for each sub-research question, beginning with an initial analysis of the Balinese circular community landscape and followed by detailed accounts of the interview and workshop processes. Finally, **Section 3.3** outlines the measures taken to ensure the validity and reliability of the research findings, including data triangulation, consistent data collection procedures, and the role of an observer during workshop.

The overview of my research design can be seen in below.

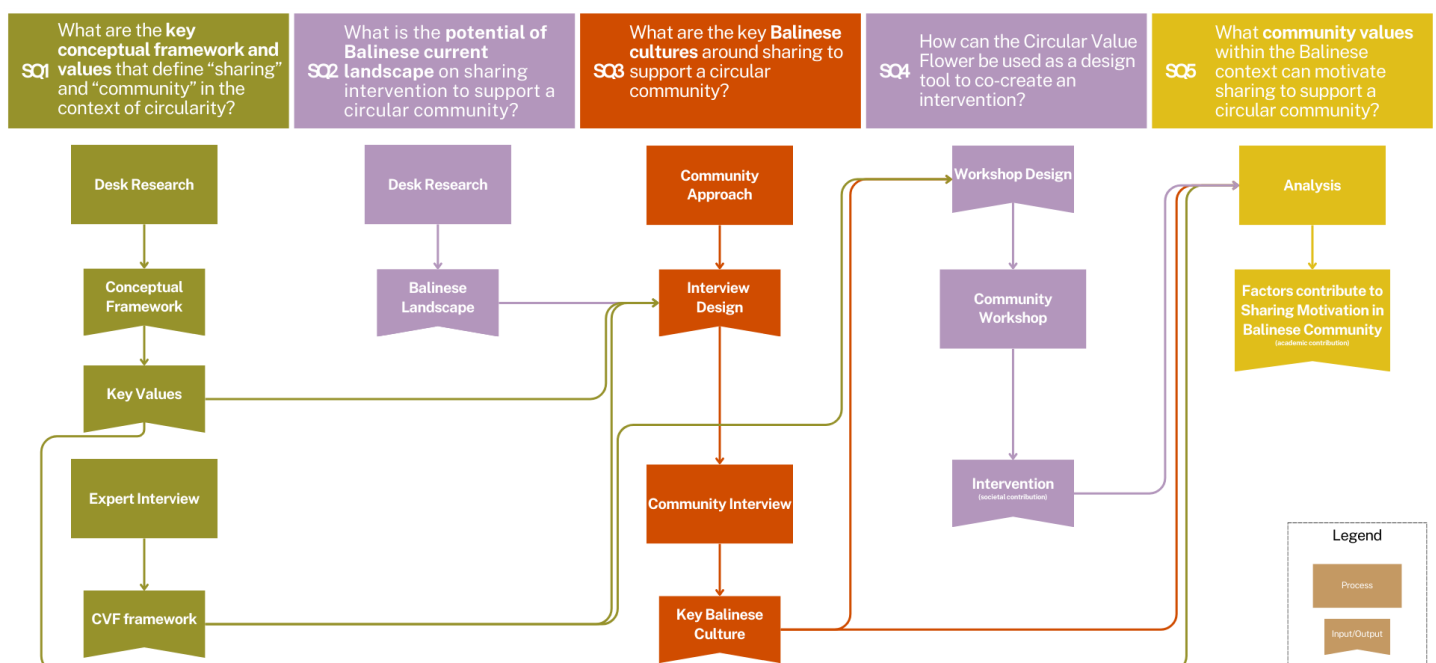


Figure 8 Overview of Research Design

3.1 Research Design

The study utilizes a qualitative research approach to facilitate an in-depth examination of intricate and situation-dependent phenomena, such as operational models of current sharing marketplaces and consumer behaviors, that quantitative approaches may not comprehensively capture (Creswell & Creswell, 2018).

The study employs a Participatory Action Research (PAR) approach to engage community members in identifying, understanding, and addressing issues related to sharing practices within the Balinese community. PAR is collaborative and action-oriented, involving iterative cycles of planning, acting, observing, and reflecting (Kindon et al., 2007). This approach aligns with the study's objective to both understand and transform community practices.

The exploratory nature of this research is intrinsically linked to its adoption of a Participatory Action Research (PAR) framework. PAR is fundamentally exploratory as it seeks to collaboratively uncover and address community-specific issues through active participation and iterative cycles of action and reflection. This approach allows for a deep, contextual understanding of complex social phenomena, such as sharing practices within the Balinese community, which may not be fully captured by more traditional research methodologies.

3.2 Data Gathering

The following outlines the specific data needs and methods for each sub-research question. SQ1 is already explained on chapter 2, so we will start from SQ2.

3.2.1 SQ2: What is the potential of Balinese current landscape on sharing intervention to support circular communities?

Conducting an initial analysis of the current landscape of circular communities in Bali is crucial for several reasons. First, it facilitates data triangulation, enhancing the reliability and validity of the research findings by cross-verifying information from multiple sources. Second, this preliminary analysis provides a deeper understanding of Balinese culture, which is essential for establishing rapport and contextual knowledge prior to conducting one on one interviews and the group workshop. This cultural insight allows me to approach participants more effectively, fostering richer and more nuanced data collection. Third, the initial analysis helps mitigate memory bias, ensuring that crucial information from previous information such as older case study of Balinese culture is accurately recalled and incorporated into the study. This is particularly important in qualitative research, where the depth and accuracy of recalled information significantly impact the findings (Mahtani et al., 2018). Lastly, the preliminary analysis helps standardize the availability of information across interviews, compensating for variations in interview durations and ensuring a more equitable and comprehensive data set. Most importantly this analysis prepare to gauge the potential of whether an intervention is relevant to Balinese context.

To achieve this, the study requires detailed information on the social, cultural, and economic factors influencing circular practices in Bali, including empirical evidence and case studies specific to the Balinese context. This initial analysis is conducted through desk research, guided by an impact assessment tool derived from the Circular Value Flower Framework. This methodological approach provides a structured means to assess and document the existing landscape of circular communities in Bali. The findings from this initial analysis are reported in Chapter 4, setting the stage for subsequent interviews and the group workshop.

3.2.2 SQ3: What are the key Balinese cultures around sharing to support circular communities?

This section will elaborate on the interview data collection process. Before delving into the interviews conducted to answer SQ3, it is crucial to highlight the participatory nature of the research. This approach ensures active involvement of community members in the research process, fostering a deeper understanding and co-creation of knowledge.

Participatory Approach

Aligning with PAR, this research follows this steps:

1. **Issue Identification and Initial Partner Recruitment:** Several organizations were considered, and the first choice for me was Bale Bengong.

Founded in 2007, Bale Bengong is a citizen journalism media portal where citizens are not merely objects of news but also active subjects. This platform encourages citizen participation in writing and responding to news, fostering a sense of ownership and engagement within the community.

This alignment with community engagement and participatory practices makes Bale Bengong an excellent fit for a research project focused on enhancing circular communities through sharing behaviors. Their network of active, engaged citizens provided a rich pool of potential participants who are already accustomed to contributing their voices and perspectives. Additionally, Bale Bengong's credibility and trust within the community facilitated smoother recruitment and engagement processes.

The initial issue of sharing practices was introduced and the research partnership was formed with Bale Bengong, who found the issue relevant and interesting. Together, we discussed and identified relevant participants and their roles.

2. **Community Engagement:** Bale Bengong facilitated introductions to stakeholders and provided a venue for the workshop.
3. **Interviews:** Semi-structured one on one interviews were conducted with stakeholders. The interview questions were discussed with Bale Bengong for feedback and approval. The interviews provide as an introduction to the research and help iterating the workshop design to includes common issue or interesting individual insights from participants.
4. **Workshop:** In the CVF workshop, participants defined their specific urgencies, values, and later developed intervention. This process ensured that the community's specific needs and contexts were integrated into the research focus.
5. **Outcomes:** The study produced two main results: community founded intervention as societal contributions and academic contributions identifying top factors that contribute to sharing motivation in the Balinese context. The final outcome will be sent and reviewed by Bale Bengong to be published in their platform.

Interview Data Collection

The interviews were conducted not only to answer SQ3 but also to prepare for the subsequent group workshop. These interviews served multiple purposes: they individually introduced and discussed the research theme with participants, assessed the relevance of the issue for each individual, and gauged their interest in joining the group workshop. Additionally, by gathering detailed information from individuals, the interviews helped identify specific or common issues that could be brought up and discussed within the group workshop. This preparatory step was essential for creating a more informed and contextually relevant workshop agenda, ensuring that individual perspectives and concerns were addressed in a collective setting.

An interview protocol and question was constructed based on the Key Values established in Chapter 2. As the interviews were of semi-structured nature and the question acted as a guideline during the interviews. The semi-structured nature of the interviews left room for the conversation to take unexpected twists or to follow interesting, unscripted, lines of investigation. As the interview process progressed, the interview script was refined or updated iteratively based on learnings from previous interviews, for example if certain questions were perceived as unclear by interviewees.

With the help of Bale Bengong, a list of potential interviewees was compiled. I contacted them to arrange interviews, either in Denpasar or online. Participants received a brief study summary and partnership details with Bale Bengong beforehand. To avoid bias, the interview script was not shared in advance. Interviews were conducted in Indonesian, mostly face-to-face, with two online via Microsoft Teams for 1 hour. All interviews were recorded with permission. The interviews were transcribed and cleaned using Sonix.ai, then translated to English with DeepL. This approach ensured that the insights gathered were rich and contextually relevant, providing a solid foundation for the workshops and the study's overall findings.

The transcription from the interview were coded in Atlas.ti. Codes category around Balinese culture are made, traditional custom in Indonesian is translated to "Adat". Hence this word is used as the Category name. The top occurrences of codes in Adat category are used as the Key Cultures around sharing in Bali.

Findings from the interview will be reported in Chapter 5.

3.2.3 SQ4: How can the Circular Value Flower be used as a design tool to co-create an intervention?

A workshop was organised to co-create an intervention that could enhance sharing within the community, using the CVF as a guiding design framework. Following in-depth interviews, participants were well-prepared and had formed perceptions about the goal of the workshop. Held on May 23, 2024, at the Bale Bengong co-working space in Bali, Indonesia, the workshop began with an opening address by the Editor-in-Chief of Bale Bengong. I then provided a summary of the research background and examples of sharing initiatives discovered during the interviews, such as Smile Shop's second-hand shop, Tricycle's clothing swap party, and Plastikdetox's Taksu cutlery rental service.

Participants were informed of the workshop agenda to manage expectations and were introduced to discussion principles, including avoiding judgment, maintaining open perspectives, and fostering curiosity. Additionally, I introduced well-being values from Ho & Yanagisawa's (2023) framework, incorporated into the workshop through stickers that participants could place on areas they found relevant.

The workshop utilized the Circular Value Flower Framework, facilitating group discussions on shared urgencies, values and ambitions, stakeholders, resources, and intervention ideas. These ideas were then categorized into established values, culminating in detailed plans for selected intervention. The workshop lasted three hours and concluded with a group lunch.

Data from the workshop included qualitative insights and observations. The workshop was recorded with permission and transcribed and cleaned using Sonix.ai, then translated to English with DeepL. The findings will be reported in Chapter 8. This approach ensured the identification of practical and community-driven intervention to support sharing practices in circular communities.

3.2.4 SQ5: What factors within the Balinese context can motivate sharing to support circular communities?

The transcription from interviews and workshop was coded in Atlas.ti using community and sharing values as the framework. The coding process began after all data had been collected and involved several iterative rounds. Initially, free identification of important insights was performed. Subsequently, these codes were categorized into the key values of Sharing, Community, or Adat (Traditional Custom). Further rounds focused on identifying well-being aspects that contribute to the Sharing Motivation framework, as well as forms of information and object sharing. Similar codes were then merged, and a final round ensured consistent coding across all documents. These rounds of codes are done in an iterative way for a month. The coding process examples can be seen in Figure 9 and Figure 10.

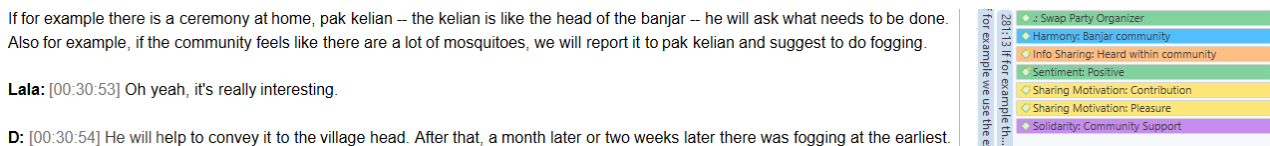


Figure 9 Example of coding with a quotation from an interview transcript. It shows how each quotation can receive several codes.

As explained in chapter 2, the sharing motivation framework from Ho & Yanagisawa (2023) and Community values of El Buen Vivir (Leon, 2015) formed the conceptual framework for data analysis.

Community Values are Harmony, Solidarity, Justice, Respect, Equity, Responsibility

Sharing Values are Pleasure, Attachment, Trust, Empathy, Contribution, Gratitude, Engagement, Compassion, Altruism

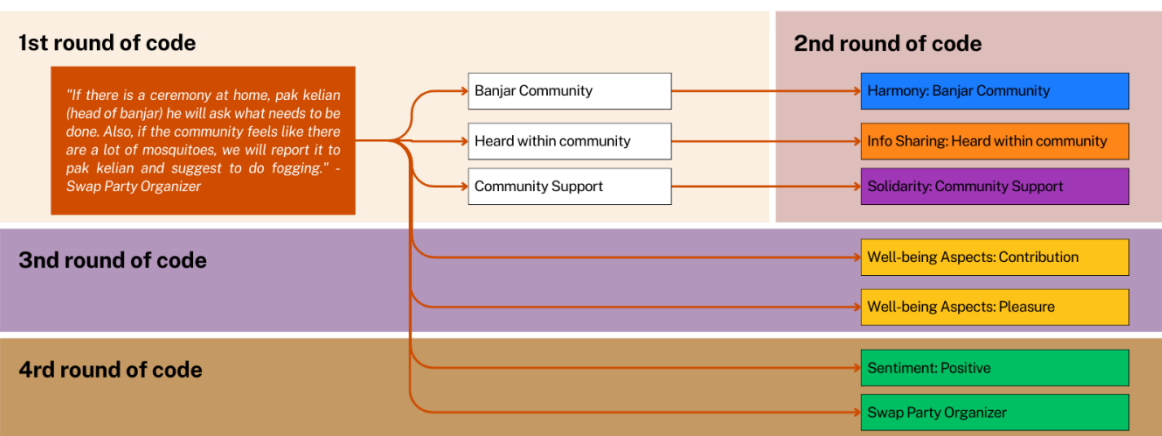


Figure 10 Coding process example

Community values were transformed into code categories. Due to their close meanings, justice and equity were combined, while respect, being less frequently identified, was integrated into other categories.

The identification of sharing values is done by another round of

coding, identifying the relevant aspects of well-being from the quotations. Forms of information sharing and object sharing were also added to the category as they emerged. Final code groups and categorization is depicted in Table 1 Final Code Grouping and Categorization.

Finally, relationships between codes were carefully established based on insights and co-occurrence, with the most frequent codes identified as the top factors contributing to sharing motivation in Bali.

3.3 Validity and Reliability

Throughout the research, numerous measures were taken to ensure high research quality and enhance the validity and reliability of the findings. Multiple sources of evidence were used to triangulate information and corroborate findings, which provided robust data quality and credibility.

The participatory nature of this research, using Participatory Action Research (PAR), significantly contributed to its validity. By involving community members as active participants, the study ensured that the research was grounded in their real experiences and needs. This approach allowed for continuous feedback and refinement, making the findings more relevant and accurate.

A limitation of this study is that participants were not asked to review and validate the findings during the interviews and workshop because of time limitation, which could have helped identify and correct any misinterpretations. But, an observer was present during the workshop and the observation served to triangulate the insights and ensure accurate interpretations.

The coding framework was based on theoretical constructs such as the community values from El Buen Vivir (Leon, 2015) and the sharing motivation framework from Ho and Yanagisawa (2023). Interview questions and workshop activities were designed to align with these constructs, ensuring data relevance and alignment with theoretical foundations.

Table 1 Final Code Grouping and Categorization

| Code Groups | Code Categories | Codes | |
|------------------|----------------------|----------------|--|
| Circularity | ● Circularity | | |
| Community Values | ● Adat | | |
| | ● Harmony | | |
| | ● Justice & Equity | | |
| | ● Responsibility | | |
| | ● Solidarity | | |
| Sharing Values | ● Info Sharing | | |
| | ● Object Sharing | | |
| | ● Sharing Motivation | ● Altruism | |
| | | ● Attachment | |
| | | ● Compassion | |
| | | ● Contribution | |
| | | ● Empathy | |
| | | ● Engagement | |
| | | ● Gratitude | |
| | | ● Pleasure | |
| ● Trust | | | |

Reliability was ensured through consistent data collection procedures for all interviews and workshop. Interviews were recorded with consent, transcribed using Sonix.ai, and translated to English using DeepL. The data coding in Atlas.ti was carried out iteratively, with multiple rounds of refinement to ensure consistent application of codes.

Using community and sharing values as a coding framework ensures that the analysis is theoretically grounded. According to Saldaña (2016), coding allows researchers to identify patterns within data, and the co-occurrence of codes highlights key themes. This method aligns with Charmaz's (2012) grounded theory, which emphasizes building theory through systematic data analysis.

The use of Atlas.ti enhances the reliability and validity of qualitative data analysis by managing complex data sets effectively (Friese, 2019). Identifying the top factors contributing to sharing motivation through this rigorous process ensures that the findings are both empirically grounded and contextually relevant.

The research adopted an abductive approach, where empirical observations influenced theoretical views, allowing the study direction to evolve (Dubois & Gadde, 2002). This systematic combining of empirical data and theoretical insights ensured responsiveness to emerging findings.

The measures taken to ensure construct validity, data triangulation, and reliability of the coding process have contributed to the robustness of the research findings. The participatory approach of PAR further enhanced the validity by grounding the study in the community's real experiences. These efforts, combined with the observer's role in confirming insights, ensured that the results are empirically grounded and theoretically sound, providing valuable insights into the factors that motivate sharing within the Balinese context.

4. Circular Community Landscape in Bali

In this chapter I will breakdown the Balinese current landscape using the CVF layers to answer the sub-question: **What is the potential of Bali's current landscape on sharing intervention to support a circular community?** To address this, desk research was conducted, reviewing existing literature, reports, case studies, news articles, and blog posts related to Balinese specific. The envisaged final deliverable is a detailed analysis highlighting the enabling factors, resources, ambitions, and contributions of key actors, which will inform targeted intervention to enhance circular practices in Bali. The chapter is structured as follows: **4.1 System Enablers** explores cultural wisdom, social networks, shareable goods, and community skills; **4.2 System Resources** focuses on technical materials crucial for sustainability; **4.3 Initiator Ambitions** outlines the vision for a sustainable, resilient, and equitable community; **4.4 Actors Analysis** uses the CVF framework to examine the roles and contributions of various actors; and **4.5 Spatial & Digital Elements** examines the physical and digital infrastructure supporting community engagement and sustainability. By addressing these components, the chapter provides a comprehensive understanding of how circular community practices can be supported and enhanced in Bali.

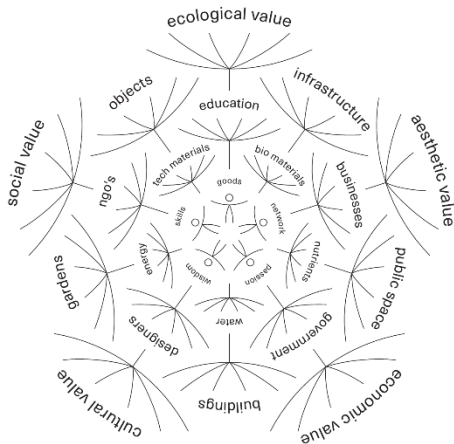


Figure 11 CVF is represented by a tiered graphic that begins from the inside-out, with 1) the community's urgencies and ambitions or the System Enablers, then progresses to a layer of 2) participating actors, 3) system resources, 4) Spatial & Digital Elements and finally a layer of 5) Community values.

4.1 System Enablers

In understanding the current landscape of circular communities in Bali, it is essential to identify the system enablers that facilitate these practices. System enablers refer to the activating capital present or needed within the community to drive sustainable initiatives (Smit & Leclercq, 2022). This includes various forms of capital such as wisdom, skills, networks, and cultural practices that collectively support the community's ambitions.

4.1.1 Wisdom

Wisdom, a fundamental system enabler, is deeply embedded in Balinese culture through the concept of Tri Hita Karana, which emphasizes harmonious living by interconnecting humans, nature, and the divine, encompassing Parahyangan (spiritual relationships), Pawongan (social interactions), and Palemahan (environmental connections). This wisdom is instilled in younger generations, promoting community engagement and enhancing social cohesion. It also underpins sustainable development, particularly in tourism, balancing economic growth with cultural and natural heritage preservation (Arif & Lessy, 2022; Youlanda et al., 2021; Purnamawati, 2021). Additionally, Bali's sharing culture, exemplified by practices like ngayah (voluntary communal service), ngejot (gift giving), and megibung (communal dining), fosters unity, mutual respect, and social bonds, supported by the cooperative spirit of the Subak system and the harmonious coexistence of Hindu and Muslim communities (Saihu, 2020; Yuslih, 2023; Sari, 2023; Hakim et al., 2009; Baharun et al., 2018). Integrating these elements of wisdom into intervention can significantly enhance their potential impact by promoting social cohesion, preserving cultural heritage, and fostering sustainable development.

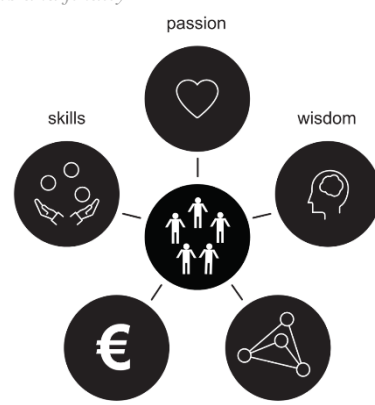


Figure 12 All form of capitals are identified in Balinese Community

4.1.2 Network

The Balinese community is renowned for its strong sense of togetherness and mutual support, deeply rooted in their culture and reflected in active engagement in communal activities, especially religious ceremonies where friendship and assistance are prevalent (Youlanda et al., 2021). Traditional values stemming from Hinduism play a significant role in strengthening community ties, fostering a collective identity and a deep sense of belonging (Darma et al., 2021). Parents instill values of cooperation and participation in communal activities from a young age, contributing to community cohesiveness. Moreover, the community demonstrates resilience and adaptability in sustainable development and tourism, leveraging cultural heritage and traditional practices to balance preservation and economic opportunities (Purnamawati, 2021). This tight-knit nature fosters strong social bonds and mutual support among its members, underpinning Balinese society. Additionally, Bali's environmental activism is also a critical enabling capital, enhancing the island's efforts toward sustainability and progressive environmental practices. Notable initiatives include PlastikDetox (Ashar, 2019), which educates the public on plastic pollution and promotes eco-friendly alternatives, and Tricycle, which advocates for sustainable fashion through clothing swaps and upcycling (*Swap Party Recap*, n.d.). Taman Baca Kesiman integrates environmental awareness with cultural preservation, hosting events that teach sustainable practices (Bali, 2024). BaleBengong raises awareness and mobilizes the community by highlighting local environmental issues (Bengong, n.d.). These organizations leverage Bali's international visibility to address environmental degradation, fostering a culture of sustainability and community engagement.

4.1.3 Goods

The availability of shareable goods and the logistics of sharing them within the community are crucial aspects of supporting circular practices in Bali. The island's economy, heavily influenced by tourism, results in a fast-moving cycle of consumerism that includes items such as furniture, cars, and bed linen (Priherdityo, 2019). This transient nature of tourism creates a demand for goods that can often be shared, reused, or borrowed within the community. Additionally, Bali's packed ceremonial calendar requires numerous ceremonial goods, which are sometimes shared or reused among community members (Supartika, 2018). By facilitating the sharing and efficient management of these goods, intervention can significantly reduce waste and resource consumption, promoting a more sustainable and resilient local economy. The ability to share and reuse items not only conserves resources but also strengthens community bonds, as residents collaborate and support one another in meeting their needs.

4.1.4 Skills

The skills within the Balinese community are crucial for the effective implementation of sharing practices. Despite the pressures of mass tourism, Balinese culture has persevered, fostering a unique blend of traditional and modern skills. The service and marketing skills developed through extensive interaction with the tourism industry are particularly notable. These skills are essential for promoting and managing sharing initiatives, as they enhance the community's ability to communicate effectively, attract participation, and sustain interest in such practices. Additionally, the rise of environmental activism among young people and the middle class signifies a growing awareness and commitment to sustainability (Khun, 2024). This activism is not only indicative of a heightened sense of responsibility but also serves as a catalyst for developing new skills related to sustainable practices and community organization. The ability to harness and enhance these skills through targeted training and development programs can significantly impact the success of sharing initiatives, ensuring they are well-managed and widely embraced by the community.

4.2 System Resources

This section delves into the critical resources necessary to support and sustain circular community practices in Bali, focusing primarily on technical materials. Circular initiatives often revolve around various resource cycles, including water, energy, nutrients, and materials. In this research, I limit the focus on technical materials—multi-use items like clothes, appliances, and household tools—that significantly impact the sustainability of the community. Effective reuse and sharing of these technical materials can reduce the demand for new products, minimize waste, and decrease the environmental footprint associated with mass production and consumption. By optimizing the availability and management of these technical materials, Balinese communities can foster a more resilient and sustainable economy. Understanding and improving the logistics of sharing and reusing these items will contribute to the overall success of circular practices, reducing waste and promoting a culture of sustainability. Energy resources are another crucial aspect, as the carbon footprint of delivery and mass production is significantly impacted by the community's consumption patterns. Promoting local transactions and sharing activities can reduce the carbon emissions associated with transportation and production, thereby contributing to a more sustainable energy use framework. By thoroughly understanding and optimizing these system resources, the Balinese community can enhance their resilience and sustainability, supporting a robust circular economy.

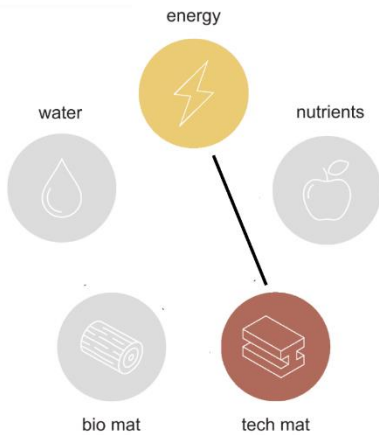


Figure 13 Energy and technical materials as the system resources focus on this research

4.3 Initiator Ambitions

This section outlines the ambitions and objectives that drive the efforts to enhance circular community practices in Bali. These ambitions reflect a vision for a sustainable, resilient, and equitable community, aiming to address social, environmental, and economic challenges. As this research was initiated by me and Bale Bengong, I will discuss about our ambitions in this research.

- **Well-being:** The goal is to create a healthy, safe, and pleasant living environment where community members feel connected, accepted, and supported. This vision includes eliminating power plays, peer pressure, and competition that drive consumerism, allowing individuals to focus on genuine well-being and social justice.
- **Resilience:** Strengthening community bonds and fostering a sense of acceptance are key to building a resilient community. A community that is tightly knit and supportive is better equipped to withstand external pressures and adapt to changes without compromising its integrity and values.
- **Resources:** Addressing the fast-moving cycle of goods driven by tourism and modern consumerism is crucial. The ambition is to promote the sustainable use of resources such as furniture, cars, and clothes. Reducing plastic waste and managing resources efficiently will help Bali maintain its natural beauty and sustainability.
- **Nature:** Reducing consumerism and extending the lifecycle of goods through sharing and resale can significantly decrease waste and lessen the demand for new products. This approach benefits the environment by reducing waste and preserving natural resources, contributing to a healthier ecosystem in Bali and globally.
- **Democracy:** The ambition is to foster a democratic community where climate change and sustainability are viewed through the lens of social justice. This involves ensuring that all community members have a voice and that power distribution is fair and just. By promoting inclusive and participatory processes, the community can address historical inequalities and create a more equitable society.

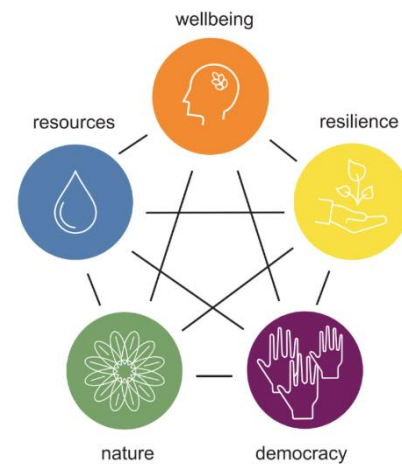


Figure 14 Ambitions of Bale Bengong and I as the researcher

These ambitions guide the research and initiatives aimed at enhancing circular community practices in Bali, ensuring they align with broader goals of well-being, resilience, resource efficiency, environmental sustainability, and social justice.

4.4 Actors Analysis

The Circular Value Flower (CVF) framework recommends involving various actors in the analysis to ensure a comprehensive understanding of the circular community landscape. Together with Bale Bengong, specific actors were identified for this study, including designers/professionals, government representatives, businesses, civil society members, and educational participants. Below are the reasons for their selection, their needs and interests, and how they relate to the potential impact of sharing intervention.

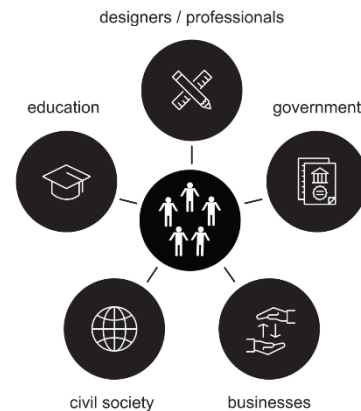


Figure 15 The Actors

4.4.1 Designers/Professionals

Participants: A Musicians, Graphic Designers, and Environmental Activists. An Architect, Traditional Art Puppet Master, Musician, and Traditional Head Youth Organization.

These individuals are pivotal in preserving cultural heritage and promoting sustainable practices through their professional and artistic contributions, influencing community behaviors and attitudes towards sharing and sustainability. They require platforms for performances, funding for cultural projects, community engagement to sustain traditions, sustainable materials, collaboration opportunities, and support for innovative design solutions. Their commitment to preserving Balinese cultural heritage, promoting sustainability through art and design, and engaging the community in environmental initiatives significantly enhances the cultural and social aspects of sharing intervention, fostering a community that values both tradition and sustainability.

4.4.2 Government

Participants: Head Village of Bengkel, Tabanan. Head Hamlet (Banjar Dinas) of Umadesa.

Government officials and public servants play a crucial role in implementing policies and managing community resources, with their support being essential for the success of community-wide sharing initiatives. They need data on community needs, effective strategies for sustainable development, and support from higher government bodies, as well as training in sustainable practices, support for digitizing archives, and resources to promote environmental awareness. Their interests lie in improving local governance and community welfare, promoting sustainable development policies, and enhancing public services and community engagement, thereby helping institutionalize sharing practices and providing the necessary infrastructure and policy support.

4.4.3 Businesses

Participants: Tricycle, a sustainable fashion brand that facilitate Clothing Swap Party

Businesses are pivotal in driving economic activities and influencing sustainable consumption and production patterns, providing practical examples of how sharing and repurposing can be economically viable. They require access to sustainable materials, consumer engagement, and promotional platforms, as well as a steady supply of quality used items, market access, and consumer awareness about the benefits of purchasing second-hand goods. Their interest in promoting sustainable fashion and upcycling, supporting the circular economy by repurposing goods, and reducing waste demonstrates the economic benefits of sharing practices, encouraging other businesses to adopt similar models.

4.4.4 Civil Society

Participants: PlastikDetox, an NGO that focus on plastics reduction. [Yayasan Senyum Bali \(Smile Foundation\)](#), a non-profit, independent organization working to bring health care to people with craniofacial disabilities, operate a second-hand shop.

Civil society organizations are crucial for raising awareness, educating the public, and advocating for sustainable practices, playing a key role in mobilizing community action and support. They need training for high school teachers, educational resources, public awareness campaigns, community engagement, partnerships with local businesses and government, funding, volunteer support, and collaboration opportunities. Their focus on educating and empowering the community about sustainability, reducing plastic waste, and promoting environmental health amplifies the reach and impact of sharing intervention, fostering a culture of sustainability.

4.4.5 Education

Participants: Archaeology Graduates, Cultural Content Managers ([Nuturang](#) Instagram), Anthropology Graduates, Cultural Content Managers ([Nuturang](#) Instagram), Anthropology Lecturer.

Educational institutions and professionals are key to researching, teaching, and promoting cultures, history and practices, providing the knowledge base and educational resources needed for effective sharing intervention. They require research funding, collaboration opportunities, digital tools, training in social media marketing, content creation support, academic collaborations, publication platforms, and professional development. Their interest in preserving and promoting Balinese cultural heritage, conducting research on sustainable practices, and educating students and the public about sustainability and circular economy principles ensures that sharing intervention are well-informed, well-documented, and widely disseminated.

By understanding and addressing the needs and interests of these diverse actors, the research can foster a collaborative environment that supports the successful implementation of sharing intervention. This collaborative approach will enhance the potential impact of these intervention, promoting a more sustainable, resilient, and equitable community in Bali.

4.5 Spatial & Digital Elements

4.5.1 Buildings, Gardens

Each banjar (village) in Bali typically has a building that serves as a community center, fostering social cohesion and unity. These centers are crucial for hosting events, workshop, and communal activities that promote sharing and sustainability. The integration model of multicultural communities in Bali, which includes shared places of worship, demonstrates how these spaces can enhance cultural exchange and understanding among diverse groups (Suastika et al., 2022). By providing a physical space for community engagement, these buildings play a vital role in the success of sharing initiatives.

Gardens in Bali are integral to cultural traditions, spirituality, and community practices. They serve practical functions by providing ceremonial plants for rituals, medicinal plants for healing, and spaces for daily activities. The design of Balinese gardens, rooted in the Tri Mandala concept, reflects the universe in a microcosm, integrating sacred, living, and natural spaces (Marhaeni et al., 2023).

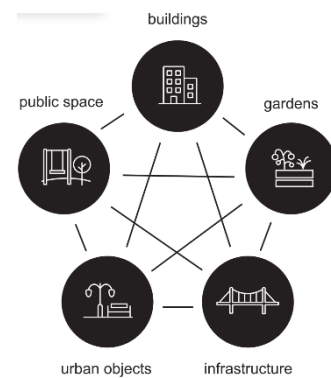


Figure 16 Spatial & Digital Elements

4.5.2 Public Space

Public spaces, such as markets and city squares, are vital cultural and social hubs in Balinese society. They facilitate social interaction, economic activity, and cultural exchange. Traditional markets like Badung Market integrate religious and cultural elements, serving as spaces for both commerce and community events (Pranajaya & Artayasa, 2023). City squares, such as Dataran Merdeka, host various cultural and civic events, promoting social cohesion and urban vitality (Zakariya & Harun, 2018). These spaces are essential for fostering community interaction and cultural preservation.

4.5.3 Infrastructure

Bali's infrastructure includes good internet connectivity and reliable electricity, but it lacks public transportation and efficient public services (Kaltimber). This mixed infrastructure impacts the effectiveness of sharing initiatives, highlighting the need for improved public services and transport options to support sustainable practices and community engagement.

4.5.4 Digital Aspects

Digital infrastructure in Bali is modern, with widespread internet connectivity that facilitates various sharing initiatives. Community WhatsApp groups and Facebook pages are popular platforms for exchanging or buying second-hand items, although these groups are often segregated, with Western tourists primarily interacting among themselves and local residents being less active. This segregation limits the potential for broader community engagement and integration in sharing practices.

Digital marketplaces are the primary source of shopping, resembling platforms like Amazon, which predominantly offer low-quality, inexpensive goods. The focus on new items underscores a consumerist culture that contrasts with the principles of a circular economy. However, the presence of second-hand marketplaces is limited and not mainstream, indicating a significant opportunity for growth in promoting sustainable consumption practices.

By leveraging these digital aspects, Bali can enhance the efficiency and reach of sharing initiatives, promoting a more sustainable, resilient, and inclusive circular economy.

4.6 Conclusion

This chapter addressed the sub-question: **What is the potential of Bali's current landscape on sharing intervention to support a circular community?** The initial analysis of the current landscape revealed that Bali's cultural wisdom, strong social networks, availability of shareable goods, and community skills are significant enablers of circular practices. These elements, combined with the reuse and sharing of technical materials, reduce waste and environmental impact. The ambitions for sustainability, resilience, and equity drive these initiatives, supported by various actors and a robust spatial and digital infrastructure. Conducting this preliminary analysis is crucial as it facilitates data triangulation, provides cultural insights, mitigates memory bias, and standardizes information across interviews. These findings will be used in the next research phase to enhancing the depth and accuracy of data collection in subsequent interviews and group workshop.

5. Balinese Culture

This chapter addresses the sub-question: **What are the key Balinese cultures around sharing in order to support a circular community?** The research employed a participatory approach and semi-structured interviews to gather data from community members. The objectives of the interviews were to introduce the research theme, assess relevance, gauge interest in the group workshop, and gather detailed information to inform the study. The interview questions is detailed in Appendix 12.2.

The envisaged final deliverable is a comprehensive **understanding of key Balinese cultural practices that promote sharing and support circular community development**. This chapter will present the interview findings, providing insights into the demographics and social roles of participants, as well as detailed analyses of key cultural practices. The chapter begins by examining how **demographic factors** of all participants during interviews and group workshop such as ethnicity, living arrangements, gender, marital status, and professional backgrounds influence sharing behaviors in section 5.1. It then delves into the key cultural practices identified in only the interviews as the top occurrences of *Adat* of Traditional Custom codes category in section 5.2.

5.1 Demographics and Social Role of Participants

This section explores the demographics and social roles of participants during the interviews as well as the group workshop, examining how factors such as ethnicity, living arrangements, gender, marital status, and professional backgrounds influence their engagement in community activities and sharing behaviors. By analyzing these aspects, the study aims to provide a comprehensive understanding of the diverse perspectives and experiences within the participants.

5.1.1 Ethnicity

The study's participants are categorized by their ethnicity, providing insights into how cultural backgrounds influence their engagement and sharing behaviors within the community. This section provides a detailed demographic analysis focusing on ethnicity, its implications for the study, and its impact on sharing behaviors.

Table 2 Ethnicity Demographic

| Ethnicity | Interviews | | Workshop | | Total Participants | |
|--------------|------------|------|----------|------|--------------------|------|
| Balinese | 9 | 90% | 8 | 89% | 12 | 92% |
| Not Balinese | 1 | 10% | 1 | 11% | 1 | 8% |
| TOTAL | 10 | 100% | 9 | 100% | 13 | 100% |

Implications on the Study : The predominance of Balinese participants (92%) ensures an in-depth understanding of local traditions and practices, while the inclusion of a small number of non-Balinese participants (8%) provides insights into the community's inclusivity and adaptability to cultural diversity. **Impact on Sharing Behaviors** : Balinese participants' strong cultural ties and engagement in traditional practices promote robust sharing behaviors and community cohesion, while the perspectives of the few non-Balinese participants enhance cultural adaptability and inclusive sharing practices. This combination enriches the study by highlighting both the depth of traditional engagement and the potential for broader inclusivity within the community.

5.1.2 Living Arrangements

Based on their living arrangements, participants are separated into two primary groups. Those who live in their indigenous land are a part of Banjar Adat, while those who move to different areas are a member of Dinas.

Table 3 Living Arrangements Demographic

| Living Arrangements | Interviews | | Workshop | | Total Participants | |
|---------------------|------------|------|----------|------|--------------------|------|
| Banjar Adat | 6 | 60% | 7 | 78% | 9 | 69% |
| Banjar Dinas | 4 | 40% | 2 | 22% | 4 | 31% |
| TOTAL | 10 | 100% | 9 | 100% | 13 | 100% |

Banjar Adat members, who are indigenous to the Banjar's location, reflect deep-rooted cultural and traditional ties, making up 69% of the total participants, with 60% participating in interviews and 78% in workshop. Banjar Dinas members, registered as part of the administrative Banjar but not indigenous to the area, constitute 31% of the total participants, with 40% participating in interviews and 22% in workshop.

Impact on Sharing Behaviors : Banjar Adat members, being indigenous to the Banjar's location, are deeply engaged in traditional practices like Ngayah and local ceremonies, which are essential for understanding community values and mutual support systems. Conversely, Banjar Dinas members, who are registered as part of the administrative Banjar, provide insights into how their roles influence community dynamics and resource sharing, despite their less frequent participation in traditional practices because they are not indigenous to the community where they live. They need to return to their own Banjar Adat (their indigenous land) to perform ceremonies. Due to distances and circumstances, they typically participate less frequently, focusing on important days or the height of the ceremony. This reduced frequency of participation can impact their sense of connection and the extent of their involvement in traditional sharing practices.

Implications on the Study : Banjar Adat members' strong cultural ties and active engagement in traditional practices promote high levels of trust and mutual support, leading to robust sharing behaviors. Although Banjar Dinas members are primarily administrative citizens and participate less frequently in traditional ceremonies, their involvement is crucial for integrating modern approaches to community support and sharing practices, ensuring a balance between maintaining tradition and incorporating modernity.

5.1.3 Gender, Marriage Status and Banjar Voice Right

In the context of Banjar community practices, voting rights and participation are influenced by gender and marital status. Only married men have the right to vote in Banjar decisions, while women and unmarried men do not contribute to voting. However, there are specific groups for women and youth in Banjar, and within families, hierarchies based on age and education influence the decision-making process. This dynamic significantly impacts the roles and engagement of community members.

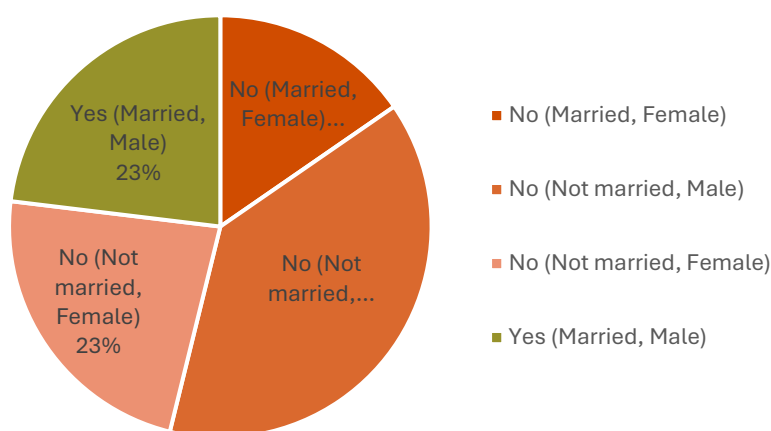


Figure 17 Participants Demographic on their Voice & Voting Right at Banjar

Implications on the Study : Married men hold significant influence over community decisions due to their exclusive voting rights. Women and unmarried men, despite lacking voting rights, actively participate in women and youth groups, indirectly influencing community life through informal channels. Within families, hierarchies based on age and education influence how decisions are made and who voices the family's opinions. Even though only married men vote, their decisions often reflect the input from the broader family hierarchy, including elder family members and those

with higher education. This dynamic is essential for understanding the distribution of power and responsibilities within the Banjar and the role of informal contributions in community cohesion.

Impact on Sharing Behaviors : Married men's voting rights enhance their ability to influence communal resource allocation and sharing practices, often involving leadership roles in organizing community projects. Despite the lack of formal voting rights, women and unmarried men play crucial roles in fostering a culture of sharing and mutual aid through informal networks and support activities. Youth, engage in broader community initiatives and modern societal activities outside of Banjar setting, bridging traditional practices with contemporary needs and progressive issues, ensuring the continuity of communal support.

5.1.4 Social Role

Participants in the study come from diverse professional and social backgrounds, which influence their perspectives and participation in community activities. These roles are decided on the previous stakeholder analysis. This section examines the distribution of participants across various social roles, their implications for the study, and the impact on sharing behaviors within the community.

Implications on the Study: Participants from various social roles bring diverse perspectives to the study. **Business** participants offer insights into economic aspects, while those in **Designer/Art** roles provide perspectives on cultural preservation and innovation. **Educational** participants contribute to understanding knowledge transfer and educational initiatives. **Government/Administrator** participants shed light on policy-making and governance, and **NGO** participants highlight community support and advocacy efforts. This diversity helps in understanding how different professional backgrounds influence community dynamics and sharing behaviors.

| Roles | Interviews | | Workshop | | Total Participants | |
|--------------------------|------------|-----|----------|-----|--------------------|-----|
| Bussiness | 2 | 13% | 1 | 8% | 2 | 11% |
| Designer/Art | 2 | 13% | 1 | 8% | 2 | 11% |
| Education | 2 | 13% | 2 | 17% | 3 | 17% |
| Government/Administrator | 3 | 20% | 2 | 17% | 3 | 17% |
| NGO | 6 | 40% | 6 | 50% | 8 | 44% |
| TOTAL | 15 | | 12 | | 18 | |

Figure 18 Social Role Demographic

Impact on Sharing Behaviors: **Business** participants drive economic initiatives that promote sharing and collaboration, such as cooperative enterprises. **Designer/Art** participants enhance community engagement and cultural sharing through creative projects. **Educators** foster a culture of mutual support by promoting awareness and knowledge sharing. **Government/Administrator** participants create policies that support resource sharing and community practices, while **NGO** participants play a crucial role in grassroots initiatives, providing support and advocating for sustainable practices. Understanding these diverse roles helps in analyzing how professional and social backgrounds influence sharing behaviors within the Balinese community.

5.1.5 Sentiment Throughout Data Collection

This section examines the sentiment distribution among participants **during the interviews and group workshop**, highlighting the percentage of positive and negative sentiments expressed during data collection relative to their overall statements. The quotations from Interviews and the group workshop was analyzed for sentiment using Atlas.ti's

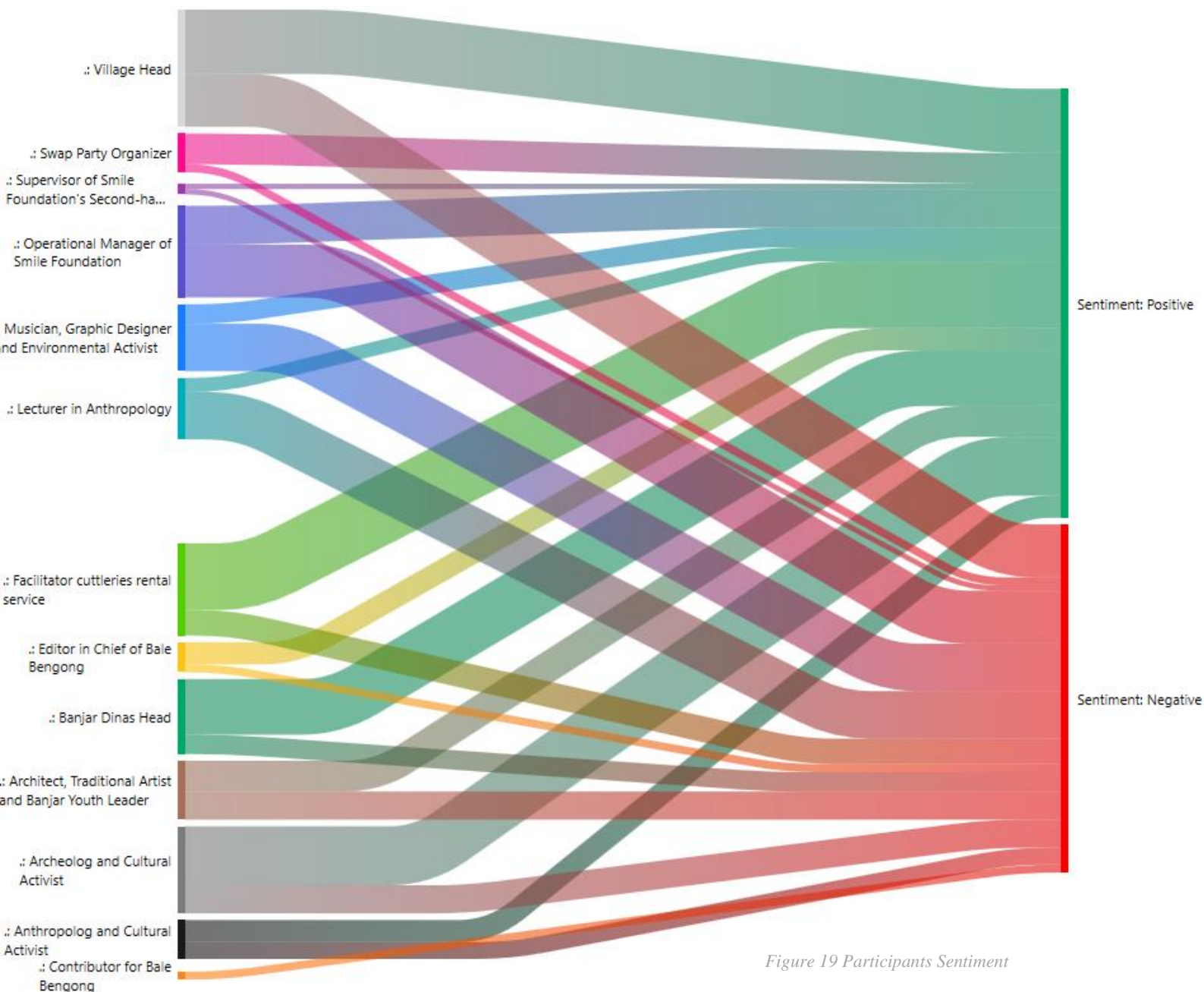


Figure 19 Participants Sentiment

sentiment analysis feature, which categorizes statements as positive or negative. Manual adjustments were made to ensure contextual accuracy, considering cultural nuances and specific terminology used by participants.

Implications on the Study: The overall sentiment analysis shows a nearly **balanced view with 45% negative and 55% positive sentiments** (Figure 19). This balance indicates a diversity of opinions and experiences regarding community, culture, and sharing. Roles such as the Banjar Dinas Head and Swap Party Organizer, which have higher positive sentiments, suggest favorable perceptions of community dynamics and cultural practices. Conversely, roles with higher negative sentiments, like the Lecturer in Anthropology and Contributor for Bale Bengong, point to areas of concern or dissatisfaction with specific aspects of community and cultural topics. Understanding this range of sentiments is crucial for addressing community concerns and enhancing overall cultural and sharing practices.

Impact on Sharing Behaviors: Roles with predominantly positive sentiments, such as the Banjar Dinas Head and Swap Party Organizer, are likely to foster strong sharing behaviors and community support, as their positive experiences promote active participation and collaboration. Conversely, high negative sentiments in roles like the Lecturer in Anthropology and Contributor for Bale Bengong may hinder effective sharing behaviors, as dissatisfaction can lead to disengagement and reduced participation in communal activities. Addressing the concerns of roles with negative

sentiments can improve their integration and contribution to community sharing practices, ensuring a more cohesive and supportive environment for all members.

Understanding sentiment distribution is crucial for addressing community concerns and enhancing cultural and sharing practices. Sentiment analysis not only identifies barriers and facilitators to sharing behaviors but also provides cues to important events or issues within the community. Positive sentiments, often linked to favorable experiences and perceptions, highlight effective practices and areas of strength. Conversely, negative sentiments, which reflect dissatisfaction or concerns, pinpoint areas needing improvement and intervention.

5.1.6 Conclusion

This chapter explored the demographics and social roles of participants, revealing that ethnicity, living arrangements, gender, marital status, and professional backgrounds significantly influence engagement in community activities and sharing behaviors. The predominance of Balinese participants (92%) underscores strong cultural ties and robust sharing behaviors, while the inclusion of non-Balinese participants highlights the community's inclusivity and adaptability. Living arrangements further distinguish between Banjar Adat and Banjar Dinas members, affecting their participation in traditional practices. Gender and marital status determine formal voting rights, with informal contributions influenced by family hierarchies. Diverse professional backgrounds enrich community dynamics, as business, education, government, and NGO roles provide varied perspectives on economic initiatives, cultural preservation, policy-making, and community support. Sentiment analysis revealed a balance between positive (55%) and negative (45%) sentiments, with positive sentiments linked to roles like Banjar Dinas Head and Swap Party Organizer, indicating strong engagement and favorable community dynamics, while higher negative sentiments in roles like Lecturer in Anthropology and Contributor for Bale Bengong pointed to areas of concern. This comprehensive understanding of demographic and social factors, along with sentiment distribution, will inform the next research phase by highlighting key influences on community cohesion and sharing behaviors.

5.2 Key Cultures

This section addresses the sub-question: **What are the key Balinese cultures around sharing in order to support a circular community?** To explore this sub-question, qualitative analysis of interview transcriptions was conducted using Atlas.ti. Within this coding process, a category named "Adat" was created, encompassing traditional customs in Indonesian culture. The top occurrences, representing 50% of the total occurrences of Adat codes, were identified as the key cultural practices related to sharing in Bali.

The final deliverable of this chapter is to provide a comprehensive understanding of the key Balinese cultural practices that promote sharing and support the development of a circular community. By examining these cultural practices, the chapter aims to highlight the integral role of Adat in fostering sustainability and communal cooperation in Balinese society.

The chapter is sorted by the sequence of the top codes. First, in **5.2.1**, it explores how **Ngayah**, a traditional practice of voluntary community service, reinforces the culture of sharing and collective responsibility. Next, **5.2.2** discusses how **Tri Hita Karana** integrates spiritual, social, and environmental aspects to promote sustainability. Finally, section **5.2.3** examines the role of the **Banjar structure** in maintaining social cohesion and facilitating communal sharing. Each section contributes to answering the sub-question by providing insights into specific cultural practices that encourage sharing and sustainability, demonstrating the vital role of Adat in supporting a circular community in Bali.

5.2.1 Ngayah

Balinese community operates based on Ngayah system, where communal activities are done willingly and voluntarily.

The Ngayah system acts as a crucial link to the community by fostering a sense of belonging and collective responsibility. Through voluntary participation in communal activities and ceremonies, community members strengthen their ties and ensure the continuity of their cultural heritage. The mutual cooperation seen in both everyday activities and significant events reinforces the Banjar as a community center, where everyone plays a role in maintaining social cohesion and cultural practices.

The Ngayah system also reinforces the culture of sharing within the community. The reciprocal nature of offerings and communal assistance during ceremonies and personal events creates a network of mutual support. However, this sharing can sometimes blur the lines between genuine voluntary service and social obligation. The expectation for equal contribution, regardless of individual circumstances, highlights the complexity of sharing dynamics within the Ngayah system. While the system encourages voluntary service and communal cooperation, it also necessitates a balance to accommodate diverse economic situations and ensure inclusivity.

Adat/Customary

Despite varying levels of understanding of the benefits or reasons behind traditions, strong customary ties ensure everyone participates in communal activities, such as ceremonies. For example, when a neighbor dies, everyone immediately engages in ngayah. Offerings and basic Balinese rituals are reciprocal, with villages helping each other by lending ceremony materials, such as statues and decorations, fostering a selfless spirit of mutual assistance. The process of Ngideh Reramon involves preparing materials for ceremonies by freely asking for supplies from neighbors, who usually share willingly as part of yadnya (offerings to God), respecting both fellow humans and nature. Women form groups to cook together using communal cooking utensils and stoves available in Banjar, which can be borrowed at a low cost. However, the communal concept's expectation for everyone to contribute equally can be challenging for daily wage workers, and exceptions should be made to accommodate such circumstances. Mutual cooperation extends beyond immediate neighbors to the Banjar community, which assists in ceremonies by providing resources like gongs and decorations, emphasizing the deep-rooted culture of Ngayah.

Solidarity Outside of Banjar Setting

During personal events, there is a strong sense of obligation to help among friends and neighbors, providing food, fruit, and energy for ceremonies, showcasing the spirit of mutual cooperation. Even when migrants live with extended family in Denpasar, the capital, they form family social gatherings where shared purchases and communal assistance are practiced, especially during events like weddings, maintaining a sense of family and community. Activities like family social gatherings and community clean-up programs demonstrate continued communal cooperation in urban areas like Denpasar, though some responsibilities have shifted to paid maintenance services. The mutual cooperation culture is evident in events like swap parties, where participants voluntarily help the committee team and promote the event, reflecting the inherent Balinese culture of helping each other.

Economic Factors and Diversity

In the past, the less developed economy made people more open to sharing. Shared economic struggles strengthened communal bonds as people had more free time to participate in ngayah and valued social relationships over money. And there is a distinction between giving services (Ngayah) and giving money (Punia) in Balinese culture. Punia has become associated with political manipulation, whereas Ngayah embodies the traditional spirit of voluntary service.

5.2.2 Tri Hita Karana

Tri Hita Karana serves as a vital link to the community by fostering a holistic approach to communal living. The interconnected elements ensure that spiritual, social, and environmental aspects are harmoniously balanced, strengthening community bonds. Through organized agricultural activities, temple ceremonies, and collective efforts in maintaining waterways, the community operates as a cohesive unit, deeply rooted in shared values and mutual responsibilities.

The principles of Tri Hita Karana inherently promote a culture of sharing within the community. The cyclical nature of agricultural practices, where harvested rice is shared during temple ceremonies and food is distributed to the community, exemplifies this. Additionally, the traditional Tebe ke Paon system reflects an eco-friendly approach to waste management and resource sharing. However, the challenge posed by plastic waste indicates a need for modern adaptation to maintain the spirit of sharing in a sustainable manner. Critics' perspectives highlight the complexity of these practices, suggesting that while they may be framed for external perceptions, they nonetheless encourage unity and communal harmony.

Concept; Subak

Tri Hita Karana (THK) encompasses Parahyangan (temple worship in the Subak area), Pawongan (organization managing the subak irrigation system), and Palemahan (land ownership within each subak). These three elements are interconnected. In agricultural activities, farmer organizations regulate planting cycles and discuss planting and harvesting plans. Ceremonies are performed before planting to ask for good rain, and the community actively keeps waterways clean. Farmers feel responsible for returning what they take from nature. Harvested rice is shared in a ceremony at the temple, where food is then distributed to the community, illustrating the strong cycle of sharing.

Respect to Nature

Environmental preservation initiatives in Banjar align with the Tri Hita Karana concept, emphasizing harmony between humans, nature, and God. Balinese culture involves cleaning up and showing gratitude and respect to the environment in everyday activities, maintaining a harmonious relationship with nature and God.

Tebe ke Paon, Paon ke Tebe (Backyard to Kitchen, Kitchen to Backyard)

Traditionally, people disposed of garbage in the backyard (tebe), where it decomposed and became compost for plants, which were then used in the kitchen (paon). This cycle is disrupted by the improper disposal of non-degradable plastics. The challenge with plastic waste arises from the perception that it decomposes like organic waste, highlighting the need for awareness and change in waste management practices.

Critics

The concept of Tri Hita Karana is seen by some as an artificial construct designed to shape outsiders' and tourists' views of Bali, with its roots traced back to Indian texts like the Bhagavad Gita, and not originally from Balinese culture. There is a perspective that Tri Hita Karana was created to cover up Bali's dark history of internal conflicts and wars between regions, which contradicts the current harmonious image presented for tourism purposes. This concept is believed to soften people's attitudes, promoting unity and non-harmful behavior.

5.2.3 Banjar Structure

Banjar serves as the cornerstone of Balinese communal life, acting as a community center where social, cultural, and administrative activities converge. The structure of Banjar, both Adat and Dinas, integrates residents into a cohesive unit, fostering a strong sense of belonging and mutual responsibility. This centrality in daily life ensures that community ties are maintained and strengthened through regular interactions, rituals, and communal activities.

The Banjar and Adat calendars are integral in structuring the communal life, dictating the timing of rituals, ceremonies, and community gatherings. These scheduled events ensure consistent interaction among community members, creating frequent opportunities for sharing resources, labor, and support. However, there is a nuanced distinction between genuine sharing and sharing driven by social obligation. While traditional customs (Adat) encourage voluntary participation (Ngayah) and mutual aid, it raises the question of whether this sharing is inherently altruistic or if it is influenced by societal expectations and obligations. This potential dichotomy between genuine sharing and enforced participation highlights the complexity of communal interactions within the Banjar structure.

Banjar Karang (Coral) & Banjar Ayahan Desa

Karang refers to a residential yard linked to an indigenous family to the land and a family temple, requiring residents to participate in temple ceremonies. Members of Banjar Karang are tied to the rule of Banjar Karang. Ayahan Desa pertains to village land connected to a water temple, associated with the subak irrigation system for rice fields.

Banjar Adat & Dinas

Banjar Dinas is part of the Indonesian administrative government, on par with Hamlet in terms of structure. Villages consist of multiple hamlets, each led by a head under the village head. Balinese society also includes traditional structures tightly connected to family lineage and governed by traditional customs law, known as Adat. Hence, the structure of the traditional unit is Banjar Adat, or customary hamlet, which forms a customary village, or Desa Adat. Banjar Adat and Banjar Dinas rule side by side within one Banjar area. Each Banjar Adat has a traditional Klian (leader) who, along with the Head of Hamlet (Banjar Dinas), plays complementary roles similar to a husband and wife in managing different tasks. Indigenous family residency is included in the official Banjar Dinas administration, while a resident of Banjar Dinas might not be a member of Banjar Adat if they are a migrant and not indigenous to the land. Balinese Banjar Dinas residents might participate in traditional ceremonies but are not fully expected to do so.

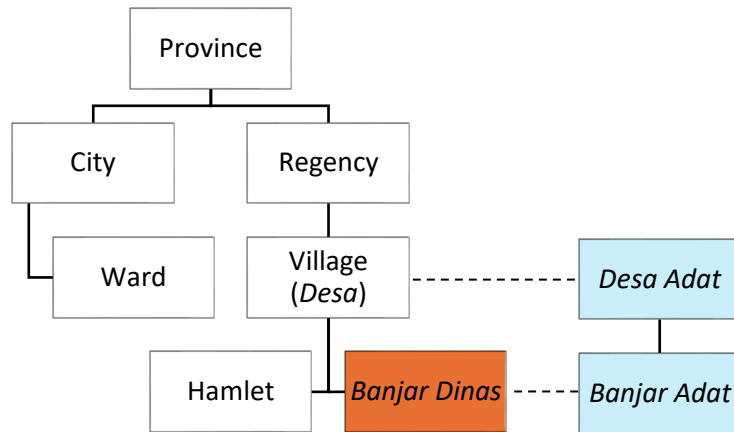


Figure 20 Indonesian Official Government Structure

Decision-making

Banjar Adat decisions follow a collegial collective system, with awig-awig serving as traditional regulations similar to laws, drafted by a few administrators and validated through community agreement. Discussions align with government guidelines, but migrants are excluded from customary regulation discussions, which focus on traditional customs or indigenous issues. In Banjar meetings, the head of the family speaks on behalf of the entire family after internal discussions. Decision-making practices are evolving with technology, such as the use of voting for meetings. Adat is based on Ngayah, referring to voluntary community service, with roles like Klian (Leader of Banjar Adat) being unpaid but chosen by the community.

Sekehe

Sekehe refers to community groups in Banjar, consisting of people with shared visions, hobbies, or inclinations. These groups can be based on profession, position, or age group, such as Sekehe Teruna Teruni for youth organizations and Sekehe Pesantian for those involved in singing. There are many organizations within Banjar, including women groups and family groups, which help strengthen familial bonds.

Youth

Youth in Bali become actively involved in community activities, such as temple ceremonies or Banjar events, once they are old enough. They assist in significant events like weddings by visiting newlyweds' homes to offer congratulations and support, as part of Sekehe Teruna-Teruni activities. Youth organizations, like Sabha Yowana, oversee activities such as making ogoh-ogoh (statues built for the parade on the eve of Nyepi day in Bali) and participating in arts and decorations in villages.

5.2.4 Conclusion

This chapter addressed the sub-question: **What are the key Balinese cultures around sharing in order to support a circular community?** Through a semi-structured interviews, the study identified and analyzed key cultural practices within the Adat framework that promote sharing and support communal cooperation.

Ngayah emerged as a fundamental practice, reinforcing the culture of sharing and collective responsibility through voluntary community service. **Tri Hita Karana** integrates spiritual, social, and environmental aspects, promoting sustainability and communal harmony. The **Banjar Structure** serves as the cornerstone of Balinese communal life, facilitating regular interactions and sharing opportunities, although it also highlights the balance between genuine sharing and social obligation.

In short, the key Balinese cultures that support a circular community are centered around voluntary service, holistic sustainability practices, and strong communal structures. These findings will inform the next research phase by providing a detailed understanding of cultural practices that can be leveraged to design and implement intervention aimed at enhancing sharing behaviors and promoting sustainability within the community. This foundational knowledge will guide the development of targeted strategies and policies to foster circular communities both within Bali and in broader contexts.

6. Data Reporting & Analysis

This chapter addresses the sub-question: **What are community values within the Balinese context that can motivate sharing to support a circular community?** Through a detailed thematic analysis, I aim to uncover the underlying community values that drive sharing practices, which are essential for fostering circular communities.

The goal of this chapter is to identify and analyse the key community values that motivate sharing within the Balinese community, thereby supporting the development of circular communities. By the end of this chapter, I aim to have a comprehensive understanding of **the community values that drive sharing behaviours**, providing a foundation for targeted intervention and strategies to enhance these practices. This chapter is structured into two main sections: the Data Collection Process, which provides a concise overview to set the context for the analysis, and Thematic Analysis, which delves into the analysis of the collected data, categorized into key themes. Each theme is examined to understand its role and impact on sharing motivation, focusing on top community values such as Adat, Harmony, Justice & Equity, Solidarity, and Responsibility, revealing how these elements collectively drive sharing behaviors within the Balinese community. By systematically addressing these themes, this chapter aims to provide a comprehensive understanding of the community values that motivate sharing within the Balinese context, thereby supporting the development of circular communities.

6.1 Thematic Analysis

As discussed in conceptual framework, the research methods involved transcriptions from interviews and workshop coded using Atlas.ti (see Figure 10 Coding process example). The coding process was iterative, starting with the free identification of insights, followed by categorization into key values of Sharing, Community, and Adat (Traditional Custom). The Code Grouping can be seen in Table 4.

The second rounds identified well-being aspects contributing to the Sharing Motivation framework, as well as forms of information and object sharing. Similar codes were merged, and consistency was ensured across all documents.

In this chapter we want to answer **What are community values within the Balinese context that can motivate sharing to support a circular community?**

To determine the factors and its portion of contribution, a co-occurrence analysis are held on the quantity of co-

occurrence of the Sharing Values and Community Values. Only 50% of the total amount of co-occurred codes will be deemed important and contribute to the Sharing Motivation Cycle. The full list can be accessed in appendix 1.1 and a Sankey chart on how the codes co-

Table 4 Final Code Grouping and Categorization

| Code Groups | Code Categories | Codes | |
|------------------|--------------------|----------------|--|
| Circularity | ● Circularity | | |
| Community Values | ● Adat | | |
| | ● Harmony | | |
| | ● Justice & Equity | | |
| | ● Responsibility | | |
| | ● Solidarity | | |
| Sharing Values | ● Info Sharing | | |
| | ● Object Sharing | | |
| | Well-being Aspects | ● Altruism | |
| | | ● Attachment | |
| | | ● Compassion | |
| | | ● Contribution | |
| | | ● Empathy | |
| | | ● Engagement | |
| | | ● Gratitude | |
| | | ● Pleasure | |
| ● Trust | | | |

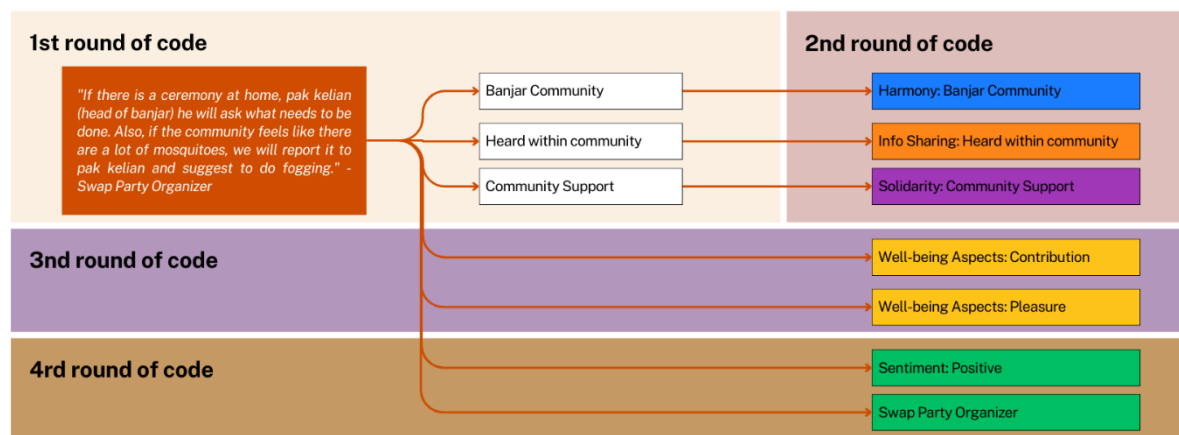


Figure 21 Coding process example

occurred is presented in Figure 22. This 50% of contributing factors are: 1. ● Adat: Adat, 2. ● Harmony: Non-Banjar Communities, 3. ● Harmony: Banjar community, 4. ● Justice & Equity: Power to change, 5. ● Adat: Ngayah, 6. ● Justice & Equity: Equal distribution of Resources, 7. ● Solidarity: Community Support, 8. ● Solidarity: Solidarity, 9. ● Harmony: Conformity, 10. ● Responsibility: Economic Factors, 11. ● Adat: Banjar Structure, 12. ● Harmony: Sense of Belonging&/Ownership, 13. ● Justice & Equity: Social Pressure.

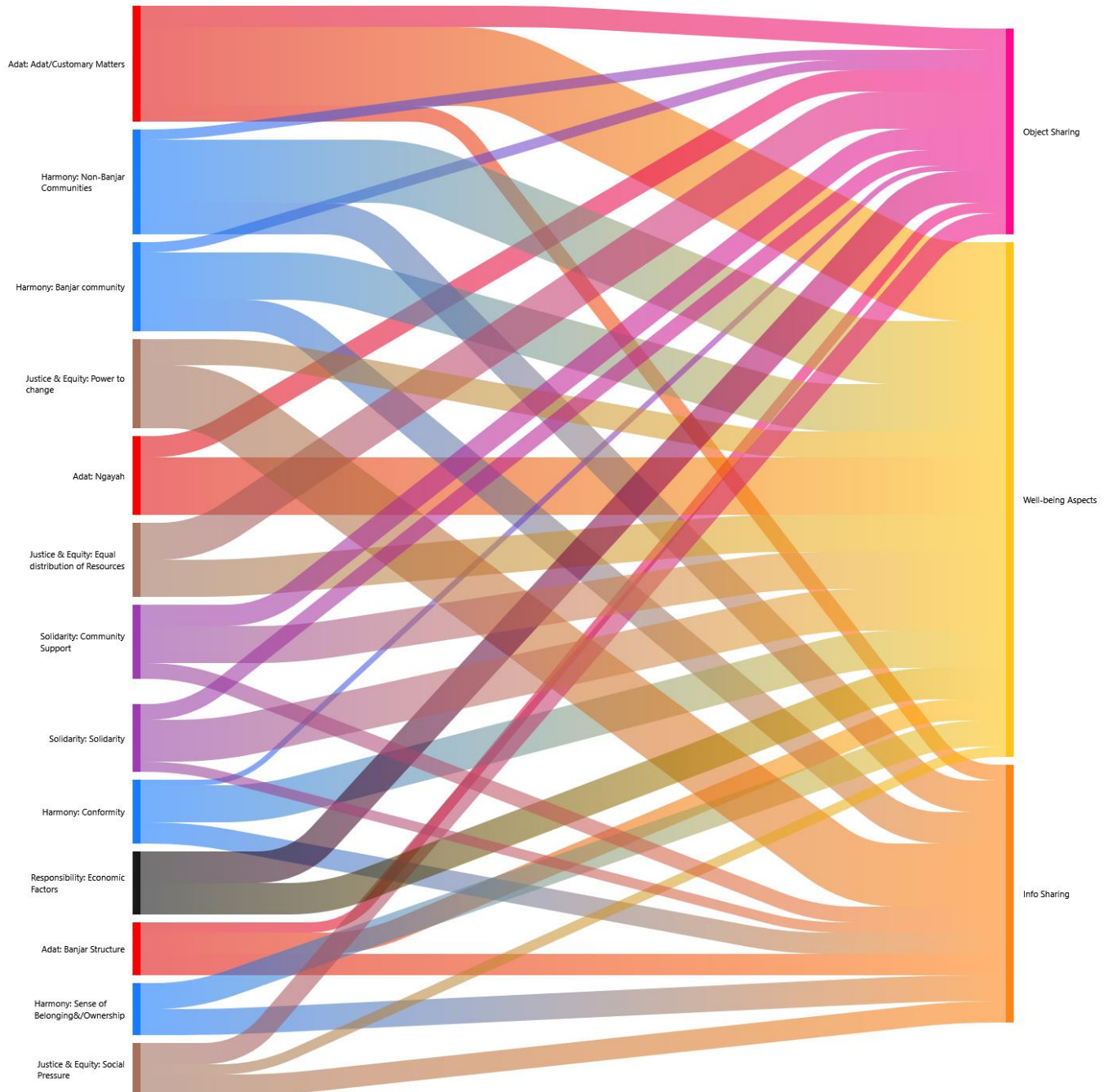


Figure 22 Co-occurrence between Sharing aspects code categories vs Top 50% of Co-Occurred Community aspects codes, sorted from largest to smallest.

6.2 Result

The primary objective of this section is to identify which community codes have individual relationships with sharing codes and to determine the specific sharing codes that correspond to each community code. This analysis is crucial for understanding the distinct cultural, social, and economic factors within Balinese communities that drive sharing behaviors. By mapping these relationships, we can uncover key insights into how community values and practices influence sharing, thereby supporting the development of circular communities.

A deep dive into each of these top community codes and their co-occurrence with sharing codes results in a network analysis where the relationships between the codes are determined. The method to determine the relationship between the top community codes and sharing codes is by comparing their number of co-occurrences across the whole codes:

Table 5 Top Community Codes vs Sharing Codes

| Sharing Codes | Top Community Codes | | | | | | | | | | | | |
|--|---------------------|-----------------------------------|-----------------------------|-------------------------------------|----------------|---|---------------------------------|--------------------------|-----------------------|------------------------------------|--------------------------|--|-------------------------------------|
| | ● Adat: Adat | ● Harmony: Non-Banjar Communities | ● Harmony: Banjar community | ● Justice & Equity: Power to change | ● Adat: Ngayah | ● Justice & Equity: Equal distribution of Resources | ● Solidarity: Community Support | ● Solidarity: Solidarity | ● Harmony: Conformity | ● Responsibility: Economic Factors | ● Adat: Banjar Structure | ● Harmony: Sense of Belonging&/Ownership | ● Justice & Equity: Social Pressure |
| ● Info Sharing | 3 | 6 | 6 | 12 | 0 | 0 | 3 | 2 | 4 | 0 | 4 | 5 | 4 |
| ● Info Sharing: Heard within community | 0 | 5 | 3 | 8 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| ● Info Sharing: Voicing ideas and concerns | 1 | 4 | 4 | 10 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 2 | 0 |
| ● Object Sharing | 4 | 2 | 2 | 0 | 4 | 7 | 4 | 3 | 1 | 6 | 2 | 0 | 4 |
| ● Well-being Aspects: Contribution | 4 | 3 | 2 | 2 | 4 | 2 | 4 | 2 | 1 | 3 | 1 | 0 | 0 |
| ● Well-being Aspects: Compassion | 5 | 2 | 3 | 0 | 5 | 2 | 1 | 4 | 0 | 0 | 1 | 0 | 0 |
| ● Well-being Aspects: Attachment | 7 | 0 | 4 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 4 | 1 |
| ● Well-being Aspects: Pleasure | 3 | 3 | 3 | 1 | 2 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| ● Well-being Aspects: Trust | 2 | 3 | 0 | 2 | 0 | 0 | 2 | 3 | 2 | 2 | 0 | 0 | 1 |
| ● Well-being Aspects: Engagement | 0 | 4 | 0 | 4 | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 1 | 1 |
| ● Well-being Aspects: Altruism | 0 | 3 | 0 | 1 | 1 | 3 | 1 | 2 | 2 | 1 | 0 | 0 | 0 |
| ● Well-being Aspects: Empathy | 0 | 0 | 1 | 0 | 2 | 2 | 1 | 2 | 0 | 0 | 2 | 0 | 0 |
| ● Well-being Aspects: Gratitude | 1 | 1 | 1 | 0 | 2 | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 0 |

The table above lists the community codes and their corresponding sharing codes based on their co-occurrence frequencies. The co-occurrence range is from 0 to 12, and thresholds of 4 and 8 are set to categorize the relationships as mildly related (4-8) or highly related (above 8).

The following analysis will examine each community code and its associated sharing codes to understand the nature of these relationships. Only those community codes that meet the threshold criteria are included in this detailed analysis.

6.2.1 Adat

Adat is related to **Well-being Aspects: Attachment**, **Well-being Aspects: Compassion**, **Well-being Aspects: Contribution** and **Object Sharing** (See Figure 23).

Well-being Aspects: Attachment

Adat is the one attached everyone together. The quotations that co-occurred between "Adat" and "Attachment" emphasize the pivotal role of "Adat" in fostering a strong sense of attachment and community in Balinese society. Traditional beliefs and customs are deeply

trusted. The Banjar system illustrates how community support during ceremonies highlights strong family ties, compassion, and trust, reinforcing attachment. Even as some traditions evolve, communal activities like ngayah persist, maintaining a sense of belonging and responsibility. The culture of sharing, ingrained from childhood, strengthens bonds among community members. Maintaining agricultural traditions and family rituals further connects individuals to their cultural heritage, reinforcing local wisdom. Despite some fading traditions, adherence to customary rules during significant events ensures that sharing and reciprocity continue to bind the community, fostering a deep sense of attachment and collective well-being. As the Village Head of Bengkel notes, "In Bali, what the community trusts more than the village head is Adat. And based on this, this community runs," encapsulating the centrality of traditional customs in the community's cohesion and identity.

Well-being Aspects: Compassion, Well-being Aspects: Contribution

Adat associated a lot with contribution and compassion, as doing it is a to contribute and help each other, as the rituals are designed to be done together, - hence, Ngayah – the voluntary help/service towards each other – is very important part of Adat.

- The Musician indicates even though with a limited engagement as a member of Banjar Dinas, he still participating in customary events such as Ogoh-ogoh (statue) making.
- The Facilitator of Cutleries Rental Service mentions that rituals, such as morning offerings, incorporate a broader perspective that includes contribution, gratitude and sharing with nature.

Object Sharing

In an Adat setting, the concept of object sharing through giving or donating manifests in various ways, reflecting the communal and reciprocal nature of Balinese society. For instance, the Facilitator of Cutleries Rental Service mentions sharing to small creatures like dogs and insects during morning offerings, highlighting a broader goal towards nature and sustainability. This sharing extends to borrowing household items and farming tools among neighbors to meet daily needs, as the same facilitator observes, "This shows how we help each other and fulfil each other's needs despite

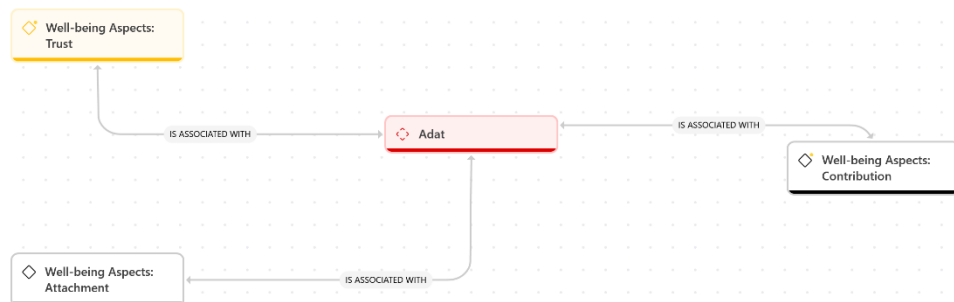


Figure 23 Association of Adat with Sharing values

living in a more urban environment." Similarly, the Banjar Dinas Head of Umadesa discusses voluntary donations for communal activities like making ogoh-ogoh, emphasizing the collective responsibility and adherence to regulations. The Operational Manager of Smile Foundation illustrates the practice of sharing food resources, like rice, among neighbors, even in urban settings. Additionally, the Lecturer in Anthropology describes how remnants from temple ceremonies, known as "lungsuran," are shared with those who cannot attend, embodying empathy and equal resource distribution. Lastly, the Traditional Artist and Banjar Youth Leader explains the concept of "peletasan," a special door for neighbors to borrow items, reinforcing the spirit of mutual aid and community cohesion in Balinese homes. These practices underscore how Adat facilitates a culture of sharing and collective well-being.

6.2.2 Harmony : Banjar vs Non-Banjar Community

Banjar Community is related to Info Sharing: Voicing ideas and concerns and Well-being Aspects: Attachment. While Non-Banjar Communities is related to Info Sharing: Heard within community, Info Sharing: Voicing ideas and concerns, and Well-being Aspects: Engagement (See Figure 24). The Info Sharing aspects are included in detailed because it has high co-occurrence number.

Banjar structure is already introduced in chapter 5.2.3. Here we are analysing more about its relationship with sharing motivation cycle. As both Banjar and Non-Banjar communities occurred with similar number to Sharing codes, I think it will be interesting to compare both communities.

Banjar and Non-Banjar community are not a noun and hence not a derivative of harmony, but since it is mentioned a lot, I decided to include them in the harmony category as it is the most related.

Attachment in Banjar Communities

Even though they have a stronger Attachment to Banjar (a close bond between a baby and a caregiver that allows them to feel connected and secure (Bowlby, 1999)), the young participants who do not yet have a vote or responsibility in Banjar are active in other areas of interest or cause. However, Attachment to Adat and Banjar system are prevalent and community values that are honed in Banjar settings are also brought in communities outside of Banjar.

Engagement in Non-Banjar Communities

On the other side, Engagement are mentioned only outside of Banjar community. Engagement in these contexts is characterized by a shared passion or love for a cause, a degree of uniformity in interests or education, and robust two-way communication that fosters collaboration and mutual support i.e. Banjar Dinas Head of Umadesa focuses on community initiatives aimed at river clean-ups motivated by a love for nature and Lecturer in Anthropology highlights the communicative nature of campus discussions compared to village or Banjar settings and points out that educational level and experience affect engagement, with campuses offering a more uniform level of education and experience, facilitating better communication.

Info sharing: Voicing Ideas & Concern; Banjar vs Non-Banjar Setting

"Voicing ideas and concerns" focuses on the action of expressing oneself, while "heard within community" emphasizes the community's response to those expressions. Voicing is an individual act that can spark change, whereas being heard is a collective acknowledgment that validates and amplifies individual voices, facilitating broader change. Voicing ideas is often the initial step in the change process, creating awareness, whereas being heard is a subsequent step where these ideas are acknowledged, leading to potential action and change.

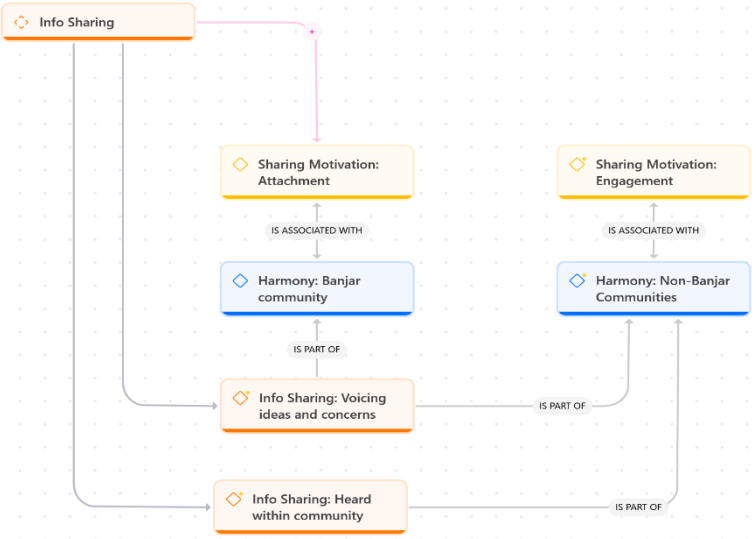


Figure 24 Banjar vs Non-Banjar Context

platforms like social media, which allows for broader and more flexible engagement. For instance, the Archeologist and Cultural Activist mentions, "I'm more active on our initiative in Instagram with two other people... Our activities there are more informal, such as sharing content related to anthropology and history." This flexibility allows for a wider range of topics and a more inclusive approach to discussions, as the Operational Manager of Smile Foundation highlights: "In the foundation, the organization has two-way communication, there is also feedback from the foundation (to me)."

Voicing ideas in Banjar communities and non-Banjar communities marked by differences in structure, inclusivity, and cultural integration. In Banjar communities, discussions and decision-making are deeply rooted in tradition and hierarchical structures. As the Banjar Dinas Head of Umadesa explains, community meetings often address shared concerns and problems, fostering a collective approach to governance: "When we talk about everyday problems that exist in society, their main function is to share ideas, concerns and discuss together." Additionally, Banjar meetings are integral to maintaining harmony and social cohesion.

In contrast, non-Banjar communities exhibit a more fluid and informal structure for voicing ideas. Here, communication is often facilitated through modern

Moreover, non-Banjar communities tend to emphasize individual initiatives and personal contributions, often linked to specific interests or projects, rather than the communal obligations seen in Banjar settings. The Swap Party Organizer for Tricycle underscores this by explaining how their events promote mutual cooperation and individual contributions: "The mutual cooperation from this swap party is more about spreading information from each participant..."

Info sharing: Heard within Community; Banjar vs Non-Banjar Setting

On the other side, Non-Banjar settings facilitate a more prevalent sense of being Heard within Community compared to Banjar settings due to their informal, inclusive, and flexible communication structures. Modern platforms and a focus on youth and altruism further enhance this environment, making individuals feel more acknowledged and engaged. In contrast, the hierarchical and formal nature of Banjar communities can limit the immediacy and inclusivity of voicing ideas, leading to a more selective listening process.

The Archeologist and Cultural Activist mentioned that the use of modern platforms allows for a wider and more immediate reach, making interactions more inclusive. This inclusivity enhances the sense of community and being heard, as more voices can be engaged quickly and easily. And the Swap Party Organizer for Tricycle discuss about young people, who otherwise don't have a voice in Banjar setting, but in the swap party community are seen as future change-makers, and their ideas are actively sought and implemented, creating a strong sense of being heard and valued in the community. "Why were the students the focus at the beginning? Because we feel that students are like pioneers, because their future is still long and the future change makers are students. And sometimes if we look at behavioral habits in the fashion world, one of the biggest consumers in the fashion industry is young people. Well, we want to provide alternative solutions so that they don't get used to a consumptive culture and start becoming wise consumers. Who really think first before buying things. If there is a swap option, why don't we just swap it, instead of buying." – the swap party organizer.

The section concludes that while Banjar communities prioritize structured, traditional methods that emphasize collective well-being and cultural adherence, non-Banjar communities embrace more fluid and individualistic approaches for greater inclusivity and engagement. Both settings demonstrate a strong motivation to share and support one another, but they do so through different mechanisms shaped by their unique community structures and cultural contexts.

6.2.3 Justice & Equity: Power to change

Justice & Equity: Power to change is related to Info Sharing: Voicing ideas and concerns, Info Sharing: Heard within community, and Well-being Aspects: Engagement (see Figure 25).

Voicing Ideas and Concerns

When individuals voice their ideas and concerns, they contribute to a culture of openness and dialogue. This expression is a key factor in driving change because it brings issues to the forefront, making them visible and acknowledged. Musician, Graphic Designer, and Environmental Activist: *"With friends (instead of with Banjar community), we feel that we can interact, we can vent."*

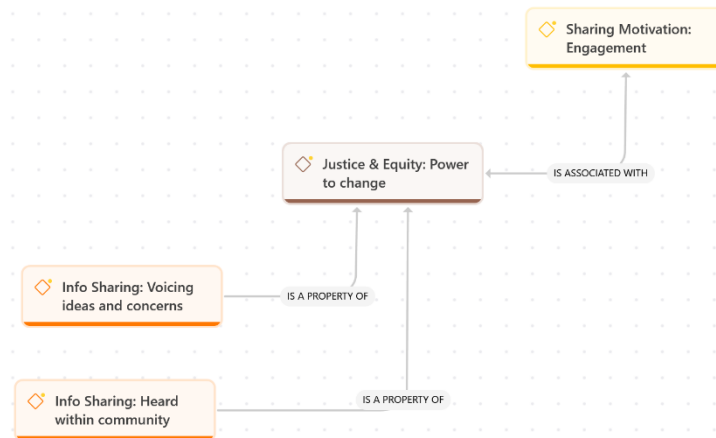


Figure 25 Power to Change vs Sharing Values

Voicing concerns often acts as an initial step in advocacy and campaigning for change. It provides a platform for individuals to highlight problems and propose solutions, potentially influencing decisions and actions within the community. Village Head of Bengkel: *"People say you need social media to make something viral. I just need 1 person who likes to gossip. But instead I can utilize it. For example, for covid. I raised the problem deliberately. I post on social media, Facebook and WhatsApp status. A survey states that he is not afraid of covid. He doesn't believe the survey results shared on social media. Well, I set traps on WhatsApp, WhatsApp groups, on Facebook I post about this issue, then people become curious and join the special WhatsApp group that I created. So that I can easily provide focused education in this group."*

Heard Within Community

When voices are heard, it fosters a collective approach to decision-making. It ensures that diverse perspectives are included, increasing the likelihood of equitable and effective change. Facilitator of Cutleries Rental Service: *"In the family, if there is a discussion, what is currently trending, the rules must still be followed. Younger children and those who are older have different influences, depending on the hierarchy and education in the family. However after some time, the elder can also heard the younger voices"*

The Village Head of Bengkel share that more access to being heard lead to a change; *"Fortunately, my parents are coming from two Banjar, so I have communication with 2 Banjar. That's what helped me become Village Head."*

Taking insights from the previous chapter on non-Banjar communities and examining how voicing ideas and concerns, as well as being heard within the community, shape the power to change, we can conclude that the power to change, particularly for youth, is more prevalent in non-Banjar settings.

6.2.4 Adat: Ngayah

Adat: Ngayah is related to Well-being Aspects: Compassion, Well-being Aspects: Contribution, and Object Sharing (see Figure 26).

Compassion

Compassion is defined as a caring attitude and willingness to help others who are suffering. This is reflected in the communal support systems. Additionally, the act of neighbors coming together to help each other build houses or lend equipment like tractors and cows demonstrates a compassionate attitude towards alleviating each other's burdens. As a Lecturer in Anthropology observed, *"If someone wants to build a house, they need sand... The neighbors used to come to help. The payment, in quotes, the payment is just a thank you. Sometimes just tea and snacks were enough."*

Contribution

Ngayah also deeply impacts the feeling of **contribution** by promoting community involvement, resource sharing, and the practice of non-monetary contributions, thereby fostering a sense of collective responsibility and fulfillment among participants.

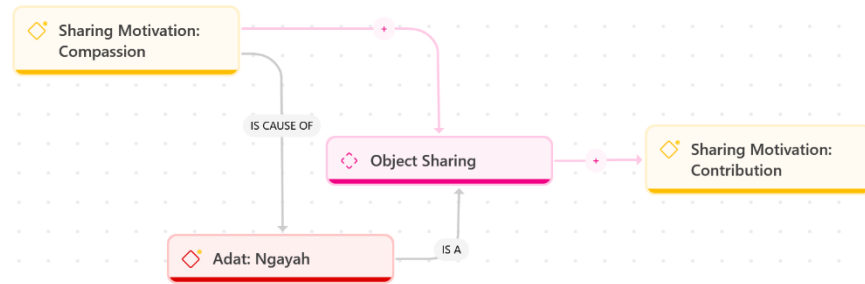


Figure 26 Ngayah vs Sharing Values

The practice of ngayah emphasizes utilizing existing resources and seeking sponsorship from other communities to support their activities. This approach highlights the collective effort and shared responsibility in providing and managing resources, thus reinforcing a sense of contribution. As noted by Swap Party Organizer for Tricycle, *"We are still looking for sponsorship in the form of cash or non-cash... Then hold an event that can provide sharing value. Don't just look at the consumptive culture, but what can we give for a positive impact."*

Ngayah nurtures a culture of non-monetary contributions and collective values. Individuals often contribute their time, skills, and resources without expecting monetary compensation, which strengthens their sense of contribution and communal solidarity. This is evident in the experiences shared by participants in the workshop discussion, where services like speaking or massage are offered without fixed rates, relying on the community's appreciation and support instead. For instance, the Editor in Chief of Bale Bengong mentions, *"There are many who give me a good fee as a speaker, but there are also those who don't pay me. I don't mind... The masseuse near my house never asks for rates, but people already set rates for her. People already have collective value."*

Object sharing

Ngayah is a form of **Object Sharing**. Discussions in the workshop emphasize that Ngayah is basically a barter of service. Notice the barter; that means, reciprocity is expected. It includes activities like helping with harvests in exchange for rice or other goods, embodying a reciprocal system that fosters community bonds. The practice is voluntary, often driven by noble intentions and cultural values.

The Archelogist : But Ngayah is actually a Barter.

The Anthropologist : That's our service barter.

The Anthropologist : Ngayah, the rich culture of bartering helping each other is also like for example the culture when we help with the harvest and given rice later.

The cutlery renter : It's like profit sharing? But voluntary.

Group : Voluntary. Yadnya, cultivating noble intentions, divine values. So the reciprocal is with God. Hahaha.

The Architect : It's a bit of a delicate subject.

6.2.5 Justice & Equity: Equal distribution of Resources

Justice & Equity: Equal distribution of Resources is related to Object Sharing (see Figure 27).

Object Sharing

Across different contexts, object sharing facilitates equitable access to resources, ensuring that even those with minimal means can benefit from community resources. For instance, the sharing economy in villages involves land and property sharing with community-managed rental systems, such as "if there is an empty house on the main road of the village that is not being used, the owner's account will be rented out by the village even though it is private property." Similarly, the Smile Foundation's model allows for the reuse of second-hand goods, "so that people who even have minimal money can also give."

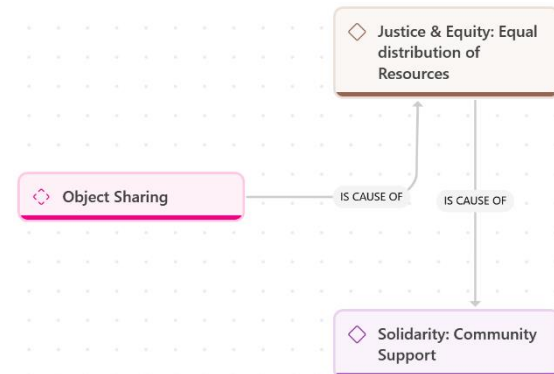


Figure 27 Equal distribution of Resources vs Sharing Values

The quotations also reveal the relationships between economic factors, object sharing, equal distribution of resources, and community support (Figure 28).

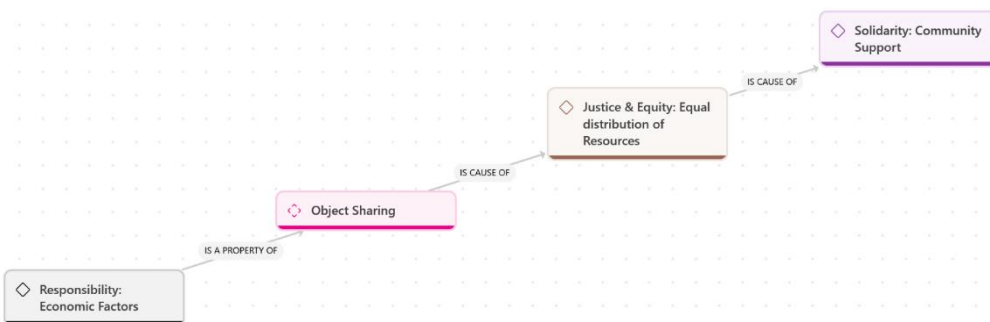


Figure 28 Relations between Economic Factors, Object Sharing, Equal Distribution of Resources and Community Support

Profit motives can undermine sharing values, risking injustice. Fair trade reconciles profitability with fairness, ensuring equitable resource distribution. Discussions advocate for a collective economy to reduce inequalities, emphasizing inclusivity. Community support and object sharing strengthen bonds, ensuring resources reach all societal segments. Overall, these elements collectively foster a fair and sustainable economic system.

6.2.6 Solidarity: Community Support

Solidarity: Community Support is related to Well-being Aspects: Contribution and Object Sharing (Figure 29).

Well-being Aspects: Contribution

The well-being aspect of contribution is illustrated through various communal activities. For example, one quote mentions women cooking together in groups, sharing cooking utensils available in the Banjar to save costs: "The women cook together, so they make groups. For example, there are three groups and each group needs cooking utensils and stoves. Well, this cooking utensil is available in Banjar. They can borrow cheaply, for example Rp1,000 per day. And the facilities are all complete (-ly available)." This practice exemplifies how communal efforts and shared resources contribute to individual and collective well-being, reducing financial burdens and fostering a sense of communal support.



Figure 29 Community Support vs Sharing Values

The harmony within the Banjar community is evident in how community members support each other during ceremonies and events. For instance, the swap party organizer describes the communal help during temple ceremonies: "If I'm at home, every time in Bali every six months there will be a big ceremony for our small temple at home. Well, surely the neighbors at home are already helping. Like giving food, fruit or even helping hand." This

harmony is further reflected in the organized efforts to address common issues, such as mosquito control through community fogging initiatives "Then for example, if the home community feels like there are a lot of mosquitoes, we will report it to the pak kelian, let's fogging it. And then there will be fogging."

Object Sharing

That also means that object sharing is a part of community support, enhancing solidarity and economic responsibility. In the Village of Bengkel, Umadesa Banjar, in the traditional artist's Banjar in Tegallalang, and in the facilitator of rental cutlery's community, most of cooking, event and ritual equipment are owned communally and shared with a low rental fee, fostering efficient resource use and economic savings.

6.2.7 Solidarity: Solidarity

Solidarity: Solidarity is related to Well-being Aspects: Compassion (Figure 30 Compassion and Solidarity).



Figure 30 Compassion and Solidarity

Compassion

Compassion and solidarity are intrinsically linked, with compassion acting as the emotional foundation that drives individuals to support and cooperate with one another, thereby strengthening community bonds. In the context of the Banjar community, compassion is evident as members "help each other, especially during important ceremonies," showcasing how emotional bonds and a culture of caring foster a united and supportive community. This compassionate behavior leads to actions like voluntarily tidying up after events and sharing resources with those in need, reinforcing solidarity through mutual aid and understanding. As the Swap Party Organizer highlights, "it also feels like the Balinese culture where even without being asked, people are immediately quick and help each other," emphasizing how compassion fuels proactive solidarity.

6.2.8 Harmony: Conformity

Harmony: Conformity is related to Info Sharing (Figure 31).

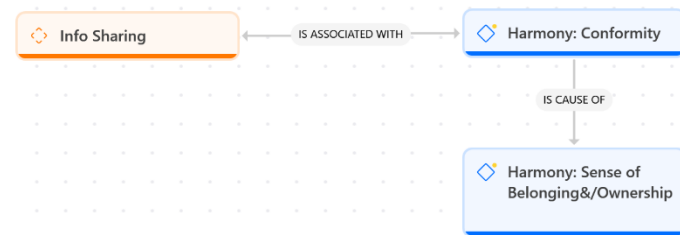


Figure 31 Conformity vs Sharing Values

Info Sharing: Interaction

Interaction is critical in both traditional and organizational settings, as it fosters a sense of belonging and involvement. The Banjar Dinas Head of Umadesa observes that conformity in profession once encouraged daily interactions and mutual support among residents ("the daily interaction is not like it used to be... In the past, when most villagers were farmers, they went to the rice fields in the morning and returned home together as well. The degree of brotherhood and mutual support remained quite high."). However, these contacts have declined over time owing to demographic and lifestyle changes.

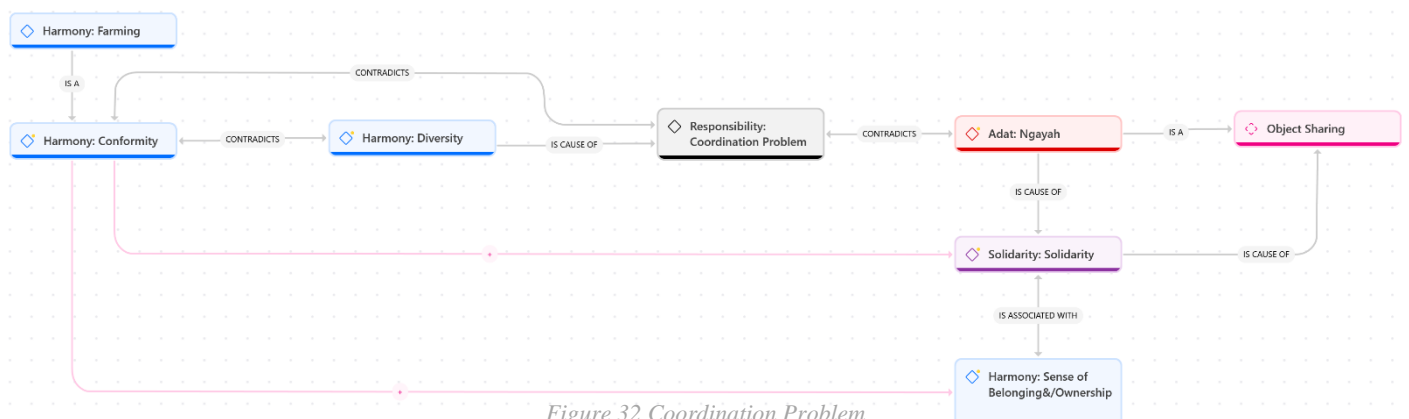


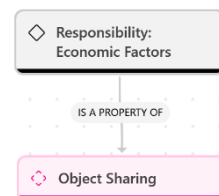
Figure 32 Coordination Problem

Coordination Problem

To be fair, conformity doesn't necessarily equate to a "sharing" motivation; rather, it's the contradiction of it, that is diversity of people's schedule that creates coordination problems that hinder Ngayah, a formula for solidarity and sharing (Figure 32). As the Banjard Dinas Head of Umadesa mentioned, *"But now, with everyone's busy - many are civil servants or police officers - the opportunity to meet is rare, let alone to borrow things. People are busy with their own work, making it difficult to share with each other as they used to. In fact, communication often occurs only when meeting by chance at a stall or during certain events."*

6.2.9 Responsibility: Economic Factors

Responsibility: Economic Factors is related to Object Sharing (Figure 33).



Economic factors have a significant impact on object sharing. Tourism effect drives economic growth in Bali, resulting in increased affordability and job diversification.

Figure 33 Economic Factors vs Object Sharing

People can now choose to purchase their portion of the offerings or partake in the rituals. Improved economic conditions also put pressure on society to meet certain standards. Within the pressure, even if you cannot afford anything, a more expensive Banten (offerings) or the perception of being able to pay rather than making your offering is seen as more valuable. That implies they are exempt from having to share services with others, a practice known as Ngayah. Which is a form of Object Sharing. This dynamic is evident in several quotations from community members.

The Archaeologist and Cultural Activist elaborates on how economic development driven by tourism has shifted cultural practices from communal sharing to a more individualistic approach, with a hint of social pressure: *"Balinese culture has undergone many changes, especially due to the influence of the tourism culture which now tends to be more commercial than based on local cultural heritage. In the past, everyone in Bali was open to sharing because the economy was not as developed as it is now. This is also reflected in my family's stories about how houses in Bali were not surrounded by high walls and narrow streets like they are now, which certainly reduced social interaction. In the past, people were not ashamed to ask for help during the day because it was considered normal. But now, with economic development, everything has changed. Now people feel like they have to be able to afford it and are ashamed to ask for it."*

Furthermore, the Facilitator of Cutleries Rental Service provides insight into how economic changes have influenced traditional practices of making offerings together (Homemade): *"Now, many things have changed, such as the use of plastic, which is now banned in some contexts for environmental reasons. 10 years ago, my family's offerings were home-made; no packaging was allowed; everything had to be made by ourselves; no buying. But because people in the city were buying, they brought this habit to the village. So the village followed suit."*

These quotations collectively illustrate how economic improvements driven by tourism have altered cultural practices, leading to reduced communal sharing and increased individual responsibility to meet economic standards.

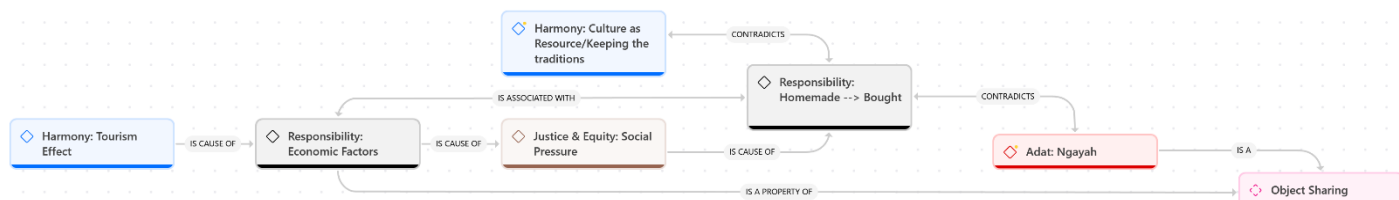


Figure 34 Relationship around Economic Factors

From sentiment point of view, the Economic Factors on Object Sharing term is more regarded as negative than positive. Negative sentiments on economic factors in sharing often highlight issues of social pressure, economic inequality, consumerism, and the challenges of keeping the traditional practices amidst modern economic pressures. The quote reflects how societal pressures and economic ambitions can drive consumerism, leading individuals to prioritize material possessions over more sustainable and community-oriented values. In short, in Balinese context the Economic

Factors is at least a property of Object Sharing and Contribution, if not contradict in term of social pressure and consumerism.

Assessment of Intervention – Barter Market

The barter market model has significant economic implications that contribute to societal well-being and sustainability. One of the primary benefits is the cost savings it offers participants. By allowing individuals to exchange goods and services without monetary transactions, the barter market reduces financial burdens, especially for those with limited resources. This system promotes the circulation of resources within the community, strengthening local economies and reducing dependency on external markets.

Furthermore, the barter market promotes economic equality and social inclusion by providing access to essential goods and services without the need for money. It also empowers marginalized groups, enabling them to participate actively in the community economy, which fosters social cohesion and a sense of belonging.

Community building and economic stability are other significant contributions of the barter market. By encouraging the exchange of goods and services, the barter system strengthens social ties and builds a resilient community network. It should also demote social pressure and consumerism by promoting humble reuse and only consume what we need. This mutual support and cooperation are vital for the economic stability of the community, diversifying income sources and reducing reliance on cash-based transactions. In times of economic downturns or crises, the barter system provides a safety net for community members, enhancing their economic security.

On the other hand, challenges also arise in term of economic factors. As mentioned on the workshop, the barter market can competes with conventional businesses, which may view it as a threat to their economic interests. However, barter is a complex system and won't scale as quickly, but it can find its way by educating the community to become more mindful consumers. Conventional businesses won't be suddenly left out; however, they might learn to provide better products (in terms of circularity to society and the environment) to more educated and mindful consumers. This education process can also influence policymakers to create a better market and products for society. This shift can lead to a more resilient and sustainable economy.

Since there is no monetary standard for measurement, it is hard to value things in a barter system. Simpler and more uniform goods, such as clothes and books, might be easier to compare values. The barter market can start with these easier types to learn how valuation takes place and then scale to other types when there is more knowledge and learning about operating the barter system.

6.2.10 Adat: Banjar Structure

Banjar Structure come up in relation with its association with Information Sharing, especially in decision-making (Figure 35).

In the Banjar structure, information sharing such as meeting and collective decision making is an essential aspect of community governance and interaction, deeply rooted in traditional practices and regulations. Through these mechanisms, the Banjar structure ensures effective information sharing, democratic decision-making, and active community participation, maintaining the balance between tradition and regulation.

When discussing the possibility of borrowing and reusing equipment for Banten (offerings) in the workshop, one interesting quote explains how the Banjar Structure, as the main structure of hierarchy in Balinese society, can contribute more to progressive change: *“Actually, they can justify it, (that) we care about the environment. For example, if the priest have the courage to talk about Banten and some materials and equipment can be reused, that will be good. There must be support from them (for people to follow). So there is no need to hide it.”* – the editor-in-chief of Bale Bengong.

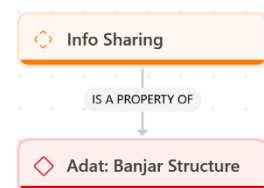


Figure 35 Banjar Structure and Info Sharing

6.2.11 Harmony: Sense of Belonging&/Ownership

Harmony: Sense of Belonging&/Ownership is already included in the original Sharing Motivation cycle, with positive effect from Attachment and to Engagement. In Balinese context, it related also to Information Sharing (Figure 36).

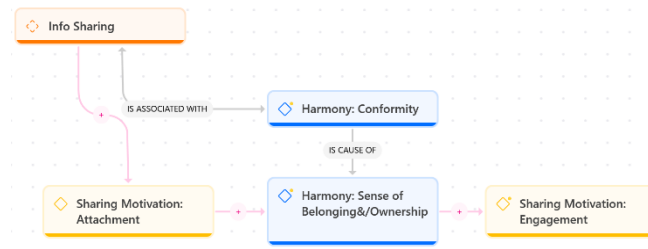


Figure 36 Sense of Belonging and Sharing Values

Information Sharing

Whether through positive interactions and the voicing of concerns or through navigating the complexities of social conformity and diversity, information sharing is a key component of maintaining and enhancing communal ties.

The Traditional Artist and Banjar Youth Leader reflects on the need for community and how physical distance affects the sense of belonging. While studying in Denpasar, the capital of Bali, the need of community felt stronger due to being an outsiders, highlighting the importance of shared interactions for reinforcing belonging: *"When I was in Denpasar, I realized that I wanted to join a community... But when I was at home, it became my second priority. It felt unimportant and unnecessary. But when I'm outside, I miss it."*

6.2.12 Justice & Equity: Social Pressure

Justice & Equity: Social Pressure is related to Info Sharing and Object Sharing (Figure 37).

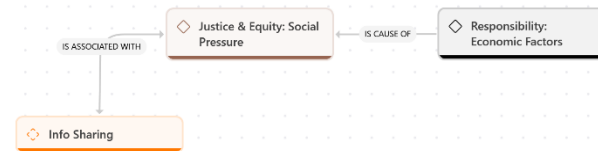


Figure 37 Social Pressure and Sharing Values

Information Sharing

Quotations between Social Pressure and Information Sharing highlight their connection. Gossip reinforces social pressure, influencing community dynamics. The Musician, Graphic Designer, and Environmental Activist notes habitual social behaviors act as a social caste. Non-conformity leads to exclusion, emphasizing social pressure: *"If you don't do this then you're not part of this group."*

The Banjar Dinas Head of Umadesa points out that a lack of communication causes social pressure and embarrassment, making individuals hesitant to borrow from neighbors: *"Currently, the lack of communication and interaction in meetings makes them feel embarrassed when they have to borrow something from a neighbor."* In a workshop, participants discuss information sharing's dual nature in a barter market. While beneficial, it can turn into gossip, reinforcing social pressure: *"It's in the culture, right?... 'julid' culture. Gossiping. Wasting time, It's time-consuming...The dissemination of information that depends on the topic."*

These discussions show that information sharing can promote belonging but also lead to gossip, strengthening social pressure. This dynamic underscores the need to balance its positive and negative effects on social cohesion.

Object Sharing

Quotations reveal a complex relationship between object sharing, social pressure, aesthetics, and economic factors like commercialism and consumerism, influencing community behaviors and attitudes. The Banjar Dinas Head of Umadesa notes that using second-hand items often brings embarrassment due to social pressure. Despite the economic benefits, the community prefers new items, driven by consumerism: *"The lack of communication and interaction in meetings makes them feel embarrassed when they have to borrow something from a neighbor."* In the workshop, participants express concerns about the overemphasis on aesthetics over cultural meaning. This pressure leads to excessive consumerism and a loss of traditional values. The concept of *"beautiful banten without meaning"* shows how social pressure to meet aesthetic standards drives consumer behavior and commercialism, detaching

objects from their cultural significance. These discussions illustrate that social pressure impacts object sharing, particularly regarding aesthetics and economic factors. Traditional practices emphasize utility and cultural meaning, while modern consumer behavior prioritizes aesthetics and newness, creating tension between preserving cultural values and conforming to contemporary consumer expectations.

Sharing Motivation

Social pressure contradicts genuine relationships, which are essential for object sharing. The Banjar Dinas Head of Umadesa notes that modern social interactions are superficial, leading to reduced communication depth. People communicate only when necessary, lacking the familiarity and trust required for sharing: *"If there is no familiarity, it is difficult for people to share. Because they are shy and reluctant to ask."*

The Traditional Artist and Banjar Youth Leader emphasizes that genuine relationships must precede object sharing. Immediate requests without trust are seen as insincere and transactional: *"You don't just get to know them and ask for this or that. If from the beginning there is already a demand, it is impossible for the relationship to last."*

He illustrates this with his own experience of borrowing a coffee machine, which was facilitated by pre-existing relationships, enabling his business to start smoothly: *"For example, now at home I make a coffee shop, the machine was borrowed from the community for free. Now because of the help of these friends, I am also able to do business smoothly."*

In conclusion, social pressure contradicts the formation of genuine relationships by encouraging superficial, transactional interactions. This undermines the trust needed for object sharing, as people are less likely to share or ask for help without a solid foundation of trust and mutual understanding. Cultivating genuine **relationships** first is essential for facilitating sincere and effective object sharing within the community.

7. Research Contributions

This chapter serves as conclusion for previous chapter, addresses the sub-question: **What are community values within the Balinese context that can motivate sharing to support a circular community?** Through a detailed thematic analysis and examination of results, the chapter identifies and analyzes **key Balinese community values that drive sharing motivation**, which are essential for fostering circular communities. In **6.1 Thematic Analysis**, transcriptions from interviews and workshop were coded using Atlas.ti. The iterative coding process identified key values of Sharing, Community, and Adat, contributing to the Sharing Motivation framework. The analysis determined the relationship between various community values and their role in motivating sharing practices. In **6.2 Results**, the top community codes and their co-occurrence with sharing codes were examined, resulting in a network analysis that determined the relationships between the codes. The method used involved comparing the number of co-occurrences across all codes and setting thresholds to identify significant relationships.

As was discussed in Chapter 2 Conceptual Frameworks, Ho & Yanagisawa (2023) identifies various well-being aspects that motivate sharing behaviors, pictured in this diagram:

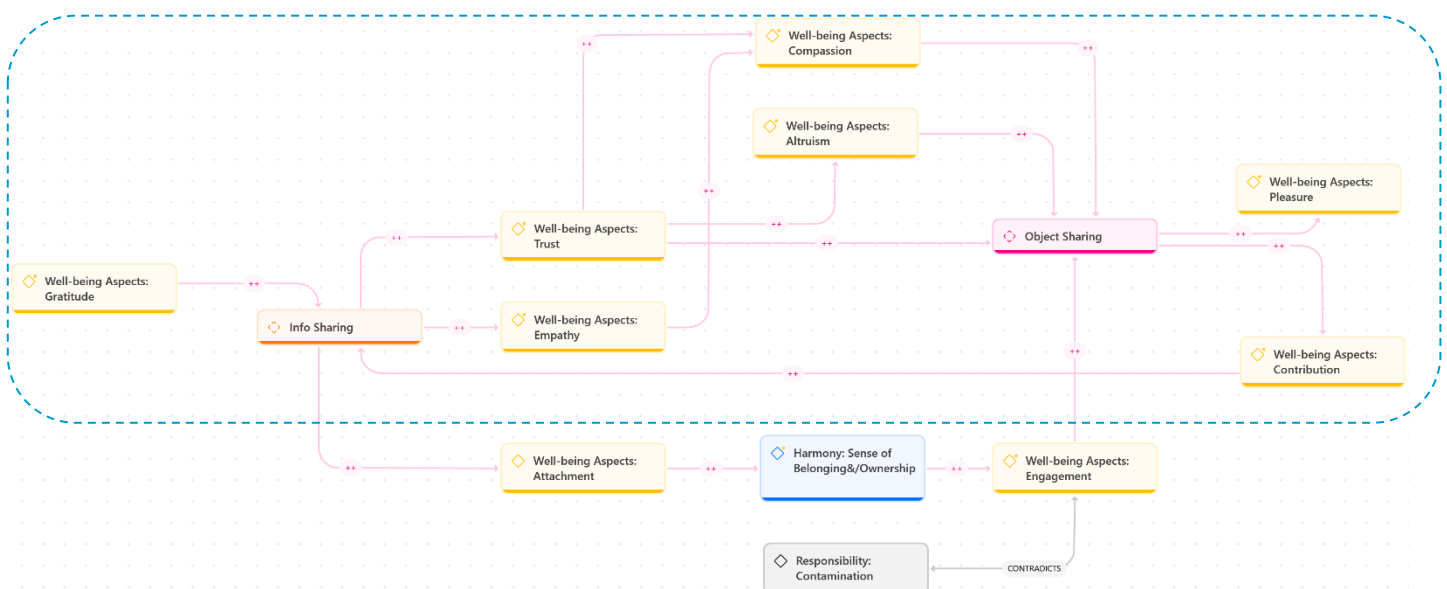


Figure 38 Sharing Motivation Cycle (Ho & Yanagisawa, 2023)

In term of Community, El Buen Vivir was adapted and Harmony, Solidarity, Justice, Respect, Equity, and Responsibility are used as a base to define community values.

The data collection result that there are 13 Balinese community values that are most important to motivate sharing in Balinese circular community. They are: 1. ● Adat: Adat, 2. ● Harmony: Non-Banjar Communities, 3. ● Harmony: Banjar community, 4. ● Justice & Equity: Power to change, 5. ● Adat: Ngayah, 6. ● Justice & Equity: Equal distribution of Resources, 7. ● Solidarity: Community Support, 8. ● Solidarity: Solidarity, 9. ● Harmony: Conformity, 10. ● Responsibility: Economic Factors, 11. ● Adat: Banjar Structure, 12. ● Harmony: Sense of Belonging&/Ownership, 13. ● Justice & Equity: Social Pressure.

The relationship between 13 Balinese Community Values to the Sharing Motivation Cycle of Ho & Yanagisawa (2023) are:

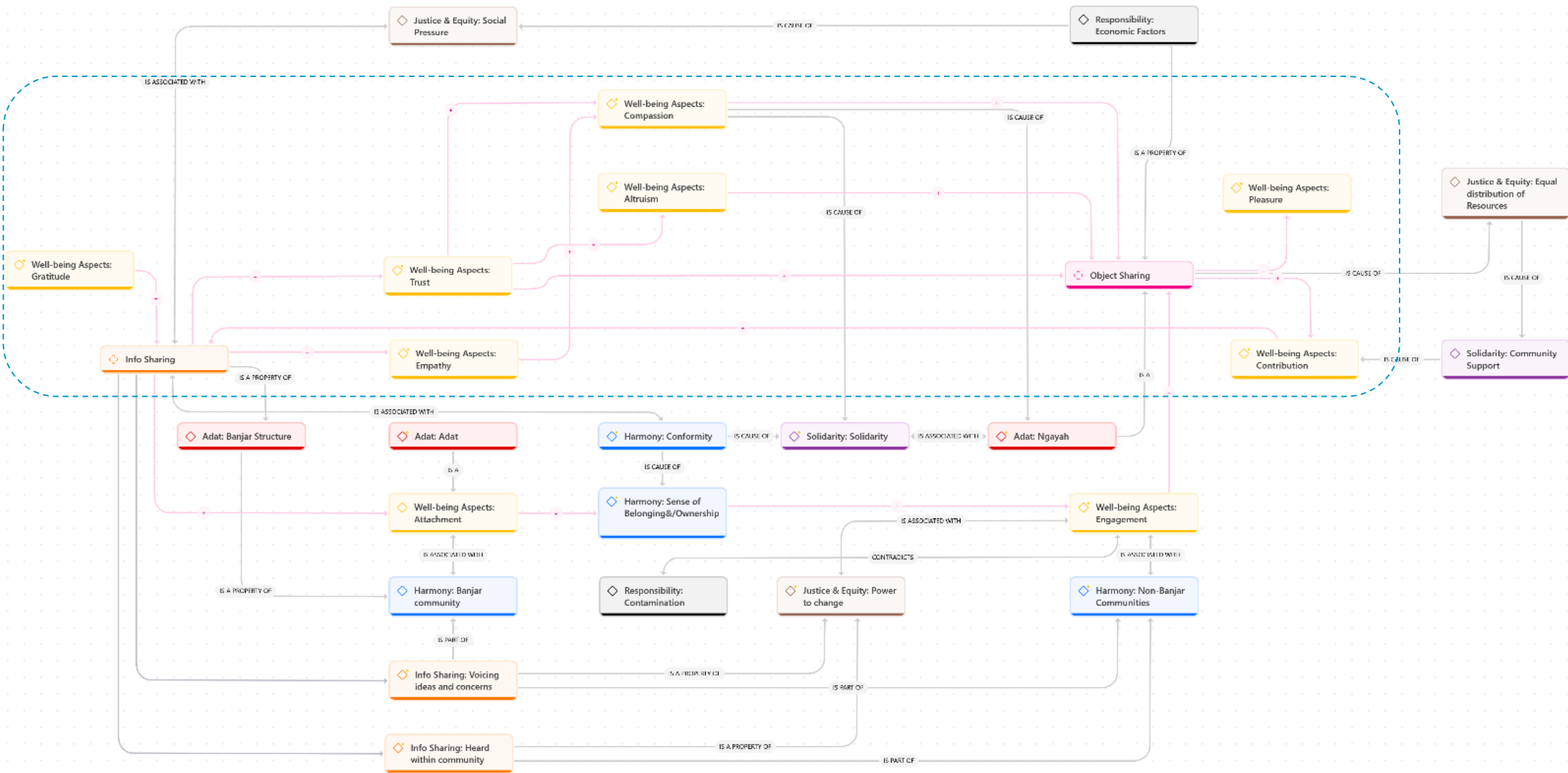


Figure 39 Sharing Motivation cycle within Balinese context

Key findings include that Adat is related to Well-being Aspects: Attachment, Compassion, and Contribution, emphasizing cultural attachment and voluntary service. Harmony is seen differently in Banjar and non-Banjar communities, with the former emphasizing structured, traditional methods and the latter promoting a more fluid and inclusive approach. Justice & Equity highlight the importance of inclusive decision-making processes and equitable resource distribution. Solidarity shows that community support and compassion are intertwined, fostering communal bonds. Responsibility demonstrates that economic factors significantly impact sharing behaviors, and Info Sharing underscores the vital role of communication in fostering sharing practices. These findings highlight the complex relationships between community values and sharing practices, providing a comprehensive understanding that will guide the next phase of research focused on practical applications and intervention. The detailed relationships between the Balinese Community values and Sharing values are below:

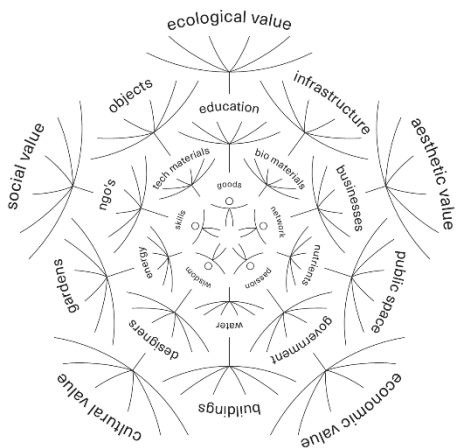
Table 6 Final result of Community Values within the Balinese context that can motivate sharing to support a circular community

| Codes | Relationship | Codes |
|---|--------------------|---|
| ● Adat: Adat | is a | ● Well-being Aspects: Attachment |
| ● Adat: Adat | is associated with | ● Well-being Aspects: Compassion |
| ● Adat: Adat | is associated with | ● Well-being Aspects: Contribution |
| ● Harmony: Banjar community | is associated with | ● Well-being Aspects: Attachment |
| ● Info Sharing: Voicing ideas and concerns | is a part of | ● Harmony: Banjar community |
| ● Harmony: Non-Banjar Communities | is associated with | ● Well-being Aspects: Engagement |
| ● Info Sharing: Voicing ideas and concerns | is a part of | ● Harmony: Non-Banjar Communities |
| ● Info Sharing: Heard within community | is a part of | ● Harmony: Non-Banjar Communities |
| ● Justice & Equity: Power to change | is associated with | ● Well-being Aspects: Engagement |
| ● Info Sharing: Heard within community | is a property of | ● Justice & Equity: Power to change |
| ● Info Sharing: Voicing ideas and concerns | is a property of | ● Justice & Equity: Power to change |
| ● Adat: Ngayah | is a | ● Object Sharing |
| ● Adat: Ngayah | is associated with | ● Well-being Aspects: Contribution |
| ● Well-being Aspects: Compassion | is cause of | ● Adat: Ngayah |
| ● Justice & Equity: Equal distribution of Resources | is cause of | ● Solidarity: Community Support |
| ● Object Sharing: Give/Donate | is cause of | ● Justice & Equity: Equal distribution of Resources |
| ● Solidarity: Community Support | is associated with | ● Well-being Aspects: Contribution |
| ● Solidarity: Solidarity | is cause of | ● Well-being Aspects: Compassion |
| ● Solidarity: Solidarity | is associated with | ● Adat: Ngayah |
| ● Info Sharing | is associated with | ● Harmony: Conformity |
| ● Harmony: Conformity | is cause of | ● Harmony: Sense of Belonging&/Ownership |
| ● Responsibility: Economic Factors | is a property of | ● Object Sharing |
| ● Info Sharing | is a property of | ● Adat: Banjar Structure |
| ● Justice & Equity: Social Pressure | is associated with | ● Info Sharing |
| ● Justice & Equity: Social Pressure | contradicts | ● Harmony: Relationship |

The insights gained from this chapter will inform the development of targeted intervention and strategies to enhance sharing practices within Balinese communities. The identified community values will serve as a foundation for developing the pulling, facilitating, and matching strategies in Chapter 10 Recommendations for the Intervention that is founded in the community workshop, reported in Chapter 8.

8. Societal Contributions: Intervention

This chapter addresses the sub-question: How can the Circular Value Flower be used as a design tool to co-create an intervention? Using a community workshop as the primary action research method, I facilitated local community to co-create a practical intervention that enhance sharing behaviors. The workshop, held on May 23, 2024, at Bale Bengong co-working space in Bali, involved participants who were prepped through previous in-depth one on one interviews. The event began with an opening address by the Editor-in-Chief of Bale Bengong and included examples of successful sharing initiatives like Smile Shop’s second-hand shop, Tricycle’s clothing swap party, and Plastikdetox’s Taksu cutlery rental service. Participants were introduced to well-being values from Ho & Yanagisawa's (2023) framework, which were incorporated into the discussions using the Circular Value Flower Framework. This facilitated group discussion uses layers of CVF as seen in Figure 40 below that is transformed into discussion steps. The steps are shared urgencies, values, stakeholders, resources, and intervention ideas, culminating in detailed plans for selected intervention. Each of this steps will be discussed in depth in this chapter. The detailed results can be accessed in Appendix 12.4 Circular Value Flower Workshops.



The structure of this chapter is as follows: First, the **Workshop Results** section presents the findings from the community workshop, divided into several sub-sections. The **Urgency** subsection discusses the immediate needs and pressing issues identified during the workshop that necessitate the intervention. The **Values** subsection explores the core values that underpin the community's approach to sharing and circularity. The **Stakeholders** subsection identifies the key stakeholders involved in the intervention, detailing their roles and contributions. The **Resources** subsection outlines the resources required for the intervention, including material, human, and financial resources. The **Categorizing** subsection organizes the ideas and suggestions from the workshop into coherent categories aligned with established values. Finally, the **Detailed Intervention** subsection provides comprehensive plans for the selected intervention, detailing the steps and strategies for implementation.

Figure 40 CVF is represented by a tiered graphic that begins from the inside-out, with 1) the community's urgencies and ambitions or the System Enablers, then progresses to a layer of 2) participating actors, 3) system resources, 4) Spatial & Digital Elements and a layer of 5) Community values.

By focusing on community involvement and leveraging culturally relevant practices, this chapter aims to develop sustainable and practical intervention that enhance sharing and support circular communities. The envisaged final deliverable is an intervention that can be utilized by community leaders, policymakers, and other stakeholders to foster sustainable circular economies. Additionally, the intervention results from this chapter, combined with findings from Chapter 7 on specific Balinese Community Values that contribute to the sharing motivation cycle, will serve as critical inputs for developing the pulling, facilitating, and matching strategies in Chapter 10, Recommendations for the Intervention.

8.1 Workshop Results

In this section, we delve into the results of the community workshop, where participants engaged in a structured process to identify and discuss intervention to motivate sharing in support of a circular community. During each step of the workshop, participants wrote their answers on post-it notes. These written responses were documented, and their discussions were transcribed. The transcriptions were then mapped to the specific points participants noted on their post-its. Using Atlas.ti, I combined these written results and discussion transcripts to identify community and sharing values through a coding process. Below, I present the findings from each step of the workshop, including the

workshop results and the identified community and sharing values. The detailed results can be accessed in Appendix 12.4 Circular Value Flower Workshops.

8.1.1 Urgency

This first step explores the individual urgencies identified by participants, categorized by their strengths, dreams, fears, and weaknesses. Understanding these individual perspectives is crucial for clustering these urgencies into shared themes, providing a comprehensive overview of the community's priorities. The workshop began with participants expressing their personal urgencies, which were then grouped to identify common concerns and goals. The shared urgency that emerged from this collective discussion forms the foundation for the intervention strategies proposed in this chapter.

Strengths:

Participants highlighted strengths such as the need to update **awig-awig (traditional rules) for relevance**, the **culture of sharing** during community events, unique initiative programs by Smile Foundation emphasizing **collective effort**, **kinship** promoting **mutual aid**, and **reusing** items to prevent **waste** and reduce the carbon footprint.

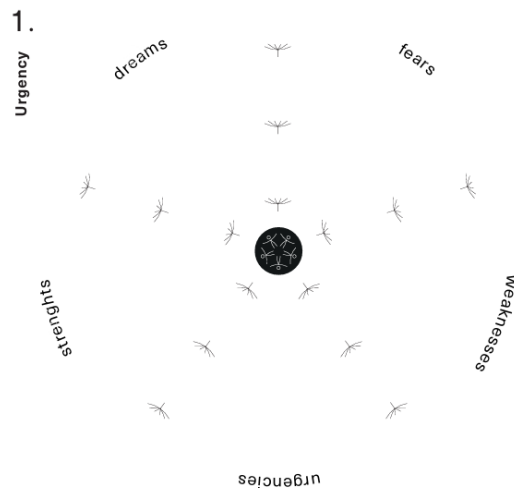


Figure 41 Urgency Sheet Template and Urgency Sheet, filled in Bahasa Indonesia

Dreams: Dreams focused on fostering a **collective culture**, enhancing **economic well-being**, and promoting **sustainability**. Participants envisioned a community where people **share** generously, **preserve cultural** practices, and promote environmental sustainability through models like Taksu.

Fears: Fears included **resource inequality**, **economic challenges**, **decline in cultural practices**, and concerns about **contamination**. Participants highlighted the impact of **economic pressures** on community support and the need to preserve cultural traditions amid growing **individualism** and **social pressures**.

Weaknesses: Identified weaknesses included **social pressure**, **consumerism**, **economic challenges**, and fostering **collective action**. Participants noted that **job specialization** and **individualism** weaken communal bonds, with increased **consumerism** impacting collective culture. There was also a lack of **awareness** about NGO programs and the **economic feasibility** of **reuse** systems.

Shared urgency: Collective Economy

In their discussion to identify a shared urgency, the participants ultimately decided on the importance of a **collective economy**. This means to put importance of the collective or the community and distribution of a fair economy for all. They began by addressing the problem of waste from sending parcels (**Ngejot**), suggesting that making parcel (as they did traditionally in the past) rather than buying it would be more **cost-efficient** and **environmentally friendly**. This led to a broader conversation about the economic impact on cultural and spiritual traditions, acknowledging that these **practices have associated costs**. The group emphasized the value of non-monetary assets such as **relationships** and **community attachment**, and the need for **fairness** in economic transactions. They discussed the sustainability benefits of **reusing resources** and the integration of **spiritual and economic values**. By focusing on a collective economy, they

aimed to create a **sustainable** and **economically viable future** for their community, balancing **tradition** with **modern** needs. This approach would ensure **efficient resource management**, the **preservation of cultural practices**, and the overall **well-being of the community**.

8.1.2 Values

In the second step of the workshop, participants engaged in group discussions to identify the values that should underpin the intervention. This collaborative effort focused on determining the core values and ambitions that the community believes are essential for motivating sharing and supporting a circular economy. By discussing and agreeing upon these values, participants ensured that the proposed intervention would align with their collective vision and cultural principles, thereby increasing the likelihood of successful implementation and long-term sustainability. The important values identified by the participants were categorized into aesthetic, cultural, economic, environmental, and social values. This section presents these values and their aspirations for the intervention.

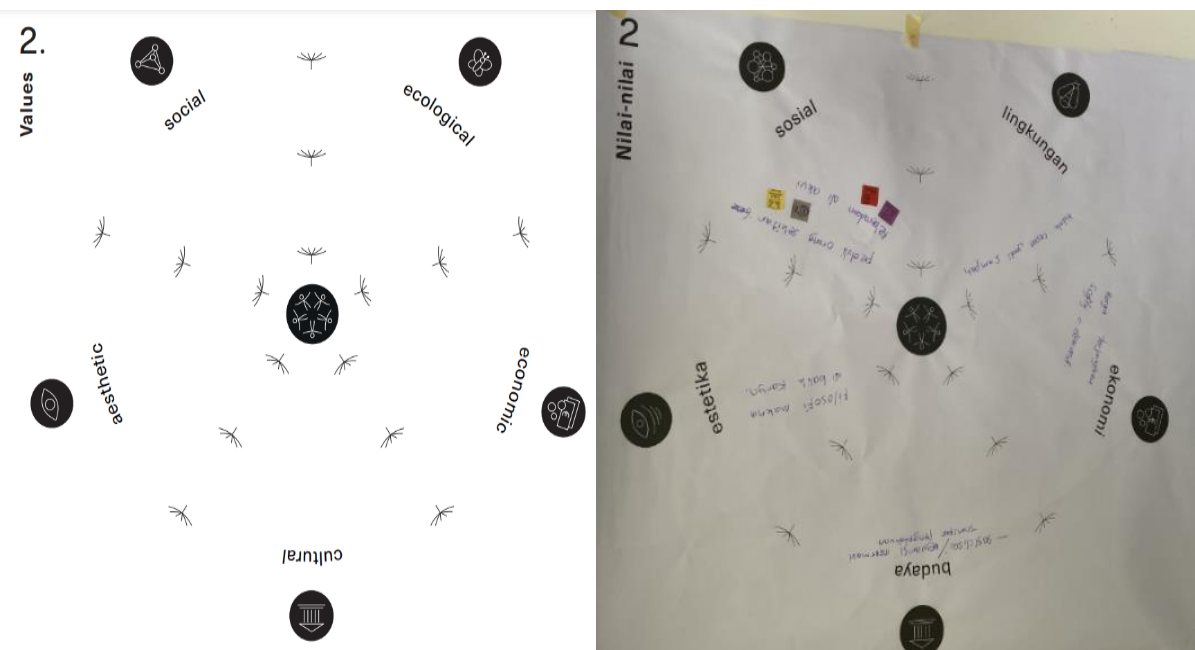


Figure 42 Values sheet template and filled in Bahasa Indonesia

Aesthetic: Participants emphasized the cultural significance of aesthetic practices such as the use of penjor (decorative bamboo poles) and Gamelan dance, stressing the importance of **education** in **transferring this knowledge** to younger generations to **maintain cultural heritage** and appreciation.

Cultural: The importance of

socialization and **knowledge transfer** was highlighted to **preserve cultural** practices. Participants discussed the need for continuous cultural regeneration and **education** to ensure the transmission of collective knowledge to future generations, emphasizing the reconnection with traditional practices.

Economic: Maintaining **affordable** prices and balancing supply with demand were considered crucial for a collective economy. Participants stressed the need for economic **inclusivity** and stability, promoting a sense of collective economic well-being while avoiding **inequality** and **individualism**.

Environmental: Emphasizing environmental sustainability, participants expressed a desire to **minimize waste** generation and extend product life cycles through **reuse**. This reflects a strong commitment to integrating sustainable practices into daily activities to support a healthier environment.

Social: Participants highlighted the importance of social values such as **caring for others**, fostering **empathy**, and **acknowledging contributions** within the community. They stressed the need for social **interactions** that **benefit community members**, fostering **gratitude**, **reciprocity**, and collective awareness.

8.1.3 Stakeholders



Figure 43 Stakeholder Sheet, filled in Bahasa Indonesia

In this step, the group discuss to identify the Needs and Values of relevant stakeholders. As the member of each stakeholders are present, except for government as the Banjar Head was left early, the group focus more on their needs and values respected to their role. The discussion for stakeholders' Needs and Values delves deeply into the principles of fair trade, sustainability, and community support. Fair trade is emphasized as a balance between **economic justice**, **ethical business practices**, and **sustainability**, aiming to create a fair economy without exploitation. The concept of the "**Triple Bottom Line**" (**People, Planet, Profit**) is highlighted, where **businesses** should strive for profit while ensuring social and environmental responsibilities are met. Knowledge transfer, utilizing local wisdom and scientific studies, is deemed crucial for addressing sustainability issues effectively. Both **government** and **NGO** perspectives stress the importance of **supporting community welfare**, with a focus on **human well-being**, **stable funding** for sustainable programs, and ensuring **active participation** and **care for community members**. The discussions reflect a comprehensive approach to fostering ethical practices, balanced development, and the well-being of communities.

8.1.4 Resources

The discussions revolve mostly around the **Limited Resources**, and mainly around two main topics: the concept of a **barter market** and the practice of **borrowing Banten tools**, within the context of **limited resources**.



Figure 44 Resources Sheet, filled in Bahasa Indonesia

Barter Market

The Editor in Chief of Bale Bengong highlights that **bartering**, which involves sharing harvests and tools, does exist in Bali, but it is not as prevalent as in other regions. In Bali, there is no traditional bartering market; instead, people have largely moved towards monetary transactions. The anthropologist and cultural activist shared a narrative about a time when the community in Munti Gunung sought assistance from the government, proposing the implementation of a barter market to meet local needs. The discussion emphasized the cultural value of bartering, which includes **transferring knowledge** and **fostering a sense of community**. Additionally, there were questions raised about the **environmental** and **social impacts** of adopting such a system.

Borrowing Banten Tools and Materials

The group discussed the practice of **borrowing Banten tools and materials**, drawing comparisons to bartering. They underscored the importance of specific tools and materials for ceremonies, and the practical considerations involved, such as the **circular nature** of borrowing and returning tools. This practice also has cultural implications, such as learning to make the Banten again. This discussion pointed out the economic benefits of borrowing and reusing materials. However the Traditional Artist remind the group of the **sacrality** of Banten, for example the rule that an offering cannot be presented to the Gods and Goddesses more than once a day. They noted the tension between **respecting traditions** and the **practicalities** of contemporary life. Several examples of Banten specific materials for different purposes can be seen on Figure 46.



Figure 45 Banten or Balinese Offerings



Figure 46 Several examples of Banten materials for different purposes (Serba Serbi Hindu - Bali, 2013)

Conclusion

The group ultimately chose **the Barter Market** as their intervention based on the resources available. This decision was informed by several factors: the **cultural resonance of bartering**, which aligns with traditional practices and values; the **economic efficiency** of facilitating exchanges **without monetary transactions**; the **community-building aspect** of fostering mutual support; the **positive environmental impact** of encouraging the reuse and sharing of resources; and the **practicality of formalizing existing informal practices**. This choice reflects a thoughtful consideration of cultural, economic, social, and environmental factors, offering a sustainable and community-focused solution to resource limitations.

8.1.5 Categorizing

In this step, the group categorized the barter market as their chosen intervention and mapped it to several key values. This process provided participants with a clearer understanding of how their intervention aligns with and impacts various community values. By organizing the intervention within this framework, the group could better assess its potential effectiveness and sustainability, ensuring that it supports the collective goals and priorities identified earlier in the workshop. This categorization also helped in visualizing the broader implications of the barter market, reinforcing its relevance and importance in fostering a circular and supportive community economy.

Aesthetics : The participants discussed the aesthetic value of barter markets, with some expressing **negative** views about "**beautiful Banten**" (**offerings**) being perceived as **form without essence** and **cultivating social pressure**. The Traditional Artist and Banjar Youth Leader mentioned that while aesthetics are important, the **practical and functional aspects are more critical**. Others, like the Editor in Chief of Bale Bengong, highlighted the positive aesthetic appeal of **well-curated items** in the barter market, noting that the curation process ensures that items meet both aesthetic and practical needs.

Culture : The **time-consuming** nature of doing a barter transaction was seen as a drawback by several participants. However, the **cultural exchange** and **knowledge transfer** facilitated by such markets were viewed positively. The barter market was also noted for its potential to **disseminate information**, with the type of information depending on the context of the conversations within the market.

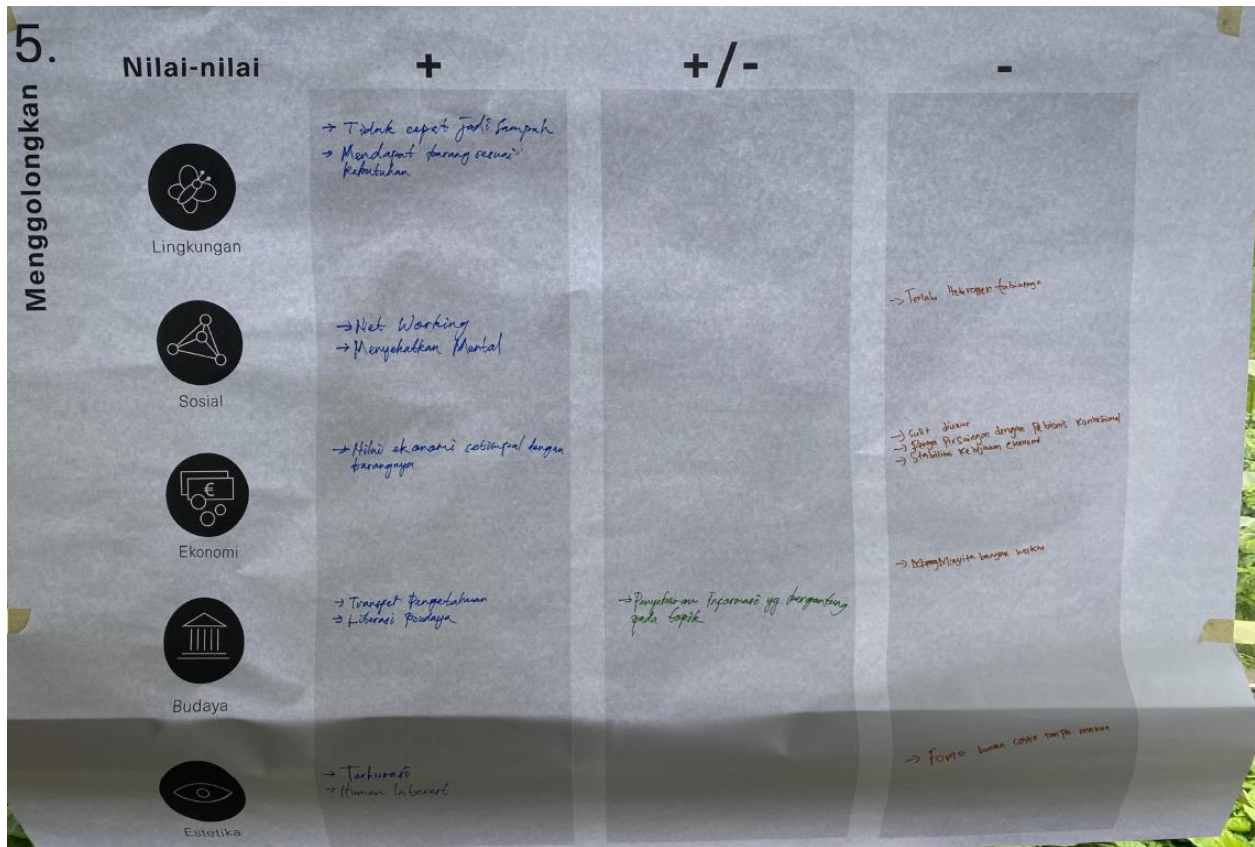


Figure 47 Categorizing sheet filled in Bahasa Indonesia

Economy : The Operational Manager of Smile Foundation and the Facilitator of Cutleries Rental Service noted the **competition with conventional businesses** and the **difficulty in measuring the economic value** of bartered goods. However, others, like the Anthropologist, pointed out that the economic value of bartered goods should be **commensurate with their perceived worth**.

Environment : From an environmental perspective, the barter market was seen positively for promoting the **reuse and recycling** of goods, **reducing waste**, and ensuring that items do not quickly become trash. This aligns with sustainable practices and environmental conservation.

Social : Socially, the barter market's impact was viewed through the lens of **heterogeneity**. Some participants expressed concerns about the market being too heterogeneous, which could lead to **social friction** and **exclusion**. The Traditional Artist and Banjar Youth Leader mentioned that the market might restrict individual freedom due to collective norms. Despite these concerns, the barter market was also recognized for fostering **social acceptance** and **community cohesion**, as it brings together people from diverse backgrounds in a common exchange platform.

Overall, the discussion highlights that while there are challenges associated with organizing and maintaining a barter market, its benefits in terms of cultural preservation, economic balance, environmental sustainability, and social cohesion make it a valuable intervention. The emphasis on aesthetics, practicality, and the importance of well-curated exchanges ensures that the barter market remains a culturally resonant and economically viable solution for resource-limited communities.

8.1.6 Detailed Intervention

In this final step, the group detailed the intervention by focusing on several key aspects: capital, stakeholders, values, and digital and spatial components. By addressing these elements, participants ensured that the intervention is comprehensive and feasible. They identified the necessary resources and funding (capital), the roles and contributions

of various community members and organizations (stakeholders), and aligned the intervention with the community's core values. Additionally, they considered how digital tools and physical spaces could support the intervention, ensuring it is well-integrated and accessible within the community. This thorough detailing process aimed to create a robust and actionable plan for implementing the barter market intervention effectively.

Capital

The barter market intervention detailed on various forms of capital, encompassing excitement, goods, networks, skills, and wisdom. Participants derive significant **enjoyment** and **satisfaction** from trading items related to their hobbies, enhancing **personal well-being** and **community engagement**. The market can leverage **Balinese agricultural strength**, facilitates the exchange of **post-harvest products** and used **agricultural equipment**, promoting sustainability through re-cycling and re-purposing. A **strong network** of community members, including farmers and facilitators, underpins the market's operations, fostering solidarity and local food security. The **exchange of skills**, such as modification, reparations, and sewing services, further supports sustainable practices and resourcefulness. **Cultural wisdom**, particularly the adherence to the Tika (Balinese calendar), ensures that market activities align with local traditions, fostering trust and reliability among participants.

Stakeholders

Participants identified various stakeholders crucial to the success of the barter market intervention. **Businesses** are seen as key contributors, with the discussion emphasizing the role of **donations** and the **absence of monetary transactions** to promote **trust** and **altruism**. A **reward points** system for active participants and volunteers was suggested to encourage engagement and provide **non-monetary incentives**. **Designers** and experts in **planology** were noted for their importance in planning and **organizing the physical space** of the market. **Educational** institutions were highlighted for their role in **knowledge transfer**, ensuring that **traditional practices** are **documented** and **passed down**. The **government** was identified as a necessary stakeholder for providing **licensing** and **regulatory support**, while **NGOs** were recognized for their role in **socialization** and **knowledge transfer**, helping to remind the community of their values and facilitating the intervention's implementation without monetary transactions.

Values

The core values driving the barter market include **sustainability**, **solidarity**, **cultural respect**, and **trust**. **Sustainability** is achieved through the principles of re-cycling, re-purposing, and localizing resources, reducing waste and promoting ecological balance. **Solidarity** is fostered through active **community support** and **engagement**, ensuring that all **members benefit** from and **contribute** to the market. **Cultural respect** is embedded in the market's adherence to local traditions and the Balinese calendar, which enhances participation and cohesion. **Trust** is a foundational value, underpinning all transactions and interactions, ensuring that the market operates with integrity and reliability.

Digital & Spatial Components

Building: Participants explored the use of warehouses for temporary storage before events. They emphasized the importance of altruism in sharing these spaces, ensuring that everyone has access to necessary storage without personal expense.

Digital Infrastructure: Digital marketing was identified as a crucial element. The discussion focused on using tools like Google Forms for categorizing and listing needs, helping participants know what items are required for the barter market. They also highlighted the importance of using photos and descriptions to facilitate the barter of larger items, allowing for exchanges without the need for physical transportation. Social media was recognized as a vital tool for promotion and coordination, helping to spread awareness and engage the community.

Object: The logistics of bartering larger items, such as appliances, were discussed. Participants suggested using photos and descriptions online to facilitate exchanges, which would eliminate the need for physical transportation of these items.

Public Space: The concept of a nomadic barter market, similar to traditional markets held in public spaces, was emphasized. Participants highlighted the need for these markets to be adaptable, utilizing existing public spaces without the need for permanent structures. They also stressed the importance of securing appropriate permissions and support from local authorities to ensure the smooth operation of these markets.

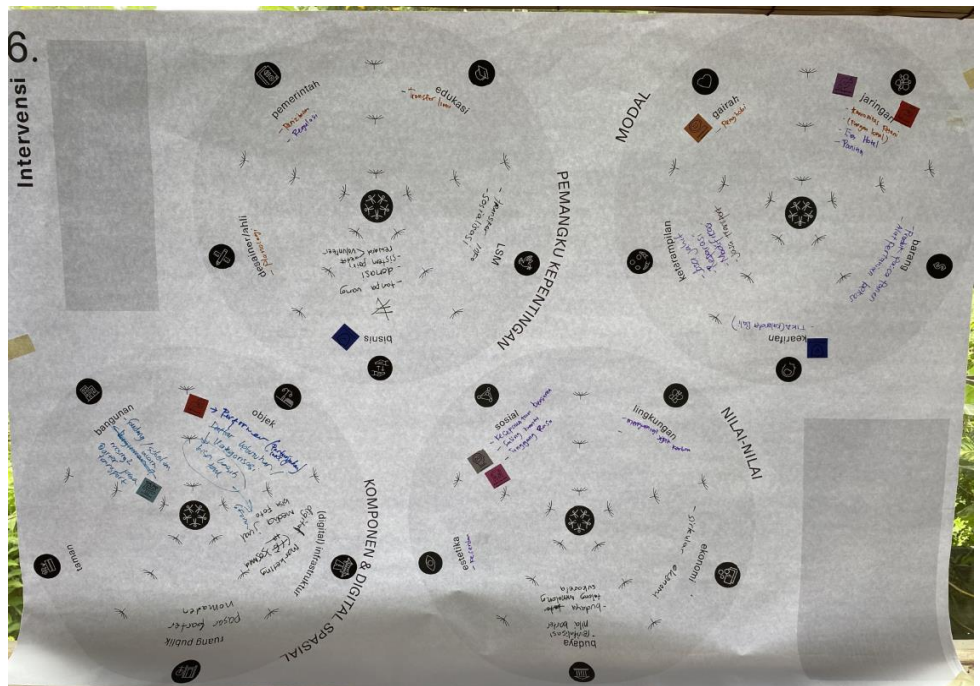


Figure 48 Detailed Intervention sheet filled in Bahasa Indonesia

8.2 Final Intervention

The final intervention is a Barter Market, a Value Flower Field Map as the summary of the intervention can be seen on Figure 49 Value Flower Field Map of the Final Intervention.

Sub-Aspects:

1. **Ngayah!**
 - Emphasizes voluntary community service, a central aspect of Balinese culture.
2. **No Money:**
 - Transactions are conducted without currency, promoting a culture of sharing and reciprocity.
 - Reduces economic barriers, allowing everyone to participate regardless of financial status.
3. **Knowledge Transfer:**
 - Facilitates the exchange of cultural and well-being knowledge.
 - Encourages learning and sharing of traditional practices, skills, and well-being strategies.
4. **Physical Transaction:**
 - Focuses on relationship-building through face-to-face interactions.
 - Strengthens social ties and community cohesion.

Components:

- **Used-Goods:**
 - Items such as ceremonial equipment and farming tools are exchanged, promoting sustainability.
 - Reduces waste and supports the circular economy by extending the life of products.
- **Digital Infrastructure:**
 - Utilizes digital platforms for selling, matching needs, categorizing goods, and sharing information.
 - Enhances accessibility and efficiency of the barter market.
- **Spatial Infrastructure:**
 - Includes nomadic, pop-up style markets (*Ten-ten*) and warehouses for storage.
 - Flexible and adaptive to different locations and needs.

External Output: Social Space:

- Creates a vibrant community hub where people gather, interact, and exchange not only goods but also ideas and experiences.
- Fosters a sense of belonging and collective identity.

Side Initiatives:

- **Repair Service:**
 - Offers services to fix and maintain items, extending their usability.
 - Encourages skills development and practical knowledge sharing.
- **Delivery Pooling:**
 - Organizes group deliveries to reduce carbon footprint and improve efficiency.
 - Facilitates the distribution of exchanged goods within the community.
- **Donation:**
 - Provides a channel for donating excess goods to those in need.
 - Enhances community support and solidarity.
- **Art Performance:**
 - Integrates cultural performances and arts into the market, enriching the community experience.
 - Promotes local talent and cultural expression.

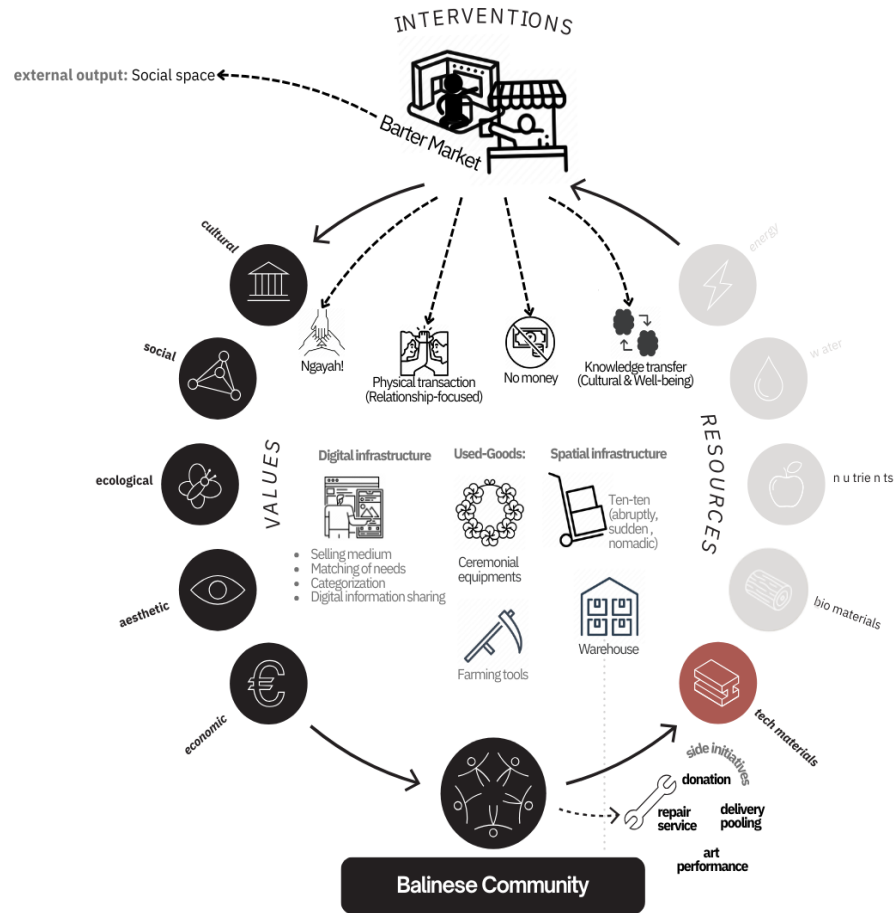


Figure 49 Value Flower Field Map of the Final Intervention

This final intervention aims to build a sustainable, inclusive, and culturally rich community through a barter market that leverages traditional practices, promotes ecological and economic sustainability, and fosters strong social ties.

8.3 Conclusion

Chapter 8 addresses the sub-question: "How can the Circular Value Flower be used as a design tool to co-create an intervention?" The community workshop identified a **barter market** as the intervention to enhance sharing behaviors. Participants discussed strengths, dreams, fears, and weaknesses, categorizing their insights into shared urgencies, values, stakeholders, resources, and detailed intervention plans. The barter market, chosen for its **cultural resonance**, **economic efficiency**, **community-building potential**, and **environmental benefits**, aligns with identified values like **sustainability**, **solidarity**, **cultural respect**, and **trust**. This intervention promotes non-monetary exchanges, fostering mutual support and efficient resource utilization. The findings from this chapter, combined with Chapter 7's insights on Balinese community values, will inform the development of pulling, facilitating, and matching strategies in Chapter 10, ensuring the intervention effectively supports a circular community.

9. Recommendations

In this chapter, I elaborate on the two key results of this research: **the Balinese community values that drive sharing motivation from Chapter 7** and **the Barter Market as a Community Intervention from Chapter 8**. Using qualitative analysis from the one on one community interviews, workshop discussions, and participatory action research, we explore key themes such as culture, community, sharing, and circularity aspects. The envisaged deliverable includes actionable recommendations for the community to enhance the intervention's effectiveness and sustainability, as well as improvements to the Circular Value Flower framework. The chapter is structured into two main parts. The first part, "For Balinese Community Initiator (Bale Bengong)," covers improvements to the negative aspects of the intervention and offers suggestions to motivate sharing through the barter market, utilizing core functions design principles (pulling, facilitating, and matching). The second part, "For Circular Value Flower Framework," focuses on integrating the findings from this research, such as the incorporation of community values and well-being aspects into the framework, ensuring it aligns with local cultural practices and enhances its applicability.

9.1 For Balinese Community Initiator (Bale Bengong)

9.1.1 Improvement to the negative aspects of the Intervention

In step 5. Categorizing, the group identify several negative aspects of the Intervention. Here I tried to analyse and recommend suggestions to offset the negative aspects.

Aesthetics: In Balinese communities, Banten (offerings) often become a source of **competition**, where more aesthetic and expensive offerings are seen as more valuable. This phenomenon can lead to **social issues**, creating **pressure** to produce elaborate offerings. The barter market could address this by acting as an educational centre, promoting the use of **second-hand items** obtained through **bartering**. This approach could shift the focus from acquiring new and expensive items to valuing items based on practical needs. Implicitly discussed in the workshop, this perspective encourages a **cultural shift towards sustainability**, reducing **societal pressure** to conform to materialistic standards and emphasizing the importance of practicality and environmental responsibility.

Culture: Bartering requires **negotiation** due to the lack of **standardized exchange medium** like money, making transactions time-consuming. While this "forced" interaction can increase social bonding, it contrasts with modern living, which **prioritizes efficiency** and **productivity**. To address this, the barter market can **embrace the trade-off** by **promoting the social benefits** of bartering. **Educate community** to choose to engage in the barter market for its community interactions or opt for conventional transactions for efficiency. Focusing on a niche market that values these social aspects can sustain the system, while developing guidelines and tools to streamline negotiations can help balance community interaction benefits with modern society's practical needs.

Social: The barter market can attract a wide range of people, including **those looking to make a profit or potentially trading illegal or stolen goods**. This diversity can **complicate** maintaining **fairness, trust, and legality** within the market. However, this can be hindered if **strong community values** are applied, with sincere **relationships** as the foundation. When **there is a relationship, there is trust**. Implementing strict guidelines and a monitoring system to ensure only trusted community members and legitimate goods are traded can further address these issues.

9.1.2 Suggestions to motivate sharing through the final intervention: Barter Market

Using the **Core Functions (pulling, facilitating, and matching)** of platform design (Parker et al., 2017) that Ho & Yanagisawa (2023) as this research framework; used in their research, I propose **design** guidelines for the Barter Market by leveraging **the Key Relationship of the Balinese community values that drive sharing motivation values from Chapter 7**. Although the Barter Market is not a digital platform, it is essentially a physical platform for sharing. So, the Core Function Strategy works well with the intervention.

Pulling

The pulling strategy encourages people to engage in the barter market and return on a regular basis. Initially, it is difficult for a market to attract people due to the "chicken-or-egg" problem, in which a community will not come to the market if they perceive there is no value, and a market cannot develop value until people trade in it (Parker et al., 2017). As a result, the market design must first address how to overcome this issue and increase the number of users in order to initiate the network effect.

To encourage community members to join and return to the barter market on a regular basis, the pulling strategy should focus on the initial phase of the **sharing motivation cycle**: developing a sense of **contribution** and **gratitude**, as well as encouraging **sharing of information**. People might naturally recognize **achievement (pleasure)** and **contribution** after they have shared and reused. Thus, barter markets might attract new groups to join the market by emphasizing **contribution** while also enabling circulation. For example, the invitation could **highlight "contributing to the local community"** rather than "saving costs" and urge people with messages like **"Share wisdom with your community; contribute to the whole culture."** Key Relationship to Leverage:

Table 7 Key Relationship of the Balinese community values that drive sharing motivation values of Pulling Strategy

| Codes | Relationship | Codes |
|--|--------------------|-------------------------------------|
| ● Adat: Adat | is associated with | ● Well-being Aspects: Contribution |
| ● Info Sharing: Voicing ideas and concerns | is a part of | ● Harmony: Banjar community |
| ● Info Sharing: Voicing ideas and concerns | is a part of | ● Harmony: Non-Banjar Communities |
| ● Info Sharing: Heard within community | is a part of | ● Harmony: Non-Banjar Communities |
| ● Info Sharing: Heard within community | is a property of | ● Justice & Equity: Power to change |
| ● Info Sharing: Voicing ideas and concerns | is a property of | ● Justice & Equity: Power to change |
| ● Adat: Ngayah | is associated with | ● Well-being Aspects: Contribution |
| ● Solidarity: Community Support | is associated with | ● Well-being Aspects: Contribution |
| ● Info Sharing | is associated with | ● Harmony: Conformity |
| ● Info Sharing | is a property of | ● Adat: Banjar Structure |
| ● Justice & Equity: Social Pressure | is associated with | ● Info Sharing |

Pulling Strategy

1. Utilize Adat and Banjar Structure to Leverage Attachment and Sense of Contribution:

- **Initiate within Banjar Communities:** Banjar, being the smallest unit of community centers, presents a foundational starting point for the barter market. Each Banjar already functions as a community nucleus, simplifying the initiation process. The primary objective should be to strengthen pre-existing relationships within these communities rather than establishing new ones between strangers. Although Bale Bengong has expressed an intention to start the market within its non-Banjar community, commencing within a Banjar community would potentially engage a broader demographic. While starting outside the Banjar setting might appear more feasible due to the progressive nature of younger members, targeting the Banjar community can ensure broader participation and easier scalability to other Banjars upon success.
- **Engage Non-Banjar Communities as Initiators:** Communities outside the Banjar structure are likely to be more progressive and attuned to issues such as sharing and circularity. These communities, which often include environmental groups, nonprofit organizations, and hobbyist networks, can serve as effective initiators. Their existing focus on sustainability and community support aligns with the goals of the barter market, making them ideal partners in promoting and expanding the initiative.
- **Cultivating genuine relationships** first is essential for facilitating sincere and effective object sharing within the community. Start small and within community first, where people already know each other. So the barter

can happen easier. Later on, network effect can take place when trusted community member invite their trusted person.

- **Involve Traditional Leaders:** Traditional leaders hold significant influence within the community due to the hierarchical nature of Balinese society. Engaging these leaders to communicate the importance of the barter market can significantly enhance community participation and lend credibility to the initiative.
- **Integrate Traditional Ceremonies:** Scheduling barter market events to coincide with significant traditional ceremonies such as Galungan, Kuningan, or Nyepi can naturally boost participation. These ceremonies are times of heightened community involvement, providing an optimal opportunity to introduce and integrate the barter market.
- **Promote Ngayah:**
 - **Voluntary Community Work:** Promote Ngayah by organizing communal activities that support the barter market. These activities could include setting up stalls, organizing logistics, or promoting the market. Public acknowledgment and celebration of these contributions can further motivate community involvement.
 - **Youth Engagement through Ngayah:** Engage younger community members in Ngayah activities specifically related to the barter market. This could involve organizing youth-led market days, educational workshops on sustainability, or cultural performances that attract and engage the community.
 - **Engage Community Networks:** Collaborate with local farming communities to promote the exchange of post-harvest products and used agricultural equipment. Encourage hobbyists to bring their skills and products to the market, creating a diverse and dynamic environment.

2. Facilitate Information Sharing

- **Social Media and Messaging Apps:** Leverage social media platforms and community messaging apps to disseminate information about contributions, upcoming events, and the benefits of participation. These platforms can effectively reach a broad audience and foster continuous engagement.
- **Effective Messaging:** Emphasize the value of contributing to both Banjar and non-Banjar communities and sharing knowledge. Use impactful slogans such as "Share knowledge with your community, contribute to the whole culture" and "Join the barter market to support and strengthen our community." These messages should highlight the communal and cultural benefits of participation, reinforcing the sense of collective contribution and support.

Facilitating

The facilitating strategy tries to **break down barriers** and **promote value-creating interactions**. According to Ho and Yanagisawa (2023), a well-designed barter market promotes valuable interactions within the community while also providing **transparency**, **safety**, and the need for a **genuine relationship** free of **social pressure**. Because markets attract a wide range of people, they require **governance** to foster trust, ensure fairness (with an **equal distribution of resources**), and deliver **security**. **Information sharing** is essential for people to **engage** in interactions with others to experience a sense of well-being.

Furthermore, Ho and Yanagisawa (2023) argue that **information disclosure** increases **trust** and **empathy**. Interestingly, sellers who are emotionally **attached** to their products are more likely to give additional incentives to receivers when they feel the receivers would treat the objects with care (Brough & Isaac, 2012). The receiver's proper usage of shared things demonstrates the **compassion** and **understanding** between providers and receivers. **Empathy** is essential for bridging the gap between providers and receivers. As a result, Ho and Yanagisawa (2023) argue that receiver empathy might elicit good intents from providers, prompting them to disclose more information. Building trust is critical for increasing engagement among users on both sides in barter scenarios. These factors help to create linked, dependable, and familiar experiences, which influence how others **trust** and build **empathy** in a barter market setting. Furthermore, good communication between a provider and a receiver is critical for developing **empathy** and **altruism**, especially

when the recipient participates by asking questions rather than passively taking information from the provider (Andreoni & Rao, 2011). Key Relationship to Leverage:

Table 8 Key Relationship of the Balinese community values that drive sharing motivation values of Facilitating Strategy

| Codes | Relationship | Codes |
|---|--------------------|--|
| <ul style="list-style-type: none"> ● Info Sharing: Voicing ideas and concerns ● Harmony: Non-Banjar Communities | is a part of | <ul style="list-style-type: none"> ● Harmony: Banjar community |
| <ul style="list-style-type: none"> ● Info Sharing: Voicing ideas and concerns ● Info Sharing: Heard within community | is associated with | <ul style="list-style-type: none"> ● Well-being Aspects: Engagement ● Harmony: Non-Banjar Communities ● Harmony: Non-Banjar Communities |
| <ul style="list-style-type: none"> ● Justice & Equity: Power to change ● Info Sharing: Heard within community ● Info Sharing: Voicing ideas and concerns | is a part of | <ul style="list-style-type: none"> ● Well-being Aspects: Engagement ● Justice & Equity: Power to change ● Justice & Equity: Power to change |
| <ul style="list-style-type: none"> ● Justice & Equity: Equal distribution of Resources | is a property of | <ul style="list-style-type: none"> ● Well-being Aspects: Engagement ● Justice & Equity: Power to change ● Justice & Equity: Power to change |
| <ul style="list-style-type: none"> ● Object Sharing: Give/Donate | is a property of | <ul style="list-style-type: none"> ● Solidarity: Community Support |
| <ul style="list-style-type: none"> ● Justice & Equity: Equal distribution of Resources | is cause of | <ul style="list-style-type: none"> ● Solidarity: Community Support |
| <ul style="list-style-type: none"> ● Object Sharing: Give/Donate | is cause of | <ul style="list-style-type: none"> ● Justice & Equity: Equal distribution of Resources |
| <ul style="list-style-type: none"> ● Info Sharing | is associated with | <ul style="list-style-type: none"> ● Harmony: Conformity |
| <ul style="list-style-type: none"> ● Info Sharing | is a property of | <ul style="list-style-type: none"> ● Adat: Banjar Structure |
| <ul style="list-style-type: none"> ● Justice & Equity: Social Pressure ● Justice & Equity: Social Pressure | is associated with | <ul style="list-style-type: none"> ● Info Sharing |
| <ul style="list-style-type: none"> ● Justice & Equity: Social Pressure | contradicts | <ul style="list-style-type: none"> ● Harmony: Relationship |

Facilitating Strategy

1. Establish Clear Governance and Management:

- **Develop Governance Policies:** Create clear guidelines and policies to ensure equity, transparency, and security. Address issues such as barter rules, types of goods, face-to-face transactions rule, fair trading practices, dispute resolution, and community standards.
- **Emphasize transactions only on Barter Market Day.** This intervention aims to strengthen the community by emphasizing the importance of real face-to-face interactions. Transactions involving strangers using couriers do not align with the core principles of this intervention because they resemble pseudo sharing. This approach does not contribute to community cohesion as it lacks meaningful face-to-face interactions. Furthermore, these transactions have a negative impact on the environment by increasing carbon footprint.
- **Management Team:** Form a dedicated management team with representatives from both Banjar and non-Banjar communities to oversee operations, enforce policies, and address issues.
- **Well-Being-Based Guidelines:** Establish ground rules for well-being. Provide consistent education, promotion and interaction on the benefits of reusing and sharing objects, highlighting environmental and social impacts, and promoting sustainability practices, as well as compassion, altruism, trust and long-term relationship approach.
- **Conflict Resolution Mechanisms:** Establish mediation mechanisms to address conflicts. Create safe spaces for community members to express concerns without fear of judgment. Promote open, non-violent communication and empathy-building.

2. Building Trust and Transparency through Interaction:

- **Transparent Processes:** Hold regular community meetings for members to voice ideas, ask questions, and provide feedback. Ensure inclusivity and accessibility.
- **Voicing Ideas and Concerns:** Establish platforms for expression, including suggestion boxes, community meetings, and social media groups.

- **Feedback Mechanisms:** Implement robust feedback mechanisms to ensure concerns are heard and addressed, updating the community regularly on actions taken. Involve a diverse range of members in decision-making processes.

3. Digital Platforms:

- **Digital Platforms:** After the initial trial phase, build a platform to facilitate several digital functions mentioned in the Detailed Intervention. This includes a **selling medium** for displaying items that are too heavy or not easy to carry, **input needs**, and a **reward point system**.
- **Online Forums and Social Media:** Create forums and social media groups for information sharing, questions, and feedback to enhance inclusivity and ensure all voices are heard.

4. Public Recognition of Contributions:

- **Reward Point System:** Implement a reward points system for active participants and volunteers or good transaction to foster appreciation, pleasure, and reciprocity.
- **Community Notice Boards:** Set up physical notice boards in prominent locations to post information about the market, events, and recognition of contributors.

5. Promote Equitable Resource Distribution:

- **Solidarity and Community Support:** Establish support networks to help those in need. Encourage and facilitate **resource pooling** and **sharing** to ensure access to necessary items.
- **Transparent Practices:** Ensure all transactions and exchanges are conducted transparently, maintaining clear records and reports. Implement policies guaranteeing equal access to market resources, regardless of economic status.
- **Promote Giving and Donating.**

Matching

The matching strategy tries to efficiently link participants by accurately matching people's needs with suitable goods or services based on the information given. According to Ho and Yanagisawa (2023), the market should favor matching individuals in communities with high levels of **empathy** and **trust**. The introducing of **reward points system** for active participants and volunteers as mentioned in the group workshop can also assist to foster **trust**. Individuals with similar backgrounds (**conformity**), for example, may elicit more **empathy**, while those who **engage in real self-disclosure** can increase **trust**. As the community **shares information** and builds **trust** and **empathy** among themselves, feelings of **compassion** and **altruism** might be triggered in the following ways. Individuals want to **maximize value** not only for their personal benefit, but also **for the well-being of objects, community support, and respect for the environment**. As a result, the barter market should help people improve their positive **interactions** and maximize their utility by encouraging them to **share and reuse goods**. Finally, the **sharing motivation cycle** can influence community behavior by encouraging **information exchange (education/knowledge transfer)**, item reuse and sharing, and continued engagement (Ho & Yanagisawa, 2023).

Table 9 Key Relationship of the Balinese community values that drive sharing motivation values of Matching Strategy

| Codes | Relationship | Codes |
|---|--------------------|---|
| ● Adat: Adat | is associated with | ● Well-being Aspects: Compassion |
| ● Info Sharing: Voicing ideas and concerns | is a part of | ● Harmony: Banjar community |
| ● Harmony: Non-Banjar Communities | is associated with | ● Well-being Aspects: Engagement |
| ● Info Sharing: Voicing ideas and concerns | is a part of | ● Harmony: Non-Banjar Communities |
| ● Info Sharing: Heard within community | is a part of | ● Harmony: Non-Banjar Communities |
| ● Justice & Equity: Power to change | is associated with | ● Well-being Aspects: Engagement |
| ● Info Sharing: Heard within community | is a property of | ● Justice & Equity: Power to change |
| ● Info Sharing: Voicing ideas and concerns | is a property of | ● Justice & Equity: Power to change |
| ● Adat: Ngayah | is a | ● Object Sharing |
| ● Well-being Aspects: Compassion | is cause of | ● Adat: Ngayah |
| ● Justice & Equity: Equal distribution of Resources | is cause of | ● Solidarity: Community Support |
| ● Object Sharing: Give/Donate | is cause of | ● Justice & Equity: Equal distribution of Resources |
| ● Solidarity: Community Support | is associated with | ● Well-being Aspects: Contribution |
| ● Solidarity: Solidarity | is cause of | ● Well-being Aspects: Compassion |
| ● Info Sharing | is associated with | ● Harmony: Conformity |
| ● Harmony: Conformity | is cause of | ● Harmony: Sense of Belonging&/Ownership |
| ● Responsibility: Economic Factors | is a property of | ● Object Sharing |
| ● Info Sharing | is a property of | ● Adat: Banjar Structure |
| ● Justice & Equity: Social Pressure | is associated with | ● Info Sharing |

Matching Strategy

1. Develop an Effective Matching System

- **Needs and Offers Listings:** Create a detailed database where participants can list the items they have to offer and their specific needs. This database should be easily accessible and user-friendly, allowing participants to update their listings regularly in preparation for barter market days.
- **Categorization and Tags:** Implement a system of categorization and tags for the listed items and needs. This will help in quickly identifying relevant matches and streamline the search process for participants, ensuring they can efficiently find and arrange potential exchanges on barter market days.

2. Authentic Self-Disclosure and leverage Conformity:

- **Community Background Matching:** Facilitate matches based on similar backgrounds or interests to enhance empathy and positive interactions. For example, matching participants from similar Banjar communities or with shared hobbies. Ensure that these matches lead to face-to-face transactions on barter market days.
- **Personal Stories:** Highlight the significance of users sharing personal stories or experiences related to the items they wish to barter. This helps build trust and empathy among users. For instance, the workshop highlighted the rarity of Banten making skills, suggesting that discussions and tips on Banten making would be valuable topics.

9.1.3 Conclusion for Recommendation for Community

Using Desk Research, I made elaborated recommendation based on the two key results of this research: the Balinese community values that drive sharing motivation from Chapter 7 and the Barter Market as a Community Intervention

from Chapter 8. The first part (10.1) addressed improvements to negative aspects of the intervention, such as promoting the use of second-hand items to reduce societal pressure and suggesting educational initiatives to balance social benefits with modern efficiency needs. It also recommended strict guidelines and monitoring systems to maintain fairness and trust. The second part, "10.2 Suggestions to Motivate Sharing Through the Final Intervention: Barter Market," applied core functions of platform design (pulling, facilitating, and matching) to foster sustainable sharing. The pulling strategy focused on fostering contribution and information sharing, the facilitating strategy aimed to remove barriers and promote transparency and trust, and the matching strategy sought to efficiently connect participants by leveraging community backgrounds and fostering empathy. These strategies collectively provide a robust framework for aligning the barter market intervention with local cultural practices and enhancing its sustainability and community engagement.

9.2 For Circular Value Flower Framework

9.2.1 Effectiveness of Intervention

The co-created barter market may not be a groundbreaking innovation in the traditional sense. However, the significance of this intervention lies in how the group embraced and adapted the idea to address their specific needs and context. The collective acceptance and application of the barter market demonstrate its usefulness and relevance to the community. This highlights an essential aspect of innovation: solving a problem effectively.

The knowledge and ideas necessary to create impactful intervention are often already present within the community. The role of participatory action research is to facilitate the uncovering and harnessing of these existing resources through group collaboration and co-creation. By leveraging local wisdom and collective thinking, the intervention becomes more effective and tailored to the community's unique circumstances.

9.2.2 Participation Aspect

Conducting research in with indigenous community like Balinese requires addressing systemic issues that marginalize local voices. Traditional methodologies often prioritize Western paradigms, failing to capture the richness of local knowledge systems. Partnering with organizations like Bale Bengong highlighted the importance of equitable and relational participation. Their community ties facilitated participant recruitment and added credibility to the research. This partnership emphasized respecting and integrating local knowledge, aligning with Escobar's (2016) principles in "Sentipensar con la tierra," and ensuring the research was relevant and beneficial to the local context.

The research was conducted through one on one interviews with all participants to understand their unique points of view and invite them to group co-creation sessions. In the group workshops, I began with individual personal urgencies, dedicating significant time for everyone to share their own stories before moving on to discuss common shared urgencies and values. These steps were taken to achieve a holistic and inclusive understanding of the urgencies, ultimately leading to relevant shared intervention that has multiple value creation, especially in the Global South—or more specifically, the ex-colonized countries.

Participation needs to be specifically encouraged in ex-colonized countries, as communities are often still accustomed to suppressing their voices and participation due to lingering colonial influences on governance style, at least in Indonesia. Therefore, active efforts are necessary to engage these communities.

One of the learnings I encountered early on during the interviews was addressing participants with the correct honorifics. In Balinese culture, titles such as Pak, Bli, Mbok, or Gek are important as they reflect one's social position. This simple act of introducing everyone with their correct honorifics, allowed the group to drop the first barrier by knowing how to address each other.

One other memorable moment was my repeated inquiries about funding the intervention, reflecting my for-profit background. Bale Bengong emphasized their success in thriving on community support without money, reminding me to unlearn ingrained financial priorities and appreciate community-driven approaches.

9.2.3 Additions of Well-being Aspects

I included well-being aspects in the research to theoretically support the concept of "sharing." The research by Ho & Yanagisawa (2023) intrigued me due to their sharing motivation cycle framework, which is based on well-being aspects. This framework resonated with my research as I believe well-being is closely connected to the importance of community at an individual level. Sharing among individuals naturally occurs, and circularity can be a side effect of the harmony between individual well-being and community well-being. Hence, identifying and incorporating well-being aspects in data collection (one on one interviews and workshops) is crucial.

However, incorporating well-being aspects into the workshop introduced additional complexity. I translated nine well-being aspects from English to Indonesian, but the translation process revealed that some Indonesian terms had almost identical meanings, leading to confusion even for me during the coding process. This made the exercise more complicated than anticipated.

At the core I still think integrating well-being aspects into the CVF layers offers benefits by using a more intuitive areas of feelings, which resonate to a person more easily than modern terms like "business" and "ecology." It is crucial to ensure these aspects are appropriately translated and culturally relevant to avoid confusion and enhance the workshop's effectiveness. For example, concepts of well-being might differ not only in literal translation but also in their cultural significance in different communities, such as in Bali.

9.2.4 Execution of Workshop Facilitation

Reflecting on the workshop, several deviations from the CVF protocol were implemented. Firstly, during the workshop, we selected the intervention after identifying resources and categorizing them. This categorization process compared the chosen intervention to positive or negative aspects relative to the values. However, according to the CVF protocol, resources should generate multiple ideas, and categorization should compare all ideas to determine which aligns closest with the values. This deviation resulted from the time constraints faced; the time allocated for the workshop was too short to follow the protocol thoroughly.

Additionally, despite believing I understood all the steps, I found myself confused during the implementation. Culturally, I observed that my participants preferred to talk and discuss rather than write down their thoughts. This preference for verbal communication was partly due to the greater cognitive effort required to summarize thoughts in writing and partly because talking was more enjoyable. Consequently, most insights came from discussions rather than the written post-it notes, which were almost uninformative without the discussion context. This cultural inclination towards verbal expression is an important consideration for future workshop designs.

9.2.5 Conclusion for Recommendation for Circular Value Flower

In conclusion, these recommendations aim to enhance the CVF methodology by incorporating holistic understanding, well-being aspects, effective workshop facilitation, and culturally relevant practices, ultimately improving engagement and outcomes in diverse communities:

- Emphasis on participation; individual values before discussing common values to create relevant shared intervention that has multiple value creation.
- Address group dynamics and hierarchy in group workshop.
- Integration of well-being aspects is more intuitive and resonate to a person everywhere more easily.
- Ensuring appropriate translation and cultural relevance enhances the effectiveness of the CVF methodology.

- Necessity for facilitators to create mock-ups or test their understanding of steps and in native language to understand context and correct errors.
- Improve interview techniques with open-ended questions.
- Active efforts needed to encourage participation in ex-colonized countries.
- Address cultural preference for verbal communication over written notes in workshop settings.
- Reduce writing burden on participants by allocating specific times for discussion and writing or having someone else write for them.
- Encourage researchers to unlearn biases and embrace co-learning with the community for a more useful research process.

10. Discussion & Conclusion

10.1 Summary of Findings

This chapter provides a comprehensive summary of the research findings, reiterating the objectives and addressing the sub-questions that guided this study. The primary objectives were to co-create an intervention that can motivate sharing through a community workshop and to explore community values that encourage sharing within the Balinese context. The central research question aimed to understand how to motivate sharing within Balinese communities to support a circular community. This led to the formulation of five sub-questions.

First, I explored the key conceptual frameworks and values that define "sharing" and "community" in the context of circularity. It was found that embracing sharing enhances circularity by utilizing resources more efficiently and sustainably. The identified values were categorized into community values (harmony, solidarity, justice, respect, equity, and responsibility) and sharing values (pleasure, attachment, trust, empathy, contribution, gratitude, engagement, compassion, and altruism).

Second, the study examined Bali's landscape for its potential to support sharing intervention. The findings highlighted that Bali's cultural wisdom, strong social networks, availability of shareable goods, and community skills significantly enable circular practices. These factors, combined with the reuse and sharing of technical materials, help reduce waste and environmental impact.

Third, the research delved into the key Balinese cultures around sharing using one on one interviews. Practices such as Ngayah (voluntary community service), Tri Hita Karana (integrating spiritual, social, and environmental aspects), and the Banjar structure (facilitating regular interactions and sharing opportunities) were identified as fundamental in promoting sharing and supporting communal cooperation.

Fourth, a community workshop co-created a barter market as an effective intervention to motivate sharing. This intervention aligns with cultural values like sustainability, solidarity, cultural respect, and trust, and it promotes non-monetary exchanges, fostering mutual support and efficient resource utilization.

Lastly, the study identified the key community values within the Balinese context that drive sharing motivation. Through thematic analysis, 13 values were identified, including Adat, Harmony: Non-Banjar Communities, Harmony: Banjar community, Justice & Equity: Power to change, Adat: Ngayah, Justice & Equity: Equal distribution of Resources, Solidarity: Community Support, Solidarity: Solidarity, Harmony: Conformity, Responsibility: Economic Factors, Adat: Banjar Structure, Harmony: Sense of Belonging&/Ownership, and Justice & Equity: Social Pressure.

In summary, this research underscores the importance of cultural practices and values in fostering circular communities through sharing intervention. The insights gained will inform the development of targeted strategies and policies aimed at enhancing sharing behaviors and promoting sustainability within Balinese communities. These findings serve as a foundation for designing culturally relevant and effective solutions for sustaining circular communities in Bali and potentially in broader contexts.

10.2 Connection to Conceptual Framework

This section examines how the findings of this research align with the conceptual framework discussed in Chapter 2.

On community sharing and well-being (2.2.1)

Belk (2014) explores the nuances of sharing in the context of Sharing Economy in the Web 2.0, distinguishing between genuine sharing and pseudo-sharing. According to Belk (2014), genuine sharing, which fosters community and

reciprocity, is at odds with the monetary incentives and transactional nature of pseudo-sharing. Tsurumi et al. (2021) discuss about how relational consumption, such as sharing with your community, enhance subjective well-being and in opposite, (Ho & Yanagisawa, 2023) discuss about how well-being aspects form a cycle of sharing motivation.

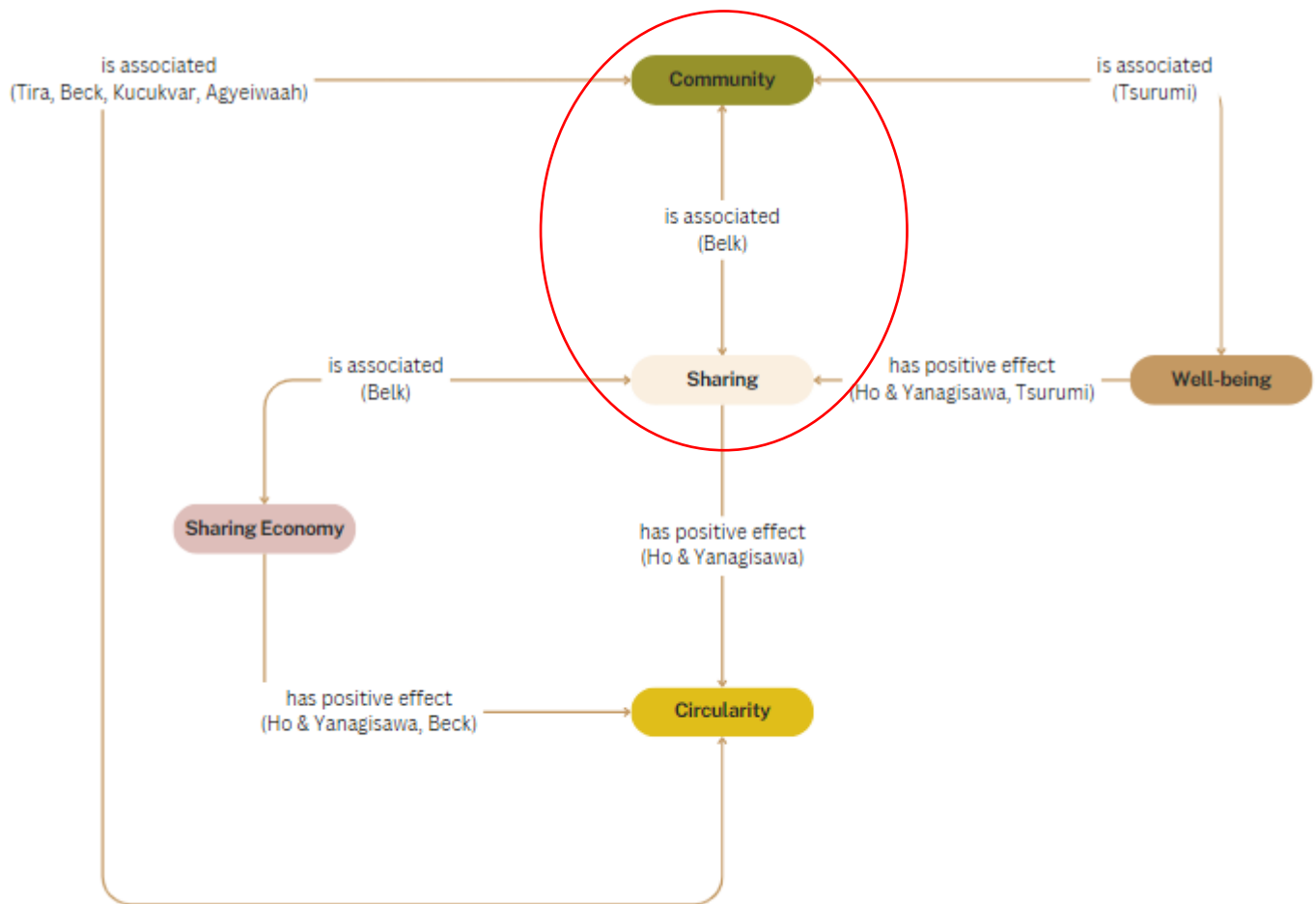


Figure 50 Relations between Community, Well-being, Sharing, Sharing Economy, and Circularity. Focus of this research is circled by the red line.

From discussion in 6.2.12 Justice & Equity: Social Pressure, a key insight from the research is the role of genuine relationships in facilitating effective object sharing. Social pressure contradicts genuine relationships, essential for sharing. The Banjar Dinas Head of Umadesa notes that modern social interactions are leading to reduced trust: "If there is no familiarity, it is difficult for people to share. Because they are shy and reluctant to ask." Similarly, the Traditional Artist and Banjar Youth Leader emphasizes that trust must precede sharing: "You don't just get to know them and ask for this or that. If from the beginning there is already a demand, it is impossible for the relationship to last." He illustrates this with his experience of borrowing a coffee machine, facilitated by pre-existing relationships: "For example, now at home I make a coffee shop, the machine was borrowed from the community for free. Now because of the help of these friends, I am also able to do business smoothly." This aligns with Belk's (2014) theory of genuine sharing and Tsurumi et al.'s (2021) emphasis on relational consumption enhancing well-being.

Belk (2014) discusses how barter economies lie between market economies and sharing economies, lacking monetary transactions but involving reciprocal exchange. The non-monetary aspect of the barter market intervention underscores its importance, as monetary transactions are often seen as a negative influence on relational communities (6.2.9 Responsibility: Economic Factors). However, Belk (2014) argues that barter, while often perceived as a form of sharing, is actually pseudo-sharing due to the reciprocal nature of exchanges. But barter can still foster community connections, especially when participants are familiar with each other. This concept is particularly relevant to the barter market intervention in this research, which focuses on physical transactions to enforce face to face interaction

instead of digital ones. This reaffirms the need for the community to connect on a deeper level, positioning sharing as a beneficial side effect of the relationships and also relationships as a result of sharing.

In conclusion, the barter market intervention designed in this research exemplifies how genuine sharing can be fostered within a community by prioritizing relational over monetary exchanges. By aligning with traditional Balinese cultural practices and promoting deeper social connections, this approach not only enhances community cohesion but also contributes to sustainable resource use.

On circularity

The analysis of the Adat system and key cultural practices in Bali reveals significant insights into how traditional Balinese society fosters sustainability through cultural mechanisms. While researching for the Key Concepts, I see that Adat practices align with the principles of the circular economy. Soini & Dessein (2016) categorize the roles of culture in sustainability into three types: Culture in Sustainability, Culture for Sustainability, and Culture as Sustainability, which help in understanding how cultural practices contribute to sustainable development.

While Adat can be viewed through the lenses of Culture in Sustainability and Culture for Sustainability—preserving cultural heritage and fostering social cohesion—this thesis argues that Adat is fundamentally a sustainability, hence Culture as Sustainability is more fit to view the roles of Adat in sustainability. The Adat system, with its principles of Ngayah and Tri Hita Karana, inherently promotes sustainable living, long before the concept of “sustainability” became prevalent. The reciprocal nature of offerings and communal management of resources, such as in the Subak irrigation system, illustrates how these cultural practices are intrinsically sustainable. Environmental respect is integrated into everyday activities and ceremonies, embedding sustainability into the cultural fabric of Balinese society. This approach ensures long-term ecological balance and social well-being.

Therefore, it is crucial to highlight that contemporary sustainability and circular economy models should not be viewed as enhancing traditional values; rather, it is the traditional values that inherently support and embody these modern concepts. This research emphasizes the need to not only preserve cultural heritage but also align contemporary environmental and social objectives with the existing community values. Aligning modern sustainability practices with the deep-rooted cultural values of the community can maybe even provide a more holistic and effective pathway towards sustainable development.

10.3 Societal Contributions

This section delineates the societal contributions of the research findings, emphasizing how the insights gained can be utilized to foster circular communities and promote sustainable practices within Balinese society and beyond. The primary societal contributions include the identification and implementation of an effective intervention—the barter market.

The barter market intervention, chosen through a community workshop, aligns with cultural values such as sustainability, solidarity, cultural respect, and trust, fostering mutual support, efficient resource utilization, and waste reduction. By integrating traditional Balinese cultural practices, such as Ngayah and Tri Hita Karana, with the principles of the circular economy, the thesis provides a fresh perspective on how these practices can be harmonized to foster sustainable community behaviors. By examining traditional Balinese practices through the lens of sustainability, this research provides practical insights for implementing sustainable intervention in diverse cultural contexts.

Furthermore, this research shifts the responsibility for climate change from an individual to a collective level. This is a significant narrative change, especially compared to the common narratives where responsibility is typically seen as either state or individual-based. Moving towards a community or collective responsibility is crucial for enhancing our ability to adapt to climate change.

10.4 Scientific Contributions

This research makes significant scientific contributions by identifying 13 key Balinese community values that enhance sharing motivation, building on the work of Ho & Yanagisawa (2023).

Notably, it is the first study to test the Circular Value Flower (CVF) (Smit & Leclercq, 2022) framework in the Global South context, particularly Bali, offering a fresh perspective on how this tool can be adapted and utilized in diverse cultural settings far from its origins in the Netherlands.

This thesis goes further by incorporating personal values and well-being aspects into the CVF method. It demonstrates a progression from personal values to common shared values, then to shared urgencies, and finally to shared intervention and eventually multiple value creation.

By employing a combination of workshops, one on one interviews, and an expanded version of the CVF framework, the research enriches academic discourse on circular economies and community engagement. This mixed-methods approach allows for a comprehensive understanding of the studied phenomena.

Furthermore, the integration of Participatory Action Research (PAR) methodology with the CVF framework offers a robust methodological approach for engaging communities in co-creating sustainable practices. This combination not only advances theoretical knowledge, but also provides practical insights and tools for community-led sustainable intervention, making the findings more relevant and applicable.

10.5 Reflections on Participatory Evaluation

Participatory Action Research (PAR) is a collaborative, democratic process of research, education and action with the involvement of researchers and participants working together to examine a problematic situation and to engage in action to change it for the better or explicitly oriented towards social transformation (Reason & Bradbury, 2001). Reason & Bradbury (2001) propose a series of six questions to guide assessment of PAR projects: Is there relational participation? Is it practically useful? Is it conceptually, theoretically, and methodologically coherent? Does it extend our ways of knowing? Is it significant? Does it lead to new or changed social practices? I will address the first two questions here, as the other aspects have been addressed previously in this thesis.

Is there relational participation?

- I approached Bale Bengong as partner, a Bali-based citizen journalism media portal founded in 2007. I needed their perspective in the research design as I am not a Balinese. We communicated the problem for this research and also discuss how we are going to approach it. All the materials were also reviewed and discussed with them. Their network facilitated participant recruitment and added credibility to the research. Bale Bengong's active, engaged community provided a rich pool of participants familiar with contributing their perspectives.
- I explained the research to potential participants, obtained their consent, and recruited them for the one on one interviews and the workshop. This initial engagement was crucial for establishing informed and willing participation.
- Interviews began with structured questions but flowed into topics of interest to the participants, ensuring their perspectives were valued. Understanding and respecting cultural norms, such as using appropriate honorifics, was crucial for establishing respect and relational groundwork.
- The workshop was participatory, with participants discussing and choosing urgencies, identifying values, stakeholders, and resources, and selecting intervention. They evaluated proposed solutions against their values, indicating deep relational participation as co-researchers.
- Challenges included the head of the Banjar leaving early, possibly due to discomfort among NGOs and business participants.

- Participants preferred talking over writing, so I assisted with writing to accommodate this preference, ensuring engagement and productivity.

Practical Usefulness

The proposed intervention were well-received and going to be held by Bale Bengong in 29 June 2024 (advertisement on Figure 51), indicating relevance. However, practical application requires thorough design and execution to address real problems and benefit the community. Insights from this research provide a strong foundation for developing effective intervention to enhance sharing practices and support circular communities in Bali.

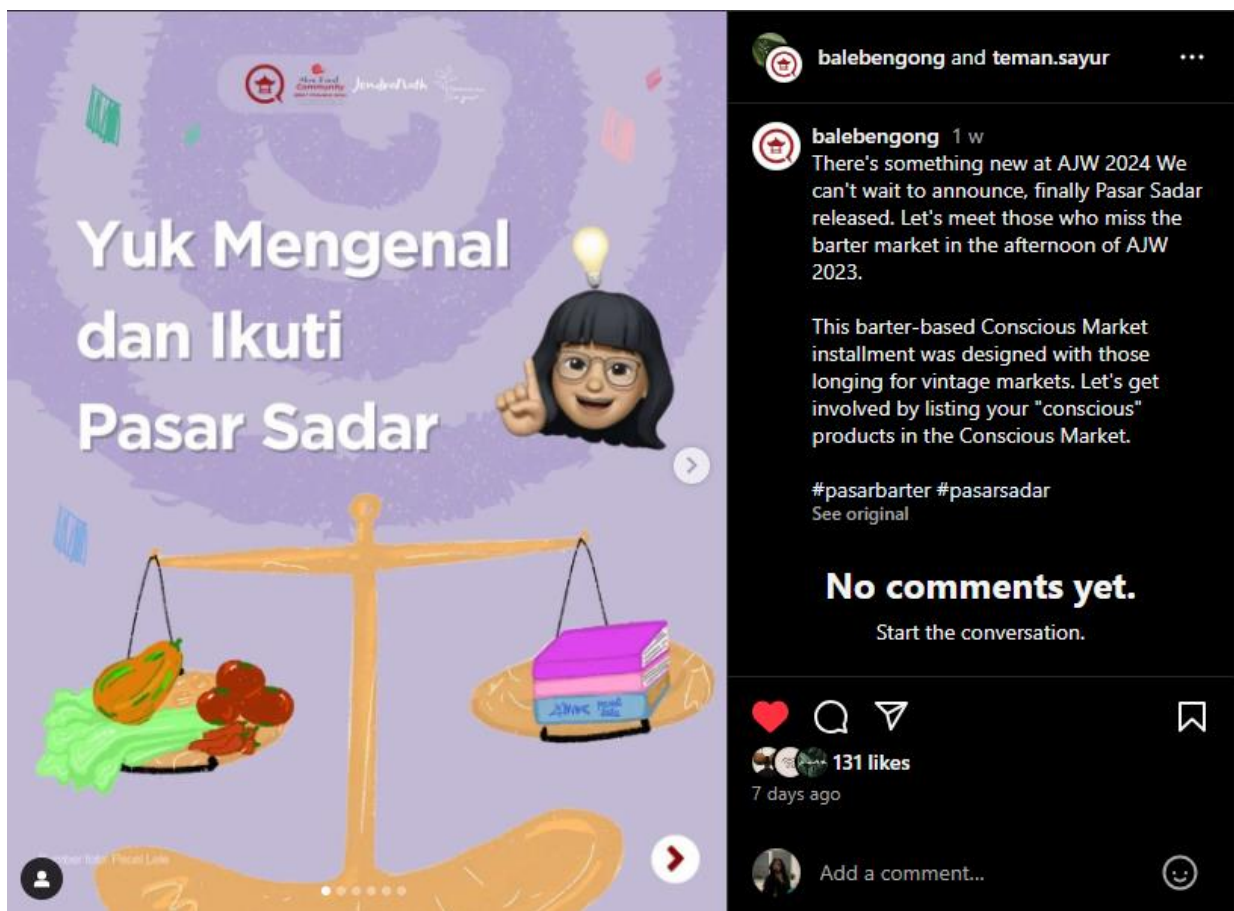


Figure 51 an Instagram post of Bale Bengong, advertising the Barter Market, which they call "Pasar Sadar" or Conscious Market

10.6 Links to the MSc CoSEM program

The aim of the Complex System Engineering and Management (CoSEM) master thesis projects is to design solutions for large and complex contemporary socio-technical problems, integrating technical, institutional, economic, and social knowledge. This thesis on "Motivating 'Sharing' to Enhance Circular Community in Bali, Indonesia" aligns with CoSEM criteria by incorporating robust design components through the development of intervention that promote sharing behaviors and circular economy practices, utilizing technology to enhance communication and resource management. It employs process management strategies to engage stakeholders, including government officials, businesses, civil society organizations, and educational institutions, systematically addressing the complexity of socio-technical systems. The thesis addresses modern issues such as integrating traditional cultural practices with contemporary technological solutions, managing diverse stakeholder interests, and ensuring sustainability, reflecting a systematic and creative approach. By considering values from both public and private domains, the thesis addresses community well-being, environmental sustainability, and economic benefits, while also tackling technical challenges, management, and ethical choices. This research exemplifies a typical CoSEM project by integrating components with

broader “Sharing Economy” that are in the front of technology, employing CoSEM methods, and balancing public and private values to address complex socio-technical problems innovatively and interdisciplinarily, while incorporating stakeholders' perspectives on modern issues.

However, during my study here, I often felt irrelevant to the climate change discussion (which is in every class!). It is mostly perceived through the lens of the role of technology and economic consequences – from Eurocentric western perception- in addressing environmental degradation. However, for people like the Balinese and many Indonesians, disadvantaged individuals, it is more of a justice issue, involving race, class, and power dynamics.

On top of my head, the cases on the classes are dominated with energy prosumers, electric cars, heat cooperative and institutional governance while on my head, I was thinking about but some people don't even have electricity in my country, how should I think about energy network? what if the government is corrupt? Where is that energy coming from? And how to cooperate in a power imbalance system?

I believe circularity shouldn't just mean environmental circularity, but also circular community. But it means recognizing and valuing the diverse perspectives and knowledge systems of all communities, including those marginalized or disadvantaged. It requires us to look beyond the dominant narratives and consider the lived experiences and wisdom of those who are often overlooked in mainstream discussions.

By incorporating epistemic justice into our approach, we can ensure that solutions to complex socio-technical problems are inclusive and equitable. This involves acknowledging the importance of traditional knowledge, addressing power imbalances, and ensuring that all voices are heard and respected in the decision-making process. In doing so, we can move towards a more holistic and just understanding of circularity – one that integrates environmental, social, and economic dimensions to truly benefit all members of the community.

10.7 Suggestions for Future Research

Future research should explore how the original sharing motivation in Bali may differ from other contexts. While this study examined factors contributing to the sharing cycle, it did not address how the original sharing motivations cycle (Ho & Yanagisawa, 2023) might be unique in Bali, potentially leading to a different sharing cycle altogether. Methodological improvements are also necessary. Collaborating with a local research partner with genuine community motives, especially one rooted in indigenous and grassroots initiatives, proved highly effective and should be continued.

Incorporating participatory action research (PAR) methods is crucial for enhancing community engagement and ensuring that research outcomes benefit local populations. PAR emphasizes collaboration, reflexivity, and action, making it suitable for addressing community needs. Conducting trial runs in the local language and context is essential to identify and correct potential issues, as evidenced by my experience with translating well-being aspects. By addressing these areas and incorporating the suggested methodological improvements, future research can build on the current study's findings, fostering more inclusive, participatory, and impactful research practices in the Global South.

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12. Appendix

12.1 Literature Review Method

To narrow down the material scope, keywords were initially created, encompassing basic keywords and their relevant synonyms pertaining to the study subject. The keywords are as follows:

1. (TITLE-ABS-KEY ("Circular Economy" OR "Circular Community" OR "Sustainable Consumption")
2. AND TITLE-ABS-KEY ("Sharing" AND "Sharing Economy" OR "Collaborative Consumption")
3. AND TITLE-ABS-KEY ("Community" OR "Communal" OR "Community Culture" OR "Social Impact" OR "Economic Impact" OR "Well-being"))

The first segment focuses on the concepts of the circular economy and sustainability. The second segment includes terms related to sharing. The third segment encompasses community values and culture. The end outcome was 34 papers. Unfortunately, with "Bali" included in the search, no results are available. Instead, I narrow the results by filtering the places into the Global South, which has a more relevant culture to Bali.

| Original Locations | | Excluded | | Included | |
|--------------------|---|--------------------|---|--------------|---|
| United States | 6 | United States | 6 | Japan | 3 |
| United Kingdom | 5 | United Kingdom | 5 | India | 3 |
| Sweden | 5 | Sweden | 5 | Turkey | 2 |
| Italy | 4 | Italy | 4 | China | 2 |
| Portugal | 3 | Portugal | 3 | Brazil | 2 |
| Japan | 3 | Germany | 3 | Thailand | 1 |
| India | 3 | Russian Federation | 2 | South Africa | 1 |
| Germany | 3 | Netherlands | 2 | Qatar | 1 |
| Turkey | 2 | France | 2 | Mexico | 1 |
| Russian Federation | 2 | Denmark | 2 | Ecuador | 1 |
| Netherlands | 2 | Australia | 2 | Chile | 1 |
| France | 2 | Spain | 1 | | |
| Denmark | 2 | Poland | 1 | | |
| China | 2 | Israel | 1 | | |
| Brazil | 2 | Hungary | 1 | | |
| Australia | 2 | Greece | 1 | | |
| Thailand | 1 | Finland | 1 | | |
| Spain | 1 | Austria | 1 | | |
| South Africa | 1 | | | | |
| Qatar | 1 | | | | |
| Poland | 1 | | | | |
| Mexico | 1 | | | | |
| Israel | 1 | | | | |
| Hungary | 1 | | | | |
| Greece | 1 | | | | |
| Finland | 1 | | | | |
| Ecuador | 1 | | | | |
| Chile | 1 | | | | |
| Austria | 1 | | | | |

The complete query became:

1. (TITLE-ABS-KEY ("Circular Economy" OR "Circular Community" OR "Sustainable Consumption")
2. AND TITLE-ABS-KEY ("Sharing" AND "Sharing Economy" OR "Collaborative Consumption")
3. AND TITLE-ABS-KEY ("Community" OR "Communal" OR "Community Culture" OR "Social Impact" OR "Economic Impact" OR "Well-being"))
4. AND (LIMIT-TO (AFFILCOUNTRY , "Japan") OR LIMIT-TO (AFFILCOUNTRY , "India") OR LIMIT-TO (AFFILCOUNTRY , "Turkey") OR LIMIT-TO (AFFILCOUNTRY , "China") OR LIMIT-TO (AFFILCOUNTRY , "Brazil") OR LIMIT-TO (AFFILCOUNTRY , "Thailand") OR LIMIT-TO (AFFILCOUNTRY , "South Africa") OR LIMIT-TO (AFFILCOUNTRY , "Qatar") OR LIMIT-TO (AFFILCOUNTRY , "Mexico") OR LIMIT-TO (AFFILCOUNTRY , "Ecuador") OR LIMIT-TO (AFFILCOUNTRY , "Chile"))

The previous set was filtered using the key words mentioned above. The initial result was 13 papers. The selected papers were further screened by evaluating their abstracts to include the most relevant ones on the searched topics. Excluded papers primarily focus on healthcare, pharmaceuticals, and economic frameworks rather than community sharing or motivational aspects, and sustainability frameworks that do not cover community sharing or motivational aspects. Additionally, a snowballing technique by exploring references for relevant sources. In the end, a list of 10 academic papers was compiled and is displayed in Table 10.

Table 10 Full academic paper selection

| Year | Author | Title | Selection Process |
|------|-----------------|---|----------------------|
| 2022 | Arekrans et al. | Barriers to access-based consumption in the circular economy | Scopus search result |
| 2021 | Pu et al. | Sustainable development and sharing economy: Perspectives from China | |
| 2021 | Bharti | Sharing Economy in India: Looking Base of the Pyramid | |
| 2024 | Tira & Türkoğlu | The Role of Community-Led Initiatives in the Circularity-Based Heritage Revitalization | |
| 2023 | Beck et al. | Achieving the sustainable development goals through the sharing economy | |
| 2021 | Kucukvar et al. | How circular design can contribute to social sustainability: A case study | |
| 2021 | Tsurumi et al. | Material and relational consumption to improve well-being | |
| 2020 | Agyeiwaah | Over-tourism and sustainable consumption of resources through sharing: The role of government | |
| 2023 | Ho & Yanagisawa | Design for Well-Being and Sustainability: A Conceptual Framework | |
| 2014 | Belk | Sharing Versus Pseudo-Sharing in Web 2.0 | |

12.2 Interview Questions (English)

- Align with your community
 - 1) Do you feel part of the community?
 - 2) How would you describe your community?
 - 3) Does the Banjar serve as the center of the community?
- Community Participation: Encourages active participation of citizens in decision-making and formulation of public policies, thus promoting participatory democracy.
 - 4) Do you feel heard in your community?
 - 5) Can you voice your ideas and concerns?
 - 6) Do you think you have the power to change things/make decisions?

- Cultural Pluralism: Valuing the diversity of cultures, knowledge and lifestyles, promoting intercultural dialog and respect for diverse identities.
 - 7) Do you apply the traditions you inherited from previous generations in your daily work?
 - 8) Do you apply practices and knowledge from other cultures in your daily work?
 - 9) Do you feel your community is open to ideas and initiatives from other cultures?
- Harmony with Nature: Aims to establish a balanced and respectful relationship with the natural environment, recognizing the rights of nature and promoting its conservation.
 - 10) How well do you think your xxxx practice/production (coffee, fish, rice, sharing goods, etc.) is done in relation to Nature?
 - 11) Does it contribute to the regeneration of the planet and not deplete nature?
 - 12) Is Tri Hita Karana still relevant in your life?
 - 13) To what extent do you think your community supports regenerative and sustainable practices and initiatives?
 - 14) How can it be improved?
- Currently, the "sharing economy" is very popular and is said to help circularity but there are also criticisms that "sharing" in the "sharing economy" has redefined the original meaning of sharing. And even has some negative impacts on humanity. ...
 - 15) What do you think about the sharing economy?
 - 16) Is money a problem?
- Equality and Social Justice: Ensuring equal opportunities for all individuals, fostering social inclusion, and fair distribution of resources.
 - 17) Do you pay attention to social relationships in your work?
 - 18) How and with whom?
 - 19) Do you pay attention to resource/income equity?
 - 20) Do you feel part of a social network in your community? Can you explain this further?
- Solidarity and Reciprocity: Encourage collaboration and mutual support between individuals and communities based on the principles of solidarity and reciprocity.
 - 21) Are these people part of your community or do you also collaborate with people outside your community?
 - 22) How do you value this collaboration?
 - 23) What do you think about the culture of sharing?

12.3 Detail participants demographic

| Social Title | Intervi ew | Works hop | Banjar Adat | Sentim ent | Gen der | Marital Status | Voice Banjar | at | Designer /Art | Govt/ Adm | NGO/ Activism | Bussin ess | Educat ion |
|---|---------------|--------------|-----------------|---------------|------------|-------------------|-----------------|----|--------------------------------------|---|---|---------------|---------------|
| Administrative Village Head of Bengkel | Y | | Banjar Adat | Positiv e | Male | Married | Yes | | | Villag e Head of Bengk el | | | |
| Administrative Banjar Head of Umadesa | Y | Y | Banjar Adat | Positiv e | Male | Married | Yes | | | Dusun Head (Banja r Dinas) of Umad esa | Sungai | | |
| Supervisor of Smile Foundation's Second-hand Shop | Y | Y | Banjar Adat | Positiv e | Male | Married | Yes | | | | Yayasan Senyum | | |
| Operational Manager of Smile Foundation | Y | Y | Banjar Dinas | Positiv e | Fem ale | Married | No | | | | Yayasan Senyum | | |
| Editor in Chief of Bale Bengong | | Y | Banjar Adat | Neutra l | Fem ale | Married | No | | | | Bale Bengong | | |
| Musician, Graphic Designer and Environmental Activist | Y | | Banjar Dinas | Negati ve | Male | Not married | No | | Musicia n, Designer Graphic | | PlastikD etox, Taman Baca Kesiman | | |

| Social Title | Interview | Workshop | Banjar | Sentiment | Gender | Marital Status | Voice at Banjar | at | Designer /Art | Govt/Adm | NGO/Activism | Bussiness | Education |
|--|-----------|----------|--------------|-----------|--------|----------------|-----------------|----|--|----------------------|------------------------------|--------------------------|--------------------------|
| Traditional Artist and Banjar Youth Leader | Y | Y | Banjar Adat | Positive | Male | Not married | No | | Musician, Traditional Art (puppet, dance), Architect & Urban Planner | Sabha of Yowana Head | | | |
| Archeology Student and Cultural Activist | Y | Y | Banjar Adat | Negative | Male | Not married | No | | | | | | Nuturang |
| Anthropology Student and Cultural Activist | | Y | Banjar Adat | Neutral | Male | Not married | No | | | | | | Nuturang |
| Lecturer in Anthropology | Y | | Banjar Adat | Neutral | Male | Not married | No | | | | | | Lecturer |
| Swap Party Organizer for Tricycle, a sustainable fashion brand | Y | | Banjar Dinas | Positive | Female | Not married | No | | | | Swap Party | Tricycle | |
| Facilitator of cutleries rental service | Y | Y | Banjar Dinas | Positive | Female | Not married | No | | | | PlastikDetox | Taksu | |
| Contributor for Bale Bengong | | Y | Banjar Adat | Neutral | Female | Not married | No | | | | Bale Bengong | | |

12.4 Circular Value Flower Workshops

Held on May 23, 2024, at the Bale Bengong co-working space in Bali, Indonesia, the workshop began with an opening speech by the Editor-in-Chief of Bale Bengong. I then provided a summary of the research background and examples of sharing initiatives discovered during the one on one interviews, such as Smile Shop's second-hand shop, Tricycle's clothing swap party, and Plastikdetox's Taksu cutlery rental service.

Participants were informed of the workshop agenda to manage expectations and were introduced to discussion principles, including avoiding judgment, maintaining open perspectives, and fostering curiosity. Additionally, I introduced well-being values from Ho & Yanagisawa's (2023) framework, incorporated into the workshop through stickers that participants could place on areas they found relevant.

The workshop utilized the Circular Value Flower Framework, facilitating group discussions on shared urgencies, values and ambitions, stakeholders, resources, and intervention ideas. These ideas were then categorized into established values, culminating in detailed plans for selected intervention. The workshop lasted three hours and concluded with a group lunch.

The steps of the workshop are as follow:

- 1) The **Urgency** discusses the immediate needs and pressing issues identified during the workshop that necessitate the intervention.
- 2) The **Values** explores the core values that underpin the community's approach to sharing and circularity.
- 3) The **Stakeholders** identifies the key stakeholders involved in the intervention, detailing their roles and contributions.
- 4) The **Resources** outlines the resources required for the intervention, including material, human, and financial resources.
- 5) The **Categorizing** organizes the ideas and suggestions from the workshop into coherent categories aligned with established values.
- 6) Finally, the **Detailed Intervention** provides comprehensive plans for the selected intervention, detailing the steps and strategies for implementation.

The results are:

12.4.1 Urgency

Table 11 Urgency Results in English

| Step | Category | Sub-category | Content |
|------------|----------|--------------|--|
| 1. Urgency | Fear | Collective | If there is a patient in the family, the family's welfare will not be good |
| 1. Urgency | Fear | Collective | The decline of collective culture |
| 1. Urgency | Fear | Custom | In my experience, sharing is something important because we cannot live alone (especially banjars - villages - groups) |
| 1. Urgency | Fear | Economy | The large number of thrift shops scattered around will reduce smile shop sales, but we are still trying our best to provide information about the purpose of smile shop. |
| 1. Urgency | Fear | System | Public perception about cutlery hygiene |

| Step | Category | Sub-category | Content |
|------------|----------------|--------------|--|
| 1. Urgency | Goal | Collective | Hope that life in the community can last a long time. |
| 1. Urgency | Goal | Collective | So that more people are more willing to share with those who need it more |
| 1. Urgency | Goal | Collective | The dream is to return to a collective culture |
| 1. Urgency | Goal | Collective | Helps ease the lives of cleft lip patients |
| 1. Urgency | Goal | Collective | It is important to archive/even re-enact shared values because it can make the ceremony easier |
| 1. Urgency | Goal | Environment | Sustainable living model |
| 1. Urgency | Strength | Collective | Can share, share, share goods/services |
| 1. Urgency | Strength | Collective | Comprehensive operations assistance program |
| 1. Urgency | Strength | Collective | Kinship |
| 1. Urgency | Strength | Collective | The Foundation has different initiative programs for donations |
| 1. Urgency | Strength | Collective | The new smiles of Senyum Foundation patients |
| 1. Urgency | Strength | Custom | Awig-awig must keep up with the times so that it can cover contemporary problems |
| 1. Urgency | Strength | Environment | The items can be reused --> prevent waste --> reduce carbon footprint |
| 1. Urgency | Urgency | Collective | Humans live collectively |
| 1. Urgency | Urgency | Economy | Smile shops still exist amidst the onslaught of thrift shops |
| 1. Urgency | Urgency | Environment | There is a lot of single-use plastic packaging waste from public events --> waste management is not optimal |
| 1. Urgency | Weakness | Collective | In village/local life, sometimes the hope of sharing is not achieved due to a sense of individualism. (Impact of job specialization) |
| 1. Urgency | Weakness | Collective | There are still many who don't know about the current smile foundation program |
| 1. Urgency | Weakness | Economy | Feel yourself financially capable |
| 1. Urgency | Weakness | Economy | many customers offer prices that are too far from the stated price (smile shop) |
| 1. Urgency | Weakness | Economy | Rental costs are not affordable for all groups |
| 1. Urgency | Weakness | System | Reuse systems are not yet popular nowadays |
| 1. Urgency | Weakness | System | The rental system is considered complicated |
| 1. Urgency | Shared Urgency | Collective | A community is a group that comes together that has 1 fun mission. |

| Step | Category | Sub-category | Content |
|------------|----------------|--------------|--|
| | | | Sometimes where do the funds come from? |
| 1. Urgency | Shared Urgency | Collective | a sense of collective living as humans |
| 1. Urgency | Shared Urgency | Collective | Can't find it myself/ask for it because of time (not a priority) |
| 1. Urgency | Shared Urgency | Collective | Diversity in group life |
| 1. Urgency | Shared Urgency | Collective | Kinship |
| 1. Urgency | Shared Urgency | Collective | Life is more economical, easier to share |
| 1. Urgency | Shared Urgency | Collective | What unites kinship between communities is synergy between one another. Can't do it alone. |
| 1. Urgency | Shared Urgency | Collective | You can be more free to choose the best option, for example make things (instead of buying) |
| 1. Urgency | Shared Urgency | Custom | Sharing is often done in Tegallalang village because it is bound by custom and they still care about the environment |
| 1. Urgency | Shared Urgency | Economy | If you don't want to be burdensome, it's better to use a paid service |
| 1. Urgency | Shared Urgency | Economy | If you want to start keto (that's always been the case)/you have to buy what you're told to do |
| 1. Urgency | Shared Urgency | Economy | Instantly/just want to buy it |
| 1. Urgency | Shared Urgency | Environment | Doesn't care about the environment |
| 1. Urgency | Shared Urgency | Environment | Use of inorganic/disposable materials during traditional events |
| 1. Urgency | Shared Urgency | Environment | Violation of the law even though there are regulations from PSP (One-time use Plastic) |
| 1. Urgency | Shared Urgency | System | There are more and more foundations and BPJS too |

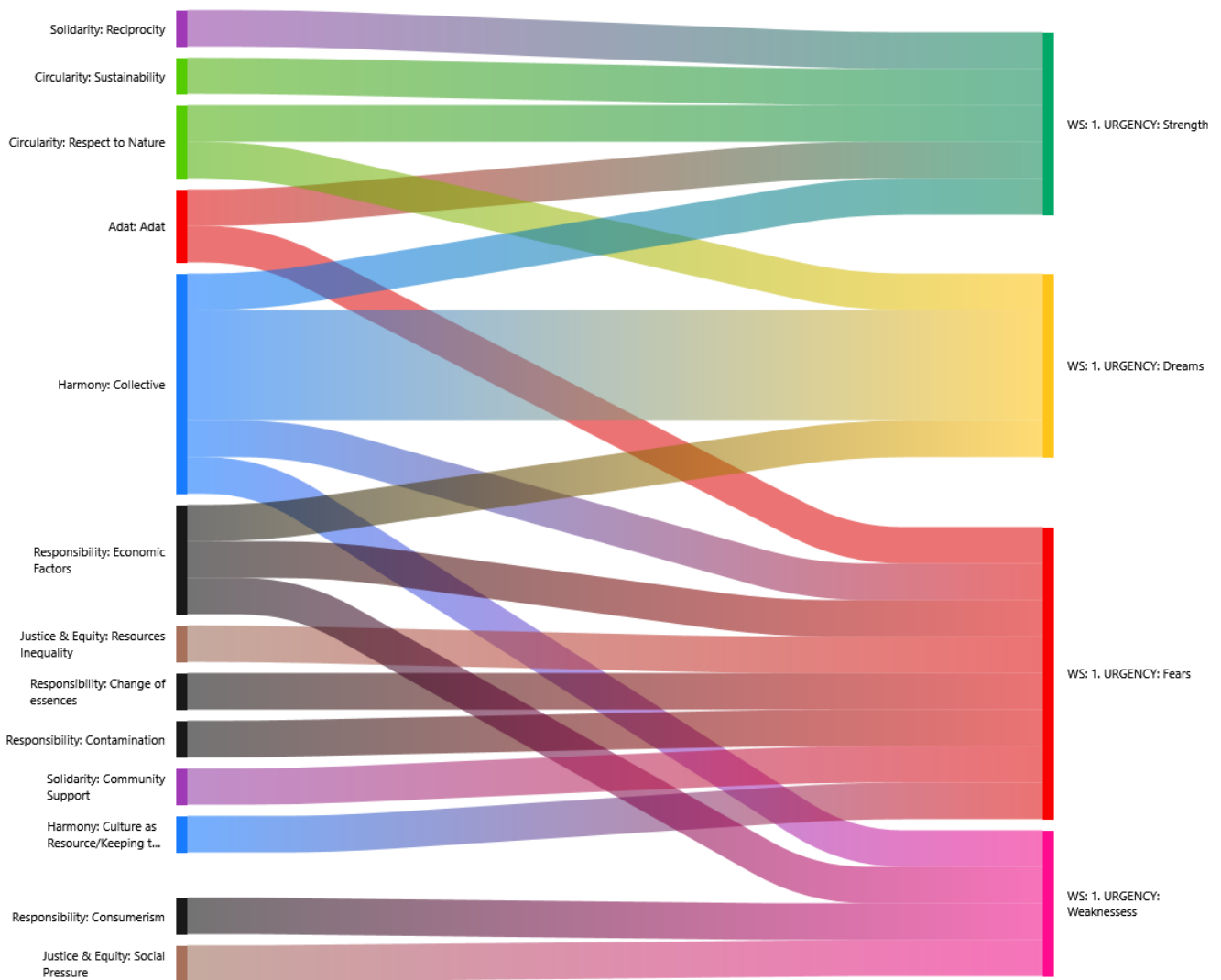


Figure 52 Urgency Key Values

12.4.2 Values

Table 12 Values Result in English

| Step | Category | Content |
|-----------|-------------|---|
| 2. Values | Aesthetics | The philosophy of meaning behind the work. |
| 2. Values | Culture | Socialization/inheriting information. Knowledge transfer. |
| 2. Values | Economy | Affordable prices |
| 2. Values | Economy | Supply = demand (balanced, not excessive) |
| 2. Values | Environment | It doesn't quickly become waste |
| 2. Values | Social | Care about people around you |
| 2. Values | Social | Contribution |
| 2. Values | Social | Empathy |
| 2. Values | Social | Existence acknowledged |
| 2. Values | Social | Gratitude |
| 2. Values | Social | Involvement |

12.4.3 Stakeholders



Figure 53 Table 13 Stakeholder Sheet, filled in Bahasa Indonesia

Table 13 Stakeholders Result in English

| | | | | | |
|--------|--------------|------------|--------------------------|--------------------|-------------------|
| Desire | Fair economy | Solidarity | Aesthetics happiness --> | Knowledge transfer | Prospering humans |
|--------|--------------|------------|--------------------------|--------------------|-------------------|

| | | | | | |
|--------------|------------|------------------------------|---------------------------------------|---------------------------------|-----------------------|
| | Fair trade | Sustainable | Collective space | Problem based study | Support the community |
| | | | Strength --> Sustainability | | |
| Stakeholders | Business | NGO | Designer/expert | Education | Government |
| Values | People | Care about people around you | Brainstorm ideas for solving problems | Local wisdom for sustainability | Fund |
| | Planets | Existence acknowledged | Derivation of potential (material) | Tap contagious | Money |
| | Profit | | Local wisdom | | Tool |

12.4.4 Resources

Table 14 Resources Result in English

| Step | Category | Content |
|--------------|----------------|---|
| 4. Resources | Electricity | Electricity from renewable electricity sources |
| 4. Resources | Electricity | Energy friendly facilities |
| 4. Resources | Electricity | Saving electricity |
| 4. Resources | Electricity | Use of renewable energy |
| 4. Resources | Tech Materials | 5 star review for contributions/donations |
| 4. Resources | Tech Materials | Bags from used goods |
| 4. Resources | Tech Materials | Barter Market |
| 4. Resources | Tech Materials | Borrowing Banten tools |
| 4. Resources | Tech Materials | Exchange crops and food and clothing |
| 4. Resources | Tech Materials | Raise chickens and superior seeds |
| 4. Resources | Tech Materials | Recognizing that these ecosystem services are limited |
| 4. Resources | Tech Materials | Taksu and Smile Shop create a sharing mall |
| 4. Resources | Tech Materials | Use glass cups instead of buying plastic cups/paper cups |
| 4. Resources | Nutrition | Local food |
| 4. Resources | Nutrition | Milk for the underprivileged |
| 4. Resources | Nutrition | The existence of a system of sharing agricultural products (food) |
| 4. Resources | Nutrition | Village land for village food, to fulfill nutrition |
| 4. Resources | Water | Access to clean water |
| 4. Resources | Water | Equal access to water, for those who need it (don't monopolize water) |
| 4. Resources | Water | Local water use (water management from local government) |
| 4. Resources | Water | Save water |

12.4.5 Categorizing

Table 15 Categorizing result in English

| Category | Positive | Neutral | Negative |
|-------------|---|---|--|
| Aesthetics | Curated | | Beautiful banten; FOMO without meaning |
| Aesthetics | Human Interest | | |
| Culture | Cultural Liberation | | Takes up a lot of time |
| Culture | Knowledge transfer | | |
| Economy | The economic value is commensurate with the goods | | Competition with conventional business people |
| Economy | | | Difficult to measure |
| Economy | | | Might hinder stability of economy (policy and surrounding economy) |
| Environment | Get things as needed | | |
| Environment | It doesn't quickly become trash | | |
| Social | Mentally healthy | | Too heterogeneous people |
| Social | Networking | | |
| Culture | | Dissemination of information depending on the topic (can be positive, can be negative when it becomes gossip) | |

12.4.6 Detailed Intervention

Table 16 Detailed Intervention in English

| Step | Category | Sub-category | Content |
|-----------------|------------------------------|--------------|--------------------------------|
| 6. Intervention | Capital | Excitement | Enjoyment (Pleasure) |
| 6. Intervention | Capital | Excitement | Hobbyist |
| 6. Intervention | Capital | Goods | Post-harvest products |
| 6. Intervention | Capital | Goods | Used agricultural equipment |
| 6. Intervention | Capital | Goods | Used-Goods |
| 6. Intervention | Capital | Network | Community |
| 6. Intervention | Capital | Network | Contribution |
| 6. Intervention | Capital | Network | Engagement |
| 6. Intervention | Capital | Network | Farming community (local food) |
| 6. Intervention | Capital | Skills | Modification |
| 6. Intervention | Capital | Skills | Reparations |
| 6. Intervention | Capital | Skills | Sewing services |
| 6. Intervention | Capital | Skills | Transport services |
| 6. Intervention | Capital | Wisdom | Tika (Balinese calendar) |
| 6. Intervention | Capital | Wisdom | Trust |
| 6. Intervention | Digital & Spatial Components | Building | Altruism |
| 6. Intervention | Digital & Spatial Components | Building | Warehouse before the event |

| Step | Category | Sub-category | Content |
|-----------------|------------------------------|------------------------|---|
| 6. Intervention | Digital & Spatial Components | Digital infrastructure | Digital marketing |
| 6. Intervention | Digital & Spatial Components | Digital infrastructure | list of needs (categorization) can tell you what you need using Gform |
| 6. Intervention | Digital & Spatial Components | Digital infrastructure | Selling medium (photos, etc) |
| 6. Intervention | Digital & Spatial Components | Digital infrastructure | Social media |
| 6. Intervention | Digital & Spatial Components | Object | list of needs (categorization) can tell you what you need using Gform |
| 6. Intervention | Digital & Spatial Components | Object | Performer (art performance) --> Contribution |
| 6. Intervention | Digital & Spatial Components | Object | Performer (performing arts) |
| 6. Intervention | Digital & Spatial Components | Park | Nomadic Barter Market--> Tenten |
| 6. Intervention | Digital & Spatial Components | Public space | Nomadic Barter Market |
| 6. Intervention | Stakeholders | Business | Donation |
| 6. Intervention | Stakeholders | Business | No money |
| 6. Intervention | Stakeholders | Business | Reward points system (for active participants/volunteers) |
| 6. Intervention | Stakeholders | Business | Trust |
| 6. Intervention | Stakeholders | Designer/expert | Planology (city planning) |
| 6. Intervention | Stakeholders | Education | Knowledge transfer |
| 6. Intervention | Stakeholders | Government | Licensing |
| 6. Intervention | Stakeholders | Government | Regulations |
| 6. Intervention | Stakeholders | NGO | Socialization |
| 6. Intervention | Stakeholders | NGO | Transfer info |
| 6. Intervention | Values | Aesthetics | Art |
| 6. Intervention | Values | Culture | Culture of voluntary help (ngayah) |
| 6. Intervention | Values | Culture | Revitalizing barter values |
| 6. Intervention | Values | Economy | Circular economy |
| 6. Intervention | Values | Environment | Reduce carbon footprint |
| 6. Intervention | Values | Social | Affection |
| 6. Intervention | Values | Social | Empathy |
| 6. Intervention | Values | Social | Help each other |
| 6. Intervention | Values | Social | Mutual agreement |
| 6. Intervention | Values | Social | Tolerance |
| 6. Intervention | Values | Goods | Ex-Hotel |

12.5 Full list of Community Code Group co-occurred with Sharing Code Group

| No | Codes | ● Info Sharing | ● Object Sharing | ● Well-being Aspects | Total: 373 | |
|----|---|----------------|------------------|----------------------|------------------------|----------------|
| | | | | | Total of Sharing Group | Top 50% status |
| 1 | ● Adat: Adat/Customary Matters | 3 | 4 | 15 | 22 | TRUE |
| 2 | ● Harmony: Non-Banjar Communities | 6 | 2 | 12 | 20 | TRUE |
| 3 | ● Harmony: Banjar community | 6 | 2 | 9 | 17 | TRUE |
| 4 | ● Justice & Equity: Power to change | 12 | 0 | 5 | 17 | TRUE |
| 5 | ● Adat: Ngayah | 0 | 4 | 11 | 15 | TRUE |
| 6 | ● Justice & Equity: Equal distribution of Resources | 0 | 7 | 7 | 14 | TRUE |
| 7 | ● Solidarity: Community Support | 3 | 4 | 7 | 14 | TRUE |
| 8 | ● Solidarity: Solidarity | 2 | 3 | 8 | 13 | TRUE |
| 9 | ● Harmony: Conformity | 4 | 1 | 7 | 12 | TRUE |
| 10 | ● Responsibility: Economic Factors | 0 | 6 | 6 | 12 | TRUE |
| 11 | ● Adat: Banjar Structure | 4 | 2 | 4 | 10 | TRUE |
| 12 | ● Harmony: Sense of Belonging&/Ownership | 5 | 0 | 5 | 10 | TRUE |
| 13 | ● Justice & Equity: Social Pressure | 4 | 4 | 2 | 10 | TRUE |
| 14 | ● Harmony: Culture as Resource/Keeping the traditions | 5 | 2 | 2 | 9 | FALSE |
| 15 | ● Circularity: Respect to Nature | 0 | 2 | 6 | 8 | FALSE |
| 16 | ● Harmony: Family | 4 | 0 | 4 | 8 | FALSE |
| 17 | ● Harmony: Not Belonging | 3 | 1 | 4 | 8 | FALSE |
| 18 | ● Harmony: Youth | 3 | 0 | 5 | 8 | FALSE |
| 19 | ● Responsibility: Commercialism/For-profit | 0 | 5 | 3 | 8 | FALSE |
| 20 | ● Responsibility: Urban living | 2 | 3 | 2 | 7 | FALSE |
| 21 | ● Solidarity: Reciprocity | 1 | 2 | 4 | 7 | FALSE |
| 22 | ● Adat: Banten | 1 | 4 | 1 | 6 | FALSE |
| 23 | ● Circularity: Waste & Plastics Problem | 1 | 3 | 2 | 6 | FALSE |
| 24 | ● Solidarity: Collaboration | 0 | 2 | 4 | 6 | FALSE |
| 25 | ● Harmony: Farming | 1 | 3 | 1 | 5 | FALSE |
| 26 | ● Justice & Equity: Hierarchy | 2 | 1 | 2 | 5 | FALSE |
| 27 | ● Responsibility: Change of essences | 3 | 1 | 1 | 5 | FALSE |
| 28 | ● Responsibility: Contamination | 0 | 3 | 2 | 5 | FALSE |
| 29 | ● Responsibility: Coordination Problem | 3 | 2 | 0 | 5 | FALSE |

| No | Codes | ● Info Sharing | ● Object Sharing | Total: ● Well-being Aspects | 373 Total of Sharing Group | Top 50% status |
|----|---|----------------|------------------|-----------------------------|-------------------------------|----------------|
| 30 | ● Adat: Lungsur | 0 | 3 | 1 | 4 | FALSE |
| 31 | ● Adat: Tri Hita Karana | 1 | 0 | 3 | 4 | FALSE |
| 32 | ● Justice & Equity: Active Participation | 1 | 0 | 3 | 4 | FALSE |
| 33 | ● Adat: Banjar Dinas | 1 | 1 | 1 | 3 | FALSE |
| 34 | ● Adat: Respect to God (Niskala) | 0 | 1 | 2 | 3 | FALSE |
| 35 | ● Harmony: Acknowledgment | 1 | 0 | 2 | 3 | FALSE |
| 36 | ● Harmony: Aesthetic | 1 | 1 | 1 | 3 | FALSE |
| 37 | ● Harmony: Bigger meaning/belief | 0 | 1 | 2 | 3 | FALSE |
| 38 | ● Harmony: Tourism Effect | 1 | 1 | 1 | 3 | FALSE |
| 39 | ● Justice & Equity: Democracy | 2 | 0 | 1 | 3 | FALSE |
| 40 | ● Justice & Equity: Lack of/Limited Participation | 1 | 0 | 2 | 3 | FALSE |
| 41 | ● Solidarity: Narrowing of the solidarity | 1 | 1 | 1 | 3 | FALSE |
| 42 | ● Adat: Traditional Market | 1 | 1 | 0 | 2 | FALSE |
| 43 | ● Adat: Yadnya/Offerings | 0 | 1 | 1 | 2 | FALSE |
| 44 | ● Circularity: Reduce Carbon Footprint | 0 | 1 | 1 | 2 | FALSE |
| 45 | ● Harmony: Cultural Integration | 1 | 0 | 1 | 2 | FALSE |
| 46 | ● Harmony: Mental Health | 1 | 0 | 1 | 2 | FALSE |
| 47 | ● Harmony: Relationship | 0 | 0 | 2 | 2 | FALSE |
| 48 | ● Justice & Equity: Decision-making | 2 | 0 | 0 | 2 | FALSE |
| 49 | ● Responsibility: Spatial Aspect | 1 | 0 | 1 | 2 | FALSE |
| 50 | ● Solidarity: Insincerity | 1 | 0 | 1 | 2 | FALSE |
| 51 | ● Adat: Awig-awig | 0 | 0 | 1 | 1 | FALSE |
| 52 | ● Adat: Getok Tular | 1 | 0 | 0 | 1 | FALSE |
| 53 | ● Adat: Karmaphala | 0 | 0 | 1 | 1 | FALSE |
| 54 | ● Adat: Medelokan | 0 | 0 | 1 | 1 | FALSE |
| 55 | ● Adat: Megibung | 1 | 0 | 0 | 1 | FALSE |
| 56 | ● Adat: Peletasan | 0 | 1 | 0 | 1 | FALSE |
| 57 | ● Adat: Sekehe Teruna-Teruni | 0 | 0 | 1 | 1 | FALSE |
| 58 | ● Adat: Sekehe | 0 | 0 | 1 | 1 | FALSE |
| 59 | ● Adat: Ten-ten (Pasar Kaget) | 1 | 0 | 0 | 1 | FALSE |
| 60 | ● Adat: Tika | 0 | 1 | 0 | 1 | FALSE |
| 61 | ● Circularity: Land Use | 0 | 1 | 0 | 1 | FALSE |

| No | Codes | ● Info Sharing | ● Object Sharing | Total: Well-being Aspects | 373 Total of Sharing Group | Top 50% status |
|----|---|----------------|------------------|---------------------------|-------------------------------|----------------|
| 62 | ● Circularity: Localization | 0 | 1 | 0 | 1 | FALSE |
| 63 | ● Circularity: Planting | 0 | 0 | 1 | 1 | FALSE |
| 64 | ● Circularity: Reducing new consumption | 0 | 1 | 0 | 1 | FALSE |
| 65 | ● Circularity: River Conservation | 0 | 0 | 1 | 1 | FALSE |
| 66 | ● Circularity: Slow Fashion | 0 | 0 | 1 | 1 | FALSE |
| 67 | ● Circularity: Waste Separation Initiative | 0 | 0 | 1 | 1 | FALSE |
| 68 | ● Harmony: Art | 1 | 0 | 0 | 1 | FALSE |
| 69 | ● Harmony: Diversity | 1 | 0 | 0 | 1 | FALSE |
| 70 | ● Justice & Equity: Fear of losing identity | 1 | 0 | 0 | 1 | FALSE |
| 71 | ● Justice & Equity: Limited Influence | 1 | 0 | 0 | 1 | FALSE |
| 72 | ● Justice & Equity: Resources Inequality | 0 | 0 | 1 | 1 | FALSE |
| 73 | ● Responsibility: Consumerism | 0 | 1 | 0 | 1 | FALSE |
| 74 | ● Responsibility: High-walls & narrow streets | 1 | 0 | 0 | 1 | FALSE |