Journal of Cleaner Production 387 (2023) 135780

Contents lists available at ScienceDirect

Journal of Cleaner Production

journal homepage: www.elsevier.com/locate/jclepro

People at the heart of circularity: A mixed methods study about trade-offs, synergies, and strategies related to circular and social organizing

Katinka J.P. Quintelier *, Koen van Bommel, Amba Maria van Erkelens, Johan Wempe

Department of Management & Organization, Vrije Universiteit Amsterdam, De Boelelaan 1105, 1081 HV, Amsterdam, the Netherlands

ARTICLE INFO

Handling Editor: Cecilia Maria Villas Bôas de Almeida

Keywords:
Circular economy
Social value
Synergy
Trade-off
Stakeholder theory
Communal sharing

ABSTRACT

An important promise of the circular economy (CE) is the creation of social value alongside increased resource circularity. Yet, while synergies between social value and resource circularity are possible, the trade-offs between social value and resource circularity, and strategies for transforming trade-offs into synergies, are under-investigated. In this paper, we look at trade-offs, synergies and strategies through the lens of stakeholder theory, and we adopt a mixed methods approach to reveal the trade-offs, synergies and strategies related to the CE in the Netherlands. We report the results of (1) a three-stage policy Delphi study involving a panel of 47 circularity experts from different sectors (academia, business, government, civil society), and (2) interviews with 27 strategic leaders in circular organizations. The findings show that in the Netherlands, circular organizations create synergies at the organizational and value network level but face significant trade-offs between circularity and social value at the societal level. Synergies are fostered by an ethically motivated communal sharing strategy and impeded by economic motivations. These findings advance current debates in stakeholder theory and unearth conditions that enable and hinder the CE to live up to its social promise.

1. Introduction

The current linear "take-make-waste" economy depletes resources, which negatively impacts the natural and social environment. The circular economy (CE) is an alternative that promises ways to retain resources, to restore and regenerate the natural environment (Ghisellini et al., 2016; Merli et al., 2018), and to create social value in the long term (Masi et al., 2017) as well as the short term (European Commission, 2020; Mazur-Wierzbicka, 2021). For instance, policy makers see the CE as a sustainable development program, meaning that, next to environmental and economic value, it also generates social value (Inigo and Blok, 2019) such as social inclusion (European Commission, 2020) and employment (Horbach and Rammer, 2020). Likewise, some scholarly work has conceptualized the CE as an economic model that integrates social value creation as a goal alongside resource circularity (Schröder et al., 2020; see also Murray et al., 2017).

Despite these ambitions, social value creation in the CE has received relatively little research attention (Masi et al., 2017; Mathews and Tan, 2011). In the majority of studies, the CE's social dimension is either assumed or ignored (Kirchherr et al., 2017; Schröder et al., 2020). Instead, the CE is largely investigated as an economic system closing the technological loop of material and energy flows (e.g. Masi et al., 2017; Mathews and Tan, 2011). When the social dimension is included, researchers tend to treat it as a means to increase resource circularity (e.g., Moreau et al., 2017), and not as a value or goal in itself. Likewise, in business practices, European multinational enterprises pay little attention to the CE's social dimension (Calzolari et al., 2021; Inigo and Blok, 2019). For instance, large incumbents claiming to espouse the CE tend to focus on the economic dimension, implementing only the most cost-effective practices such as recycling (Mhatre et al., 2021; Ranta et al., 2018). All this results in a limited understanding of the creation of social value as an end in itself in the CE; and without this understanding, the social goals of the CE as envisioned in policy and in academic concepts might not be achieved.

To better understand social value creation in the CE, scholars have systematically reviewed studies on social value created in the CE or in adjacent fields such as industrial ecology (Mies and Gold, 2021; Padilla-Rivera et al., 2020). These systematic reviews show that, when social value is included as an end in itself, (1) studies tend to focus on positive relationships (i.e. synergies) between resource circularity and social

* Corresponding author.
E-mail addresses: k.j.p.quintelier@vu.nl (K.J.P. Quintelier), k.van.bommel@vu.nl (K. van Bommel), a.m.van.erkelens@vu.nl (A.M. van Erkelens), j.f.d.b.wempe2@vu.nl (J. Wempe).

https://doi.org/10.1016/j.jclepro.2022.135780
Received 31 July 2022; Received in revised form 20 December 2022; Accepted 27 December 2022
Available online 27 December 2022
0959-6526/© 2023 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

value, (2) studies tend to obscure the process by which social value was created, and (3) most studies do not explicitly distinguish between different kinds of social value (Mies and Gold, 2021; Padilla-Rivera et al., 2020). These gaps are problematic, as negative relationships (i.e. trade-offs) between environmental and social value do exist, depending on the kind of social value (Johansson and Krook, 2021). To realize social value as an integral part of the CE, we therefore need a better understanding of trade-offs between resource circularity and different kinds of social value, and of strategies that create synergies between resource circularity and different kinds of social value. In this paper, we therefore pose the following research question: *What are the trade-offs and synergies between resource circularity and different kinds of social value, and how are synergies between resource circularity and different kinds of social value created?*

To address this research question, we first synthesize and problematize existing knowledge on the social dimension of the CE. We then use stakeholders theory as a lens to look at trade-offs, synergies, and strategies, and with an eye to advance existing theory. Next, we introduce our mixed methods approach (Creswell and Tashakkori, 2007) to investigate the CE in the Netherlands. This consists of a policy Delphi study with 47 experts, providing a broad overview of trade-offs and synergies in the CE; and interviews with 27 strategic leaders in circular organizations, providing deeper insights into trade-offs, synergies, and strategies in the CE. The findings show that circular organizations create synergies between resource circularity and different kinds of social value at the micro (organizational) and meso (value network) level, but circular organizations face significant trade-offs at the macro (societal value) level. Building a dynamic model of communal sharing at the micro, meso and macro level, we infer that synergies are fostered by a communal sharing strategy (Bridoux and Stoelhorst, 2016; Jones et al., 2018) that is ethically motivated (Weitzner and Deutsch, 2022), while economic motivations impede synergies.

With our study we help to integrate social value creation as an end in itself of the CE (Schröder et al., 2020). First, we further detail how a communal sharing strategy can foster synergies through personal, structural and socio-circular strategic behaviors. Second, by investigating the micro, meso, and macro level we are able to highlight current limits to a social CE, which manifest mainly at the macro level. Third, building on recent debates in stakeholder theory that pitch ethical motivations against economic motivations (Weitzner and Deutsch, 2022; Harrison et al., 2019), we find that ethical motivations support the creation of synergies while economic motivations detract from synergies.

2. Theoretical framework

2.1. Social value creation in the CE

Although the social dimension of the CE is receiving increasing academic interest, this stream of research often treats the social dimension as a means to achieve resource circularity, and not as an end in itself. For example, Wuyts et al. (2019) find that a transition to a more circular built environment requires a people-centered approach. Likewise, different scholars argue that the implementation of circular business models (CBMs) requires a change in consumers' and suppliers' behavior (Geissdoerfer et al., 2018) as well as new forms of collaboration between multiple stakeholders (Brown et al., 2019; Leising et al., 2018). While we agree that social change can be a means to increase resource circularity, this social change is not always beneficial for human beings, as has been examined in the context of the sharing economy (Cherry and Pidgeon, 2019) and building renovation (Wuyts et al., 2019). As a consequence, an exclusive understanding of the social dimension as instrumental to resource circularity may lead to a system that sacrifices social value in order to increase resource circularity.

In this paper we investigate social value as an end in itself of the CE. This means that we see both resource circularity and social value as equally important aspects of an economic system. For example, based on Geissdoerfer et al. (2017), Fehrer and Wieland (2021, p. 615) acknowledge that the CE "works on the basis of a triple-bottom-line value system which incorporates environmental, societal, and economic dimensions." Yet, it is an open question to what extent and how resource circularity and social value, along with the economic dimension, can all be enhanced. To find out, it is important to first synthesize state-of-the-art findings on social value creation in the CE.

Two recent studies review work about social value creation in the CE and related concepts (Mies and Gold, 2021; Padilla-Rivera et al., 2020). In line with other studies (e.g., Kristensen and Mosgaard, 2020), Mies and Gold (2021), as well as Padillla-Rivera and colleagues (2020), distinguish between the micro, meso, and macro level. Studies at the micro level investigate organizations and their primary stakeholders such as customers and suppliers. Studies investigating the meso level tend to focus on industrial symbiosis and eco-industrial parks. At the macro level, studies focus on the levels of societies – regions, cities, nations or beyond.

An important gap is that both reviews find mainly positive relationships between the CE's environmental dimension and social value. Mies and Gold (2021) only include "negative effects" as one sub-value of 22 other positive sub-values. While this concurs with expectations that CBMs will benefit their stakeholders (e.g., Lüdeke-Freund et al., 2019), negative relationships do exist, and we can find some examples in the review of Padilla-Rivera et al. (2020). For instance, CE related technology can reduce jobs; community participation can stall circular projects; and circularity can negatively affect health because some circular strategies, such as recycling, require contact with hazardous chemicals. At present though, there is little understanding of negative relationships between resource circularity and social value, and of how the CE overcomes these negative relationships.

Relatedly, most studies investigate only one kind of social value in isolation from other social values. For instance, only a minority of studies investigates a combination of levels (Padilla-Rivera et al., 2020). This can exacerbate a bias towards investigating only the most positive social consequences of CE, and a focus on several kinds of social value plausibly unearths more negative relationships. Indeed, examples exist where positive impact on one level at the same time leads to negative impacts on a different level, or where tensions between social values exist (van Bommel, 2018). This calls for a more explicit description of what is considered social value, and it raises the question to what extent and how circular organizations can create different kinds of social value simultaneously. In the next section, we delineate the concept of social value and we leverage theoretical accounts of how to turn trade-offs into synergies.

2.2. Social value creation in stakeholder theory

Stakeholder theory provides conceptual tools for understanding social value (Tapaninaho and Heikkinen, 2022) and how to turn trade-offs into synergies (Tantalo and Priem, 2016). In line with stakeholder scholars, we conceptualize social value as that which is deemed valuable by stakeholders (Harrison and Wicks, 2013).Traditionally, stakeholder scholars consider stakeholders to be those who are affected by or are able to affect the organization (Freeman, 1984), which typically includes employees, suppliers, customers, the community and investors. Increasingly, stakeholder theory is applied to value creation in the context of the CE (e.g., Moggi and Dameri, 2021; Shah and Bookbinder, 2022; Tapaninaho and Heikkinen, 2022). In that context, stakeholders can be defined as those who are affected by or who can affect the issue under consideration (Roloff, 2008), which typically includes individuals and organizations from different sectors of society such as business, civil society, and government.

In stakeholder theory value has been described as subjective, context-dependent, multifaceted and at times intangible (Kroeger and Weber, 2014; Tantalo and Priem, 2016; Tapaninaho and Heikkinen,

2022). The subjective nature of value suggests that different people will value different things even if they face the same context (Harrison and Wicks, 2013; Lange et al., 2022). For instance, some employees might value meaningful employment whereas others might value a wage increase. Value is also dependent on contextual factors such as the nature and dynamics of the prevailing stakeholder relationships (Lange et al., 2022; Lehtimaki and Kujala, 2017). For instance, customers might value a brand more highly if it is linked to good customer relationships. The multifaceted nature of social value entails that value depends on multiple attributes (Harrison and Wicks, 2013; Lange et al., 2022; Tantalo and Priem, 2016) such that customers can be sensitive to both price and circularity of a product. Value can be tangible, meaning that it has a material basis such as money, or it can be intangible, meaning that it has little to no material basis, such as the perception by employees of a fair working environment (Bosse and Phillips, 2016).

A core argument in stakeholder theory is that organizations should create value for all their stakeholders, without systematically prioritizing value for one or a few stakeholders (Bridoux and Vishwanathan, 2020; Quintelier, 2022; Quintelier et al., 2021). Tantalo and Priem (2016) use the label 'synergy' to describe value created for two or more stakeholders simultaneously. An example of stakeholder synergy happens when coupling a repair service to a product, which mitigates customers' concerns about durability and improves employees' relationships with customers. In contrast, trade-offs are situations where value is created for one stakeholder at the expense of another stakeholder, who then experiences reduced value (Haksever et al., 2004), such as a manager increasing suppliers' financial compensation instead of employees' wages. The possibility that different stakeholders value different intangible things, in different contexts, or depending on different attributes, enables organizations to create synergies (Parmar et al., 2010). When investigating social value creation, it is therefore important to include social values that are subjective, intangible, context-dependent, and multifaceted.

Stakeholder scholars argue that certain strategies are more successful than others in achieving synergies (Bridoux and Stoelhorst, 2014; Bridoux and Vishwanathan, 2020; Freeman, 1984; Tantalo and Priem, 2016). In general, strategies that develop ethical stakeholder relationships are expected to create value for a broad range of stakeholders (Bridoux and Vishwanathan, 2020; Jones et al., 2018). Bridoux and Stoelhorst (2016) discuss four kinds of ethical stakeholder relationships: In communal sharing relationships stakeholders see themselves as sharing a common goal, contribute to this common goal on the basis of need, and satisfy their desire to belong to a collective. In authority relationships, stakeholders see themselves as superior or subordinate, contribute according to their status, and satisfy their desire for dominance or deference. In an equality matching relationship, stakeholders perceive themselves and others as having the same rights and duties, contribute on the basis of reciprocity, and satisfy their desire for equality. In a market pricing relationship, stakeholders see themselves as individuals, contribute on the basis of equity, and satisfy their desire for achievement. It has been theorized that communal sharing relationships offer the highest potential for value creation (Bridoux and Stoelhorst, 2016; Jones et al., 2018), but it has not been investigated which of these relationships, if any, managers develop for social value creation.

What is more, a recent debate pitches economic motivations against ethical motivations for creating social value. According to Jones et al. (2018), economic value motivates managers to adopt a communal sharing strategy in their firms, ultimately creating both economic and social value. In contrast, Weitzner and Deutsch (2019, 2022) argue that an economic motivation detracts managers from the purpose of social value creation. Instead, managers need to be ethically motivated to effectively create social value, this is, they need to be motivated to create social value as an end in itself (Weitzner and Deutsch, 2019). In response, Jones and colleagues (2018) argue that managers tend to be both economically and ethically motivated, and this does not detract from social value creation. To advance this debate, we need to know more about managers' motivations and how they create social value. We therefore pay attention to economic values, next to social values and resource circularity, when investigating trade-offs, synergies and strategies for turning trade-offs into synergies. Our theoretical reasoning is visualized in Fig. 1 below.

3. Materials and methods

3.1. Research context and approach

We conducted an exploratory study (Gioia et al., 2013) of social value creation in the CE in the Netherlands. The Netherlands has adopted national and local CE policies (Cramer, 2020a, 2020b). In addition, Amsterdam, the capital of the Netherlands, has committed to the doughnut economy (Circle Economy, 2022) which combines economic, ecological and social goals (Raworth, 2017). Therefore, we expect to find sufficient expertise in social value creation in the CE in the Netherlands.

To collect data, we employed a two-step mixed methods approach (Creswell and Tashakkori, 2007), which is schematically presented in Table 1. First, to explore a broad range of views on the relationships between resource circularity and social value we conducted a three-round policy Delphi study, starting with 47 circular experts. A Delphi study gathers *collective* knowledge (Linstone and Turoff, 1975), and can therefore provide more objective insights than *individual* knowledge, especially in relation to novel, complex or uncertain phenomena such as the relationships between circularity and social value. An expert *policy* Delphi study is a specific type of Delphi, aiming for a broad range of heterogeneous views (de Loë et al., 2016; Franklin and Hart, 2007). In line with this aim, we selected a broad (and heterogeneous) sample of experts (de Loë et al., 2016). We included participants who were acquainted with the overall picture of social value creation in a circular project. Inclusion criteria were that a person had a function (1) at the level of management, project leadership or entrepreneurial leadership, (2) with a focus on circularity, (3) in academia, business, government or civil society. A person would be excluded if the focus on circularity in their function was mainly symbolic and not substantial - for instance, using the concept of circularity in communications without increasing the circularity level of resources. A person would also be excluded if their function did not require consideration for human beings - as could be the case in technical functions such as material innovation R&D. This led to a heterogeneous set of participants from academia, business, government, and civil society, in different industries and from different regions in the Netherlands. To elicit a broad range of

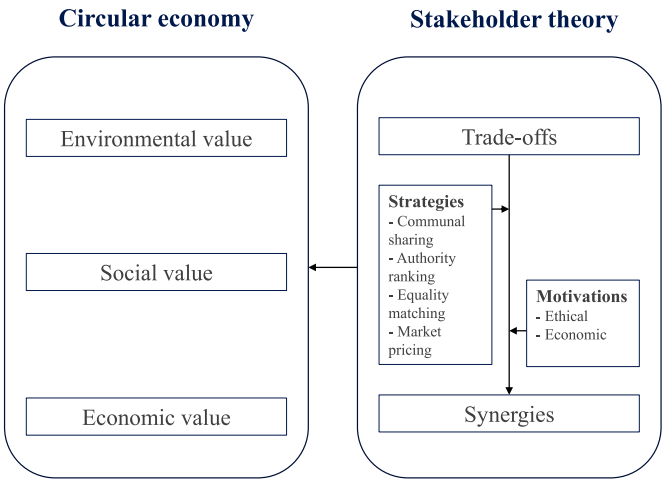

Fig. 1. Theoretical argument of social value creation in the CE through the lens of stakeholder theory.

Table 1
Overview of two-step mixed methods approach.

	Mixed Research Method		
	Delphi (n = 47)		Interviews (n = 27)
Objective	Exploring a broad range of views on the relationships between resource circularity and social value		Generating deeper insights into trade-offs, synergies and strategies
Type of data	Quantitative (Round 1–2)	Qualitative (Round 1-2-3)	Qualitative
Analysis	Descriptive statistics	Text coding	Text coding
Results	Positive, negative and contingent relationships between resource circularity and social value	Kinds of social values (micro, meso, macro); synergies, trade-offs and strategies	

views, we organized three heterogenous rounds: In round 1, participants indicated their agreement with 11 general propositions about circularity leading to social or economic values on a Likert scale followed by open questions. In round 2, they indicated their agreement with updated propositions in the context of stylized best practices In round 3 they participated in group meetings (van Zolingen and Klaassen, 2003). Fig. 2 provides a schematic overview of the Delphi study, and Appendix A describes the Delphi study administration process and questions asked to the participants.

As a second step, we aimed to investigate how trade-offs between social value and circularity are turned into synergies. Because the structured approach of a Delphi study does not facilitate in-depth sharing of on-the-ground personal or organizational experiences (van Zolingen and Klaassen, 2003), we conducted interviews with 27 strategic leaders in Dutch circular organizations. We selected organizations that are "cycling, extending, intensifying, and/or dematerialising material and energy loops to reduce the resource inputs into and the waste and emission leakage out of an organisational system" (Geissdoerfer et al., 2020, p. 7). Importantly, we only selected organizations that have these circular strategies at the core of their organization. Therefore, we excluded organizations that merely implemented circular strategies at the periphery of their organization, such as organizations that do some recycling next to their main business. We applied theoretical (Strauss and Corbin, 1998) and snowball sampling (Bell et al., 2022). The interview questions covered social values, trade-offs, synergies, and strategies. The interviews were semi-structured and were recorded and transcribed. Appendix B provides the interview protocol. Tables 2 and 3 provide a detailed overview of the study participants. Our research complied with the university's ethical review board guidelines.

3.2. Data analysis

We performed a quantitative analysis of the Likert-scale answers from rounds 1 and 2 of the Delphi study (see Tables 4 and 5). We used the distribution of answers to develop a broad overview of perceived negative, positive, and contingent relationships between circularity and social values. We then qualitatively analyzed the open answers from the Delphi study and the interviews in Atlas.ti to develop a deeper understanding of the perceived kinds of social values, trade-offs, synergies, and strategies to create synergies.

For the qualitative analysis, we went back and forth between our data, literature and emerging theory as the analysis progressed (Strauss and Corbin, 1998). The first-order analysis, which was still minimally driven by theory (Gioia et al., 2013; Strauss and Corbin, 1998), provided a contextualized understanding of the various kinds of social value and the relationships between circularity and social value. For instance, valuable aspects of jobs – such as training and skill development – were

Table 2
Distribution of experts in the policy Delphi study across sectors.

	Round 1	Round 2	Round 3[a]
	n = 47	n = 26	n = 17 + 23 = 40
Sector			
Academia	15	6	6 + 4 = 10
Business	20	14	6 + 4 = 10
Civil society	10	5	4 + 6 = 10
Government	2	1	1 + 9 = 10

[a] n is based on # of experts from initial panel + additional # of experts in National Conference Circular Economy 2021

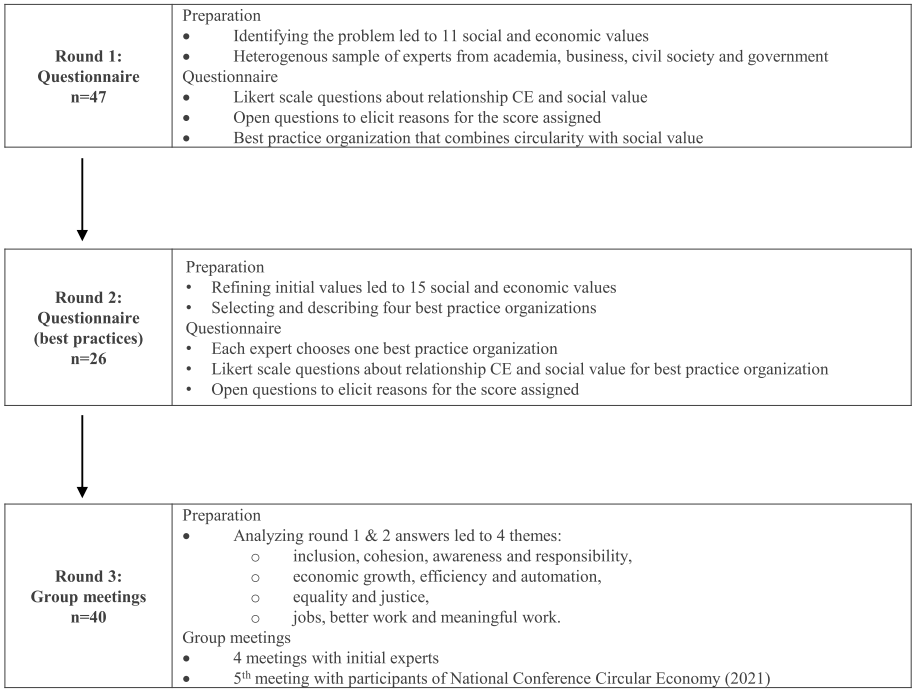

Fig. 2. Policy Delphi study administration process.

Table 3
Overview of interviewees.

	Industry	Position in organization	Duration
Interviewee			
I1	Consumer goods	Founder	31:14
I2	Composites	Founder	45:09
I3	Compost	Founder	63:35
I4	Consultancy	Founder	29:43
I5	Housing	Founder	45:57
I6	Plastics	Founder	57:26
I7	Food & beverages	Founder	51:16
I8	Food & beverages	Founder	30:34
I9	Kitchens	Founder	30:41
I10	Food & beverages	Founder	44:08
I11	Packaging	Founder	38:13
I12	Healthcare	Founder	19:02
I13	Events	Founder	31:48
I14	Food & beverages	Founder	33:12
I15	Printing	Founder	26:31
I16	Consultancy	CE consultant	37:17
I17	Wood	Founder	40:58
I18	Clothing	Founder	37:09
I19	Consumer goods	Creative director	33:10
I20	Consultancy	CE consultant	26:50
I21	Clothing	Marketing & PR manager	35:40
I22	Bicycle	Founder	20:25
I23	Consumer goods	Impact & community manager	48:04
I24	Food & beverages	Founder	21:20
I25	Consumer goods	Founder	42:38
I26	Construction	Founder	20:33
I27	IT	Founder	59:33

Table 4
Distribution of answers in Delphi round 1.

Circularity leads to value	*1–2*	*3*	*4–5*	*0*	*IQR*
	% (#)	% (#)	% (#)	% (#)	1–5
Value					
Better and Meaningful work	0 (0)	27.6 (13)	57.5 (27)	14.9 (7)	1
Jobs	6.4 (3)	17 (8)	38.3 (18)	38.3 (18)	1
Consumer involvement	6.4 (3)	31.9 (15)	46.8 (22)	14.9 (7)	1
Responsible consumption	6.4 (3)	36.2 (17)	51 (24)	6.4 (3)	1
Entrepreneurship & innovation	2.1 (1)	17 (8)	68.1 (32)	12.8 (6)	0.75
Efficiency	8.5 (4)	21.3 (10)	39.4 (19)	29.8 (14)	1.5
Automation	0 (0)	21.3 (10)	51 (24)	28 (13)	1
Social inclusion	8.5 (4)	42.5 (20)	32 (15)	17 (8)	1
Social cohesion	2 (1)	51 (24)	36.2 (17)	10.64 (5)	1
Equality & International justice	23.4 (11)	19.2 (9)	27.6 (13)	29.8 (14)	2
Growth	12.8 (6)	34 (16)	27.7 (13)	25.5 (12)	1

No: 1 = never; 2 = rarely; 3 = sometimes; 4 = mostly; 5 = always; 0 = I don't know/unclear.
IQR = interquartile range. A high IQR (>1) is interpreted as high intersubjective disagreement which points to a perceived contingent relationship.

coded as good working conditions. In the second-order analysis, akin to axial coding, we grouped the first order concepts into second-order themes related to the study's main objectives. For instance, good working conditions were coded as micro level social value. At this stage we started iterating between the language of the informants and more theoretically informed interpretations, which also led to the realization that stakeholder theory could be a useful lens to better understand our results and research questions. Here we follow Gioia et al. (2013: 21) when they argue that "the research process might be viewed as transitioning from "inductive" to a form of "abductive" research, in that data and existing theory are now considered in tandem". In the third-order analysis we grouped the second-order codes into more theoretically inspired third-order dimensions. As a result of this abductive process, the third-order dimensions consisted of pre-existing theoretical concepts, which were filled out by theoretically novel second-order themes (cf. Eikelenboom et al., 2021).

Throughout the qualitative analysis, we checked for differences between the material from the Delphi study and the interviews, but as the results were complementary rather than contrasting, we decided to pool the qualitative data. Fig. 2 shows the resulting data structure and Appendix C shows illustrative quotes.

Table 5
Distribution of answers in Delphi round 2.

Circularity leads to value	*No*	*Yes*	*Unclear*
	% (#)	% (#)	% (#)
Value			
Better work	21.4 (6)	25 (7)	53.5 (15)
Meaningful work	0 (0)	57.1 (16)	42.9 (12)
Jobs	13.3 (4)	60 (18)	26.7 (8)
Consumer involvement	33.3 (9)	55.6 (15)	11.1 (3)
Responsible consumption	17.2 (5)	41.3 (12)	41.3 (12)
Efficiency	44.4 (12)	22.2 (6)	33.3 (9)
Automation	41.2 (14)	17.6 (6)	41.2 (14)
Innovation	25.9 (7)	48.1 (13)	25.9 (7)
Entrepreneurship	7.1 (2)	67.9 (19)	25 (7)
Social Inclusion	13.5 (5)	48.6 (18)	37.8 (14)
Social Cohesion	14.3 (4)	57.1 (16)	28.6 (8)
Equality	28.6 (8)	28.6 (8)	42.8 (12)
Justice	32.1 (9)	17.8 (5)	50 (14)
International justice	51.9 (14)	11.1 (3)	37 (10)
Growth	50 (15)	16.7 (5)	33.3 (10)

4. Results

In this section we describe the results of the two studies thematically. We infer four insights that answer the research question, as illustrated in Fig. 3: Different social values are perceived at the micro, meso and macro level; trade-offs are frequent at the macro level; synergies are frequent at the micro level; and circular organizations create social value by following a communal sharing strategy.

4.1. Different social values are perceived at the micro, meso, and macro level

The quantitative analysis shows that perceived relationships between circularity and social values depend on the kind of social value. The qualitative analysis shows that a relevant distinction is to be made between micro level (organizations and their stakeholders), meso level (value networks), and macro level (regional, national or global society) social values.

Some micro level social values can be observed for all of the organization's primary stakeholders. Examples are positive interactions, such as when "social bonds are made and/or strengthened" (D-29), and meaningfulness, for instance, when circularity provides chances "to provide low-value work with more meaning" (D-1). Other kinds of micro level social values are linked to an organization's specific primary stakeholders. Examples of social values for employees are good working conditions, a good work environment such as "social and involved colleagues" (D-17), and the employment itself, as it provides a "paid position" (D-22). Examples of social values for customers are products that are "unique" (D-2) or "repairable" (D-21).

A social value at the meso level is inclusion of people in a circular value network. A frequent example is including people with a distance from the labor market, which can happen through collaboration with

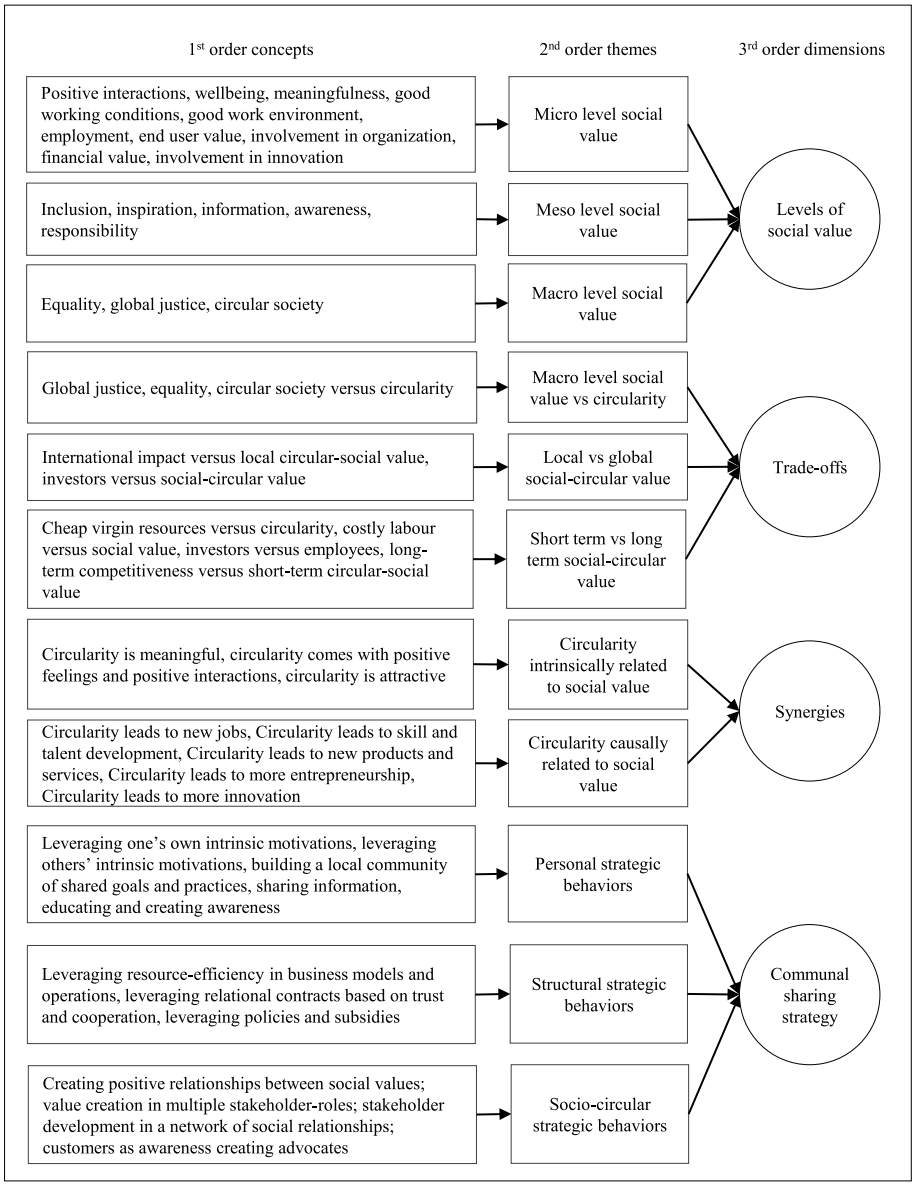

Fig. 3. Coding scheme of the qualitative data, based on Gioia et al. (2013).

schools or (sheltered) workshops and is seen as "reducing the waste of talent" (D-38). Also at the meso-level, participants mention "inspiring others" (D-39), being "informed" (D-39), "awareness raising" (D-35) and being "socially responsible" (D-26) as social values implemented across the value network.

An example of perceived social value at the *macro level* is global justice, which is linked to "fair trade" (D-8), and "transparent and fair" labor conditions across countries (D-31). Equality is also perceived as a macro level social value, and can mean that "all the persons have the same importance on the planet" (D-39), or it can refer to equality "between humans and animals" (D-24). Participants also see value in a circular society, as part of "leaving behind a better world" (D-33).

4.2. *Trade-offs are more frequent at the macro level than at the micro and meso level*

The quantitative descriptions show that participants perceive relatively more trade-offs between circularity and macro level social values than between circularity and micro or meso level social values. For instance, in the first Delphi round 11 participants answer that circularity never or rarely leads to equality and international justice (compared to 4 participants for social inclusion, which is the next highest frequency for a social value). The quantitative descriptions also hint that possible explanations for these trade-offs need to be sought in the current system of economic growth, as 6 participants answer that circularity never or rarely leads to growth (an economic value).

The qualitative analysis supports and deepens this explanation. Participants reason that international growth could expand social and circular impact. However, the current growth system requires investors who typically prefer less organizational investment in employees and circularity. Consequently, scaling one's business requires toning down on social and circular impact, which leads to a trade-off between social and circular value versus growth. One participant explains:

> "[…] that you can grow as fast as possible, which eventually has a positive impact. But these are tough decisions because will I take 50.000 EUROS and not pay my interns to make those investors happy?" (I-10)

An additional factor causing this trade-off is that current price mechanisms make virgin resources cheap and labor costly. This

contributes to socio-circular organizations being outcompeted in the longer term by competitors that are less circular and create less social value. So, even when not relying on investors for growth, the same participant sees a trade-off between short-term social value and circularity versus long-term economic performance:

> "Or will I be stubborn and do everything myself? With the possible consequence that you are taken over by a [competitor] that makes your product for 2 EUROS cheaper and then you are finished." (I-10)

In general, the current macro level economic system is perceived as unjust, and participants do not see how circular businesses can mitigate this:

> "It is fabulous that a computer or 'smartphone' will be repurposed, or that energy garnered from sewage will heat a neighborhood, but what about the fact that MOST of our (Dutch) consumption relies on 'ghost acres' elsewhere. I am thinking of devastated ecosystems where mining takes place, I am thinking of children mining coltan." (D-30)

4.3. Synergies are more frequent at the micro level than at the meso and macro levels

The quantitative descriptions show that participants perceive relatively more synergies between circularity and micro level social values than between circularity and macro or meso level social values. For instance, in the first Delphi round, 18 participants answer that circularity mostly or always leads to jobs and 32 participants answer that circularity mostly or always leads to entrepreneurship and innovation (compared to 17 participants for social cohesion, which is the next highest frequency for a social value). Interestingly, all participants perceive synergies between circularity and meaningful work in rounds 1 and 2 of the Delphi study.

The qualitative analysis shows the existence of two kinds of synergies between social values and circularity: 'intrinsic' and 'causal' positive relationships. Circularity is *intrinsically* related to micro level social value because circular jobs, products and entrepreneurship are perceived as more meaningful, and are accompanied by positive feelings, positive interactions and attractiveness. In essence, "it is great fun to create value this way" (I-15).

Circularity is also *causally* related to social value because circular organizing tends to require, and therefore causally leads to, new and more jobs, skills and talent development, new designs, products and services, and more entrepreneurship and innovation:

> "Because you think differently about how your product is designed, you have to. You have to design for reassembly. So that means that you more easily connect to disassemble. Which, I think, only benefits projects for people with a distance to the labor market because it can more easily be assembled and disassembled." (I-9)

Participants also perceive synergies between circularity and different social values, in a combination of intrinsic and causal positive relationships:

> "that social value you do get back in the end because your product becomes worth more, for example, or you get time from people that you wouldn't get otherwise – as a kind of return on investment." (I-21)

4.4. Circular organizations follow a communal sharing strategy

The quantitative descriptions show that participants perceive relatively more contingent relationships between circularity and meso level social values than between circularity and micro or macro level social values. For instance, in the first Delphi round, 20 and 24 participants answer that circularity sometimes leads to, respectively, social inclusion and social cohesion (compared to 17 participants for responsible consumption, which is the next highest frequency for a social value). This suggests that there is room for strategies to turn trade-offs into synergies, especially at the meso level.

Yet, the qualitative analysis shows that participants at all levels implement what we call strategic behaviors - purposeful behaviors with the aim to create social and circular value. Based on the data we distinguish between three types of strategic behavior, which we call 'personal', 'structural', and 'socio-circular'. Personal strategic behaviors develop interpersonal stakeholder relationships to create social value and circularity. This includes leveraging shared intrinsic motivations, community building, and information sharing – resembling communal sharing elements described by Bridoux and Stoelhorst (2016). Structural strategic behaviors develop formal stakeholder structures to create social value and circularity. This includes leveraging resource efficiency, relational contracts and government policies – resembling communal sharing elements described by Jones et al. (2018). Socio-circular strategic behaviors develop stakeholders as whole human beings embedded in social networks to create social value and circularity. While this does not overlap with descriptions of communal sharing in the literature, it is in line with basic assumptions in stakeholder theory to treat stakeholders as multifaceted and relational human beings (cf. Parmar et al., 2010).

4.4.1. Personal strategic behaviors foster synergies at the micro and meso level

Participants develop their own and others' intrinsic motivation to create social and circular value. Intrinsic motivation enhances a sense of meaning in participants' work and life, a micro level social value, and supports commitment:

> "it [CE] does give meaning to life. And I don't want to make it bigger than it is, but it does sometimes just give me a reason to get up" (I-3).

At the meso level, participants choose to partner with organizations founded on similar intrinsic motivations to create social value and circularity:

> "So, then we at least try to make sure that the stakeholders that we work with, that they do have the same ideas and ideology as we do." (I-2)

Participants also aim to build a local community. To enhance a sense of community - a social value at the micro level - participants encourage primary stakeholders to develop shared circular goals and practices:

> "So we will first build a greenhouse for the coming months to get our community together, people who are registered with us, to gather on a monthly basis, to negotiate, observe and think along, and write a vision about how we will want to live together." (I-5)

At the meso level, participants can help, encourage, and convince other organizations in order to build a community of shared circular goals and practices:

> "pulling […] those partners that we have around us, really along to the circular economy. Because those are all partners who are not yet in that circular economy, and want to get there." (I-9)

A third personal strategic behavior to foster circularity and social values is sharing information about the benefits of circularity and the damage caused by linearity One participant explains how "everyone we collaborate with in fact learns about the circular economy" (I-1), which enables the participant to develop a circular business (micro level) and strengthen stakeholder interactions in the value network (meso level).

Participants also discuss potential personal strategic behaviors for fostering macro level synergies. For instance, one participant is "in touch with indirect customers in Tanzania, […] having assisted them from a distance to set up the machines" (I-16). However, participants are aware of problems involved in international operations, such as difficulties

with keeping resources in the loop.

4.4.2. Structural strategic behaviors foster synergies at the micro and meso levels

Participants develop efficiencies and relational contracts, and leverage policies. Participants interpret efficiency as efficient use of resources, and not as cost efficiency. A focus on resource efficiency shapes business models and operations that support resource efficiency, while encouraging responsible stakeholder behavior (micro level). For instance, interviewees explain how a product-as-a-service model involves automated logistic support, standardized processes and financial or convenience incentives for consumers to return products:

> "They scan your coffee use and if you are out of beans they send you a new package. […] If you do not want your coffee machine they take it back. […] People who use it do it because it is convenient." (I-13)

Next, participants highlight the importance of developing relational contracts that are based on trust and cooperation. One participant explains what is necessary for creating circularity and social value at the micro and meso level:

> "And mutual trust, such that the moment it does not work for the first time, the other party does not immediately pull out. […] And that synergy you see at the moment you step out of your comfort zone. Because then all parties who see an opportunity in the value chain come together and say, hey, we are going to solve this together." (I-4)

Participants also leverage policies at the municipal and national level. Several circular entrepreneurs hire people with a distance to the labor market to conduct craftwork and manual labor (related to upcycling and repairing), which is enabled because these types of hires are supported by Dutch government subsidies. In addition, positive incentives such as tax breaks or subsidies are seen as important, if not essential: "it is because I know how to get subsidies, otherwise it would have been difficult" (I-10).

Several participants also discuss potential structural strategic behaviors to foster circularity and social value at the macro level. However, they refer to constraints due to differences in policies, and lagging international policy. For instance, outsourcing recycling practices would expand circularity but could result in harmful working conditions due to insufficient legal protection in some countries:

> "[T]he way we're doing this, in large part, I think 90%, is that we're shipping all of our waste to Africa, or India or other places in the global south. And they have horrible at best, or even no regulations about how that should be handled. So people are being exposed all the time to, like, toxicity with these, like, open cables, and just any of the metals that they can be touching in order to try and take it apart." (I-16)

4.4.3. Socio-circular strategic behaviors foster synergies at the micro and meso level

Participants engage in socio-circular strategic behaviors when they enhance circularity while purposefully developing stakeholders as multifaceted, or whole human beings, benefiting the human being in more than one role. For instance, one participant aims to create value for its stakeholders in their role as community member, supplier and customer:

> "youth have nothing to do, so let them clean up junk and bring it to the community center. Then we turn it into a skateboard and then they can get skate lessons. Then it's also a community thing, that's part of what you could do with it." (I-25)

Several participants likewise create value for their employees that goes beyond their role as an employee and has to do with their personal development instead:

> "they have slept under a bridge for 10 years. Yes, and now he is the co-cabinetmaker of the mayor's table. So he has made an unprecedented promotion. And he is happy." (I-17)

Participants also enhance circularity while developing stakeholders as relational, or embedded in social networks. As a consequence, the participants create social value that benefits the stakeholder as well as the stakeholder's network. One participant has a school as a customer, and helps the school to set up machines and a "recycling curriculum with several recycling machines. […] And this of course has an impact for years on all students. And via them there are other schools who can use that curriculum." (I-6)

From this, a picture emerges of strategic leaders being ethically motivated, this is, intrinsically motivated to create social value as an end in itself, out of a concern for people and their social networks. Ultimately, socio-circular strategic behaviors create a loop of social values akin to the resource loop envisioned in resource circularity, as is depicted in Fig. 4: Value created is never wasted but, instead, is put to use somewhat further in the value network, regenerating the social network in which the organization and its stakeholders are embedded.

4.5. Relations between levels and strategies

To better understand how a communal sharing strategy fosters synergies at the micro and meso level, but less so at the macro level, we inductively build a multi-level model of the dynamic relationships between the three levels and strategic behaviors (Fig. 5).

Participants use a communal sharing strategy, not only to create synergies at a particular level, but also to scale up synergies from the micro to the meso level. For instance, some participants share information with end users at the micro level (a personal strategic behavior), who motivate their relational network (a socio-circular strategic behavior) with the aim that resource-efficient business models (a structural strategic behavior) copy and spread, ultimately contributing to the CE at the meso level:

> "What we really want to establish is that we set up a circular food academy, wherewith we can really contribute. That we educate people who, in turn, show many others that it's possible to set up

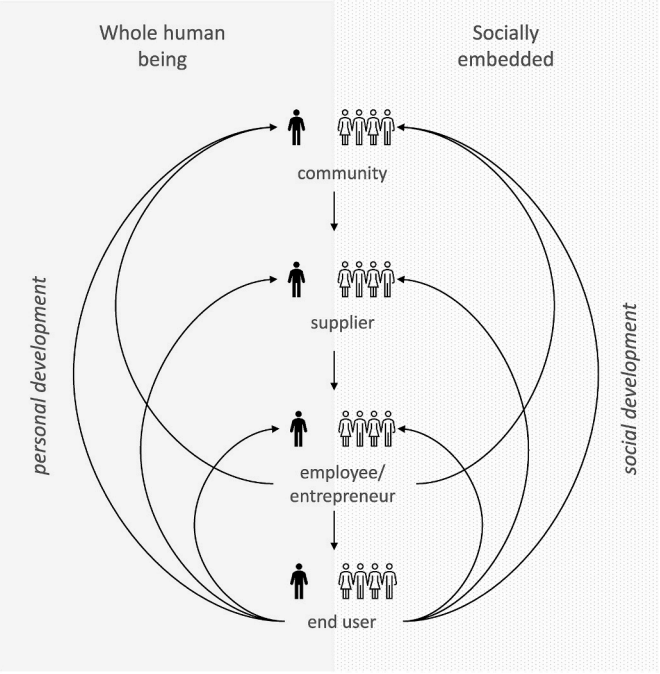

Fig. 4. Social value loop through socio-circular strategic behaviors.

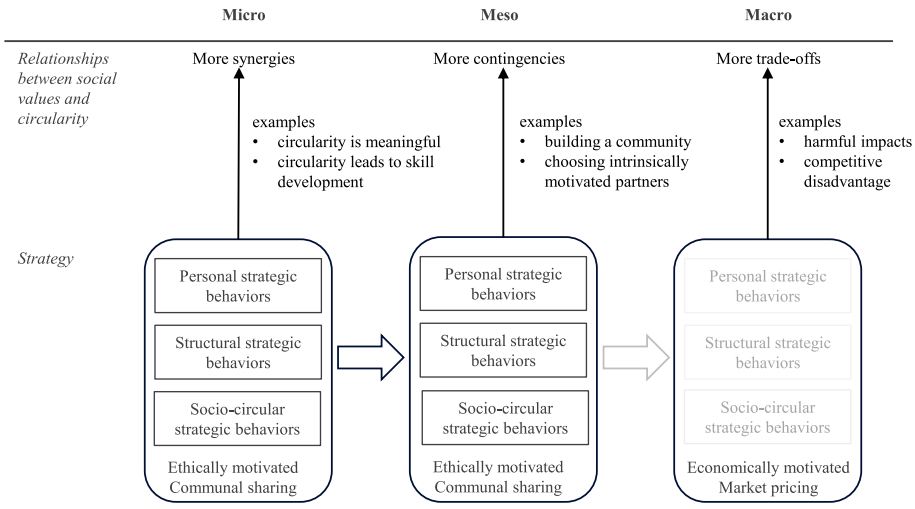

Fig. 5. Dynamic relations between levels and strategic behaviors.

something circular. If you can set up an oyster mushroom farm through us, and you go back to the village where you set up your own oyster mushroom farm and get an income, then this is a beautiful way to contribute to a circular economy." (I-5)

Participants also aim to scale up and build a socio-circular society at the macro level, for instance by building circular businesses (structural strategic behavior) and communities (socio-circular strategic behavior) abroad. However, aspirations to scale up synergies from the meso to the macro level did not come to fruition. A plausible explanation seems to be that, at the macro level, the economic system incentivizes market pricing relationships. Some participants do not want to follow this strategy because it works at a competitive disadvantage for social and circular organizations:

"You have to watch whom you work with. […] Because if you are going to work with a large partner, then you are an ant and they are an elephant." (I-2)

Other participants reason that market pricing relationships require economic motivations, but this would go against creating social and circular value:

"Should we develop a platform where we provide knowledge? Should we do that for free? If we ask for money, then you are not being very social anymore because you want to strengthen others, you do not want to have a monopoly on those waste streams. But on the other hand you have to stay in business and keep things to yourself."

These dynamic relationships support that economic motivations detract from creating synergies. Yet, this problem only becomes pertinent when aiming to scale up to the macro level where market pricing relationships require economic motivations.

5. Discussion and conclusions

5.1. Trade-offs, synergies and strategies

In this study we investigated the trade-offs, synergies, and strategies related to resource circularity and different kinds of social value. A first finding is that a relevant distinction is to be made between micro level (organizations and their stakeholders), meso level (value networks), and macro level (regional, national or global society) social values. Indeed, this may be more relevant than drawing distinctions on the basis of stakeholder roles, in light of our findings that some micro level values apply to all stakeholders (Section 4.1) and that stakeholders are people who have more than one stakeholder and non-stakeholder role (Section 4.4.3). As a second finding, synergies occur more prominently at the micro level, and trade-offs occur more prominently at the macro level. Yet, at all levels, our participants employ strategic behaviors that partly overlap with a communal sharing strategy as described in stakeholder theory (Bridoux and Stoelhorst, 2016; Jones et al., 2018). This communal sharing strategy appears ethically motivated, and creates synergy at the micro and meso level, but not at the macro level. A plausible explanation for the latter is that the macro level incentivizes market pricing relationships which require economic motivations, and this constellation impedes synergies. These findings advance current debates in stakeholder theory and help to identify conditions that enable and hinder the CE to live up to its social promise.

5.2. Theoretical and practical implications

With this study, we further integrate social value creation as an end in itself of the CE (Schröder et al., 2020). As a first contribution, we argue that social value can be integral part of the CE, and that a circular metaphor can be applied to material as well as social resources. This is detailed by advancing the concept of communal sharing in stakeholder theory (Bridoux and Stoelhorst, 2016; Jones et al., 2018) by identifying personal, structural, and socio-circular strategic behaviors as specific ways to implement a communal sharing strategy. The inclusion of socio-circular strategic behaviors as part of communal sharing strengthens the basic assumption of stakeholder theory that human beings are multifaceted and relational. We therefore suggest that socio-circular strategic behaviors should be part of any organization's stakeholder relationships.

Second, our study highlights current conditions that enable and hinder the CE to live up to its social promise. While previous studies on the CE tend to focus on one or a few levels of social value (Mies and Gold, 2021; Padilla-Rivera et al., 2020), by focusing on the micro, meso, and macro level, we were able to reveal that synergies are more pertinent at the micro level while trade-offs are more pertinent at the macro level.

Third, by integrating a recent debate in stakeholder theory pitching ethical against economic motivations, we direct attention to a possible explanation of the pattern of findings. We show that communal sharing in the CE is ethically motivated, and this creates synergy between circularity and social values. In contrast, our participants perceive economic motivations as detracting from social value creation. While this finding moves stakeholder theory away from an economic logic (Weitzner and Deutsch, 2022), an important nuance is that economic motivations mainly detract from social value creation at the macro level where market pricing is incentivized. We call for future studies to

disentangle the relative importance of macro level, market pricing and economic motivations in impeding synergies.

5.3. Limitations and future research

Our study takes a first step in empirically investigating strategies for transforming trade-offs between resource circularity and social value into synergies. While limitations are inevitable, they also give rise to interesting future research opportunities. First, it was beyond the scope of this study to measure social value creation, for instance by means of quantitative indicators. Measuring social value is challenging, as social values can be subjective and at times intangible (Tantalo and Priem, 2016; Tapaninaho and Heikkinen, 2022). Therefore, future studies may develop more creative measurement methods, such as qualitative indicators or procedures for assessing behavioral outcomes as a proxy of social value. In addition, future studies would do well to assess social value at multiple levels, but also throughout the social loop as visualized in Fig. 4. In this vein, our study may inform studies on Social Life Cycle Assessment tools (e.g., Huarachi et al., 2020).

Second, we did not have the opportunity to zoom in on the detailed process of transforming specific kinds of trade-offs into synergies. Our finding of trade-offs at the macro level calls for more future research at the macro level that also follows the process of macro level value creation. In this vein, it is a limitation of our study that it covers a cross-section of organizations (as opposed to a longitudinal case case) in the Netherlands (as opposed to an international context). While methodologically justified, our choice did not allow us to delve deeper into long-term international strategic behaviors. We therefore encourage researchers to conduct more longitudinal or ethnographic case studies (e.g., Boruchowitch and Fritz, 2022).

6. Conclusions

In this study we set out to investigate to what extent and how the circular economy also creates social value. We find that trade-offs between circularity and social value are especially persistent at the macro level. Therefore, while the social dimension of the CE has been relatively overlooked, we conclude that the topic of global justice and equality is equally concerning and calls for urgent research attention. We further argue that social value creation in the CE benefits from communal sharing relationships that are ethically motivated. Theoretically, our arguments also support that stakeholder theory and the CE can strengthen each other. Future research can investigate the process of social value creation in the CE at the macro level.

CRediT authorship contribution statement

Katinka J.P. Quintelier: Conceptualization, Investigation, Data curation, Methodology, Formal analysis, Validation, Writing – original draft, Writing – review & editing, Visualization. **Koen van Bommel:** Conceptualization, Investigation, Data curation, Methodology, Validation, Writing – original draft, Writing – review & editing, Visualization. **Amba Maria van Erkelens ,:** Conceptualization, Investigation, Data curation, Formal analysis, Writing – original draft, Writing – review & editing. **Johan Wempe:** Conceptualization, Resources, Investigation, Project administration, Supervision, Writing – review & editing.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

The data that has been used is confidential.

Acknowledgments

We are grateful to anonymous reviewers for constructive suggestions to improve the manuscript. We further thank Bo Franklin Tdlohreg and Pim van Emst for data collection support, and het Groene Brein for facilitating the Delphi process. This work has also benefited from feedback and conversations with Minna Halme, Chang Wa Huynh, Flore Bridoux and Dillon Berjani.

Appendices. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.jclepro.2022.135780.

References

Bell, E., Harley, B., Bryman, A., 2022. Business Research Methods. Oxford University Press, Oxford.
Boruchowitch, F., Fritz, M.M.C., 2022. Who in the firm can create sustainable value and for whom? A single case-study on sustainable procurement and supply chain stakeholders. J. Clean. Prod. 363, 132619 https://doi.org/10.1016/j.jclepro.2022.132619.
Bosse, D.A., Phillips, R.A., 2016. Agency theory and bounded self-interest. Acad. Manag. Rev. 41 (2), 276–297. http://www.jstor.org/stable/24906232.
Bridoux, F., Stoelhorst, J., 2016. Stakeholder relationships and social welfare: a behavioral theory of contributions to joint value creation. Acad. Manag. Rev. 41, 229–251. https://www.jstor.org/stable/24906230.
Bridoux, F., Stoelhorst, J.W., 2014. Microfoundations for stakeholder theory: managing stakeholders with heterogeneous motives. Strat. Manag. J. 35, 107–125. https://www.jstor.org/stable/24037212.
Bridoux, F.M., Vishwanathan, P., 2020. When do powerful stakeholders give managers the latitude to balance all stakeholders' interests? Bus. Soc. 59, 232–262. https://doi.org/10.1177/0007650318775077.
Brown, P., Bocken, N., Balkenende, R., 2019. Why do companies pursue collaborative circular oriented innovation? Sustain. Times 11 (3), 635. https://doi.org/10.3390/su11030635.
Calzolari, T., Genovese, A., Brint, A., 2021. The adoption of circular economy practices in supply chains – an assessment of European Multi-National Enterprises. J. Clean. Prod. 312, 127616 https://doi.org/10.1016/j.jclepro.2021.127616.
Cherry, C.E.E., Pidgeon, N.F.F., 2019. Is sharing the solution? Exploring public acceptability of the sharing economy. J. Clean. Prod. 195, 939–948. https://doi.org/10.1016/j.jclepro.2018.05.278, 2018.
Circle Economy, 2022. The Amsterdam city doughnut: a tool for transformative action. Available: https://www.circle-economy.com/resources/the-amsterdam-city-doughnut-a-tool-for-transformative-action. (Accessed 15 June 2022).
Cramer, J.M., 2020a. Implementing the circular economy in the Amsterdam Metropolitan Area: the interplay between market actors mediated by transition brokers. Bus. Strat. Environ. 29, 2857–2870. https://doi.org/10.1002/bse.2548.
Cramer, J.M., 2020b. Practice-based model for implementing circular economy: the case of the Amsterdam Metropolitan Area. J. Clean. Prod. 255, 120255 https://doi.org/10.1016/j.jclepro.2020.120255.
Creswell, J.W., Tashakkori, A., 2007. Editorial: differing perspectives on mixed methods research. J. Mix. Methods Res. 1 (4), 303–308. https://doi.org/10.1177/1558689807306132.
de Loë, R.C., Melnychuk, N., Murray, D., Plummer, R., 2016. Advancing the state of policy Delphi practice: a systematic review evaluating methodological evolution, innovation, and opportunities. Technol. Forecast. Soc. Change 104, 78–88. https://doi.org/10.1016/j.techfore.2015.12.009.
Eikelenboom, M., Long, T.B., De Jong, G., 2021. Circular Strategies for social housing associations: lessons from a Dutch case. J. Clean. Prod. 292, 126024 https://doi.org/10.1016/j.jclepro.2021.126024.
European Commission, 2020. Communication from the commission to the European parliament, the council, the European economic and social committee and the committee of the regions. A new Circular Economy Action Plan for a cleaner and more competitive Europe. Available: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2020%3A98%3AFIN. (Accessed 15 June 2022).
Fehrer, J.A., Wieland, H., 2021. A systemic logic for circular business models. J. Bus. Res. 125, 609–620. https://doi.org/10.1016/j.jbusres.2020.02.010.
Franklin, K.K., Hart, J.K., 2007. Idea generation and exploration: benefits and limitations of the policy Delphi research method. Innovat. High. Educ. 31, 237–246. https://doi.org/10.1007/s10755-006-9022-8.
Freeman, R.E., 1984. Strategic Management: A Stakeholder Approach. Pitman, Boston.
Geissdoerfer, M., Savaget, P., Bocken, N.M.P., Hultink, E.J., 2017. The Circular Economy – a new sustainability paradigm? J. Clean. Prod. 143, 757–768. https://doi.org/10.1016/j.jclepro.2018.04.159.
Geissdoerfer, M., Morioka, S.N., de Carvalho, M.M., Evans, S., 2018. Business models and supply chains for the circular economy. J. Clean. Prod. 190, 712–721. https://doi.org/10.1016/j.jclepro.2018.06.240.
Geissdoerfer, M., Pieroni, M.P.P., Pigosso, D.C.A., Soufani, K., 2020. Circular business models: a review. J. Clean. Prod. 277, 1–17. https://doi.org/10.1016/j.jclepro.2020.123741.

Ghisellini, P., Cialani, C., Ulgiati, S., 2016. A review on circular economy: the expected transition to a balanced interplay of environmental and economic systems. J. Clean. Prod. 114, 11–32. https://doi.org/10.1016/j.jclepro.2015.09.007.
Gioia, D.A., Corley, K.G., Hamilton, A.L., 2013. Seeking qualitative rigor in inductive research: notes on the Gioia methodology. Organ. Res. Methods 16, 15–31. https://doi.org/10.1177/1094428112452151.
Haksever, C., Chaganti, R., Cook, R.G., 2004. A model of value creation: strategic view. J. Bus. Ethics 49, 295–307. https://doi.org/10.1023/B:BUSI.0000017968.21563.05.
Harrison, J.S., Wicks, A.C., 2013. Stakeholder theory, value, and firm performance. Bus. Ethics Q. 23, 97–124. https://doi.org/10.5840/beq20132314.
Harrison, J.S., Felps, W., Jones, T.M., 2019. Instrumental stakeholder theory makes ethically based relationship building palatable to managers focused on the bottom line. Acad. Manag. Rev. 44, 698–700. https://doi.org/10.5465/amr.2018.0442.
Horbach, J., Rammer, C., 2020. Circular economy innovations, growth and employment at the firm level: empirical evidence from Germany. J. Ind. Ecol. 24, 615–625. https://doi-org.vu-nl.idm.oclc.org/10.1111/jiec.12977.
Huarachi, D.A.R., Piekarski, C.M., Puglieri, F.N., de Francisco, A.C., 2020. Past and future of social life Cycle assessment: historical evolution and research trends. J. Clean. Prod. 264, 121506 https://doi.org/10.1016/j.jclepro.2020.121506.
Inigo, E.A., Blok, V., 2019. Strengthening the socio-ethical foundations of the circular economy: lessons from responsible research and innovation. J. Clean. Prod. 233, 280–291. https://doi.org/10.1016/j.jclepro.2019.06.053.
Johansson, N., Krook, J., 2021. How to handle the policy conflict between resource circulation and hazardous substances in the use of waste? J. Ind. Ecol. 25, 994–1008. https://doi.org/10.1111/jiec.13103.
Jones, T.M., Harrison, J.S., Felps, W., 2018. How applying instrumental stakeholder theory can provide sustainable competitive advantage. Acad. Manag. Rev. 43, 371–391. https://doi.org/10.5465/amr.2016.0111.
Kirchherr, J., Reike, D., Hekkert, M., 2017. Conceptualizing the circular economy: an analysis of 114 definitions. Resour. Conserv. Recycl. 127, 221–232. https://doi.org/10.1016/j.resconrec.2017.09.005.
Kristensen, H.S., Mosgaard, M.A., 2020. A review of micro level indicators for a circular economy – moving away from the three dimensions of sustainability? J. Clean. Prod. 243, 118531 https://doi.org/10.1016/j.jclepro.2019.118531.
Kroeger, A., Weber, C., 2014. Developing a conceptual framework for comparing social value creation. Acad. Manag. Rev. 39, 513–540. https://doi.org/10.5465/amr.2012.0344.
Lange, D., Bundy, J., Park, E., 2022. The social nature of stakeholder utility. Acad. Manag. Rev. 47, 9–30. https://doi.org/10.5465/amr.2018.0456.
Lehtimaki, H., Kujala, J., 2017. Framing dynamically changing firm–stakeholder relationships in an international dispute over a foreign investment: a discursive analysis approach. Bus. Soc. 56 (3), 487–523. https://doi.org/10.1177/0007650315570611.
Leising, E., Quist, J., Bocken, N., 2018. Circular Economy in the building sector: three cases and a collaboration tool. J. Clean. Prod. 176, 976–989. https://doi.org/10.1016/j.jclepro.2017.12.010.
Linstone, H.A., Turoff, M., 1975. The Delphi Method. Addison-Wesley, London.
Lüdeke-Freund, F., Gold, S., Bocken, N.M., 2019. A review and typology of circular economy business model patterns. J. Ind. Ecol. 23 (1), 36–61. https://doi.org/10.1111/jiec.12763.
Masi, D., Day, S., Godsell, J., 2017. Supply chain configurations in the circular economy: a systematic literature review. Sustain. Times 9, 1602. https://doi.org/10.3390/su9091602.
Mathews, J.A., Tan, H., 2011. Progress toward a circular economy in China. J. Ind. Ecol. 15, 435–457. https://doi.org/10.1111/j.1530-9290.2011.00332.x.
Mazur-Wierzbicka, E., 2021. Circular economy: advancement of European Union countries. Environ. Sci. Eur. 33, 111. https://doi.org/10.1186/s12302-021-00549-0.
Merli, R., Preziosi, M., Acampora, A., 2018. How do scholars approach the circular economy? A systematic literature review. J. Clean. Prod. 178, 703–722. https://doi.org/10.1016/j.jclepro.2017.12.112.
Mhatre, P., Panchal, R., Singh, A., Bibyan, S., 2021. A systematic literature review on the circular economy initiatives in the European Union. Sustain. Prod. Consum. 26, 187–202. https://doi.org/10.1016/j.spc.2020.09.008.
Mies, A., Gold, S., 2021. Mapping the social dimension of the circular economy. J. Clean. Prod. 321, 128960 https://doi.org/10.1016/j.jclepro.2021.128960.
Moggi, S., Dameri, R.P., 2021. Circular business model evolution: stakeholder matters for a self-sufficient ecosystem. Bus. Strat. Environ. 30, 2830–2842. https://doi.org/10.1002/bse.2716.
Moreau, V., Sahakian, M., van Griethuysen, P., Vuille, F., 2017. Coming full circle: why social and institutional dimensions matter for the circular economy. J. Ind. Ecol. 21, 497–506. https://doi-org.vu-nl.idm.oclc.org/10.1111/jiec.12598.
Murray, A., Skene, K., Haynes, K., 2017. The circular economy: an interdisciplinary exploration of the concept and application in a global context. J. Bus. Ethics 140, 369–380. https://doi.org/10.1007/s10551-015-2693-2.
Padilla-Rivera, A., Russo-Garrido, S., Merveille, N., 2020. Addressing the social aspects of a circular economy: a systematic literature review. Sustain. Times 12, 7912. https://doi.org/10.3390/su12197912.
Parmar, B.L., Freeman, R.E., Harrison, J.S., Wicks, A.C., Purnell, L., de Colle, S., 2010. Stakeholder theory: the state of the art. Acad. Manag. Ann. 4 (1), 403–445. https://doi.org/10.1080/19416520.2010.495581.
Quintelier, K.J.P., 2022. Stakeholder-Oriented firms have feelings and moral standing too. Front. Psychol. 13, 814624 https://doi.org/10.3389/fpsyg.2022.814624.
Quintelier, K.J.P., van Hugten, J., Parmar, B.L., Brokerhof, I.M., 2021. Humanizing stakeholders by rethinking business. Front. Psychol. 12, 3801. https://doi.org/10.3389/fpsyg.2021.687067.
Ranta, V., Aarikka-Stenroos, L., Ritala, P., Mäkinen, S.J., 2018. Exploring institutional drivers and barriers of the circular economy: a cross-regional comparison of China, the US, and Europe. Resour. Conserv. Recycl. 135, 70–82. https://doi.org/10.1016/j.resconrec.2017.08.017.
Raworth, K., 2017. Doughnut Economics: Seven Ways to Think like a 21st-Century Economist. Chelsea Green Publishing, White River Junction.
Roloff, J., 2008. Learning from multi-stakeholder networks: issue-focused stakeholder management. J. Bus. Ethics 82, 233–250. https://doi.org/10.1007/s10551-007-9573-3.
Schröder, P., Lemille, A., Desmond, P., 2020. Making the circular economy work for human development. Resour. Conserv. Recycl. 156, 104686 https://doi.org/10.1016/j.resconrec.2020.104686.
Shah, M.U., Bookbinder, J.H., 2022. Stakeholder theory and supply chains in the circular economy. Circular Economy Supply Chains: From Chains to Systems 129–148. https://doi.org/10.1108/978-1-83982-544-620221007.
Strauss, A., Corbin, J., 1998. Basics of Qualitative Research Techniques. Sage, Thousand Oaks.
Tantalo, C., Priem, R.L., 2016. Value creation through stakeholder synergy. Strat. Manag. J. 37, 314–329. https://doi.org/10.1002/smj.2337.
Tapaninaho, R., Heikkinen, A., 2022. Value creation in circular economy business for sustainability: a stakeholder relationship perspective. Bus. Strat. Environ. 1–13 https://doi.org/10.1002/bse.3002.
van Zolingen, S.J., Klaassen, C.A., 2003. Selection processes in a Delphi study about key qualifications in senior secondary vocational education. Technol. Forecast. Soc. Change 70, 317–340. https://doi.org/10.1016/S0040-1625(02)00202-0.
van Bommel, K., 2018. Managing tensions in sustainable business models: exploring instrumental and integrative strategies. J. Clean. Prod. 196, 829–841. https://doi.org/10.1016/j.jclepro.2018.06.063.
Weitzner, D., Deutsch, Y., 2019. Why the time has come to retire instrumental stakeholder theory. Acad. Manag. Rev. 44, 694–698. https://doi.org/10.5465/amr.2018.0342.
Weitzner, D., Deutsch, Y., 2022. Harm reduction, solidarity, and social mobility as target functions: a rortian approach to stakeholder theory. J. Bus. Ethics. https://doi.org/10.1007/s10551-022-05248-1.
Wuyts, W., Miatto, A., Sedlitzky, R., Tanikawa, H., 2019. Extending or ending the life of residential buildings in Japan: a social circular economy approach to the problem of short-lived constructions. J. Clean. Prod. 231, 660–670. https://doi.org/10.1016/j.jclepro.2019.05.258.