From Economies of Scale to Economies of Sufficiency: Antecedents of Corporate Sufficiency

ABSTRACT

The paradigm of unlimited economic growth on a finite planet is widely acknowledged as a root cause of sustainability challenges, yet the organizational transformations required to transcend this paradigm remain underexplored. This study introduces corporate sufficiency as a holistic principle that guides firms to align supply and demand within the boundaries of social and ecological carrying capacities. Based on a qualitative analysis of 70 sufficiency-oriented firms, we identify three ethical antecedents of corporate sufficiency: (1) responsibility, reflecting moral awareness to prioritize social and ecological well-being; (2) relationality, enabling sensitivity to context-specific social and ecological thresholds in relationships; and (3) excellence, fostering accountability to uphold the highest sustainability and quality standards through a culture of continuous learning. Each antecedent is found to imply an ethical stance: deontology, ethics of care and virtue ethics, respectively. We propose a model of corporate sufficiency that articulates a distinct business logic prioritizing social and ecological stewardship over economic expansion. By challenging the instrumental logic prevalent in sustainable consumption literature, this study contributes to the fields of sufficiency and business ethics, offering an alternative perspective on the corporate role in advancing sustainable development.

Keywords:

Carrying capacity; Environmental justice and ethics; Green & pro-environmental values

1. INTRODUCTION

There is mounting evidence that the scale and intensity of current economic activity is exceeding the boundaries of the Earth system delineating the 'safe operating space of humanity' (Richardson et al., 2023; Rockström et al., 2023). This trajectory raises concerns of intergenerational and intragenerational justice (Rockström et al., 2023), as no society can fulfill basic human needs without exceeding biophysical limits given current patterns of resource allocation (Fanning et al., 2020; O'Neill et al., 2018). In response, organizational scholarship increasingly advocates for sufficiency (Bocken & Short, 2016; Dyllick & Hockerts, 2002; Heikkurinen et al., 2019).

Sufficiency emerges as an alternative economic paradigm that challenges the dominant growth model by introducing social and ecological limits to economic thinking (Gorge et al., 2015; Jungell-Michelsson & Heikkurinen, 2022; Princen, 2005). In a sufficiency economy, the corridor of economic possibilities is bound by human needs at the lower end and the limits of Earth's carrying capacity at the upper end (Bärnthaler & Gough, 2023; Spengler, 2016). Sufficiency is defined as a normative organizing principle (Princen, 2003) that seeks to align economic activity within natural limits while ensuring equitable resource allocation to secure a good life for all (Jungell-Michelsson & Heikkurinen, 2022; Princen, 2022).

While the corporate sector is widely recognized as pivotal in achieving more sustainable and socially just levels of production and consumption (Bocken & Short, 2016; Freudenreich & Schaltegger, 2020; Heikkurinen et al., 2019), ambiguities persist regarding the scope of corporate responsibility in advancing and implementing sufficiency (Jungell-Michelsson & Heikkurinen, 2022). By subordinating economic consideration to the long-term welfare of society and the environment, sufficiency challenges business to transcend the win-win logic prevalent in triple bottom line thinking (Elkington, 1997) and traditional corporate sustainability approaches (Hahn et al., 2010; Van Der Byl & Slawinski, 2015). However, most research to date adopts a demand-sided perspective on sufficiency in business, depicting it as a strategy to support consumers to reduce material consumption (e.g., Bocken & Short, 2016; Gossen et al., 2019; Niessen & Bocken, 2021). A less developed yet critical stream of literature expands the responsibility of business from enabling sufficiency in demand to actively driving sufficiency in supply and thus advocates for direct production restrictions alongside consumption moderation (Dyllick & Hockerts, 2002; Heikkurinen et al., 2019; Robra et al., 2020). It has been argued that understanding sufficiency as a voluntary principle of self-restraint in both supply and demand requires firms to cap production independent of market considerations and thus, demands a willingness to forgo growth and profit (Robra et al., 2020). However, the nexus between production and sufficiency remains largely unexplored, leaving the concept of sufficiency as a holistic principle for sustainable business transformation incomplete and ambiguous (Jungell-Michelsson & Heikkurinen, 2022).

Conceptualizing sufficiency in business as a principle that integrates both demand- and supply-side dimensions draws attention to the ethical antecedents motivating corporate self-restraint. It departs from the instrumental framing of sufficiency as a business strategy, instead challenging profit maximization as the primary corporate guiding principle (Bocken & Short, 2016; Dyllick & Hockerts, 2002; Gossen & Heinrich, 2021) and mandating alternative visions and values motivating business (Beyeler & Jaeger-Erben, 2022). It requires understanding sufficiency in business not merely as a strategy but as a normative disposition that motivates economic self-restraint in service of safeguarding social and ecological carrying capacities.

Despite sufficiency's inherently normative foundation, little is known about why for-profit firms would voluntarily limit economic expansion under sufficiency-based self-restraint, or how they manage to remain competitive in a growth-driven economy. Although prior research has advanced the conceptualization of sufficiency-oriented business strategies, it remains silent about antecedents of corporate sufficiency and largely neglects the radical ethical transformations that sufficiency demands in business (Beyeler & Jaeger-Erben, 2022; Jungell-Michelsson & Heikkurinen, 2022). Ethical concerns can be implicitly understood from prior studies, such as a commitment to care in the interactions of sufficiency-oriented business with others and nature (Beyeler & Jaeger-Erben, 2022) and the influence of universalism, relativism and virtue ethics in characterizing sufficiency within the context of organizational sustainability (Lehtonen & Heikkurinen, 2022). However, prior sufficiency research does not find any explicit definition on the ethics motivating sufficiency-oriented self-restraint and empirically grounded knowledge about the practices of ethics among sufficiency-oriented firms is still missing. Addressing this gap is critical not only to deepen our understanding of sufficiency in business but also to critically examine the role of firms in fostering sustainable development.

This theoretical gap motivates the need for a new perspective on sufficiency in business. We position corporate sufficiency as holistic guiding principle that motivates firms to integrate their supply and demand levels within the limits of the social and ecological carrying capacities, constraining the 'safe operating space for humanity' (Richardson et al., 2023; Rockström et al., 2023). We explore the following research question: *Why do firms engage in sufficiency and how do they manage under self-constraint?* Through an interpretative qualitative study of 70 purposefully selected firms following a holistic sufficiency orientation in both supply and demand, we examine the ethical antecedents supporting voluntary self-restraint in business.

This article makes three contributions. First, we clarify the role and responsibility of firms within a sufficiency economy by introducing the concept of corporate sufficiency. Second, we provide empirical insights into the ethical practices motivating and enabling corporate sufficiency based on a qualitative study of 70 sufficiency-oriented firms. Finally, building on these findings, the article develops an empirical model of corporate sufficiency that elucidates the corporate logic guiding sufficiency-oriented firms in aligning their production and consumption levels with the boundaries of social and ecological carrying capacities.

2. THEORETICAL CONTEXT

2.1 Sufficiency: An alternative economic organizing principle

Sufficiency emerged as an interdisciplinary scholarly response to modern growth economies (Pesch, 2018; Princen, 2005) that exceed the environment's regenerative capacity while failing to meet basic human needs (O'Neill et al., 2018). Questioning the necessity and compatibility of perpetual economic growth with social and ecological sustainability (Bonnedahl et al., 2022; Pesch, 2018; Vadén et al., 2020; Wanner, 2015), sufficiency scholars advocate for transformative economic shifts that extend beyond the efficiency-driven and technology-based strategies prevalent in the corporate sustainability discourse (Figge et al., 2014; Heikkurinen et al., 2019; Lehtonen & Heikkurinen, 2022; Wiedmann et al., 2015). Sufficiency is discussed as both a paradigm and a strategy (Jungell-Michelsson & Heikkurinen, 2022). As a paradigm, it challenges the notion of perpetual growth by emphasizing a state of 'enough', prioritizing social justice and ecosystem resilience over unlimited economic expansion and shifting the focus from quantity to quality (Jungell-Michelsson & Heikkurinen, 2022; Pesch, 2018). As a strategy, it has been described as an approach to achieve absolute reductions of matter-energy throughput to bring production and consumption within natural limits (Bocken & Short, 2016; Dyllick & Hockerts, 2002).

The concept of 'enoughness', which is at the core of sufficiency theorizing, builds on the complementarity of capitals rule (Jungell-Michelsson & Heikkurinen, 2022). This principle posits that the consumption of natural and social capital is constrained by a 'carrying capacity'—a threshold beyond which depletion of capital sources becomes irreversible and poses a severe risk for human life (Daily & Ehrlich, 1992; Dyllick & Hockerts, 2002; IPCC, 2023). The notion of sufficiency, therefore, builds upon the same set of assumptions from *environmental economics* and *strong sustainability*; asserting that the economy must respect the boundaries of the social and ecological systems within which it is embedded (Daly, 1992;

Dyllick & Hockerts, 2002). This led to the conceptualization of maximum thresholds, discussed in the discourse of 'eco-sufficiency', calling for an absolute reduction in resource and energy throughput with respect to Earth's limited carrying capacity (Daly, 1992; Lamberton, 2005; Princen, 2005), conceptualized through the Planetary boundaries framework (Rockström et al., 2009; Steffen et al., 2015). By integrating these maximum boundary conditions with the scientific debate on distributive justice, sufficiency conceptualizes a corridor of economic possibilities, bounded by ecological carrying capacity at the upper limit and social carrying capacity at the lower limit (Gough, 2023; Spengler, 2016). The latter connects to the question of a fair distribution of resource use across and within countries and emerges from the literature on *sufficientarianism* as an approach to distributive justice (Kanschik, 2016). It establishes the social floor of sufficiency, ensuring that each individual has enough to at least meet basic human needs (Gough, 2023; Salleh, 2010).

Consequently, sufficiency is an inherently normative concept addressing intragenerational and intergenerational dimensions of justice to shape social change in a normative way (Lage, 2022; Lehtonen & Heikkurinen, 2022). According to Lehtonen and Heikkurinen (2022), it holds a strong ethical relevance in balancing the needs of present and future generations of humans and non-human beings. Thereby, sufficiency challenges anthropocentrism by extending justice to non-human beings, demanding a redefined human-nature relationship that respects the intrinsic value of all species as a matter of moral responsibility (Heindl & Kanschik, 2016; Lehtonen & Heikkurinen, 2022). Granting all present and future beings with a minimum 'sufficient' level of resources for a good life can be construed as an 'ethical decency' (Lehtonen & Heikkurinen, 2022, p. 610), rooted in a sufficientarian rather than equalitarian approach to distributional justice (Frankfurt, 1987). Thereby, the sufficiency concept relates to qualities like modesty, reasonableness and self-immunity (Sachayansrisakul, 2012), prioritizing collective well-being over individual interests and material values (Gough, 2023; Schäpke & Rauschmayer, 2014).

The ethical rationale motivating sufficiency is rooted in the recognition of the intrinsic value of all life (Lehtonen & Heikkurinen, 2022) and the deep interconnection between economic, social and ecological spheres; driven by a "wish to care for others" (Schäpke & Rauschmayer, 2014), which Jungell-Michelsson and Heikkurinen (2022) refer to as the 'altruism premise' of sufficiency theorizing.

Conceptually, sufficiency introduces a 'limit model' to economic thinking (Lehtonen & Heikkurinen, 2022, p. 604), based on the consent of "not removing more from the environment than it supports and not adding more to the economy then it needs" (Hernández & Chávez-Bustamante, 2024, p. 2). This has led to the operationalization of sufficiency in both 'consumption corridors' (Di Giulio & Fuchs, 2014), discussed in the sustainable consumption literature, and 'production corridors' (Bärnthaler & Gough, 2023), which establishes an 'in-between economy' in line with Daly's early proposition of a steady-state economy (1991). In a sufficiency economy, economic growth is inherently constrained by social and ecological limits (Bärnthaler & Gough, 2023) shifting the focus toward qualitative changes that prioritize well-being and foster harmonious coexistence with nature (Daly, 1991).

As a normative guiding principle, sufficiency institutes a nested value hierarchy that prioritizes the stewardship of social and ecological carrying capacities above economic objectives, grounded in limits defined for and by society. Metaphorically, sufficiency repositions the scale and quality of economic output as a dependent variable, subordinate to the broader goal of collective well-being. Applied to the corporate level, this logic suggests that business opportunities are inherently constraint by non-negotiable ecological and social carrying capacities, which must take precedence over profit motives. In a similar vein, sufficiency scholars have called for a shift in business logics away profit maximization and new approaches for doing business (Bocken et al., 2014; Dyllick & Hockerts, 2002; Gossen & Heinrich, 2021; Heikkurinen et al., 2019).

2.2 Corporate sufficiency: Towards a revised understanding of sufficiency in business

While it is generally accepted that without corporate support a shift towards a sufficiency economy will not be achieved (Bocken & Short, 2016; Heikkurinen et al., 2019), the literature reveals ambiguities concerning the role of businesses and the scope of their responsibility in promoting and implementing sufficiency (Jungell-Michelsson & Heikkurinen, 2022). Much of the discourse is centered on a demand-sided notion of sufficiency prescribing the responsibility of business to actively moderate consumption levels through its interaction with consumers (e.g., Bocken et al., 2022; Bocken & Short, 2016; Kropfeld & Reichel, 2021). This would imply that business leverage their resources and market influence to implement strategies aimed at "persuading consumers not to buy and consume as much, or where consumption is essential, making products less resource-intensive, and assisting consumers to use goods for longer" (Bocken et al., 2022, p. 3). Sufficiency has been defined as a business strategy to encourage and support sustainable consumption (Bocken & Short, 2016; Gossen et al., 2019; Kropfeld & Reichel, 2021) with sufficiency-oriented businesses being those that implement these strategies (Beyeler & Jaeger-Erben, 2022). This has led to considerable contributions on business models for sufficiency (Bocken & Short, 2016; Bocken et al., 2020; Kropfeld & Reichel, 2021; Niessen & Bocken, 2021), business model innovation through circular economy models (Bocken et al., 2022; Colombi & D'Itria, 2023) and sufficiency-oriented marketing approaches (Gossen et al., 2019; Frick et al., 2021).

However, the conceptualization of sufficiency as a demand-sided business strategy has been criticized for inadequately addressing the role of producers in building a sufficiency-based economy (Jungell-Michelsson & Heikkurinen, 2022). By focusing on consumers as the primary change agent, the current discourse remains largely trapped in an instrumental notion of translating sufficiency into a "competitive and profitable business strategy" (Bocken et al., 2022, p. 12) and thus, lacks a discussion of what and how much should be produced by business in the first place (Hockerts & Searcy, 2023). Therefore, the business model approach fails to address the inherent conflicts between sufficiency and market-driven goals and largely misinterprets the fundamental cause-effect-relationship by overlooking the radical ethical and structural organizational transformations advocated by sufficiency scholars (Beyeler & Jaeger-Erben, 2022; Jungell-Michelsson & Heikkurinen, 2022; Robra et al., 2020).

Addressing these pitfalls, a much less developed stream of research describes sufficiency in business as both a demand- and supply-sided principle, extending business responsibility beyond moderating consumption to directly encompass production limitations (Beyeler & Jaeger-Erben, 2022; Dyllick & Hockerts, 2002; Freudenreich & Schaltegger, 2020; Heikkurinen et al., 2019; Robra et al., 2020). It has been argued that business plays a crucial role in shaping supply and the conditions of the marketplace (Heikkurinen et al., 2019), with "consumption being a necessary induced outcome of a productivity- and growth-driven production sector" (Brand-Correa et al., 2020, p. 309). This perspective reorients the role of businesses as proactive agents of change and focuses on their responsibility in driving sufficiency irrespective of market considerations (Figge et al., 2014). It emphasizes "'enough production' (…) where 'enough' refers to the sufficient fulfilment of human needs" (Robra et al., 2020, p. 2), thereby shifting the corporate focus from increasing consumer wants to meeting human needs (Gough, 2023). Going back to Daly (1993), businesses are compelled to strive towards an 'optimal scale' where resource consumption remains within ecological limits and social benefits outweigh ecological costs (also see Daly, 2003; Daly & Farley, 2004). Given the current transgression of planetary boundaries (Rockström et al., 2023), this implies a voluntary self-restraint in production and consumption (Heikkurinen et al., 2019), respecting social and ecological sufficiency thresholds, even at the expense of higher profits (Robra et al., 2020). The conceptualizing of sufficiency as both supply- and demand-sided principle aligns with the complementarity of capitals premise of sufficiency theorizing, under which the embeddedness of business within the larger socio-ecological system is recognized and limits to growth are acknowledged (Dyllick & Hockerts, 2002; Heikkurinen et al., 2019). At this level of understanding, sufficiency-oriented business must be "willing to 'sacrifice' potential profits and growth by producing less" (Robra et al., 2020, p. 3), thereby replacing the centrality of profit with a centrality of ethics (Beyeler & Jaeger-Erben, 2022; Kropfeld & Reichel, 2021). Thus, under a sufficiency paradigm, businesses respect the limits of social and ecological carrying capacities, willingly subordinating economic objectives to these broader obligations.

Building on this work, we introduce the notion of corporate sufficiency as *an ethical principle of voluntary self-restraint in both supply and demand, aimed at safeguarding social and ecological carrying capacities*. This understanding builds on the complementarity of capitals premise, consistently extending the normative limits model inherent to sufficiency theorizing to the corporate level. Following the hierarchical logic of subordinating economic considerations to the long-term welfare of society and the environment, corporate sufficiency calls for business to transcend the win-win logic prevalent in triple bottom line thinking (Elkington, 1997) and corporate sustainability approaches (Hahn et al., 2010; Van Der Byl & Slawinski, 2015). Consequently, moving beyond a demand-sided focus requires understanding corporate sufficiency not merely as a strategy but as a normative disposition that inherently motivates economic self-restrain for social and ecological imperatives. It has been argued that adopting sufficiency as the central tenet of business mandates alternative visions and values motivating business (Beyeler & Jaeger-Erben, 2022). However, while scholars have highlighted the imperative to realign consumption and production levels with sufficiency thresholds (Bocken & Short, 2016; Heikkurinen et al., 2019) and have called for departure from profit-maximization as the guiding corporate logic (Dyllick & Hockerts, 2002; Gossen & Heinrich, 2021), little is known about the ethics underpinning and guiding sufficiency-oriented self-restraint in business and what constitutes 'enough' in terms of quality and quantity.

While scholars have begun to explore the normative grounds for sufficiency in business, research on the ethical foundations of corporate sufficiency is still nascent. Beyeler (2024) argues that "sufficiency in business represents a shift from a logic of profit to a logic of care" (p. 95). Similarly, Beyeler & Jaeger-Erben (2022) find a commitment to care characterizing the interactions of sufficiency-oriented business with others and nature. Moreover, Lehtonen & Heikkurinen (2022) advanced three foundational conceptualizations of sufficiency in relation to corporate sustainability: first, a limits model grounded in universal duty; second, a preference model building on utilitarianism; and third, a balancing model anchored in action-oriented virtue ethics. However, prior research lacks a comprehensive understanding of the ethical practices motivating and enabling sufficiency-oriented self-restraint and empirically grounded knowledge about the ethical antecedents of corporate sufficiency is still missing. Addressing this gap is critical to understand the ethical transformation necessary for business to embrace sufficiency as a corporate guiding principle.

3. RESEARCH METHODOLOGY

3.1. Research Design

This paper reports on a qualitative research study of sufficiency-oriented firms that deliberately refrain from expanding production capacities for social and/or environmental reasons and maintain their size. Building on a rich data set gathered through semi-structured interviews, the objective of this study is to understand *why firms engage in sufficiency and how they manage under self-constraint*. Specifically, it aims to explore the ethical antecedents of corporate sufficiency that motivate and enable voluntary self-restraint in supply and demand.

Given the study's exploratory nature, we used a qualitative approach motivated by the desire to conduct an in-depth exploration of the phenomenon within its real-world context (Yin, 2015); and to capture the perception of business actors directly engaged in that reality (Lamnek, 2010). Aligned with our study's objectives, we take a constructivism-interpretative stance, which is well-suited to deepen understanding of the antecedents of corporate sufficiency. Under an interpretative approach (Gioia et al., 2013), concepts and themes are developed inductively from the data to deduce theoretical and practical implications whilst carefully balancing inductive concept formation with the demand for rigorous qualitative analysis (Gioia et al., 2013). Specifically, we employed a grounded theory methodology (Charmaz, 2014; Corbin & Strauss, 2008; Glaser & Strauss, 1967), a widely used method in business ethics (e.g. Liedong, 2021; Sebhatu & Enquist, 2022), which is considered a suitable methodology for exploratory research focusing on “the why and how something happens” (Corbin & Strauss, 2008, p. 15).

3.2. Sampling and Data Collection

To support *analytical generalization*, this study employed a criterion purposeful sampling process (Suri, 2011) to identify information-rich cases pertinent to corporate sufficiency. To qualify for our study, all four of the following criteria had to be met by sample firms:

- *Demand-sided sufficiency orientation*: Firms that publicly report on sufficiency-oriented strategies on their websites that aim at actively moderating consumption levels. Specifically, as a criterion, firms must apply at least one demand-sided sufficiency strategy aimed at actively moderating consumption, namely: the production of eco-friendly and long-lasting products; the offer of life extension services (e.g., repair); the facilitation of sharing possibilities; the promotion of customer awareness about sufficiency (see Bocken et al., 2022; Bocken & Short, 2016; Niessen & Bocken, 2021).
- *Supply-sided sufficiency orientation*: Firms that deliberately avoid investments in production capacities for environmental and/or social reason, and maintain their size, specifically their headcount.
- *Location*: Firms located in the DACH region, with primary and secondary data available in German.

- *For-profit orientation*

In an initial outreach, we engaged with several sustainability-oriented business networks and industry associations in the DACH region to identify firms publicly reporting on at least one demand-sided sufficiency strategy on their websites and external communications. Additionally, we leveraged warm introductions through professional networks. The initial set of business contacts was extended during the data-gathering process using snowball sampling (Noy, 2008). This initial focus on demand-side sufficiency served primarily as an indicator for selecting firms that were likely to also demonstrate a supply-side sufficiency orientation. The outreach resulted in a list of 301 companies with at least a demand-sided sufficiency orientation, which we contacted with an email explicitly double-checking for the second selection criteria, namely the supply-sided sufficiency orientation. Thus, we exclusively recruited sample firms who self-identified as limiting the expansion of their productive capacities for social and/or environmental reasons. Participating firms were self-selected; however, the recruiting materials and information sheet, which detailed our sampling criteria, were shared in a first outreach. With the intention of increasing the generalizability of the results of this study, a maximum variation logic was followed to avoid limiting the scope of our theory development to single sector groups. This resulted in a pool of 70 firms which externally report on demand-sided sufficiency strategies while internally adhering to self-imposed limitations on expanding productive capacities. The objective was to maximize the sample size to ensure theoretical saturation in the data analysis (Bowen, 2008). The sample firms, consistent with our selection criteria, are primarily small- and medium-sized enterprises (SMEs), with employee numbers ranging from 4 to 400 and an average size of 34 employees. They represent a diverse range of industries and are characterized by their strong local embeddedness, owner- or family-led structures, and relatively mature operations, with an average age of 34 years. The firms in our sample operate in sectors as diverse as manufacturing, food & beverage, construction, commerce, services (see Table 1 with main sample characteristics).

Insert Table 1 about here

Our data comprises semi-structured interviews conducted with the CEOs or founders. The interview guide followed a list of open questions about corporate purpose, business structures, stakeholder relationships, competitive environment, and views on the meaning of sufficiency, profit, and growth in business. All interviews were conducted in German between May 2024 and September 2024. The average duration of the interviews was 57.78 minutes, yielding a total of 67.42 h of sound files and 984 pages of verbatim transcripts for analysis.

3.3. Data analysis

This study followed a grounded theory methodology, in which theory development is grounded in the data itself and, notably, in the lived experiences and contextual interpretations of “knowledgeable agents” (Gioia et al., 2013, p. 17). By following the approach of Gioia et al. (2013) to data analysis and interpretation – progressing from coding informants' voices as first-order terms to forming second-order themes and identifying aggregate dimensions – this study ensured a nuanced interpretation of the data while preserving its contextual integrity. It pursues a data-based interpretation of categories and concepts, ‘semi-ignorant’ of prior studies (Gioia et al., 2013).

The data analysis was conducted using Atlas.ti qualitative analysis software, through which we independently reviewed the transcripts and engaged in an iterative three-step process of coding. At the initial stage of data analysis, we engaged in ‘open coding’ (Gioia et al., 2013) not to generate categories directly but to summarize and structure the interview excerpts with descriptive codes for further investigation (Saunders et al., 2016). In a second phase of axial coding, we sought relationships among open codes by assessing conceptual similarities and differences, eventually reducing the number of first-order codes to a manageable number

(Saunders et al., 2016). Specifically, through an iterative cycling between the data and the literature, we focused on identifying emerging concepts that that have been insufficiently explored in prior research (Gioia et al., 2013). Once no further significant concepts or themes emerged, we determined that theoretical saturation had been achieved (Glaser & Strauss, 1967), leading to the conclusion of data collection. In a third step, we re-engaged in an inductive process of selective analysis (Gioia et al., 2013) to distill the second-order themes developed in Step 2 into aggregate dimensions, aiming for theoretical transferability to other contexts. Throughout this process, we analyzed the emerging themes within each category to verify their explanatory power concerning our research objective (Corbin & Strauss, 2008). To refine the emerging theory and enhance the rigor of the findings, one researcher collected and closely examined the data, while the other three maintained sufficient distance to support the analysis with critical questions and reflective insights (Bocken & Geradts, 2020). The coding hierarchy that emerged from the study is represented in Figure 1. Finally, to clarify the data-to-theory connection, we sought to identify the relationships and interdependencies between the emerging concepts. This resulted in the development of an empirical model that delineates the antecedents of corporate sufficiency, illustrating their mutually reinforcing nature (see Figure 2).

Insert Figure 1 about here

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4. RESULTS

Our analysis revealed several common themes regarding why firms engage in sufficiency and how they manage under self-restraint. Consistently, the firms in our study consider social and ecological objectives over economic expansion. All interviewees indicated that the firm intentionally limits production and consumption levels to uphold social and/or ecological values: “We are not willing to compromise on our values for further profit or production growth” (#8). Rather than growing their production and consumption volumes, they reportedly strive for an "optimal integration of business activities in a way that respects the ecological limits of our planet and the resilience limits of everyone involved" (#62). The subsequent sections are organized around the three ethical antecedents of corporate sufficiency identified through our inductive data analysis: **Responsibility** as a motivating factor, and **relationality** and **excellence** as enabling factors. Together, these antecedents illustrate how firms align consumption and production levels with the boundaries of social and ecological carrying capacities. Drawing on these findings, three propositions are developed, which are examined and situated within the broader business ethics literature in the discussion section.

4.1. Responsibility

A strong sense of responsibility emerged as the primary motivating factor of corporate sufficiency. The firms studied share an intrinsic commitment toward social and environmental responsibility. Responsibility is perceived as an attitude to treat all actors directly involved or affected by business operations with respect and dignity; "not viewing humans and nature simply as resources that can be exploited for profits" as the respondent of firm 13 put it. This commitment to responsibility resonates from clearly espoused and enacted values of justice, which are deeply embedded within the firm through the influence of its founder or owner. Social equity, solidarity, fairness and environmental sustainability emerged as characteristic business values that define the interaction with stakeholders and emphasize the priority paid to their needs, including employees, customers, regional communities, and the environment. Acting responsibly, is perceived as a moral duty, which is non-negotiable and integral to the company's identity. As the founder of firm 14 stated, "we act socially and ecologically sustainable simply because we are convinced that it is the right thing to do [...] not only for the company but also for society as a whole."

All firms were quite clear about the role of business values in guiding direction, thereby outlining the corridor of economic possibilities. "We don't compromise on business values. It's about prioritizing environmental and social sustainability over economic self-interests." as articulated by the founder of company 9. Going beyond conventional cost-benefit analyses, the firms studied demonstrate a responsible approach to decision-making by reasoning about the alignment of actions with company values and evaluating the impact on society and the environment. Although conflicts between social and ecological goals and economic interests were acknowledged, most firms studied did not perceive them as tradeoffs. "We consciously forgo economic opportunities that do not align with the wellbeing of the environment, our employees or our customers; yet we regard this not as a trade-off but rather as a matter of principle — a given." (#28). Similarly, the firms demonstrate a critical approach to production expansion, recognizing the path dependencies and lock-ins of exponential growth, as demonstrated by the representative statement coming from firm 30: "We don't aim for growth, which would only pressure us to keep expanding. Rather, it's about finding the optimal business size where positive societal impacts outweigh ecological impacts."

The prioritization of responsibility for society and the environment over economic interests appears to be underpinned by a shared sense of financial prudence. The findings indicate that financial prudence is seen as a matter of fairness, ensuring that all parties involved in or affected by business operations benefit proportionally from the value created and do not disproportionately bear negative impacts generated by the business. The firms appear to prioritize equitable allocation of financial resources and profits, exemplified in fair wages for employees, just supplier compensation, fair pricing for customers and continuous investments in environmental sustainability including donations to non-profit organizations. In balancing economic self-interests with fair compensation of all parties, the economic objectives of firms studied appear to be limited to financial viability, with the goal of ensuring "everyone in the company with a reasonable livelihood" (#62). While most firms studied generate profits, they reportedly do so with careful regard for social and ecological responsibilities, as exemplified by the shared understanding of "profit as a means to sustain the business mission, but not as an end in itself intended to flow out of the company" (#30).

Similarly, financial prudence appears to be a central theme the firms' approach to finance and their interaction with shareholders and creditors. They demonstrate a balanced and cautious approach to both equity and debt financing, aiming to minimize the influence of external financial interests while paying priority to ecological and social needs of actors directly involved or affected by business. The firms recognize debt and equity financing as a potential source of mission drift. The deliberate choice to minimize external funding is common and seen as a critical prerequisite to "operate responsibly towards all stakeholders, rather than maximizing short-term profits at the cost of environmental and social sustainability goals" (#8).

Proposition 1: *Corporate sufficiency is motivated by a profound sense of responsibility that prioritizes social and ecological obligations in organizational decision-making.*

4.2. Relationality

Relationality emerged as primary enabling factor of corporate sufficiency. The firms studied recognize the importance of direct relationships as a means to identify, assess and monitor their commitment to broader social and ecological responsibilities. They give priority to the wellbeing of all actors involved or affected by the business, which is understood as direct feedback on the firms social and ecological performance. By maintaining direct stakeholder relationships, the firms studied aim to assess these context- and stakeholder-specific needs in their context and understand what it takes to fulfill their broader responsibilities. "It is through direct relationships that we can understand the business impact on employees, suppliers, customers and regional communes and it is their direct feedback that tells whether their needs are respected", as the founder of firm 8 stated. Thus, in the absence of objectively defined sufficiency thresholds, the firms engage in direct relationships with all parties involved or affected to account for social and ecological needs and limits.

The firms in our study share a strong commitment to direct and reciprocal relationships with all parties involved or affected by business operations. As the founder of firm 48 stated: “The success of the business is defined by the quality of its relationships”. This sense of relationality resonates from a clearly espoused recognition of the firm’s embeddedness within society and environment: “The company relies on its relationships, which must be nurtured. The business cannot be separated from employees, customers, suppliers, or its regional environment – everything is interconnected, and everyone’s well-being is essential to the company’s success.” (#32). The firms nurture long-term and trust-based stakeholder relationships reflected by a high retention rate, a loyal base of customers, and a stable set of suppliers.

Attentiveness emerged as a central theme characterizing the relationships maintained by the firms in our study. Through direct interactions, they aim to ensure that “everyone in the firm or affected by its actions feels heard and has the opportunity to raise their needs” (#63). At the same time, the firms report on the importance of direct and attentive relationships to foster trust and value cohesion among all parties involved in business operations. They cultivate a community of shared purpose, where all stakeholders identify with and care about the pronounced social and environmental responsibility integral to the firms. The direct and attentive engagement with all stakeholders results in a net of stable relationships characterized by reciprocity and collaborative engagement. This is exemplified in the personal nature of employee relationships most of the firms maintain, actively supporting employee participation and fostering a culture of appreciation. Through personal engagement, the studied firms nurture employee relationships, by ensuring that employees share the firm’s commitment to social and environmental sustainability and foster cohesion to avoid silo thinking: “Our employees are intrinsically motivated and embody our core values in the interaction with our customers.” (#4) Reciprocity and attentiveness are also characteristic of supplier relationships: “For consistently sustainable production, you need to engage with your suppliers directly. You need transparency into the origins of the material and must be able to trust that they adhere to the highest social and ecological standards” (#14). The firms apply sustainability criteria for supplier selection and emphasize the importance of maintaining trustful and direct relationships that support in tracking and improving environmental performance.

The findings reveal that the firms in our study prioritize the quality of relationships through a deliberate approach to “keep the business at a human scale“ (#52), thereby maintaining a size that facilitates and enables direct interactions with all parties involved in business operations. Decency in scaling emerges as a key mechanism for fostering accountability to social and environmental needs and limits in relationships. Specifically, the firms limit their stakeholder base, particularly employees and suppliers, to a scale that allows for direct, reciprocal, and trust-based interactions. As the respondent of firm 60 stated: “Our priority is to be a stable, responsible employer who values employee participation in decision-making. Further staff growth would compromise direct contact, employee wellbeing and the shared commitment to our core values”. The statement of the founder of firm 14 is representative for the self-moderating approach to supplier relationships: “The number of suppliers we work with is naturally limited by our values. We exclusively partner with regional, small-scale suppliers who share our commitment to social and environmental sustainability. Expanding our production volumes, and thus our supplier scope, would result in reduced accountability in relationships, and ultimately a loss of control over sustainability standards.” (#14)

The firms in our study balance the limited scope of actors directly involved business operations with a highly collaborative approach to value creation. They collaboratively engage with specialized partner firms and competitors to mitigate capacity limitations. Through direct and reciprocal relationships, they foster a culture of exchange and collaboration with other small, value-aligned competitors, emphasizing solidarity as a strategic approach to counter the competitive pressures from larger competitors with lower prices and less stringent sustainability standards. Instead of growing in company size, the firms aim to "grow as a movement" (#9) by engaging within a network of partner companies and foster value cohesion therein.

Proposition 2: *Corporate sufficiency is enabled by direct relationships that support the identification of context-specific social and ecological thresholds.*

4.3. Excellence

In addition to direct relationships, our findings identify a culture of excellence as another key enabling factor. The firms in our study are characterized by a pronounced ambition for excellence, which is frequently cited as the practical approach to meet social and ecological responsibilities. Excellence is perceived as balancing the highest social, ecological and quality standards, encapsulated in the business purpose "to best meet societal needs with the lowest environmental impact possible" (#10). Excellence was cited as both the delivery of high-quality outcomes and a commitment to prioritizing social and environmental responsibilities in achieving those outcomes. It is thus understood not only in terms of customer value but as the optimal balance between customer, social and environmental value.

The strive for excellence resonates from clearly espoused and enacted values of integrity, accountability and transparency. Excellence appears to be driven by an intrinsic motivation to achieve the highest possible quality standards in alignment with the core business values of social and environmental sustainability. As one interviewee expressed, "We want to stay true to our values and operate in a way we believe is right. We aim for highest quality while implementing our ecological and social standards to the best of our ability." (#8). This sense of integrity is integral to the understanding of excellence among the firms studied and exemplified by a commitment to staying ahead of the industry by continually raising sustainability standards, "striving to set the bar higher" (#14) and improve practices incrementally. To this end, the firms reportedly foster a culture of continuous learning and improvement through direct interaction with stakeholders. The commitment to "continuously growing quality" (#43) is often cited and correlates with a focus on employee and customer satisfaction, improved efficiency, and strengthened social and ecological performance. The firms actively engage with customers to gather direct feedback and foster efficiency improvements and innovations in close collaboration with employees and suppliers. Alongside integrity, transparency emerged as another central theme underpinning excellence. Firms perceive themselves as role models for other companies, emphasizing the importance of full transparency in their social and environmental performance. While all firms studied recognize the importance to track their environmental and social performance through direct dialogue with the affected stakeholders, some also stated to implement sustainability criteria in formal reporting structures. As articulated by the founder of firm 9: “We want to be an example of responsible business practices. […] We have nothing to hide. We can showcase and communicate what we do with complete transparency”.

In maintaining a culture of excellence, the firms in our study aim to scale their impact through a dual focus on continuous improvement and transparency. Alongside the internal strive for highest sustainability standards and quality, they seek to raise awareness by transparently sharing their approaches with other industry players and the broader public. Thereby, they aim to inspire imitation in the industry and foster broader societal change. Through public engagement, such as speeches and participation in industry associations, the firms strive to build a collective movement toward responsible business practices. This is echoed by a representative statement coming from firm 11: “We don’t want to grow as a company. We aim to lead by example, share our values and knowledge, and inspire others to copy our approach.”

The firms in our study emphasize tailoring their value propositions to the regional contexts in which they operate. A regional scope is frequently cited as critical for maintaining accountability to the highest standards of quality and sustainability. Excellence is understood as achieving an optimal balance of social, environmental, and customer value, requiring a comprehensive understanding of context-specific needs. To this end, firms deliberately limit their sourcing and distribution radius to maintain direct contact with customers, suppliers, and the local community, ensuring their products and services effectively address stakeholder needs. As highlighted by the respondent of firm 28: “The closer we can work with our customers, the better quality we can offer, and the more effectively we can implement our sustainability standards.”

The firms studied leverage customer feedback to further improve quality while raising customer awareness about the additional costs associated with high sustainability standards. In doing so, they cultivate a high-quality niche isolated from the price pressures of the mass market, in which their commitment to social and environmental sustainability is appreciated and actively supported by a loyal base of customers. As expressed by the founder of firm 32: “We depend on customers who value our quality and sustainability standards, are willing to pay for them, and recommend us to others. That's why we operate regionally and stay close to our customers.” Therefore, the firms face inherent constraints in the opportunity to scale beyond their niche, as doing so would require compromises on excellence. This is attributed to the price pressures and the lack of customer awareness in the mass market, which challenge the alignment of social, environmental, and customer value at larger scales.

Proposition 3: *Corporates sufficiency is enabled by a culture of excellence aimed at fulfilling customer needs within social and ecological thresholds.*

Insert Figure 2 about here

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5. THEORETICAL DISCUSSION

Our findings suggest a basic model of corporate sufficiency (see Figure 2), grounded in the three core antecedents: Responsibility, relationality, and excellence. We first position our model within the broader business ethics literature, demonstrating how the three core antecedents align with distinct ethical stances. We argue that responsibility draws on deontological principles, relationality bears resemblance to care ethics, and excellence resonates with the foundations of virtue ethics. Subsequently, we provide an explanation of the model, emphasizing how these three antecedents collectively interact in favor of corporate sufficiency. Our model contributes to an understanding why firms engage in sufficiency and how they manage under self-constraint. As the motivations and behaviors described in the context of sufficiency may parallel activities in other domains such as corporate social responsibility or social entrepreneurship, the applicability of our model may extend beyond the specific context of corporate sufficiency.

5.1. Ethical foundations of corporate sufficiency

Our findings indicate that responsibility as an antecedent of corporate sufficiency fosters moral awareness and prioritization of social and ecological carrying capacities in corporate decision-making. Thereby, it motivates a pronounced sense of financial prudence in subordinating economic motives to these larger obligations. The ethical rationale to self-restraint on economic expansion, and hence the answer to the question of *‘why sufficiency’*, can be found in deontological ethics. We argue that the moral approach to corporate decision-making embodied by the responsibility antecedent aligns with deontological ethics, which asserts that the morality of an action is determined by its intrinsic rightness or wrongness, regardless of its outcomes (Arnold et al., 2019). Within the framework of deontology, Kantian ethics posits that actions must adhere to the categorical imperative, which upholds the principle of human dignity by asserting that individuals must be treated as ends in themselves, and thus never solely as means to achieve business objectives (Arnold et al., 2019; McNaughton & Rawlings, 2006).

Our findings suggest that responsibility is perceived as an attitude to treat all actors directly involved or affected by business operations with respect and dignity, which resonates from clearly espoused and enacted values of justice, solidarity, fairness and environmental sustainability. In this light, corporate sufficiency emerges as an action motivated by moral obligations and deontological duties, rather than the pursuit of economic opportunities aimed at value creating outcomes. Accordingly, the responsibility antecedent of corporate sufficiency can be seen an ethical commitment to the equitable distribution of resources (Lehtonen & Heikkurinen, 2022) both within and across generations, as well as among diverse groups impacted by business operations. However, this duty of equity is meaningful only when guided by the imperative to respect the biosphere's ecological limits and to not undermine the social resilience of key stakeholders, such as employees and local communities. In contemporary deontological ethics, the rights and dignity of any group stakeholders must be respected, not just of human but also of non-human stakeholders and the environment (Regan, 1983; Plumwood, 1991; Morrison et al., 2016), and that irrespective of financial implications. The studied firms' critical stance on growth and their deliberate limitation of external capital influence can be understood as a safeguard against mission drift, reinforcing their adherence to deontological business values. This emphasizes the critical role of financial prudence, reflecting a willingness to forgo growth and profits to 'do the right thing' and uphold an unwavering commitment to social and ecological duties.

The relationality antecedent of corporate sufficiency, on the other hand, bears resemblance with an ethics of care (Gilligan, 1982; Noddings, 2013). Our findings suggest that relationality fosters moral sensitivity to context-specific social and ecological needs and limits through the cultivation of direct, attentive relationships. This relationship-based approach employed by sufficiency-oriented firms to evaluate and mitigate the impacts of their economic activities on all affected parties, can be theoretically linked to the relational perspective emphasized in an ethics of care. Ethics of care starts from the fundamental position of relationality (Held, 2006; Noddings, 2013), viewing human interaction as embedded in a web of reciprocal relationships rather than driven by the maximization of rational self-interest (Liedtka, 1996). It asserts that that relationships are fundamental to existence, with the act of caring for others forming the ethical foundation of moral reasoning and action, aimed at enhancing the well-being of those others affected by one's action (Gabriel, 2015; Noddings, 2013). This accords with the attentive and direct nature of relationships maintained by sufficiency-oriented firms through which they aim to assess and account for social and ecological responsibilities. Building on a care ethics perspective, the ethical motivation to consider social and ecological limits emerges from the needs and vulnerability of parties with whom the firm maintains relationships (Held, 2006; Liedtka, 1996). Care ethics views these claims of others as intertwined with the firm's needs, rather than simply competing, and is committed to situational dialogue as means of moral deliberation (Benhabib, 1992; Held, 2006). Aligned with the reciprocal nature of stakeholder engagement practiced by sufficiency-oriented firms, the care perspective underscores "growth-in-connection" (Nicholson & Kurucz, 2019) and the mutual development of wellbeing (Liedtka, 1996; Noddings, 2013) among all parties affected by business operations.

While the deontological rationale of the responsibility antecedent provides the ethical justification of corporate sufficiency, the relational logic provides the ethical guidance on determining '*what constitutes enough'* in terms of quantity and quality. Determining sufficient consumption and production levels is inherently challenging due to the lack of precise data and the multitude of social, ecological and economic factors to be considered. Consequently, sufficiency-oriented business must navigate diverse and often conflicting needs and limits of human and non-human beings of present and future generations (Lehtonen & Heikkurinen, 2022). In the absence of objectively defined and quantified sufficiency thresholds, ethics of care provides a context-specific approach to balancing these competing needs and limits in relation to affected beings (Benhabib, 1992; Held, 2006). Driven by an ethical rationale of care, sufficiency-oriented firms deliberately limit their activities to a ‘human scale’ that enables a directly sensed way of understanding the needs and limits of affected parties, fostered through the cultivation of attentive and trust-based relationships. Thus, we argue that the care logic underlying the relationality antecedent equips sufficiency-oriented firms with the attentiveness and ability to integrate economic considerations with societal and ecological wellbeing (Liedtka, 1996; Nicholson & Kurucz, 2019).

Finally, excellence is the third antecedent in our model of corporate sufficiency and comprises the moral accountability to high-quality outcomes and to the highest social and environmental standards in achieving these outcomes. Our findings reveal that excellence represents an ongoing strive towards achieving an optimal balance between meeting social, ecological and customer needs based on a culture of continuous learning and a commitment to transparency. As such, excellence connects the virtues of corporate sufficiency with concrete market activities. It bridges the deontological social and ecological responsibilities with context-specific needs and limits identified through direct stakeholder relationships. Lethonen and Heikkurinen (2022) argue that the balancing of objective limits and subjective preferences inherent in sufficiency theorizing bears resemblance to a type of action-based virtue ethics. They posit that corporate sufficiency can be linked to virtues such as modesty, reasonableness, and social and ecological sustainability, which refer not only to limiting economic self-interest but also to a radical improvement of the firms’ action towards sufficiency principles (Lehtonen & Heikkurinen, 2022, p. 31). Building on this, we argue that the maintenance of a culture of excellence, as a key antecedent of corporate sufficiency, theoretically draws from action-based virtue ethics. Virtue ethics emphasizes the moral character of sufficiency-oriented firms which is characterized by an intrinsic strive to grow in quality and raise sustainability standards, whereby becoming ‘virtuous’ can be understood as an ongoing process of learning and improving (see Garcia-Ruiz & Rodriguez-Lluesma, 2014; Auxtova et al., 2024). Deontology and care ethics provide limited moral guidance regarding the processes and dynamics in how sufficiency-oriented firms evolve to become ‘sufficient’. In contrast, a virtue ethics perspective emphasizes the nature of this process and the role of virtues to qualify right action (Van Zyl, 2013), holding firms accountable for their decisions (Crossan et al., 2013).

The virtue here is excellence, which, driven by an ethical rationale of virtue ethics, offers insights into the question of ‘*how to become and act sufficiency-oriented’*. Our findings suggest that excellence is driven by an intrinsic motivation to achieve the highest possible quality standards while upholding core business values of social and environmental sustainability, transparency and integrity. We contend that virtue ethics offers the ethical foundation for the distinct objective function embodied by the excellence antecedent of corporate sufficiency. Specifically, the sufficiency-oriented firms in our study do not demonstrate a focus on maximizing profits or traditional performance indicators. Rather, they pursue an optimal balance between social, ecological and customer needs; striving to deliver the best possible quality within the boundaries of social and ecological resilience. Thus, the conception of excellence as a process integral to adopting a sufficiency orientation is underpinned by a dynamic of continuous learning, improvement, and innovation. Moreover, the moral accountability inherent in virtue ethics aligns closely with the sense of integrity that defines the culture of excellence in sufficiency-oriented firms. They assess their performance not only through financial metrics but also by evaluating alignment with their core business values using social and ecological indicators. In doing so, the virtue of excellence naturally constrains the market scope of sufficiency-oriented firms to a niche, where a value-driven consumer base supports and renumerates the firms’ commitment to uphold uncompromised social and ecological standards. Rather than expanding market share at the expense of their commitment to excellence, sufficiency-oriented firms focus on enhancing their social and ecological stewardship, underpinned by continuous improvement and transparency. They aim to scale their impact by raising industry standards and inspiring imitation, thereby fostering broader systemic change while maintaining their ethical integrity.

5.2. An empirical model of corporate sufficiency

Our model of corporate sufficiency warrants further examination (see Figure 2). Building on the three propositions combining the findings from this study, this section discusses how the three antecedents collectively motivate and enable corporate sufficiency.

From an ethical standpoint, our empirical model introduces an alternative 'corporate sufficiency logic' for guiding business decisions and actions, contrasting with the conventional focus on profit maximization. Responsibility fosters moral awareness and motivation to prioritize social and ecological needs and limits in decision-making, thereby providing a rationale to the question of '*why sufficiency'*. Grounded in values such as justice and financial prudence, it motivates firms to respect social and ecological carrying capacities and prioritize sufficiency thresholds over economic expansion motives. This moral commitment challenges conventional profit- and growth-driven business paradigms, emphasizing corporate sufficiency as a guiding criterion in corporate decision-making. Relationality, on the other hand, enhances moral sensitivity by enabling the identification of and adherence to context-specific social and ecological carrying capacities in stakeholder relationships. In the absence of universally defined sufficiency thresholds, this relationship-based approach to directly relating to social and ecological needs and limits, provides guidance to define '*how much is sufficient*'. Finally, excellence ensures moral accountability to social and ecological needs by upholding the highest sustainability and quality standards to engage in a process of *'becoming and acting sufficiency-oriented'*. A culture of excellence sustains continuous learning and improvement, ensuring that firms can effectively create societal value within these context-specific thresholds while effectively balancing quality aspects with social and ecological needs.

Together, these three core antecedents of corporate sufficiency motivate and enable firms to limit growth in production and consumption, instead striving towards an optimal integration of business activities in social and ecological carrying capacities. Recognizing that unlimited production expansion and profit growth conflicts with these commitments, the firms in our study balance their productive capacity, and hence size, to a level where the societal benefits of business activities outweigh its environmental impacts. Our findings suggest that this balancing act, which is inherently subjective and context-specific, is facilitated by the dynamic interplay among the three core antecedents of corporate sufficiency and their underlying ethical logic: First, financial interests in the firm are limited to a level which allows for the prioritization of social and ecological responsibilities over profit maximization, including both external investor demands and internal dividend expectations. Second, the operational scale is deliberately restricted to a 'human size' to facilitate direct relationships and interactions with employees and suppliers to account for context-specific social and ecological needs and limits. Finally, the market scope of sufficiency-oriented firms is confined to a segment where a loyal, value-driven consumer base supports and renumerates the firms' commitment to uphold uncompromised social and ecological standards. Thus, the core antecedents of responsibility, relationality and excellence inherently limit the economic expansion of sufficiency-oriented firms to a level deemed 'sufficient' to respect social and ecological carrying capacities. This deliberate limitation reflects an ethical approach to organizational growth, where moderation in scaling arises as a consequence of a corporate sufficiency logic guiding business action.

Our empirical model of corporate sufficiency contributes to the broader corporate sustainability discourse by offering a distinct perspective on the role of firms in driving societal change and scaling organizational impact. In traditional organizational research, scaling is frequently equated with organizational growth and regarded as a key mechanism for business to achieving broader societal impact (Bauwens et al., 2020). Similarly, sufficiency-oriented firms are often expected to grow to substitute less sustainable alternatives and reduce overall market demand by displacing conventional competitors (Bocken & Short, 2016; Gossen & Heinrich, 2021). However, organizational growth poses significant challenges, including ineffective substitution (Bocken et al., 2022), rebound effects that undermine overall resource savings (Beyeler & Jaeger-Erben, 2022), and risks to the firm's sustainability orientation during the scale-up process (Niessen & Bocken, 2021). Our findings challenge the conventional equation of scaling with organizational growth, advancing an alternative scaling approach centered on qualitative improvements, replication and dissemination through relational networks. Under a corporate sufficiency logic, firms scale their societal impact by continually raising quality and sustainability standards within their industries, inspiring peers and imitators through transparent dissemination, and strengthening collective efforts in the broader sustainability movement. This approach aligns with alternative scaling models discussed in the social entrepreneurship literature, such as 'scaling deep,' which focuses on improving existing processes (André & Pache, 2016), and 'scaling across,' which emphasizes replication and the role of networks in driving systemic change (Bauwens et al., 2020). Thus, our findings support claims in the social enterprise and post-growth literature that organizational growth is neither critical for societal transformation nor necessary to be infinite (Moore et al., 2015; Pansera & Fressoli, 2021).

6. CONCLUSION

The aim of this study was to explore the ethical antecedents of corporate sufficiency: *Why do firms engage in sufficiency and how do they operate under self-restraint?* By conceptualizing corporate sufficiency as an ethical principle of voluntary self-restraint in both supply and demand, we shed light on the radical ethical transformation sufficiency implies on corporate firms. Specifically, we examined the motivation and practices of 70 firms that deliberately limit their organizational growth to integrate their business activities within the limits of social and ecological carrying capacities foundational to a sufficiency economy.

Drawing on this rich empirical dataset, we identified three key antecedents of corporate sufficiency: (1) responsibility, which reflects the moral awareness to ethical duties and motivates firms to prioritize social and ecological well-being; (2) relationality, which emphasizes the importance of direct, trust-based relationships and fosters moral sensitivity to context-specific social and ecological needs and thresholds; and (3) excellence, which ensures moral accountability to social and ecological needs and ensures operational rigor and adherence to the highest standards of quality and sustainability. Linking the sufficiency discourse to the field of business ethics, each of the three antecedent is found to imply an ethical stance: Kantian deontology, care ethics and action-oriented virtue ethics, respectively. Together, these three antecedents constitute a comprehensive model for explaining how firms can effectively align consumption and production levels with social and ecological carrying capacities. We argue that, while responsibility constitutes the ethical motivation to engage in sufficiency, relationality and excellence enable corporate sufficiency by identifying context-specific sufficiency limits in direct relationships and by embracing a culture of continuous learning and improvement in balancing social, ecological and customer needs, respectively.

This article contributes to the sufficiency literature by offering an empirically grounded perspective on how sufficiency principles are implemented in practice, bridging the gap between ethical ideals and corporate realities. Responding to calls for research on sufficiency as a holistic principle for sustainable business transformation in both production and consumption (Jungell-Michelsson & Heikkurinen, 2022), our empirical model uncovers why and how firms align their corporate activities with social and ecological carrying capacities. In doing so, we fill an important gap in deepening the understanding of ethical antecedent of corporate sufficiency, while departing from the instrumental notion of sufficiency as a business strategy aimed at influencing consumer behavior. Instead, this study sheds light on a business logic likely embedded in many more owner-led and family small and medium-sized enterprises, which integrate their operations within the local context and pioneer responsible business practices within niches. We introduced the concept of corporate sufficiency as a distinct business logic that redefines economic activity within non-negotiable ecological and social thresholds and establishes a nested value hierarchy that prioritizes social and ecological stewardship over economic expansion. Thereby, our empirical model of corporate sufficiency challenges the instrumental and win-win logic dominant in corporate sustainability literature (Hockerts & Searcy, 2023) and offers an alternative perspective on the role and responsibility of firms in driving sustainable development.

Our model of corporate sufficiency is exploratory by nature and can serve as a starting point for further research. Our study raises several questions regarding the broader applicability and cultural adaptability of corporate sufficiency that merit further exploration. First, given that the firms in our study were predominantly family- or owner-led small and medium-sized enterprises, further research is needed to examine how sufficiency principles can be applied to larger firms with more complex organizational structures. This is particularly relevant for high fixed-cost industries, where leveraging economies of scale has historically played a critical role. Second, our findings are situated in an European context, where sufficiency largely focuses on reducing matter-energy throughput to address excessive resource use and emissions. Further research should investigate how sufficiency principles are interpreted and implemented in other regional contexts. For instance, in the Global South, corporate sufficiency practices may need to place significantly greater emphasis on social dimensions, such as promoting social justice and ensuring the fulfillment of basic human needs. Finally, a key challenge for future research lies in expanding corporate sufficiency practices beyond niche markets into the mainstream, exploring how they might influence broader business practices while maintaining their ethical and sustainability-focused core.

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8. APPENDIX

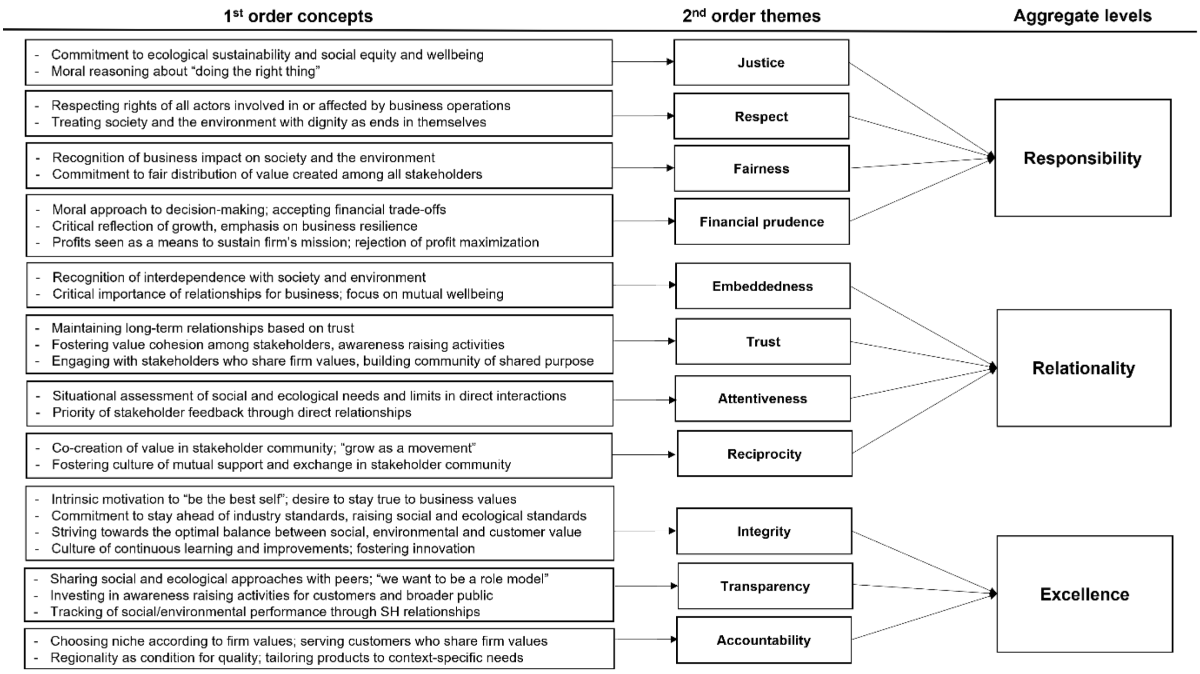

Figure 1: Visualization of the data structure. Adapted from Gioia et al. (2012)

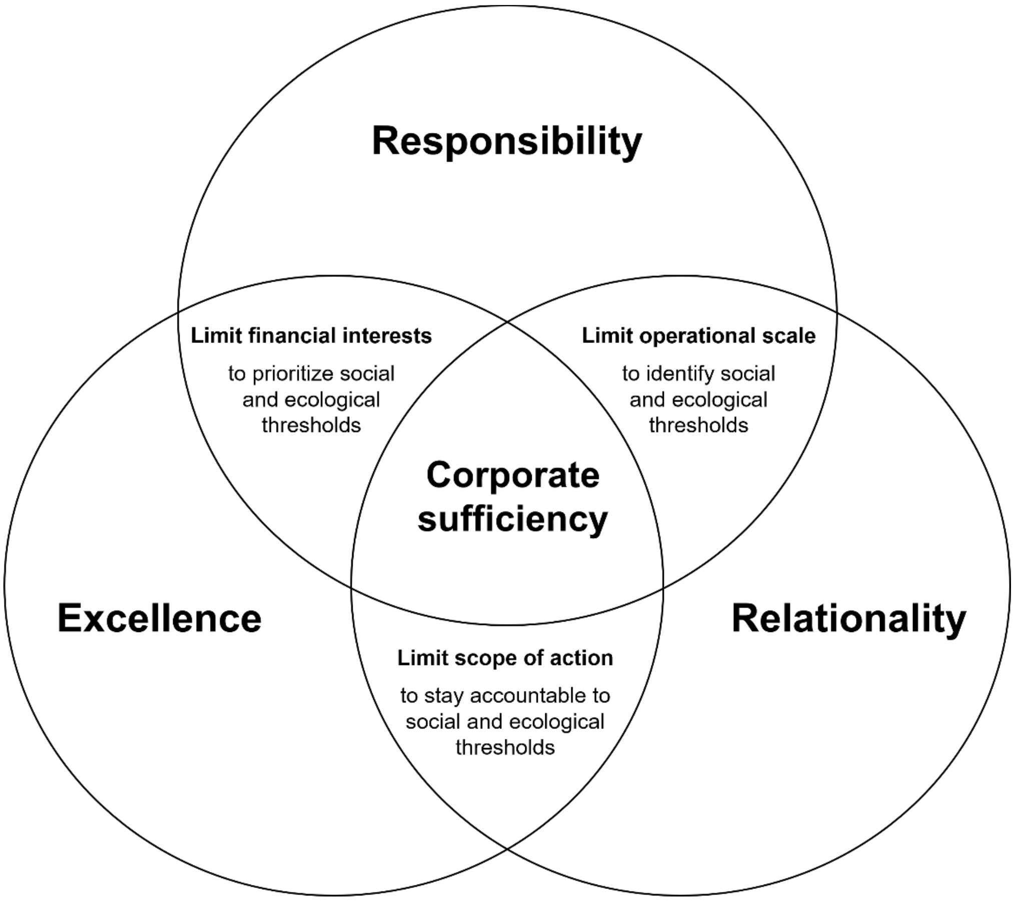

Figure 2: Model of corporate sufficiency, depicting the three key antecedents: responsibility, relationality, and excellence

Interview	Sector	Company size (employees)	Founding year	Location	Interviewee
#1	Agriculture and horticulture	Small (<50)	1991	Germany	Founder
#2	Agriculture and horticulture	Small (<50)	2013	Switzerland	Managing director
#3	Agriculture and horticulture	Small (<50)	2009	Germany	Founder and co-owner
#4	Agriculture and horticulture	Small (<50)	2008	Germany	Managing director
#5	Agriculture and horticulture	Small (<50)	2011	Austria	Managing director
#6	Construction	Small (<50)	1998	Switzerland	Managing director
#7	Construction	Large (<500)	1886	Switzerland	Managing director
#8	Construction	Medium (<250)	1980	Austria	Managing director
#9	Food and beverage	Medium (<250)	1930	Germany	Managing director
#10	Food and beverage	Small (<50)	2020	Germany	Managing director
#11	Food and beverage	Small (<50)	2018	Switzerland	Managing director
#12	Food and beverage	Small (<50)	1946	Switzerland	Managing director
#13	Food and beverage	Small (<50)	2020	Switzerland	Managing director
#14	Food and beverage	Small (<50)	2011	Switzerland	Managing director
#15	Food and beverage	Small (<50)	2014	Germany	Managing director
#16	Food and beverage	Small (<50)	2017	Germany	Managing director
#17	Food and beverage	Small (<50)	2015	Germany	Managing director
#18	Food and beverage	Small (<50)	2000	Germany	Managing director
#19	Food and beverage	Small (<50)	1924	Austria	Managing director
#20	Food and beverage	Medium (<250)	1976	Switzerland	Managing director
#21	Hospitality	Small (<50)	2019	Switzerland	Managing director
#22	Hospitality	Small (<50)	2022	Switzerland	Managing director
#23	Hospitality	Small (<50)	1968	Germany	Managing director
#24	Hospitality	Small (<50)	1946	Germany	Managing director
#25	Manufacturing	Small (<50)	1922	Germany	Managing director
#26	Manufacturing	Medium (<250)	1911	Switzerland	Managing director
#27	Manufacturing	Small (<50)	2005	Switzerland	Managing director
#28	Manufacturing	Medium (<250)	1888	Switzerland	Managing director
#29	Manufacturing	Small (<50)	2014	Switzerland	Managing director
#30	Manufacturing	Medium (<250)	1882	Germany	Managing director
#31	Manufacturing	Small (<50)	2018	Switzerland	Managing director
#32	Manufacturing	Small (<50)	1996	Switzerland	Managing director
#33	Manufacturing	Small (<50)	2020	Switzerland	Managing director
#34	Manufacturing	Small (<50)	2014	Switzerland	Board member
#35	Manufacturing	Small (<50)	2012	Switzerland	Managing director
#36	Manufacturing	Small (<50)	1981	Austria	Founder and co-owner
#37	Manufacturing	Small (<50)	1996	Austria	Managing director
#38	Manufacturing	Small (<50)	2000	Austria	Managing director
#39	Manufacturing	Small (<50)	1954	Austria	Managing director
#40	Manufacturing	Medium (<250)	1946	Switzerland	Managing director
#41	Professional services	Medium (<250)	2004	Germany	Managing director
#42	Professional services	Small (<50)	1987	Switzerland	Co-owner
#43	Professional services	Small (<50)	2001	Switzerland	Managing director
#44	Professional services	Small (<50)	2023	Switzerland	Managing director
#45	Professional services	Small (<50)	1991	Germany	Managing director
#46	Professional services	Small (<50)	2006	Switzerland	Managing director
#47	Professional services	Small (<50)	2011	Germany	Managing director
#48	Professional services	Small (<50)	1994	Switzerland	Managing director
#49	Professional services	Small (<50)	1992	Switzerland	Founder and co-owner
#50	Professional services	Small (<50)	2000	Germany	Managing director
#51	Professional services	Small (<50)	2015	Germany	Managing director
#52	Professional services	Small (<50)	2013	Germany	Managing director
#53	Professional services	Small (<50)	2021	Germany	Founder and co-owner
#54	Professional services	Small (<50)	2007	Austria	Managing director
#55	Professional services	Small (<50)	2004	Germany	Founder and co-owner
#56	Real estate and facility management	Small (<50)	2000	Switzerland	Founder
#57	Real estate and facility management	Small (<50)	2014	Austria	Managing director
#58	Real estate and facility management	Small (<50)	2017	Germany	Managing director
#59	Real estate and facility management	Small (<50)	1986	Germany	Managing director
#60	Real estate and facility management	Medium (<250)	2009	Switzerland	Managing director
#61	Retail and wholesale	Small (<50)	1996	Germany	Founder and co-owner
#62	Retail and wholesale	Small (<50)	2003	Germany	Managing director
#63	Retail and wholesale	Small (<50)	1999	Germany	Founder and co-owner
#64	Retail and wholesale	Small (<50)	2009	Germany	Managing director
#65	Retail and wholesale	Medium (<250)	1978	Germany	Founder and co-owner
#66	Textile and apparel	Small (<50)	1948	Germany	Managing director
#67	Textile and apparel	Small (<50)	2021	Germany	Managing director
#68	Textile and apparel	Small (<50)	1995	Switzerland	Founder and co-owner
#69	Textile and apparel	Medium (<250)	1945	Germany	Managing director
#70	Transportation and logistics	Small (<50)	2012	Germany	Managing director

Table 1: Overview of interviewees