

FUTURE-PROOFING THROUGH SUSTAINABILITY: A COMPREHENSIVE REVIEW AND ANALYSIS OF BUSINESS MODEL INNOVATION AND TRANSFORMATION STRATEGIES

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ABSTRACT

***Purpose** – This scholarly analysis investigates the interdependent nexus among sustainability, business model innovation, and transformation. Through a comprehensive analysis of varied viewpoints, it elucidates the strategic realignment of business models to integrate ecological and social dimensions. Emphasizing the crucial harmonization of economic objectives with responsible environmental and societal stewardship, this research stands at the crossroads of critical business decisions, aiming to enrich the ongoing dialogue on sustainable practices and their fundamental role in fortifying organizational resilience and prosperity.*

***Design/ Methodology/ Approach** – This scholarly investigation conducts an extensive literature review, analyzing how organizations formulate and conceptualize their business model strategies with a focus on sustainability. Motivated by environmental necessities, shifting consumer preferences, and regulatory demands, the study scrutinizes over 130 articles from Scopus, JSTOR, Emerald Insight, SAGE, and Google Scholar. Examining Business Model Innovation through a strategic management lens, the analysis seeks to comprehensively understand, evaluate, and synthesize insights on diverse dimensions and factors influencing organizational sustainability goals, thereby shaping the strategic orientation and conceptualization of business models.*

***Findings** – This study underscores the profound impact of diverse factors, including environmental consciousness, financial performance, innovation, and strategic leadership, on organizational business model innovation, particularly in pursuit of sustainability goals. It advocates strategic realignment, emphasizing sustainability as a pivotal driver for enduring success, ethical resilience, and heightened competitiveness within contemporary business models. The paper positions sustainability as integral to innovation and transformation, rooted in societal principles of environmental integrity, social equity, and economic prosperity.*

Keywords: Sustainability, Business Model Innovation, Innovation, Corporate Social Responsibility, Environmental Consciousness, Social Equity.

INTRODUCTION

Within the swiftly evolving terrain of contemporary business, the imperative to embrace sustainability has grown increasingly conspicuous, catalyzed by the confluence of environmental imperatives, evolving consumer proclivities, and regulatory exigencies. This

urgency has spurred organizations worldwide to meticulously reevaluate their foundational structures and operational modalities. Sustainability management, a strategic approach encompassing the integrated consideration of social, environmental, and economic dimensions, seeks to transform organizations into contributors to sustainable development, operating within the ecological limits (Whiteman, Walker, & Perego, 2013; Schaltegger & Burritt, 2005).

Scholars and practitioners are actively probing whether revised or entirely novel business models can not only sustain but potentially enhance economic prosperity. This involves a dual-pronged approach: radically mitigating adverse environmental impacts and fostering positive externalities for both the natural environment and society (Schaltegger, Lüdeke-Freund, & Hansen, 2012; Boons & Lüdeke-Freund, 2013; Hansen, Große-Dunker, & Reichwald, 2009; Stubbs & Cocklin, 2008). The locus of this study lies in elucidating the pivotal role of business in advancing global sustainability. Examination of major corporations indicates a burgeoning consensus among scholars that sustainability exerts a substantial and ongoing influence on corporate strategies and operations. Business executives increasingly recognize sustainability-related strategies as imperative for contemporary competitiveness and foresee their amplifying significance in the future (Dyllick & Muff, 2016). Executives consistently report escalating organizational commitment to sustainability, anticipating its further development as an integral facet of corporate ethos and strategy (Dyllick & Muff, 2016).

Against this contextual backdrop, the present scholarly investigation aspires to engage in a comprehensive review & analysis of strategies pertaining to business model innovation and transformation, singularly emphasizing sustainability. Under the rubric of "Future-Proofing through Sustainability," this study seeks to elucidate the intricate interplay between sustainable practices and the enduring viability of business models. Recent global economic upheavals have precipitated probing questions regarding the ramifications of prevailing corporate business models on the sustainability of the global economy & society. This exigency has galvanized diverse international organizations and researchers to advocate a reassessment of corporate contributions to sustainable development (Schaltegger et al., 2016). The conceptual framework of sustainable development, defined almost three decades ago, posits development that addresses current needs without compromising the capacity of future generations to fulfill their own requirements (World Commission on Environmental Development, 1987).

At the organizational level, the principles of sustainable development have engendered crucial notions like sustainability management, corporate sustainability (Dyllick & Hockerts, 2002; Schaltegger & Burritt, 2005), sustainability innovation, sustainable entrepreneurship (Schaltegger & Wagner, 2011), and social business (Yunus, Moingeon, & Lehmann-Ortega, 2010). This scholarly investigation is in concordance with the necessity to examine and understand the diverse aspects of sustainable business practices within the present organizational milieu.

The inception of this scholarly research paper is motivated by the acknowledgment that sustainable business practices transcend mere ethical considerations, constituting integral facets of strategic planning and organizational resilience. In navigating an impending future fraught with environmental uncertainties, the imperative to fortify businesses through innovative and sustainable models becomes paramount. This paper endeavors to meticulously dissect and synthesize the extant body of knowledge enveloping sustainability-driven business model innovation, proffering insights pertinent to both scholarly and practical domains.

Commencing with an overview of the evolving business paradigm, this exploration underscores the global shift towards sustainability as a linchpin for competitiveness and

enduring viability. Addressing the multifaceted challenges posed by climate change, resource depletion, and societal expectations, the paper delves into the adaptive measures undertaken by businesses to align their models with sustainable principles. Central to this thematic exploration is the confluence of innovation and transformation, elucidating how enterprises are not merely reactive to external pressures but are actively instigating change to assume leadership roles in the sustainable business milieu.

Furthermore, the introduction establishes the groundwork for a systematic review and analysis, underscoring the scholarly rigor and comprehensive depth characterizing the ensuing inquiry. By furnishing a roadmap for the ensuing exploration, readers are primed to comprehend the significance of sustainable business model innovation in the context of future-proofing organizations. Positioned at a pivotal juncture in the business realm, where contemporary decisions reverberate profoundly into the future, this paper aspires to contribute invaluable insights to the ongoing discourse on sustainable business practices and their pivotal role in ensuring organizational resilience and prosperity.

LITERATURE REVIEW

Business Model & Business Model Innovation

A business model functions as a conceptual framework elucidating the organizational mechanisms for value creation, delivery, and capture within an enterprise. Its comprehensive scope encompasses fundamental operational aspects, delineating the orchestration of revenue generation, customer engagement, and resource management. Key components integral to a holistic business model comprise the value proposition, target customer segments, distribution channels, revenue streams, cost structure, and core activities. Within the business model framework, the design and architecture of value creation, delivery, and capture mechanisms are articulated. Central to this essence is the crystallization of customer needs and financial capacity, directing how the enterprise responds to customer requirements, delivers value, attracts payment for value, and converts these payments into profit through adept design and operation of the value chain (Schaltegger et al., 2016). Notably, Osterwalder and colleagues contribute to a detailed definition, presenting a business model "ontology" and subsequently a "canvas," focusing on the design elements of the value creation function (Osterwalder & Pigneur, 2009; Osterwalder et al., 2005). A nuanced definition posits a business model as a conceptualization detailing the value proposed to customers (value proposition), the organizational structure for value creation (value creation), the requisite resources and infrastructure (value creation infrastructure), the contextual conditions (value creation conditions), and the mechanisms for retaining financial value (value capture) by the company (Osterwalder & Pigneur, 2010; Mäkinen & Seppänen, 2007; Johnson, 2010; Teece, 2010; Osterwalder et al., 2005; Zott et al., 2011).

Business model innovation is a purposive and proactive modification of foundational components, aiming to augment value creation, gain competitive advantage, and enhance adaptability to dynamic market conditions. This process extends beyond incremental adjustments, frequently introducing novel paradigms in product or service delivery, revenue generation, and customer engagement. Within scholarly discourse, business model innovation is acknowledged as a strategic imperative, empowering organizations to adeptly address emerging challenges, capitalize on market opportunities, and foster enduring relevance in an ever-evolving business landscape. Scholars underscore its transformative potential in fortifying organizational resilience, nurturing growth, and ensuring long-term viability. Organizations engaging in business model innovation recalibrate their value propositions to align with evolving customer preferences (Huang, 2021). By discerning market dynamics,

they unveil distinctive value drivers such as quality, experiences, or sustainability (Sorescu, 2017), thereby enhancing their competitive standing. Business model innovation facilitates the targeted focus on specific market segments, aligning with organizational strengths and fostering tailored products and robust relationships, optimizing resource utilization and conferring a competitive edge (Mitchell & Coles, 2003). This process entails a core redesign of the organization to create value, seize opportunities, and adapt to market dynamics, challenging existing norms and creating avenues for growth and differentiation. The genesis of business model concepts surfaced in the late 20th century, spurred by the need to delineate and assess nascent business structures like e-businesses or virtual organizations (Alt & Zimmermann, 2014; Wirtz et al., 2015). Its ascendancy in general management was propelled by seminal works from Chesbrough and Rosenbloom (2002) and Magretta (2002), associating the business model with strategy and innovation. Since then, a multitude of approaches to conceptualize business models has enhanced the domain of business model research.

The ascendance of the business model concept in general management was catalyzed by seminal contributions, as illustrated by Chesbrough and Rosenbloom (2002) and Magretta (2002), establishing connections to strategy and innovation. Following this, business model research has generated various approaches, with Teece (2010) asserting the central objective of financial value creation for the company. Teece's definition emphasizes that a business model outlines the design or architecture of mechanisms for value creation, delivery, and capture, encapsulating the manifestation of customer needs and financial capacity. This perspective proves particularly compelling in the sustainability context as it accentuates the value creation logic of organizations. It not only elucidates their effects but also enables and advocates for novel governance forms like cooperatives, public-private partnerships, or social businesses, thereby transcending narrow profit-centric models (Schaltegger et al., 2016). The intensifying concerns regarding the operational paradigms of capitalist societies and economies, including their institutions and organizations, contribute to the burgeoning academic and practical interest in alternative business models (Porter & Kramer, 2011).

Sustainability

Sustainability denotes the capacity of diverse systems—be they ecological, economic, or social—to persist and flourish over extended periods without compromising their inherent functions and the well-being of successive generations. This entails judicious resource utilization, the mitigation of adverse environmental and social repercussions, and the advocacy for practices conducive to both ecological equilibrium and human welfare (Giovannoni & Fabietti, 2013). In the contemporary global discourse, sustainability stands as a paramount subject, galvanizing a coalition of stakeholders spanning governments, civic groups, academia, and business in an unprecedented manner (Thiele, 2016).

The United Nations articulates sustainable development as a comprehensive paradigm for growth, addressing the interconnected dimensions of the environment, society, and economy. This approach seeks to fulfill present needs while safeguarding the ability of future generations to satisfy their own requirements (Caradonna, 2022). The UN's Sustainable Development Goals (SDGs) form an exhaustive framework for global endeavors, tackling multifaceted issues such as poverty, inequality, climate change, environmental degradation, and peace (Heinberg & Lerch, 2010).

A widely accepted articulation of sustainable development, as articulated by the World Commission on Environmental Development in 1987, defines it as "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (p. 41). This entails a collective recognition of the imperative to address

significant ecological, social, and economic challenges, with due consideration to planetary boundaries and the objectives outlined in the United Nations Sustainable Development Goals (United Nations, General Assembly, 2015). In this article, sustainability refers to a normatively aspired state achieved through the sustainable development of the natural environment, society, and economy. Scientific assessments, exemplified by reports like Rockström et al. (2009), emphasize that attaining greater sustainability requires the widespread application of the principles of strong sustainability (Whiteman, Walker & Perego, 2013) across broad scales, encompassing political and economic realms, rather than isolated niches.

Within the global ecosystem, the United Nations plays a pivotal role in advancing sustainability through international collaboration and policy frameworks. The UN's commitment to sustainable development aligns with the dual mandate of preserving ecological integrity while catalyzing socio-economic advancement globally. This paradigm recognizes the intricate interdependencies within the global ecosystem, emphasizing the collective responsibility of nations to cooperate in preserving planetary resources and ensuring an equitable and balanced future. Companies exert significant transformative influence on markets and society (Geels & Schot, 2007), and sustainable entrepreneurship, characterized as a mission-driven process (Dean & McMullen, 2007), aims for a sustainability transformation of both markets and society, regardless of whether undertaken by small pioneers or large incumbents (Hockerts & Wüstenhagen, 2010). In accordance with Bansal's assertion (2005), organizations must incorporate principles of environmental integrity, economic prosperity, and social equality into their products, policies, and practices, thereby demonstrating a commitment to actions that promote sustainable development.

The Disconnection between Sustainable Business and Sustainable Development

The disjunction between sustainable business practices and the overarching goals of sustainable development frequently arises from divergent priorities, immediate economic pressures, and the inadequacy of aligning business strategies with the comprehensive objectives of sustainable development (Arnold, 2010). Profit-driven motives often lead businesses to prioritize incremental sustainability measures, sidelining broader socio-economic and environmental imperatives. Insufficient regulatory frameworks, diverse stakeholder expectations, and the intricate nature of integrating sustainability across diverse sectors contribute to this disconnection. Bridging this divide necessitates systemic transformations, heightened collaboration, and a fundamental shift in organizational paradigms to harmonize with the holistic principles of sustainable development (Jaffe & Palmer, 1997). Typically, sustainability risks are perceived as a distinct and isolated concern, detached from overarching business considerations (Carrithers & Peterson, 2006; Gruenewald, 2004). According to Bracker (1980), the conventional business strategy, rooted in a military tradition and influenced by economics, is being challenged by alternative perspectives (Mintzberg et al., 1998; Jarzabkowski & Whittington, 2008). Despite challenges to this classical view, it endures, upholding confidence in a managerial capacity for profit-maximizing strategies through rational choice and long-term planning (Farjoun, 2008). Existing literature predominantly explores corporate governance and the CEO-shareholder relationship (Angwin et al., 2004; Davis et al., 1997). In the context of sustainable development, stewardship transcends the conventional understanding of tending and caring for the environment. Stewardship involves the responsible use of natural resources, considering societal interests, future generations, and other species, while acknowledging private needs and assuming significant accountability to society (Worrell & Appleby, 2000; Audebrand, 2010).

There is a growing scholarly interest in the intersection of business and environmental sustainability. Historically, environmental issues were not the primary focus of business scholarship, but recent research has expanded within the realms of strategic management and business ethics, particularly from a stakeholder perspective and as a context for studying industry self-regulation (O'Connell et al., 2005; King & Toffel, 2009). The literature review reveals varying perspectives on sustainability within research. Some studies refrain from viewing sustainability as a source of economic competitive advantage (Howard-Grenville, 2007), perceiving environmental issues as challenges that firms address for various reasons. Others describe how firms or new industries engage with sustainability issues (Sharma & Henriques, 2005), exploring differences in firms' approaches or reporting practices. The discourse on strategy and the natural environment also engages in a debate about the role of coercion (Hargrave, 2010), regulation, and environmental performance, with studies advocating for state-sponsored regulation, environmental entrepreneurship, and industry self-regulation. Yet, the ethical ramifications of these mechanisms remain less explored, presenting avenues for further inquiry (Meek et al., 2010; Russo, 2001; 2003; Sine & Lee, 2009; Murillo-Luna et al., 2008; Kolk, 2008; Jaffe & Palmer, 1997; Nameroff et al., 2004; Dean & McMullen, 2007; York, 2008; Barnett & King, 2008; Arnold, 2010).

Relationship between Sustainability and Business Model Innovation

The interdependence between sustainability and business model innovation is evident, as the assimilation of sustainable practices emerges as a crucial driver of competitive advantage. Organizations recognize the imperative of sustainability, exemplified by initiatives such as constructing energy-efficient buildings, enhancing recycling systems, adopting renewable energy, and procuring environmentally preferable resources (Audebrand, 2010). This acknowledgment stems from an awareness that organizational actions bear social and environmental repercussions. Enterprises committed to sustainability undergo transformative operational shifts, promoting resilience and sustained viability. This synergy is realized through integrating eco-friendly processes, emphasizing resource efficiency, and incorporating ethical considerations into business models. These innovations, beyond environmental mitigation, align with evolving consumer preferences, amplifying brand reputation and market positioning. In essence, the nexus between sustainability and business model innovation signifies a strategic mandate, harmonizing economic objectives with ecological and social responsibility for enduring business success (Audebrand, 2010).

The prominence of sustainability considerations in the realms of management theory, research, and education has transitioned from peripheral concerns to central and pivotal aspects (Gladwin, Kennelly, & Krause, 1995; Prasad & Elmes, 2005). Similar to individuals, organizations must not only discern their identity and core competencies but also strategically translate these attributes into meaningful contributions to society (Hansen & Smith, 2006). Scholars and practitioners increasingly recognize the transformative potential of business models in generating positive societal impacts or alleviating negative ones (Bocken et al., 2014; Hall and Wagner, 2012; Nidumolu et al., 2009; Sharma and Henriques, 2005). The concept of sustainable business model innovation encapsulates this perspective, embracing a comprehensive stakeholder approach and integrating triple-bottom-line thinking within the business model (Pedersen et al., 2018). While corporate sustainability plays a pivotal role in business model innovation, it is crucial to acknowledge that companies engaged in sustainability activities are not inherently innovative, just as innovative companies do not automatically embody sustainability (Pedersen et al., 2018). Nonetheless, in terms of practical implementation, business model innovation and corporate sustainability share several commonalities. The commitment to corporate sustainability necessitates a profound transformation of entrenched

business practices, creating challenges for organizations that prioritize stability over change (Schaltegger et al., 2011; Haanaes et al., 2012).

Business Model for Sustainability (Bmfs)

The Business Model for Sustainability (BMfS) serves as a strategic framework, underscoring the integration of sustainable practices within organizational operations. It systematically incorporates environmental, social, and economic considerations into the foundational structure of a business model, with the goal of creating value by aligning ecological and societal responsibility with economic objectives, thereby fostering resilience and long-term viability. Recognizing a broader spectrum of stakeholders, BMfS integrates triple bottom line principles, establishing a reinforcing feedback loop among customer value, firm value capture, and environmental value (Abdelkafi & Täuscher, 2016). Entrepreneurial thinking, as advocated by Senge et al. (2007), supports the creation of solutions addressing environmental and social challenges. Increasingly, entrepreneurs and business managers are devoted to generating positive societal and economic impacts without compromising the ecological environment (Starik & Kanashiro, 2013). BMfS signifies a paradigm shift, highlighting the interdependence of sustainability and business success through innovative and responsible practices.

The generation of economic value serves both as an end in itself and as a means for contributing value to the environment (Hockerts & Wüstenhagen, 2010). Sustainable value creation predominantly relies on product, process, and technological innovations (Hansen et al., 2009). However, these innovation approaches alone are insufficient for comprehensive organizational, industrial, and societal transformation towards sustainability. Business model innovations are imperative to mitigate a firm's negative environmental impact or generate positive environmental value (Hansen et al., 2009; Schaltegger et al., 2012). Current literature on business models acknowledges essential reinforcing feedback loops between a company's value creation and profit generation (Abdelkafi & Täuscher, 2014). Recognizing the dynamic and intricate nature of both business models (Demil & Lecocq, 2010) and the natural environment (Serman, 2000), system thinking emerges as a promising avenue for studying Business Models for Sustainability (BMfS). This aligns with recommendations advocating a multilevel exploration of corporate sustainability (Starik & Kanashiro, 2013) and the integration of theories from diverse disciplines for a comprehensive understanding of sustainability (Sharma, Starik, & Husted, 2007). The business model, widely discussed, encapsulates the firm's revenue-generation logic (Osterwalder & Pigneur, 2010). Key dimensions include customer value proposition, value creation, and value capture (Abdelkafi & Täuscher, 2016). Positioned within the firm's architecture between the strategic and operational layers (Osterwalder, 2004), the business model has evolved from a technological to organizational, and subsequently to a strategic paradigm (Wirtz, 2011).

Schaltegger et al. (2012) underscore the absence of conclusive findings in both theoretical and empirical studies concerning sustainable business models. Lüdeke-Freund (2010) characterizes a Business Model for Sustainability (BMfS) as one that gains a competitive edge through superior customer value while fostering sustainable development. According to Schaltegger et al. (2012), BMfS involves voluntary initiatives aimed at addressing social and environmental concerns, emphasizing the creation of customer and social value through the integration of social, environmental, and business activities.

Limited studies conceptualize BMfS, primarily exploring ideal types (Stubbs & Cocklin, 2008), industry-specific potentials (Wüstenhagen & Boehnke, 2008; Wells, 2004), archetypes (Bocken et al., 2014), and impacts, like product–service systems (Hansen et al., 2009; Tukker, 2004; Tietze & Hansen, 2013). Other research delves into case studies

(Schneeweiss, 2012), innovation methodologies (Blaga, 2013; Bocken et.al, 2013; Sommer, 2012), and green business models (Beltramello et.al., 2013; Høgevold, 2011; Sommer, 2012) using collaborative innovation, sustainable value creation, or the network perspective (Rohrbeck et.al., 2011; Bocken & Allwood, 2012; Hart & Milstein, 2003; Breuer & Lüdeke-Freund, 2014). While these insights abound, a comprehensive understanding of BMfS necessitates a unified framework for future research.

Various scholars, such as Lüdeke-Freund (2010) and Schaltegger & Hasenmüller (2005), have investigated the business value of sustainability initiatives within current models, intending to extend the optimal point of the inverted U-shaped curve. Lüdeke-Freund (2013) particularly explores how business models support the commercialization of sustainability innovations, establishing viable business cases. Schaltegger et al. (2012) delineate six drivers justifying sustainability-oriented business cases: costs, sales, risk, reputation, attractiveness as an employer, and innovative capabilities. In the context of sustainability, two types, weak and strong sustainability, influence the business model (Roome, 2012). Weak sustainability incorporates environmental concerns within business frameworks, fostering incremental change. In contrast, strong sustainability integrates companies into socio-ecological systems, requiring radical changes based on system thinking and organizational innovation (Abdelkafi & Täuscher, 2016).

Stubbs & Cocklin (2008) defined normative principles for an "ideal type" of sustainability-oriented business model, illustrated by Interface Inc. and Bendigo Bank. Pioneering case-based theory building, their model included structural and cultural attributes like community development, employee trust, and sustainability assessment/reporting (Schaltegger et.al, 2016). Scholars like Kiron et al. (2013) explore how modified or new business models contribute to economic prosperity by mitigating negative external effects or creating positive impacts for the environment and society (Boons Montalvo et al., 2013). Early BMfS research focused on organizational foundations (Stubbs & Cocklin, 2008), while recent studies delve into technologies (Abdelkafi et al., 2013), industries (Jupesta et al., 2011; Loock, 2012), low-income markets (Sánchez & Ricart, 2010; Yunus et al., 2010), and analyses of small and medium-sized enterprise ecopreneurs (Jolink & Niesten, 2015; Parrish, 2010). Beyond empirical case-based research on BMfS, a theoretical discourse is evolving, with some advocating a radical shift toward strong sustainability principles (Schaltegger et.al, 2016). A Business Model for Sustainability (BMfS) functions to express, scrutinize, oversee, and convey (i) a company's sustainable value proposition to customers and stakeholders, (ii) the method by which it creates and provides this value, and (iii) how it acquires economic value while conserving or revitalizing natural, social, and economic capital beyond organizational boundaries (Schaltegger et al., 2016) Figure 1-3. In contrast to the traditional customer-centric business model, sustainable value requires the broader creation of stakeholder value (Schaltegger et al., 2016).

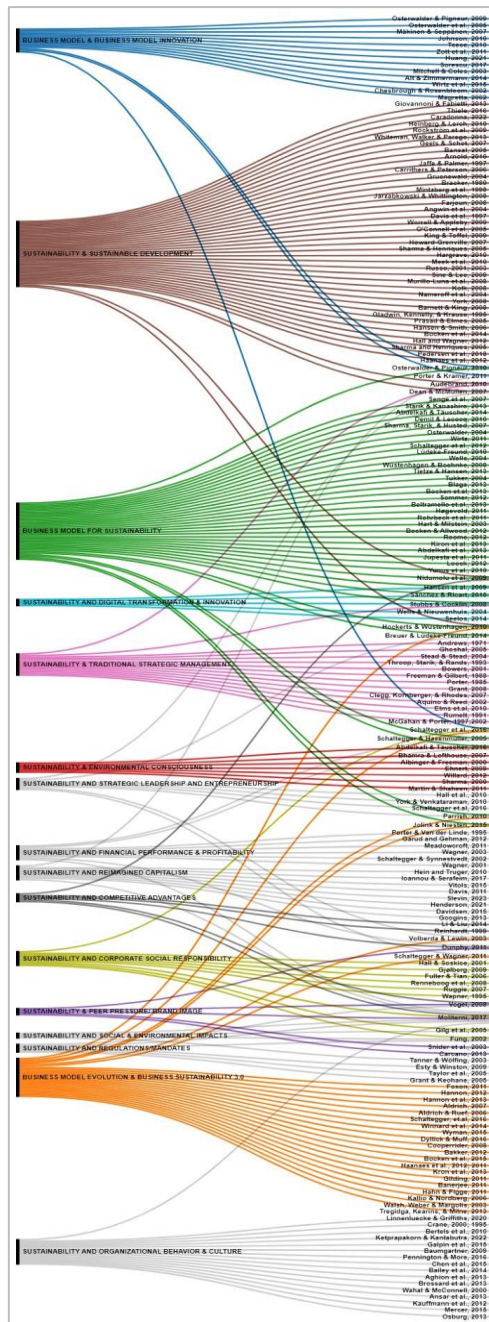


FIGURE 1
AUTHOR & CONTRIBUTION SUMMARY
ANALYSIS & SYNTHESIS

This scholarly paper scrutinizes over 130 articles sourced from Scopus, JSTOR, Emerald Insight, SAGE, and Google Scholar, examining Business Model Innovation through a strategic management lens in the context of sustainability. The analysis aims to comprehend, assess, and integrate insights on various dimensions such as environmental consciousness, financial performance, profitability, digital transformation, innovation, strategic leadership, entrepreneurship, corporate social responsibility, NGOs, regulations, mandates, competitive advantages, brand image, social and environmental impacts, organizational behavior, culture, and other pertinent influencing factors.

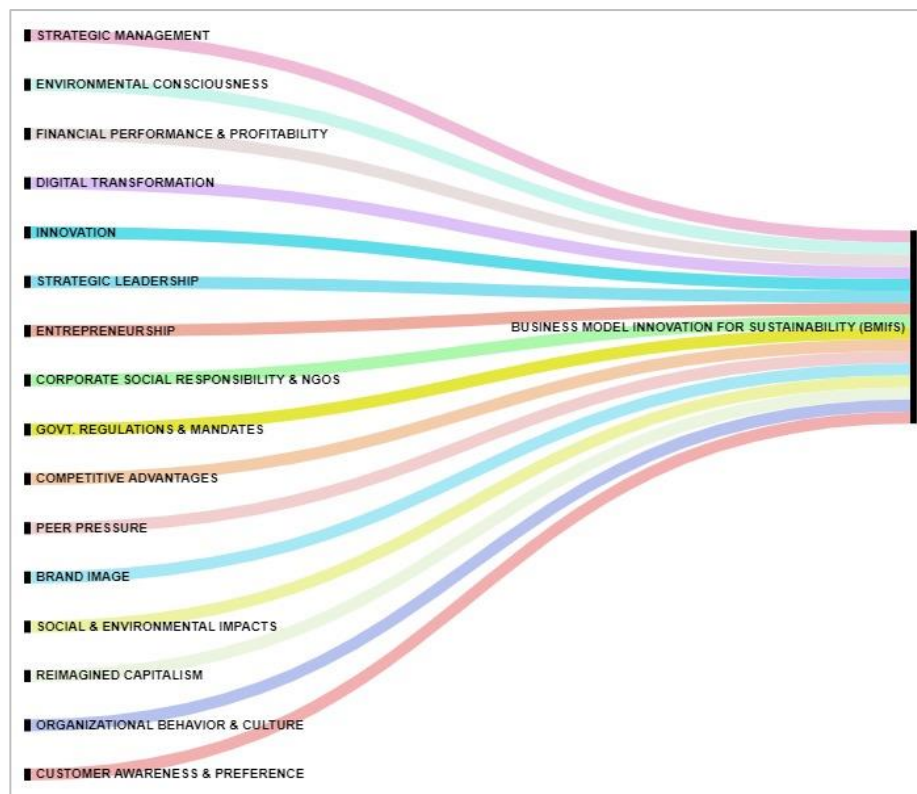


FIGURE 2
CORE IMPACT PARAMETERS - BUSINESS MODEL FOR SUSTAINABILITY

Sustainability - From the Perspective of Traditional Strategic Management

Integrating sustainability into traditional strategic management faces challenges due to disparate paradigms. Traditional strategies prioritize economic outcomes, whereas sustainability emphasizes a triple-bottom-line perspective. Bridging this gap requires overcoming institutional inertia, aligning diverse stakeholder interests, and navigating intricate environmental and social dynamics. Achieving sustainability in strategic management demands a paradigm shift, where ecological and social considerations are integral, fostering resilience in a dynamic global landscape. Despite recognition of ethics in strategic decision-making (Andrews, 1971), integrating sustainability poses challenges. Educators must challenge worldviews, encouraging explicit analysis of assumptions (Ghoshal, 2005; Stubbs & Cocklin, 2008). A key challenge is presenting technically complex sustainability topics to business students and practitioners (Stubbs & Cocklin, 2008), alongside the crucial task of embedding sustainability issues and values in strategic decision-making (Stead & Stead, 2004; Throop, Starik, & Rands, 1993). In business education, a genuine transformation can only occur when strategists recognize issues with the foundational metaphors of the prevailing social paradigm. They must then endeavor to substitute these metaphors with new ones aligned with the principles of sustainable development (Bowers, 2001). The integration of sustainability into strategic management education has shifted from a marginal to a central concern (Audebrand, 2010). Corporate strategy should be ethically grounded, challenging the separation of strategy and ethics (Freeman & Gilbert, 1988). While Porter (1985) emphasized value creation for buyers, R. M. Grant (2008) suggested that business fundamentally creates value distributed among employees, lenders, landlords, government, owners, and customers. Regarding "strategy as practice" and ethics, one avenue, pursued by Clegg, Kornberger, & Rhodes (2007), explores

"business ethics as practice," examining how ethics are embedded in active, contextualized practices (Clegg et al., 2007). The second avenue for scholars exploring "strategy as practice" involves examining the role of social and moral norms, whether implicit or explicit, in organizing, motivating, and justifying actual practices. Even when actors may not explicitly view their actions as ethical, moral norms can profoundly influence behavior, akin to fairness norms in games like ultimatum and dictator (Aquino & Reed, 2002; Elms et.al, 2010). Strategy's literature on industry, corporate, and business-unit effects, from Rumelt (1991) to contemporary works like McGahan & Porter (1997; 2002), encompasses profit-based measures and analyzes structural determinants. Incorporating corporate and business-unit effects acknowledges management's role in variance in firm performance (Elms et.al, 2010). Instead of asking what strategic management can do for sustainability, a pertinent question is: "What can sustainable development do for strategic management education?" (Audebrand, 2010).

Sustainability - From the Perspective of Business Model Innovation with Environmental Consciousness

In the realm of business model innovation, sustainability emphasizes environmentally conscious practices, integrating eco-friendly processes and ethical considerations. By aligning economic objectives with ecological responsibility, companies enhance resilience and long-term viability, meeting evolving consumer preferences and strengthening brand reputation (Bhamra & Lofthouse, 2007). Integrating environmental considerations improves the company's image, attracting job seekers and retaining talent (Albinger & Freeman, 2000; Ehnert, 2009). Employer attractiveness, linked to sustainability practices, enhances employee commitment and loyalty, preserving and extending value creation capacity (Willard, 2012). The model explaining the emergence of Business Models for Sustainability (BMfS) starts with the decision maker's perception of the natural environment, shaping behavior and anticipating sustainability-driven opportunities amid environmental changes (Abdelkafi & Täuscher, 2016). Embedding sustainability in business models is a strategic necessity, emphasizing the nexus between economic success and responsible environmental practices. Sharma (2000) identifies that managers perceiving environmental issues as opportunities are more likely to adopt proactive environmental strategies. Conversely, those viewing environmental concerns as threats exhibit reactive behavior. Decision makers' beliefs about ecological capital drive the adaptation of business models for sustainability (BMfS) (Abdelkafi & Täuscher, 2016). Entrepreneurs initiating ventures with BMfS already integrated demonstrate heightened responsiveness to sustainability-related opportunities (Abdelkafi & Täuscher, 2016). Business models, like car-sharing, influence firms' behavior and positively impact the environment, altering resource consumption and waste production (Martin & Shaheen, 2011).

Sustainability - From the Perspective of Financial Performance & Profitability

Within the domain of financial performance and profitability, sustainability highlights the connection between conscientious environmental and social practices and economic success. Companies adopting sustainable strategies frequently experience enhanced financial performance, attributed to factors such as resource efficiency, improved brand reputation, and alignment with evolving consumer preferences. Research traditionally explored the economic rationale behind businesses pursuing social and environmental objectives, challenging the perceived trade-off between social benefits and profit

maximization (Porter & Van der Linde, 1995). Current global transformations, post-Great Recession, signify a transition to a sustainable economy, challenging the conventional dichotomy. Scholars envision a shift where businesses contribute by embracing an innovative perspective, portraying profits and social benefits not as opposing forces but as mutually reinforcing elements (Dunphy, 2011; Meadowcroft, 2011; Garud and Gehman, 2012; Moliterni, 2017). Sustainable practices align with economic imperatives, contributing to long-term financial viability (Schaltegger & Hasenmüller, 2005). The debate over their impact on financial performance ranges from a uniformly negative traditionalist perspective (Abdelkafi & Täuscher, 2016) to a revisionist view represented by an inverted 'U-shaped' curve (Wagner, 2003). In this model, voluntary ecological activities enhance financial performance until reaching a peak, after which further ecological efforts lead to declining profitability (Schaltegger & Synnestvedt, 2002; Wagner, 2001). The nuanced relationship underscores the complexity of integrating sustainability with financial success within corporate strategies.

Sustainability - From the Perspective of Digital Transformation & Innovation

Initial researches into business models centered on sustainability delved into their structural and cultural underpinnings that underpinned corporate sustainability (Stubbs & Cocklin, 2008). Examining business models from a sustainability perspective aimed to rectify the technological bias inherent in conventional green approaches, fostering innovations aligned with sustainability on different fronts, including product-service systems such as car or bike-sharing (Hansen et al., 2009). Additionally, it acted as a mechanism for the reorganization and localization of extensive industrial infrastructures (Wells & Nieuwenhuis, 2004). While much research focuses on ecological sustainability, others highlight business models as instruments for meeting social needs, exemplified by entrepreneurial healthcare initiatives in impoverished regions (Seelos, 2014) and a typology for low-income markets (Sánchez & Ricart, 2010). Examining sustainability through the prism of digital transformation underscores the utilization of technological progress for eco-conscious practices. Integration of digital technologies enables businesses to boost operational efficiency, mitigate environmental impact, and cultivate innovative solutions for sustainable development. This perspective aligns with the evolving trend of employing digital tools and innovations to tackle ecological challenges, establishing a symbiotic relationship between sustainability goals and technological advancements.

Sustainability - From the Perspective of Strategic Leadership and Entrepreneurship

In strategic leadership and entrepreneurship, sustainability underscores leaders' crucial role in driving eco-conscious initiatives. Leaders seamlessly integrate sustainability into decision-making, fostering environmentally responsible entrepreneurship. Sustainable entrepreneurs, as market co-creators and transformers, undergo evolutionary processes of variation, selection, and retention (Volberda & Lewin, 2003). They propel environmental and social progress through their core business (Schaltegger & Wagner, 2011; Hall et al., 2010; York & Venkataraman, 2010). Often commencing in niches or within large companies, sustainable entrepreneurs operate as secure learning environments. Upon leaving, they adapt and may reshape mainstream markets, sometimes shielded by public policies or technical barriers (Schaltegger et al., 2016).

Sustainable entrepreneurship, drawing from Schumpeterian creative destruction, intentionally disrupts established practices, markets, and consumption patterns, substituting them with more sustainable options (Schumpeter, 1934). This approach harmonizes a

commitment to sustainability with entrepreneurial pursuits, addressing environmental and social challenges through inventive business models (Schaltegger et al., 2016). Meaningful contributions to sustainable development emerge when companies offer solutions to environmental and social issues, delivering superior products to mass markets (Schaltegger et al., 2016). Sustainable entrepreneurs contribute directly to transforming markets, retaining and scaling favorable characteristics within their organizations. This approach integrates strategic objectives with ecological responsibility, creating value and competitive advantage (Dean & McMullen, 2007). The synergy of strategic leadership and entrepreneurship in sustainability emphasizes the necessity of proactive, responsible leadership to address environmental challenges and promote sustainable business practices (Parrish, 2010). However, the dual nature of the business model concept stimulates innovation in corporate sustainability management and sustainable entrepreneurship while reinforcing egocentric value creation paradigms (Breuer & Lüdeke-Freund, 2014).

Sustainability - From the Perspective of Corporate Social Responsibility & NGOs

Examining sustainability through the lens of corporate social responsibility (CSR) and non-governmental organizations (NGOs) reveals the critical interplay between businesses and societal well-being. The incorporation of transnational private regulations by firms does not solely result from external pressure; instead, it emerges from negotiations involving diverse stakeholders such as NGOs, firms, states, and social movements. The concept of Corporate Social Responsibility encompasses the initiatives undertaken by companies to address social and economic transformations through philanthropic endeavors and self-imposed regulations (Moliterni, 2017). CSR initiatives enable positive contributions to communities, addressing social and environmental issues. NGOs, as influential stakeholders, play a crucial role in holding businesses accountable for sustainable practices, fostering collaborative efforts toward responsible business conduct that aligns economic interests with long-term sustainability (Schaltegger et al., 2016).

In economies where welfare state, corporatism, and culture play a significant role, firms exhibit high Corporate Social Responsibility (CSR) performance, aligning their needs with societal demands (Hall & Soskice, 2001; Gjølborg, 2009). Countries with a significant presence of multinational corporations see firms adopting CSR in response to anti-globalization movements and social pressure. Social interactions between small enterprises and stakeholders enhance honor, reputation, and prestige (Fuller & Tian, 2006). In the financial sector, Socially Responsible Investments (SRIs) emerged in the 1990s, driven by individual investors' ethical principles and concerns about environmental and social consequences (Renneboog et al., 2008). Socially responsible investors employ screening, often avoiding investments in industries deemed unethical (Global Sustainable Investment Review, 2014). The evolution of consumer preferences and collective action movements has influenced political responses, international coordination, and policies, shaping businesses' attitudes (Fung, 2002; Gilg et al., 2005; Ruggie, 2007; Wapner, 1995).

Sustainability - From the Perspective of Govt. Regulations & Mandates

Government regulations and policies, guided by economic incentives, are pivotal in steering businesses toward sustainable development (Moliterni, 2017; Esty & Winston, 2009). By addressing ecological concerns and societal needs, regulatory frameworks ensure compliance with environmental standards and encourage responsible business behavior (Taylor et al., 2005). The success of environmental regulation lies in its affordability for companies, allowing them flexibility in improving productive activities over time (Esty & Winston, 2009). This examination underscores the crucial role of government interventions in

shaping businesses' environmental conduct for a harmonious and sustainable future.

Government interventions are crucial for guiding industries toward sustainability, aligning corporate practices with societal and environmental goals. The commitment to standards has shifted from self-declarations to quasi-public forms, driven by international organizations and NGOs (Fung, 2002; Vogel, 2008). Independent certifications, developed to overcome doubts about self-imposed standards, offer advantages in timely action when governments face challenges in responding to economic globalization (Vogel, 2008). While lacking legal constraints, international certifications hold businesses accountable through market forces, emphasizing reputation and peer pressure as major forms of business accountability (Grant & Keohane, 2005).

Sustainability - From the Perspective of Competitive Advantages

Sustainability confers a competitive edge by fostering innovation, cost efficiency, and positive brand reputation, strategically positioning businesses for long-term success (Li & Liu, 2014). Rapid adaptation of business models, denoted as dynamic capabilities, increases the likelihood of gaining a competitive advantage, especially in volatile contexts. Commitment to environmental and social responsibility attracts conscious consumers, enhancing market share and profitability. In today's context, anticipating decarbonization trends becomes a driving force for innovation and accelerates the evolution of sustainable business models. As Dunphy (2011) notes, successful companies in times of change anticipate the shift in growth curves by designing and launching new products and services, securing rewards in an evolving landscape.

Attaining competitiveness in corporate strategies necessitates a rigorous commitment to sustainability criteria, providing an early adopter advantage through efficiency gains in more sustainable production methods (Reinhardt, 1999; Nidumolu et al., 2009). Vogel (2008) observes the diminishing distinction between voluntary and legally binding norms, wherein economic considerations propel compliance to sustain competitiveness and preempt future legal regulations. Forces of change, technological and environmental, prompt a transition to a low-carbon economy (Moliterni, 2017). Sustainability-driven innovation not only aligns with consumer preferences but also positions businesses for proactive adaptation to evolving regulatory landscapes. In essence, the integration of sustainability not only benefits the environment and society but also bolsters a business's competitive standing in the market.

Sustainability - From the Perspective of Peer Pressure

In the competitive market, businesses are driven to embrace sustainability by peer pressure, aligning with environmental and social standards set by industry counterparts. This shift responds to evolving consumer preferences, regulatory pressures, and international norms, posing transformative challenges. To maintain competitiveness, businesses adopt voluntary measures like self-regulation, international certifications, CSR, and SRI, anticipating regulations for a competitive edge (Dunphy, 2011; Vogel, 2008). This collective move towards sustainability aims to preserve credibility, enhance reputation, and avert potential market repercussions. Peer pressure's influence fosters shared responsibility, urging businesses to adopt sustainable practices for competitiveness and showcase a commitment to responsible corporate behavior.

Sustainability - From the Perspective of Brand Image

Sustainability significantly shapes a business's brand image, influencing perceptions

among consumers and stakeholders. Commitment to eco-friendly practices and social responsibility enhances brand reputation, fostering loyalty and attracting environmentally conscious markets. Multinational corporations adopt CSR, mainly to safeguard brand image, relying on strategic communication (Snider et al., 2003). Sustainable branding transcends traditional marketing, reflecting a company's values and shaping its identity. Amid global sustainability challenges, consumers increasingly associate brands with ethical conduct. Businesses integrating sustainability into their brand not only differentiate in the market but also contribute to societal well-being, creating a positive and lasting brand identity (Moliterni, 2017). Sustainable practices impact product, process design, brand equity, and overall company reputation (Carcano, 2013).

Sustainability - From the Perspective of Social & Environmental Impacts

In the context of social and environmental impacts, sustainability necessitates businesses aligning economic activities with responsible practices. Committed firms prioritize minimizing adverse effects on society and the environment, adopting ethical, eco-conscious processes to promote social well-being. Beyond values and political needs, societal changes are reflected in evolving consumption preferences driven by citizens aspiring to a sustainable lifestyle (Gilg et al., 2005). Personal beliefs strongly influence conscious consumption, influencing companies to reshape strategies to meet the growing demand for ethical and green purchases (Tanner & Wölfling, 2003). Fung (2002) argues that heightened citizen sensitivity to social and environmental issues reflects in precise consumption and investment choices, acting as a means of social control and influencing powerful organizations' attitudes (Moliterni, 2017). By considering broader implications, businesses aim for a positive societal footprint, addressing environmental concerns and contributing to social welfare. This ensures harmony between economic success and sustainable development, underscoring businesses' integral role in addressing environmental challenges and promoting societal progress (Moliterni, 2017).

Sustainability - From the Perspective of Reimagined Capitalism

Following the Great Recession, apprehensions regarding the sustainability of capitalism prompted economists and policymakers to scrutinize its imbalanced nature (Hein and Truger, 2010; Ioannou & Serafeim, 2017; Vitols, 2015). A worldwide reconsideration of economic paradigms recognizes the necessity for legal interventions to regulate previously unchecked operations (Davis, 2011). Achieving a truly sustainable future demands profound socioeconomic, ideological, and environmental transformations (Slevin, 2023). However, the entrenched structures of capitalism pose challenges to positive societal-environmental interactions. Reflecting on conditions that drive transformative change is essential (Slevin, 2023). Capitalism's moral commitment necessitates supporting institutions vital to the free market (Henderson, 2021).

Sustainability, reimagined within capitalism, advocates for a transformative economic approach prioritizing environmental and social well-being alongside profits (Moliterni, 2017). This shift promotes a balanced and responsible capitalism, addressing societal and ecological challenges for long-term viability. Integrating sustainability into risk reduction and financial standards enhances international stability (Moliterni, 2017). Organizations, to be competitive, must institutionalize Corporate Social Innovation (CSI) and embrace the concept of Shared Value (Porter & Kramer, 2011). CSI evolves from Corporate Social Responsibility (CSR), reflecting a continuous business transformation (Davidsen, 2015; Googins, 2013). Shared Value emerges as a response to the need for companies to regain lost legitimization

and foster collaboration between business and policymakers (Porter & Kramer, 2011).

Sustainability - From the Perspective of Organizational Behavior & Culture

Sustainability within organizational behavior and culture embodies a commitment to eco-conscious practices ingrained in a company's ethos. It prioritizes environmental and social responsibility in daily operations, decision-making, and employee conduct. Successfully integrating sustainability aligns individual actions with collective environmental goals, fostering a shared sense of responsibility. This cultural transformation empowers employees to actively contribute to sustainable practices, creating a unified and environmentally conscious work environment (Moliterni, 2017). The organizational culture concept, gaining prominence in sustainability literature, allows Human Resources and Organizational Behavior to explain an organization's sustainability performance (Linnenluecke & Griffiths, 2020). Organizations, in response, introduce policies and changes addressing pollution, resource use, and community relations (Crane, 2000). The shift toward corporate sustainability necessitates the development of a sustainability-oriented organizational culture (Crane, 1995).

Prominent firms, like those in the Network for Business Sustainability's Leadership Council, aim for enduring sustainability, acknowledging that a culture of sustainability involves shared beliefs about balancing economic efficiency, social equity, and environmental accountability (Bertels et al., 2010). Establishing an infrastructure fostering sustainability culture yields positive outcomes in both employee and organizational sustainability performance (Galpin et al., 2015). Businesses striving for organizational sustainability must cultivate a sustainability organizational culture (Baumgartner, 2009). Empirical research underscores the crucial influence of organizational culture in either facilitating or hindering corporate sustainability, identifying specific cultural traits as focal points (Pennington & More, 2016). Fundamentally, a culture aligned with sustainability fosters the achievement of sustainability, the overarching objective of sustainable development (Ketprapakorn & Kantabutra, 2022).

The symbiotic relationship between sustainability and business model innovation is paramount in contemporary corporate landscapes, harmonizing economic goals with ethical imperatives for sustained viability. Bailey et al. (2014) highlight business leaders recognizing the value of longer decision-making horizons for sustainability amid short-term pressures. In contrast, Chen et al. (2015) illustrate institutional investors, impacting capital ownership, mitigating managerial myopia by favoring R&D with a lengthier horizon, diverging from short-term-focused individual investors. Empirical studies (Aghion et al., 2013; Brossard et al., 2013; Wahal & McConnell, 2000) affirm institutional investors' inclination for sustained R&D, emphasizing the symbiosis of sustainability-driven decisions and enduring corporate vitality. Divestment campaigns, posited by Ansar et al. (2013), induce organizational stigma, reflecting discreditation for firms violating social norms. This triggers uncertainty and stock price decline, reshaping investment decision processes. Investors, reformulating strategies to minimize exposure to the low-carbon transition, influence business attitudes (Kauffmann et al., 2012; Mercer, 2015). Recognition of the need for long-term perspectives (Osburg, 2013) serves as a transformative step toward sustainable business patterns. Sustainability-driven opportunities and adaptive business models, highlighted in scholarly discourse, underscore the proactive navigation of environmental challenges. This transformative catalyst not only reduces ecological impacts but also enhances corporate reputation, aligning with evolving consumer preferences. The review emphasizes the pivotal role of innovative, eco-conscious business models in shaping a sustainable and competitive future.

OUTCOME

This section outlines the findings of an extensive literature review focused on Future-Proofing through Sustainability. It delves into a comprehensive examination of Business Model Innovation and Transformation Strategies, aiming to comprehend the transformative impact and evolution in Business Model thinking brought about by the incorporation of Corporate Sustainability into conventional business models.

The Inclusion of Corporate Sustainability in Conventional Business Model Thinking

The incorporation of corporate sustainability into traditional business models signifies a paradigm shift, aligning economic pursuits with ecological and social considerations. This transcends token gestures, emphasizing intrinsic symbiosis between profitability and responsible stewardship. This expansion denotes strategic reorientation, as businesses recalibrate frameworks for long-term resilience and societal welfare. Bocken et al. (2015) argue that conventional value creation perspectives, centered on customer needs and economic return, are narrow for sustainability. A more holistic view, integrating social and environmental goals, is essential for balanced stakeholder interests and sustainable value creation. Comprehensive stakeholder engagement is imperative for this inclusive approach (Bocken et al., 2015).

Executives increasingly express heightened commitment to sustainability, foreseeing future development (Haanaes et al., 2011; Haanaes et al., 2012; Kron et al., 2013; U.N. Global Compact & Accenture, 2010 & 2013). Tangible and intangible benefits, such as reduced costs, lower business risks, enhanced brand reputation, talent attraction, and competitiveness, result from sustainability efforts (Haanaes et al., 2011; Kron et al., 2013; Haanaes et al., 2012; U.N. Global Compact & Accenture, 2010; 2013). However, this positive trajectory contradicts global sustainability indicators, revealing persistent poverty, growing inequity, child mortality, lack of clean water access, inadequate sanitation, limited electricity access, and acceptance of a 4-degree warming scenario (Gilding, 2011; Bakker, 2012; WWF, 2012; U.N. Environment Programme, 2012). The disconnect between corporate progress and global deterioration underscores the need for heightened awareness among business leaders and management scholars about the limited impact of current sustainability actions on a global scale (Dyllick & Muff, 2016).

Various scholars argue that Business Sustainability and Transformation (BST) research tends to center on organizational benefits with less emphasis on environmental or societal aspects (Hahn & Figge, 2011; Banerjee, 2011; Walsh, Weber & Margolis, 2003; Kallio & Nordberg, 2006; Tregidga, Kearins, & Milne, 2013). The micro-macro level and performance measure decoupling contribute to this trend (Dyllick & Muff, 2016). Incorporating corporate sustainability into business models is essential for long-term resilience, ethical practices, and societal well-being. This strategic integration aligns businesses with global values, ensuring success through addressing environmental and social imperatives, fostering stakeholder trust, and enhancing competitiveness in a conscientious marketplace. Embedding sustainability in business models allows organizations to navigate ethical imperatives and gain lasting competitive advantage aligned with the emerging global ethos of responsibility.

Business Model Evolution

The evolution of business models toward sustainability involves a strategic incorporation of environmental, social, and ethical dimensions. This transformative process includes adapting operational frameworks, integrating responsible practices, and engaging

stakeholders. Businesses seek enduring success, ethical resilience, and heightened competitiveness by aligning with sustainability principles to address contemporary societal and ecological concerns. The co-evolution of Business Models for Sustainability (BMfS) emerges from interactions between sustainability-driven niche players and traditional incumbents (Schaltegger & Wagner, 2011; Hockerts & Wüstenhagen, 2010). Political and societal actors further influence this process, shaping market and societal conditions impacting company interactions with suppliers and customers (Hannon, 2012; Foxon, 2011; Hannon et al., 2013). Evolutionary processes, encompassing variation, selection, and retention, guide these transformations in both biological and social systems (Volberda & Lewin, 2003; Aldrich, 2007; Schaltegger, et.al, 2016; Aldrich & Ruef, 2006). During periods of transition, business models must not only seek survival strategies but also employ innovative resilience frameworks that capitalize on environmental changes and uncertainties, converting them into growth opportunities. Winnard et al. (2014) argue that successful businesses strategically intertwine sustainability and resilience, reinventing models to ensure survival and sustained competitiveness. Firms establish new relationships to enhance local productivity and mitigate price fluctuations caused by climatic events (World Economic Forum & Wyman, 2015). Applying evolutionary processes—variation, selection, and retention—to business models yields diverse interpretations for niche and mass market firms. Sustainability pioneers in niches face the challenge of expanding market share without compromising sustainability, achieved through model growth, replication, or joint efforts. Conventional mass market businesses achieve sustainability upgrades without losing market share through mimicry or mergers and acquisitions (Schaltegger et al., 2016).

The interplay between four fundamental business model qualities (scalability, replicability, integrability, and imitability) and corresponding evolutionary processes (growth, replication, M&A, and mimicry) yields diverse potential trajectories within specific markets. Recent sustainable entrepreneurship research has predominantly concentrated on its capacity to reshape markets and society. While earlier investigations delineated the intricacies of business models for sustainable niche market pioneers (e.g., Jolink & Niesten, 2015; Parrish, 2010), a gap in knowledge persists concerning the dynamic role and challenges of business model innovation for incumbents aiming to augment the sustainability of their conventional models.

Rooted in evolutionary economics (Aldrich & Ruef, 2006; Aldrich, 2007; Volberda & Lewin, 2003), this investigation employs the 'Evolutionary Pathways for the Diffusion of Sustainable Business Models' framework (Schaltegger et al., 2016) to scrutinize co-evolutionary developments in sustainable entrepreneurship. Examining both sustainable niche pioneers and conventional mass market players, the study identifies fundamental evolutionary processes (variation, selection, retention) and delineates four diffusion pathways (growth, replication, M&A, mimicry) alongside three combined pathways (growth through joint replication, replication with collaborations and M&A, diffusion through acquisition and mimicry) for sustainable business models within mass markets. This inclusive framework facilitates a methodical analysis of the dynamics between niche players and incumbents, offering innovation strategies for the diffusion of sustainable business models into the mass market.

Business Sustainability 3.0: Truly Sustainable Business

Business Sustainability 3.0 represents a pivotal shift, transcending superficial gestures, as businesses intricately integrate ecological, social, and economic considerations into their fundamental operations, aiming for sustained success, ethical resilience, and heightened competitiveness (Dyllick & Muff, 2016). In the realm of true sustainability, enterprises

broaden their focus to explore how their products and services can actively address societal sustainability challenges. Furthermore, these businesses leverage their resources to confront significant economic, social, and environmental issues, departing from a model centered on impact minimization. A BST 3.0 firm not only seeks to reduce negative impacts but actively endeavors to generate substantial positive effects in critical societal and environmental domains, aligning its operations with the challenges presented by the external environment (Dyllick & Muff, 2016).

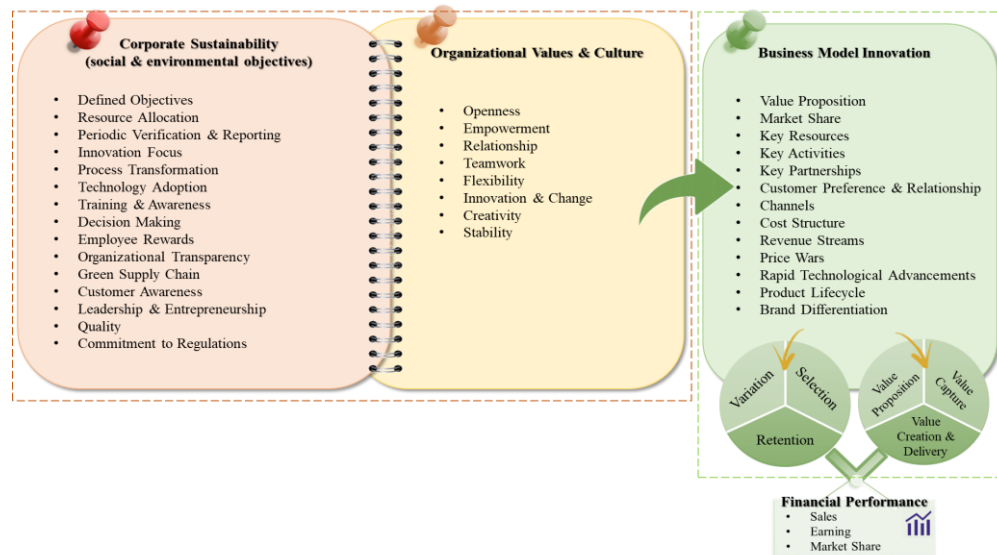


FIGURE 3
SUSTAINABILITY & BUSINESS MODEL EVOLUTION – HOLISTIC
RELATIONSHIP FRAMEWORK

(Pedersen, et.al, 2018; Schaltegger, Lüdeke-Freund & Hansen, 2016).

The illustrated diagram presents a holistic view of corporate objectives, emphasizing social and environmental sustainability alongside organizational values and culture. This integrated perspective guides the formulation of business model innovation strategies, contributing to enhanced financial performance. Additionally, the diagram delineates the intricate interplay between evolutionary processes inherent in sustainability-focused business models and fundamental aspects of the core business model. This interaction informs a systematic approach to business model redesign, aligning with overarching sustainability goals.

In the paradigm of Business Sustainability 3.0 (BST 3.0), firms view sustainability challenges as business opportunities, aligning with Peter Drucker's perspective that every societal issue is a concealed business opportunity (Cooperrider, 2008). BST 3.0 adopts an "outside-in" approach, focusing on societal challenges before developing strategies and business models, akin to social businesses. It prioritizes positive impacts on critical societal and environmental areas, shifting from minimizing negative impacts. While firms can innovate processes and products individually, collaborative partnerships enhance sustainability impact and outreach. Peter Bakker (2012) asserts that businesses bear the opportunity and responsibility to address sustainability challenges effectively, emphasizing the need for businesses to use their resources in a truly sustainable manner to contribute positively to society and the planet. This transformative approach envisions a future where business is celebrated for societal contributions rather than criticized for economic success at

society's expense.

The achievement of sustainable development demands a metamorphosis of mass markets, where the impact of sustainability pioneers may be limited by niche retention or obstacles in achieving successful growth and replication, potentially resulting in takeovers or displacement by competitors using mimicry strategies. Embracing a co-evolutionary standpoint establishes a research framework to comprehend the dynamics among business models, sustainability, sustainable entrepreneurship, and business model innovation within the framework of mass market sustainability transformation (Schaltegger et al., 2016). The ambiguity surrounding sustainability in strategic management is noteworthy, as interpretations range from environmental concerns to corporate social responsibility (Bansal & DesJardine, 2014). Sustainable development entails integrating social, economic, and ecological dimensions, driven by various factors within the social, economic, and political domains (Milne, 1996; Hopwood et al., 2005; Moliterni, 2017). Achieving sustainability mandates a fundamental overhaul of a firm's entire business logic (Abdelkafi & Täuscher, 2016).

Academic research and corporate practices increasingly focus on the business model as a holistic unit of analysis, providing a systemic perspective on business operations (Zott, Amit, & Massa, 2011). This emphasis primarily aims to enhance companies' ability to generate financial value (Teece, 2010; Chesbrough, 2010; Wirtz et al., 2015). Concurrently, a growing body of literature delves into diverse approaches characterizing business models' roles in achieving corporate sustainability (Hansen et al., 2009; Boons & Lüdeke-Freund, 2013; Schaltegger et al., 2012). Our ecological sustainability strategies and ecocentric dynamic capabilities descriptions serve as practical tools for managers and academics to evaluate enterprises and develop transformative strategies if ecocentric views are adopted (Borland et al., 2016).

Sustainable development is a societal concept founded on three principles—environmental integrity, economic prosperity, and social equity—widely acknowledged as the three pillars of sustainability (Elliott 2005; Barbier 1987). Corporate backing is deemed essential for realizing sustainable development, as firms represent the productive resources of the economy (Bansal 2002).

LIMITATION AND FUTURE SCOPE

This study assesses four research databases, including Google Scholar, to explore articles and papers related to Business Model Innovation and Transformation from a sustainability perspective. The research primarily adopts a qualitative approach, lacking quantitative evidence, and reveals an opportunity for further enrichment in synthesizing understanding and analysis. Despite some existing frameworks and theories in the business model literature (Schneider & Spieth, 2013; Zott et al., 2011), a consistent theoretical framework connecting business models with market, industry, and societal dynamics is lacking. The dynamic role of business model innovation in sustainability transformations remains inadequately addressed, with limited exceptions (Bidmon & Knab, 2014; Hannon, 2012; Hannon et al., 2013). Further inquiry is warranted to delve deeper into the subject and comprehend various dimensions. Essential inquiries encompass identifying management instruments facilitating the management or transition to sustainability-focused business models. Thorough exploration of tools supporting innovation (e.g., design thinking, The Natural Step framework, biomimicry) and strategy implementation (e.g., Business Model Canvas) for sustainability-oriented business models is crucial. Additionally, there is a need to comprehend how to manage and measure performance and societal impacts at the business model level. Investigating the coevolution of business models for sustainability, leading to

industry transformations through market interaction and system transitions, remains vital. Examination of learning-action networks, cooperative arrangements, and political power struggles among stakeholder groups in creating sustainability-focused business models within or across sectors is also pertinent. While the framework is beneficial for conceptualizing and analyzing business model innovation in sustainable entrepreneurship and sustainability-oriented market transformation, it acknowledges certain limitations. The employed evolutionary framework lacks differentiation between intentional and blind variations (Aldrich & Ruef, 2006). Enhancements to the existing framework should provide more details on variation and selection processes, contributing to a more thorough theory of business model co-evolution. This refined perspective might inadvertently downplay the influence of contingencies from the business environment and additional social institutions, such as public politics, non-profit organizations, and media. Therefore, further research is essential to integrate our framework for sustainability transformations of markets into the broader socio-technical business environment.

CONCLUSION

Achieving sustainable development requires transforming mass markets, where sustainability pioneers may face growth and replication challenges. A co-evolutionary perspective helps understand the interplay between business models, sustainability, and innovation. The ambiguity in strategic management ranges from environmental concerns to corporate social responsibility. Sustainable development integrates social, economic, and ecological dimensions, influenced by various social, economic, and political factors.

This comprehensive review and analysis underscore the imperative of future-proofing through sustainability in business model innovation. Synthesizing insights from diverse perspectives emphasizes the holistic integration of ecological, social, and economic considerations. The study illuminates the transformative potential of sustainability, urging businesses to move beyond token gestures. Strategic realignment towards enduring success, ethical resilience, and heightened competitiveness is advocated, positioning sustainability as a key driver for innovation and transformation in contemporary business models.

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