Dynamic Capabilities for Environmental Sustainability and Economic Sustainability

Subjects: Engineering, Environmental

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Economic growth and technological progress, while driving societal advancements, have also contributed to challenges such as inefficient resource utilization, social inequality, climate change, and unsustainable production. Given the dynamism of internal and external environments, the dynamic capabilities theory arises to enhance the understanding of strategic actions, particularly those aimed at gaining a competitive advantage. These capabilities are specific capabilities that contribute to both the company and market evolution through the integration of knowledge, both internal and external to the company.

dynamic capabilities internal and external resources business framework sustainable development goals

1. Introduction

Economic growth and technological advancements have significantly shaped our society, but they have also led to some challenges like social inequality, climate change, and the unsustainable use of natural resources. Recognizing the importance of balancing economic progress with sustainable practices has become more apparent.

The concept of sustainable development has gained traction as a way to address the environmental, economic, and social needs of current generations without compromising the well-being of future ones [1]. This paradigm shift calls for adjustments in our consumption models, production methods, societal organization, and the use of essential natural resources [2]. The sustainable development concept is associated with ongoing efforts to bring about a sustainable transition, requiring collaboration across local, regional, and global networks, involving the public, private, and academic sectors [3][4]. In response to these challenges, the United Nations formalized the Sustainable Development Goals (Agenda 2030) in 2015 in New York. This global agenda aims to ensure effective and sustainable development, urging governments, academia, companies, and society to focus on economic sustainability, environmental responsibility, and social well-being [5]. The agenda outlines seventeen Sustainable Development Goals, also known as the SDGs [6][7].

In the business sector, the sustainable development theme has gained prominence in discussions on effective business strategies. More companies are now focusing on transformative and long-term actions rooted in

environmental sustainability, economic sustainability, and corporate social responsibility to achieve the SDGs. In 2000, the United Nations (UN) introduced the Global Compact (GC) to encourage companies to actively engage in sustainable development agendas. With over 12,000 signatories, including companies and organizations, the GC is considered the world's largest voluntary corporate citizenship initiative. It encourages companies to align environmental sustainability, economic sustainability, and corporate social responsibility with the Sustainable Development Goals in their strategic actions through the guidelines presented in the Sustainable Development Goals compass.

While companies face challenges in becoming sustainable [8], it is worth noting that today's businesses operate in dynamic, distributed, transparent, and global environments [9]. Strategy is crucial as it reflects a company's ability to manage resources effectively, especially in situations where resources are limited, and times and environments are uncertain [10].

2. Environmental Sustainability, Economic Sustainability, and Corporate Social Responsibility

The corporate social responsibility (CSR) business model diverges from traditional approaches by incorporating economic, environmental, and social sustainability factors [11][12]. Initially proposed by [13], CSR continues to be a focal point for academia, businesses, and policymakers [14]. In the CSR framework, environmental, social, and governance factors are seen as resources contributing to the sustainability performance of organizations [15]. Companies are encouraged to formulate strategies that go beyond economic returns, integrating social and environmental concerns for enhanced competitiveness [16][17].

According to [18], CSR signifies a company's ability to implement sustainable development by balancing economic prosperity, environmental quality, and social responsibility. Truly sustainable companies adopt a systemic view, addressing the interconnected pillars of environmental sustainability, economic sustainability, and corporate social responsibility [19].

Sustainability, as ref. [19] emphasizes, is achieved through aligning and enhancing these three pillars, fostering an interconnected approach at international, national, community, and individual levels [20]. Ref. [21] stresses that this alignment should be at the core of defining sustainable development for companies, supporting a balanced economic sustainability that is ecologically sound and promotes human development.

The recent years have seen a global push toward sustainability, evident in the unification of the Sustainable Development Goals by the UN [22]. This ambitious agenda encompasses social, environmental, and economic sustainability responsibilities, presenting interconnected challenges and opportunities for CSR [23][24].

In practical terms, the CSR approach emphasizes that companies should develop economic sustainability activities responsibly, considering the interests of all stakeholders [25]. Environmental, social, and governance considerations

are advocated by managers across all industries not only to advance sustainable development but also to promote financial profitability [26].

3. Sustainable Development Goals

To support SDG 1 (eradication of poverty), companies should develop policies for positive contributions to poverty reduction. This involves raising investment and establishing public–private partnerships, as well as encouraging the implementation of environmental, social, and governance (CSR) practices among all partners. Companies can also move towards responsible investment in charitable programs for underserved communities in cities and countries of origin, reducing inequalities (SDG 2 zero hunger; SDG 10 inequalities reduction) [27][28][29].

Responsible companies prioritize the health of their employees and society (SDG 3 health and well-being). They promote health and well-being, improving the quality of life for all, including children, adolescents, adults, and working elderly individuals of all genders and generations (SDG 5 gender equality) [30][31][32]. During the pandemic, companies have intensified efforts to preserve the health and safety of their workforce, including mental health initiatives [33].

Companies can foster partnerships to offer quality learning opportunities and invest in programs to develop new skills in the local workforce. Qualified professionals are essential for dynamic companies and their well-being (SDG 4 quality education) [34]. Efforts should be made to increase female opportunities and promote participation in sports and professional education [35]. Companies can also establish partnerships with schools to address women's health, particularly intimate and sexual health, and cultivate a safe and motivating future work environment [36][37].

Adhering to the Agenda 2030 offers growth opportunities for companies. SDG 12 (sustainable production and consumption) encourages changes in production systems and collaboration in the supply of basic needs, such as food, infrastructure, and economic growth [34]. Investing in innovative models and technology (SDG 9 industry, innovation, and infrastructure) enables companies to drive institutional change, reduce hunger, and enhance quality of life through digital, smart, and sustainable cities for the future (SDG 2 zero hunger and SDG 11 sustainable cities and communities). All innovations that increase industry efficiency and bring quality products and services to the market are desirable [35].

It is crucial to invest in expanding and maintaining decent work opportunities and economic growth, actively working to discourage human trafficking and slave-like labor (SDG 8 decent work and economic growth). Sustainable management, including green practices, is critical for environmental operations within companies. This involves selecting circular suppliers and customers for collaboration, reducing soil and water pollution, and focusing on reducing water crises (SDG 6 drinking water and sanitation) [36].

Reducing the use of fossil fuels and adopting clean, affordable, reliable, and sustainable energy sources, including the adoption of solar domestic and business systems, needs to become a reality (SDG 7 clean energy) [36][37].

Attention should also be given to reducing or eliminating greenhouse gas emissions that directly impact climate change (SDG 13 action against global climate change). This is closely connected to SDG 14 (life on water) and SDG 15 (life on land) by maintaining a perspective of life conservation in water and on land [38].

For the SDGs to be concrete, companies need to engage in a business-for-peace movement. This involves incentivizing corporate engagement, promoting good governance, and supporting peaceful development. The private sector can play a positive role in fostering peace, particularly in fragile countries affected by cultural and political conflicts (SDG 16 peace, justice, and effective institutions) [38][39].

Finally, the promotion of public lectures and workshops, supported by governments, companies, academia, and local and international partners, is crucial (SDG 17 partners and means of implementation). These initiatives contribute to developing skills, knowledge, talents, ecosystem partnerships, access to training, networking, consulting, and funding [35][38].

4. Dynamic Capabilities

Given the dynamism of internal and external environments, the dynamic capabilities theory arises to enhance the understanding of strategic actions, particularly those aimed at gaining a competitive advantage. These capabilities are specific skills that contribute to both the company and market evolution through the integration of knowledge, both internal and external to the company [40]. Positioned as the company's capacity to build, integrate, and reconfigure internal and external competencies, dynamic capabilities enable companies to navigate rapidly changing environments effectively [10][41] The theory offers a modern and contemporary perspective on strategic management within companies [42][43].

Dynamic capabilities, as a macro-process, manage processes, best practices, and competencies systematically [42][43]. Uncertainty, distinct from risk, is highlighted as a crucial factor. While risks can be identified and managed using traditional tools and approaches, dynamic capabilities are rooted in three groups: identifying and assessing opportunities and threats (detection); seizing opportunities and capturing value (exploitation); and maintaining competitiveness through the increase, combination, protection, and, when necessary, reconfiguration of the company's assets for continual renewal (transformation) [44]. The integration of key elements such as an integrated perspective, effective practice, and interdependent action can position dynamic capabilities as a strategic differentiator for businesses [45].

Emphasizing their 'strategic' nature, dynamic capabilities are distinguished from common capabilities by their role in creating value. Skills alone are considered common, and what makes a capability dynamic is the manager's ability to effectively orchestrate a cluster of activities that are strategically decisive [46]. Going beyond best practices and technical aptitude, dynamic capabilities require investment in evolutionary and constant aptitude development [47]. They are not static but rather derived from a company's ability to see possibilities, inspire and mobilize employees and strategic partners for pursuing new opportunities [47].

Dynamic capabilities serve as the lifeblood of a company, not only for maintaining long-term profitability but also for designing and adjusting business models based on new environments and opportunities [48]. Strong dynamic capabilities enable companies to not only adapt to business ecosystems but also to expand businesses through innovation and collaboration with other entities and institutions [43]. Competitiveness, therefore, is essentially dynamic, tied to the company's ability to design and implement innovative competitive strategies aligned with environmental sustainability, economic sustainability, and corporate social responsibility [49]. Integrating the SDGs into the strategy development process is crucial for generating meaningful results [50][51].

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