

# Dynamic Capabilities: Unveiling Key Resources for Environmental Sustainability and Economic Sustainability, and Corporate Social Responsibility Towards Sustainable Development Goals

**Table S1.** Articles analysis.

Title	Contributions	Research method	Ref.	Journal
Sustainable by design: An organizational design tool for sustainable business model innovation	Empirical research that recognizes the importance of dynamic capabilities to develop sustainable business models, and the barriers and drivers that might exist at the organizational level.	Empirical Study	[63]	Journal of Cleaner Production
The Impact of Digital Transformation on CSR Performance Based on the Mediating effect of dynamic capabilities	The main proposal is supporting companies to understand how they can improve their CSR performance through digital transformation.	CSR datasets and index	[64]	Sustainability
How do firms build dynamic capabilities to develop sustainable products? A multiple case study in the manufacturing industry	A multiple case study of 19 established manufacturing firms was conducted to examine the dynamic capabilities involved in developing environmentally sustainable products.	Multiple Case Study	[65]	Journal of Cleaner Production
Digital Transformation on Enterprise Green Innovation: Effect and Transmission Mechanism	Analyzes the impact of enterprise digital transformation on green innovation and its transmission mechanism, by constructing double fixed-effect models.	Empirical Study	[66]	International Journal of Environmental Research and Public Health
Sustainable development—Direct and indirect effects between Economic Sustainability, social, and environmental dimensions in business practices	The study extends earlier findings by explicitly discussing how the three TBL goals relate to each other and shows how the dynamic capability view can be a fruitful lens through which to investigate business sustainability.	Questionnaire survey and cross-industrial sample in Sweden.	[67]	Corporate Social Responsibility and Environmental Management
Investigating the relationship among Industry 4.0 drivers, adoption, risks reduction, and sustainable organizational performance in manufacturing industries: An empirical study	The model explored the scope of I4.0 adoption to SOP by considering I4.0 drivers impacting I4.0 adoption and I4.0 risks mitigations impacting I4.0 risks reduction and their influence on Sustainable Organizational Performance (SOP).	Empirical Study	[68]	Sustainable Production and Consumption
A holistic model of dynamic capabilities and environment management system towards eco-product innovation and sustainability in automobile firms	Delineates the factors of voluntary initiatives undertaken by the Malaysian automotive and auto parts industry towards eco-product innovation.	The research drew from the micro-level perspective, thus using dynamic capabilities (DC)	[69]	Journal of Business & Industrial Marketing

		constructs and environmental management system (EMS) strategy variables.		
A purpose-action framework for Corporate Social Responsibility in times of shock	An action framework the purpose of which was to examine and categorize post-shock CSR interventions from companies operating in Spain during the first wave of the COVID-19 pandemic.	Multiple Case Study	[70]	Journal of Cleaner Production
Dynamic capabilities, value creation and value capture: Evidence from SMEs under Covid-19 lockdown in Poland	A literature review to identify which first-order dynamic capabilities–managerial decisions under uncertainty—are vital for rapid response to a crisis.	Literature review	[71]	Plos one
Dynamic capabilities for sustainable change in the food processing industry: A multilevel perspective	The article analyzes German food processing companies and the relationship of sustainable practices to dynamic capabilities, as well as what practices are needed to facilitate dynamic capabilities development and the reconfiguration of existing capabilities.	Exploratory research with interviews	[11]	Journal of Cleaner Production
Connecting strategic orientation, innovation strategy, and corporate sustainability: A model for sustainable development through stakeholder engagement	The article analyzes the relationship between an organization's strategic orientation (i.e., instrumental, equidistant, and administrative) and innovative strategies (i.e., organizational ambidexterity and open innovation), and the influence of this relationship on the company's sustainable performance.	Multiple case study with 12 eurozone companies.	[72]	Business Strategy and the Environment
Dynamic sustainability capabilities and corporate sustainability performance: The mediating effect of resource management capabilities	It examines ways to translate dynamic capabilities to contribute to and connect with corporate sustainability from a view based on natural resource management.	Modeling of partial least squares structural equations with data from 163 Chinese companies.	[12]	Sustainable Development
Dynamic sustainability requirements of stakeholders and the supply portfolio	Addresses research gaps on stakeholder sustainability expectations and develops a sustainability-focused multicriteria decision model for evaluating suppliers and determining optimal allocation of orders among suppliers by linking stakeholder sustainability requirements.	Multicriteria based on the QFD methodology (Quality Function Deployment)	[73]	Journal of Cleaner Production
Sustainable development and dynamic capabilities in the fashion industry: A multi-case study	It employs dynamic capabilities theory to study the sustainability and the adaptability of the fashion industry in relation to the sustainable development goals.	Multiple case studies in fashion industries	[74]	Corporate Social Responsibility and Environmental Management
The impact of Industry 4.0 on the reconciliation of dynamic capabilities: evidence from the European manufacturing industries	Investigates the implementing impact of Industry 4.0 with specific emphasis on digital transformation in the sustainability dimensions of European manufacturing industries.	Multiple case study in six European manufacturing companies.	[75]	Production Planning and Control

Customer functional value creation through a sustainable entrepreneurial orientation approach	Analyzes the structural influences (direct and indirect) of sustainable entrepreneurial orientation and customer value creation and the impacts on company performance. In addition, it proposes a theoretical model to empirically test the behavior of companies in relation to sustainable entrepreneurship.	Partial least squares modeling with a multisectoral sample of 210 companies.	[76]	Economic Sustainability Research- Ekonomiska Istrazivanja
Finnish forest-based companies in transition to the circular bioeconomy Sustainability - drivers, organizational resources, and innovations	The study explores the transition of Finnish forestry companies to new business models, focusing on the organizational resources and capabilities needed to transition towards a sustainable and competitive circular bioeconomy Sustainability. It also identifies the important elements in business environments and the role of innovations.	Interviews with managers of several forestry companies and companies in interface sectors.	[77]	Forest Policy and Economy Sustainability
Barriers to radical process innovation: a case of environmental technology in the oil industry	The study theorizes a set of radical process innovation barriers based on a case study of an oil company. The research points out that the search for sustainable development is one of the biggest challenges of contemporary companies.	Case study in an oil company.	[78]	Journal of Strategy and Management
Between Sustainable and Temporary Competitive Advantages in the Unstable Business Environment	The article proposed a model that combines sustainable competitive advantage and temporary advantages. Understanding the conditions for obtaining competitive advantage means that the general conditions under which sustainable strategic management can be built.	Survey with 150 Polish companies from different Economic Sustainability sectors.	[79]	Sustainability
Energy eco-innovations for sustainable development: Exploring strategic organizational capabilities through an energy culture framework.	Presents online case studies of successful companies in energy innovation and then analyzes the resources involved in making these companies successful.	Multiple case study in 142 New Zealand companies.	[80]	Business Strategy and the Environment
Sustainability oriented innovation dynamics: Levels of dynamic capabilities and their path-dependent and self-reinforcing logics	The research uses the dynamic capabilities theory as a basis for exploring the organizational dynamics of sustainability-oriented innovation in Spanish companies.	Multiple case study in seven Spanish companies.	[13]	Technological Forecasting and Social Change
Microfoundations of companies' dynamic capabilities for environmentally sustainable innovation: Case study insights from high-tech innovation in science-based companies	The research builds on the dynamic capabilities theory perspective and aims to identify the micro-foundations of the dynamic capabilities of science-based companies to develop environmentally sustainable and high-tech innovations.	Multiple case study in two different science-based companies.	[81]	Business Strategy and the Environment
Multi-Level Perspective to Facilitate Sustainable Transitions - A Pathway for German OEMS towards Electric Vehicles	Addresses the trade-off of sustainable transitions within industries. The study determines a strategic analytical procedure that identifies external factors from a multi-level perspective (different actors) and the dynamic internal capabilities specific to each company.	Survey with experts from the German automotive industry	[82]	International Journal of Innovation Management

Dynamic capabilities and organizational routines for managing innovation towards sustainability.	The purpose was to investigate how dynamic capabilities (detection, apprehension, and reconfiguration) and their underlying organizational routines influence innovation towards achieving sustainability.	Survey with German companies that have introduced at least one sustainable product/service or process innovation	[83]	Journal of Cleaner Production
Business model innovation for sustainable performance in retail and hospitality industries	Seeks to understand how turmoil moments in the retail and food services sector, and the sustainable competitive companies affect advantage operating in the service sector.	Survey of 214 retail and food service companies	[84]	Sustainability
Competencies for sustainability: A proposed method for the analysis of their interrelationships	Proposes an analyzing method to check the interrelationships between sustainable development and organizational skills.	Case study of the Brazilian company Natura.	[14]	Sustainable Production and Consumption
Firms' capabilities for sustainable innovation: The case of biofuel for aviation	The study asks what organizational and managerial capabilities are and how companies can use them to innovate towards sustainability. It identifies the dynamic capabilities oriented towards sustainable innovation and explains how capabilities are built and strengthened.	KLM Royal Dutch Airlines case study	[85]	Journal of Cleaner Production
Resilience for sustainability as an eco-capability	The purpose of the study was to identify the dynamic capabilities that promote organizational resilience towards sustainability.	Multiple case study with Brazilian manufacturers from different sectors.	[86]	International Journal of Climate Change Strategies and Management

Source: Own elaboration, 2023.