Journal of
Value Creating in Business Management
https://www.jvcbm.ir

Volume 5, Issue 1, Spring 2025, Pages 471 to 494

Original Article (Qualitative)

eISSN: 2980-8359

A systematic review of the ambidexterity strategy in the development of the digital Economy

Ata Harandi[1], Yaser Baghery[2]

1- Assistant Professor, Department of Strategy and Business Policy, Faculty of Business Management, College of Management, University of Tehran, Tehran, Iran
2- Ph.D. Student of Strategy and Business Policy, University of Tehran, Tehran

Receive:
13 April 2024
Revise:
18 July 2024
Accept:
19 September 2024

Keywords:
Ambidexterity,
Digital economy,
Digital transformation,
Industry4 revolution,
Discontinuity

Abstract

This research systematically reviews the literature on ambidexterity strategies in the development of the digital economy. The main questions addressed are: What is the current state of knowledge in this field and related studies? What research proposals can advance the understanding of ambidexterity in the context of digital economy development? The philosophy of this research is interpretive, aligning with the application of ambidexterity in industries and companies focusing on the development of the digital economy. An inductive, qualitative approach is adopted, analyzing research articles from the Web of Science database using a systematic literature review method. The bibliometric analysis follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) guidelines, covering 114 articles and employing VOSviewer software for analysis. The findings indicate that, given the upward trend in the number of studies in recent years, this field is experiencing scientific growth. Based on the results, five clusters emerge in the word analysis diagram: (1) organizational ambidexterity, dynamic capabilities, market orientation, digital economy, big data, and absorptive capacity; (2) ambidexterity, Industry 4.0, information technology, innovation, organizational agility, strategic alignment; (3) competitive advantage, digital transformation, resource-based view; (4) exploration, exploitation; and (5) sustainability.

Please cite this article as (APA): Harandi, A. and Baghery, Y. (2025). A systematic review of the ambidexterity strategy in the development of the digital Economy. *Journal of value creating in Business Management*, *5*(1), 471-494.

https://doi.org/10.22034/jvcbm.2024.448050.1341

Publisher: Research Center of Resource Management Studies and Knowledge-Based Business

Corresponding Author: Ata Harandi **Email:** harandi@ut.ac.ir

Journal of
Value Creating in Business Management
https://www.jvcbm.ir
Volume 5, Issue 1, Spring 2025, Pages 471 to 494

Extended Abstract

Introduction

The turbulence and complexity of today's business environment have increased significantly. The number of influencing factors has grown, and their rate of change has accelerated. Under such conditions, the future becomes ambiguous and unpredictable, with environmental trends and opportunities remaining unstable. This increasing turbulence reduces the stability and predictability of the future. Consequently, traditional approaches to strategic planning, in a world where key variables are constantly changing and difficult to predict, have low validity and reliability.

In this environment, organizations require new mental models to make dynamic strategic decisions and translate them into strategic changes. Preparedness, responsiveness, and strategic flexibility are crucial components for dealing with turbulence and complexity. Organizations must generate and test ideas, learning from their decisions and the environment, to carve a path to competitive advantage. Possessing an adaptive advantage, in addition to a competitive one, is essential.

Economic enterprises must continuously analyze the environment, identify drivers of change, and examine the macro and micro trends these drivers create in the broader environment and industry. They should develop related scenarios and subsequently analyze their key capabilities and competencies. Identifying resource and capability gaps to face the future is essential. Through strategic planning, they can move toward adaptability to the evolving environment (Harandi et al., 2024).

An organization's ability to maintain a competitive advantage by leveraging existing capabilities while simultaneously innovating and acquiring new competencies is crucial for survival. The concept that organizations must continuously explore new opportunities and exploit existing assets to remain resilient in complex and turbulent environments is significant in organizational literature. Achieving a balance between exploration and exploitation is a prerequisite for resilience and sustainability in modern organizations. The capacity to manage and balance creative destruction and innovation with the exploitation of existing resources is essential for businesses in the digital domain (Harandi et al., 2024).

This article addresses the depth and body of knowledge regarding ambidextrous strategy in the context of these discontinuities. By reviewing the literature on ambidextrous strategy within these discontinuities, we clarify future research areas. Therefore, this article's contribution lies in explaining the knowledge structure of this field and proposing areas for future research.

Given the above points and the growth of studies in ambidexterity, the theoretical gap addressed by this research is the lack of a systematic and coherent study of the body of knowledge in this field within the context of the digital economy. Accordingly, the main objective of this research is to systematically review the literature on ambidextrous strategy in the development of the digital economy. This involves a systematic review of existing literature on the use of ambidextrous strategy in addressing environmental discontinuities caused by digital transformation, the Fourth Industrial Revolution, and the development of the digital economy.

This study is centered around the following questions: What is the configuration and body of knowledge regarding ambidextrous strategy in the context of the digital economy? What research proposals can advance the body of knowledge in ambidexterity within digital economy development? Which aspects of ambidexterity have received more attention, and which could be subjects for further research? Subsequently, we have endeavored to extract suggestions for future research.

Theoretical Framework

Digital Economy

The development of the digital economy has led to significant transformations in the economic structure of society, bringing about fundamental changes. One notable example is the shift in financing methods for businesses and ideas. Most traditional companies heavily rely on personal financing from their owners and sometimes meet financial needs through bank loans. Except for a few exceptions, these companies experience low growth rates and take decades to reach their peak. However, in the digital age, the widespread use of the Internet has provided two important tools for startups: crowdfunding and collective creativity. These tools, along with financing through joint venture capital investments, increase the likelihood of success for new companies aiming to leverage emerging technologies such as artificial intelligence in competition with giants like Google, Amazon, or Facebook.

Additionally, changes in the competitive structure are observable. Companies have accumulated competitive advantages to stay at the top of the competition, but significant technological advancements can fundamentally change the competitive landscape and eliminate such advantages. Another fundamental change is that innovative ideas no longer only emerge from expensive laboratories with heavy investments. Instead, garages, small offices in incubators, and accelerators are generating new ideas and disruptive businesses just as effectively as academic settings. Today, many advanced countries recognize the importance of these workspaces and are making significant efforts to stimulate and encourage technological innovation (Makridakis, 2017).

Ambidexterity

Tushman first introduced the concept of ambidexterity in the context of organizational structures for innovation. March, Tushman, and O'Reilly expanded on this in the field of organizational learning, proposing two methods—exploration and exploitation—for optimal resource utilization. Ambidexterity refers to an organization's ability to exploit current capabilities while simultaneously exploring future opportunities (Alghamdi, 2018).

As environmental changes occur, the relative fit of business subunits within a company fluctuates, prompting senior managers to reconfigure and reallocate resources to adapt. This approach, known as dynamic capabilities, emphasizes the key role of strategic leadership in appropriately adapting, integrating, and reconfiguring organizational skills and resources to match changing environments (O'Reilly III et al., 2009). A company's ability to be ambidextrous is at the core of dynamic capabilities. Ambidexterity requires senior managers to perform two critical tasks: first, to accurately understand changes in their competitive environment, including potential shifts in technology, competition, customers, and regulations; second, to respond to these opportunities and threats by reconfiguring tangible and intangible assets to address new challenges (O'Reilly III & Tushman, 2011).

Methodology

The philosophy of this research is interpretive, aiming to develop the application of ambidexterity in industries and companies within the theme of developing the digital economy. The research adopts an inductive, qualitative approach, utilizing research articles from the Web of Science database. It employs a systematic literature review method using bibliometric techniques, following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) guidelines, and is analyzed with VOS viewer software.

The PRISMA statement, first published in 2009, was designed to help systematic review authors transparently report why the review was conducted, what was done, and what was found. Over the past decade, advancements in systematic review methodology and

Journal of
Value Creating in Business Management
https://www.jvcbm.ir
Volume 5, Issue 1, Spring 2025, Pages 471 to 494

terminology have necessitated an update to the guidelines. The PRISMA 2020 statement replaces the 2009 statement and includes new reporting guidance reflecting advances in methods for identifying, selecting, evaluating, and synthesizing studies. The structure and presentation of items have been revised to facilitate implementation (Page et al., 2021).

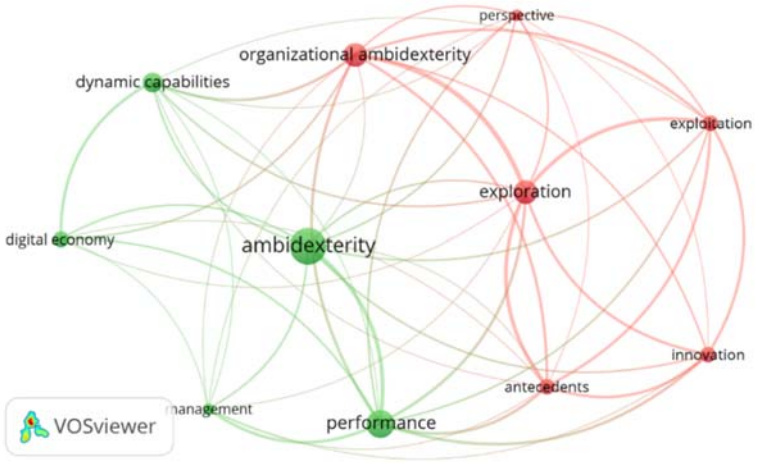
Discussion and Results

The Web of Science database was used to extract relevant studies. Initially, only research articles published with the two keywords "ambidexterity" and "digital economy" were retrieved, totaling only 16 articles. This small number indicates that this area requires more scholarly attention. The figure below shows the output of the keyword frequency analysis in these articles.

Subsequently, the search results were input into VOSviewer software to visualize the connections. Out of 642 keywords, 64 were repeated at least four times. To make a more informed selection, 18 keywords with significant semantic relevance to the content of the articles and the existing literature were chosen for relational analysis. The remaining keywords, based on the literature review and article analysis, were not necessarily relevant to the field under study.

Since the time range of the published articles was not limited, this research included the most up-to-date studies available in the Web of Science database. The publication trend also shows an upward trajectory.

The chart below illustrates the keyword frequency analysis from the search using the keywords "ambidexterity" in conjunction with "digital transformation," "digital economy," and "Industry 4.0" from the Web of Science database.



Discussion and Conclusion

In addition to the keywords, five clusters are observed in the keyword analysis chart: (1) organizational ambidexterity, dynamic capabilities, market orientation, digital economy, big data, and absorptive capacity; (2) ambidexterity, Industry 4.0, information technology, innovation, organizational agility, and strategic alignment; (3) competitive advantage, digital transformation, resource-based view; (4) exploration, exploitation; and (5) sustainability. Although other keywords could have appeared in this analysis based on their frequency, the items shown were filtered to highlight their importance and to indicate their frequency and relationships for future discussions. These clusters have revealed important keywords that seem to require separate studies on their connections with the three main topics of "digital transformation," "Industry 4.0," and "digital economy." It is suggested that these areas be the subjects of future research.