

A Bibliometric Study on Digital Taylorism and Digital Sustainability

Dijital Taylorizm ve Dijital Sürdürülebilirlik Üzerine Bibliyometrik Bir Çalışma

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Abstract

The concepts of digital Taylorism and digital sustainability play a crucial role in digital transformation processes, particularly in optimizing efficiency and maximizing resource utilization, as they exhibit a mutually reinforcing link. To achieve sustainability goals, organizations must effectively utilize digital technologies while also considering the environmental, social, and economic aspects of these initiatives. In this context, the aim of this study is to comprehensively define the concepts of digital Taylorism and digital sustainability, and to highlight their importance by investigating their current relevance in the business sector. This research uses bibliometric analysis to explore and evaluate scientific data. A total of 108 articles obtained from the Web of Science database, covering the years 2001 to 2024, were comprehensively examined, and the findings are presented in tables. The analysis reveals a significant increase in research activity in recent years, with the journals "Sustainability," "Big Data," and "Business Ethics," predominantly based in Germany, being the most productive journals in this field. Numerous studies highlight the beneficial effects of digital transformation on environmental sustainability, including improvements in waste management and production processes.

Keywords: Digital Taylorism, Digital Sustainability, Bibliometric Analysis, Digitalization.

Jel Codes: M13, M10.

Öz

Dijital Taylorizm ve dijital sürdürülebilirlik kavramları, dijital dönüşüm süreçlerinde, özellikle de verimliliğin optimize edilmesi ve kaynak kullanımının en üst düzeye çıkarılmasıyla ilgili olarak, birbirini güçlendiren bir bağlantı sergiledikleri için çok önemli bir rol oynamaktadır. Sürdürülebilirlik hedeflerine ulaşmak için kuruluşlar dijital teknolojilerden etkin bir şekilde faydalanırken bu girişimlerin çevresel, sosyal ve ekonomik yönlerini de dikkate almalıdır. Bu bağlamda çalışmanın amacı, dijital Taylorizm ve dijital sürdürülebilirlik kavramlarını kapsamlı bir şekilde tanımlamak, bu kavramların iş sektöründeki güncel geçerliliklerini araştırarak önemini altını çizmektir. Bu çalışmada, bilimsel verileri keşfetmek ve değerlendirmek için bibliyometrik analiz yöntemi kullanılmıştır. Web of Science veri tabanından elde edilen ve 2001 ile 2024 yıllarını kapsayan toplam 108 makale kapsamlı bir şekilde incelenmiş ve bulgular tablolar halinde sunulmuştur. Analiz, son yıllarda araştırma faaliyetlerinde kayda değer bir artış olduğunu ve "Sürdürülebilirlik", "Büyük Veri" ve "İş Etiği" dergilerinin, ağırlıklı olarak Almanya merkezli olmak üzere, bu alanda en üretken dergiler olduğunu ortaya koymaktadır. Çok sayıda çalışma, atık yönetimi ve üretim süreçlerindeki gelişmeler dahil olmak üzere, dijital dönüşümün çevresel sürdürülebilirlik üzerindeki yararlı etkilerini vurgulamaktadır.

Anahtar Kelimeler: Dijital Taylorizm, Dijital Sürdürülebilirlik, Bibliyometrik Analiz, Dijitalleşme.

Jel Kodları: M13, M10.

1. INTRODUCTION

Digitalisation, which encompasses the representation of various assets through digital information, management tools, communication software, and business algorithms on computers, has become prevalent across almost all sectors in contemporary society (Sugiyama et al., 2017; Konuk et al., 2023). This extensive integration of digitalisation has fundamentally transformed business operations by streamlining processes (Moore and Robinson, 2016; Seyrek and Yilmaz, 2016; Ouma and Premchander, 2022). Within this framework, two concepts, digital Taylorism and digital sustainability, are particularly significant in the current business environment. Digital Taylorism pertains to the enhancement of workforce management efficiency and flexibility through the adoption of digital technologies in business processes. Conversely, digital sustainability focuses on incorporating environmental, social, and economic sustainability objectives into digital transformation initiatives (Konuk et al., 2023; Liu, 2023; Pan and Nishant, 2023).

The connection between digital Taylorism and digital sustainability is essential for comprehending how digital transformation influences sustainability efforts. Digital transformation is increasingly recognized as a vital approach for organizations striving to meet their sustainability objectives. For example, Hilali et al. (2020) explored the link between digital transformation and sustainability, offering guidance for businesses to strengthen their sustainability initiatives in areas like customer experience, operational efficiency, and business models. Böttcher et al. (2023) highlight the promise of digitally sustainable business models that embed ecological sustainability into the heart of corporate practices. In this framework, digital platforms play a key role in fostering sustainable value creation by overseeing multilateral markets. The repercussions of digital transformation on sustainability can be seen across multiple industries. For instance, Feroz et al. (2021) investigated how digital technologies affect waste reduction, pollution control, and production management, concluding that these technologies create opportunities for new business models centered on environmental sustainability. Additionally, Sarfraz et al. (2022) evaluated the effects of digital transformation in the financial sector, illustrating how digital technologies can improve sustainable performance. This suggests that digital transformation enhances sustainability not only from an economic perspective but also in environmental and social contexts. The advancement of regulatory frameworks and standards further supports digital sustainability. Rosário and Dias (2023) looked into the intersections of the digital economy and sustainability, analyzing how digital solutions can tackle sustainability issues. From this angle, the parameters and standards for digital sustainability aid companies and policymakers in making better-informed choices. Moreover, Zhang and Jin (2023) examined the impact of digital transformation on corporate sustainability, stressing the role of executive leadership in this endeavor.

The notions of digital Taylorism and digital sustainability play a pivotal role in the processes of digital transformation, particularly in relation to optimizing efficiency and maximizing resource use, where they demonstrate a mutually reinforcing connection. To meet sustainability targets, organizations must leverage digital technologies effectively, while also taking into account the environmental, social, and economic aspects of these initiatives. Additionally, it is crucial for digital transformation strategies to be in harmony with

sustainability goals. In this context, the purpose of the study is to thoroughly define the concepts of digital Taylorism and digital sustainability, underscore their importance in the business sector by exploring their current relevance, and present findings from a review of academic research on this topic from multiple viewpoints.

2. LITERATURE REVIEW

2.1. Digital Taylorism

Taylorism encompasses a set of management strategies intended to increase productivity in manual labor settings, such as assembly lines, by emphasizing methods like rationalization, standardization, task separation, and structured workflows (Liu, 2023). These strategies remain relevant today as they provide solutions to modern business challenges, including the pressures of global competition, high-quality standards, and rapid delivery demands (Kulesza et al., 2011; Konuk et al., 2023). With advances in digital technology, Taylor's principles have found renewed effectiveness, integrating tools that make management practices more efficient than ever (Holford, 2019). In a digitally adapted Taylorist framework, digital tools serve as instruments to monitor and boost performance, enabling companies to gather detailed data on employees, manage workflow, and reinforce organizational objectives (Konuk et al., 2023; Liu, 2023). Through the use of data, these digital practices reduce reliance on subjective evaluations, creating a structured environment where labor processes are closely monitored and standardized (Delfanti and Frey, 2021). However, this model is sometimes critiqued for its impact on employees, as it can depersonalize their roles and increase psychological stress by amplifying work demands (Howard, 2022). Furthermore, digital Taylorism introduces uncertainties regarding job security, as automated systems and efficiency metrics place additional pressure on workers (Klur and Nies, 2023).

Digital Taylorism builds on the core principles of traditional Taylorism—efficiency and division of labor—while incorporating the agility and adaptability provided by digital tools and technologies (Iaia et al., 2023). A key development in digital Taylorism is the rethinking of job roles and structures. For instance, research by Yan et al. (2011) highlighted how job design impacts knowledge workers in unique ways compared to traditional labor, suggesting that enhancing job roles can lead to higher levels of employee satisfaction and performance. This underscores the importance of adapting Taylorist methods to modern work environments through innovative job design strategies. As businesses undergo digital transformation, cultivating employees' digital skills becomes essential. Drydakis (2022) points out that upskilling employees, particularly in smaller businesses, has a measurable positive impact on overall performance. Therefore, digital transformation strategies should prioritize developing employees' technical competencies. Additionally, fostering a culture that emphasizes digital leadership and supports digital-oriented organizational values positively influences innovation and enhances workforce productivity (Muniroh et al., 2022)

Digital Taylorism combines the foundational principles of traditional Taylorism with the capabilities of digital technology to streamline and optimize workforce management. This approach is increasingly applied across industries, especially in knowledge-driven fields like IT, finance, law, and pharmaceuticals, where it helps manage and refine operations through digital tools and algorithms (Duggal et al., 2023). By introducing digital resources, companies can restructure workforce processes, offering novel opportunities for both employers and

employees (Jacobson and Gruzd, 2020). The integration of Digital Taylorism is supported by automating various business functions, often employing technologies such as data analytics to enhance productivity. However, while these advancements improve efficiency, they may also limit employees' control over their tasks, as work becomes more standardized (Mengay, 2020). This shift involves more than just automation; it reshapes traditional management techniques by digitizing workflows and adopting new methods aimed at boosting individual performance. Achieving success under this model requires cohesive digital leadership, innovative job design, skill development, and a supportive digital culture within the organization (Muniroh et al., 2022). This evolution represents a substantial transformation in workforce management, redefining roles within the corporate structure and fostering significant changes in how employee performance is managed and evaluated (Klur and Nies, 2023; Konuk et al., 2023). An analysis of research on Digital Taylorism from the Web of Science database reveals trends and findings that are compiled in Table 1 to illustrate these insights.

Table 1. An Examination of Researchers and Their Findings on Digital Taylorism

Researcher(s)	Findings
Scolari, C. (2009)	This paper explores the use of semiotics in the context of Human-Computer Interaction (HCI) and the analysis of interfaces. It includes a case study that demonstrates a semiotic examination of a blog interface, although the methodology outlined can be modified for various digital interactive settings. Furthermore, this paper addresses potential future directions for the integration of semiotics within HCI.
Ashton, D. et al., (2010)	This paper investigates the evolution of global skills networks in transnational corporations (TNCs). Drawing on research from seven different countries, it posits that these networks have gained significant strategic importance as businesses aim to enhance their competitive edge by moving high-skilled positions to more affordable regions. The paper further analyzes the consequences of these insights for conventional international human resource management practices, as well as those shaped by the varieties of capitalism framework.
Chapman, L. (2012)	This paper investigates the evolution of evidence-based practices within talking therapies. Its objective is to analyze how these practices facilitate the adoption of a contemporary management approach known as Digital Taylorism, as well as to determine the most effective strategies for its application.
Webb, S. (2012)	This paper offers an analytical case study that is crucial for comprehending the effects of educational practices shaped by a work framework influenced by Digital Taylorism. The research indicates that, although there is a strong emphasis on uniformity and standardization, online educators invest significant emotional effort and tailor their teaching approaches to varying degrees.
Wilkesmann, M. and Wilkesmann, U. (2017)	This research seeks to establish a theoretical framework for evaluating different implementations of Industry 4.0 across an organizational spectrum. The results suggest that the applications of Industry 4.0 are currently in their infancy, mainly concentrating on the structuring of routines instead of promoting innovation.

Holford, W. D. (2019)	Current and upcoming organizational strategies prioritize the integration of machines, robotics, and artificial intelligence. The goal of automation is to minimize mundane or repetitive tasks, whereas digitization aims to boost the productivity of the workforce that remains. Furthermore, artificial intelligence is utilized to enhance the reliability and productivity of senior professional positions. These interconnected efforts embody the prevailing ideals of efficiency and maximization. This paper contends that approaches labeled as 'efficient' and analytical frequently overlook the distinct and irreplaceable aspects of human creativity and the implicit knowledge that accompanies it.
Altenried, M. (2020)	This study explores crowdsourcing platforms that allocate different types of digital tasks to a global workforce. The contributions made by these workers play a vital role in the creation, advancement, and maintenance of artificial intelligence technologies. By investigating these platforms as a representative case of developing digital Taylorism, this paper highlights significant changes occurring in the modern labor landscape.
Gautié, J. et al., (2020)	Based on research conducted through case studies in retail logistics, this study explores the extent to which the modification of low-skilled positions in response to contemporary technological advancements corresponds with the wider 'Neo-Taylorist' evolution of workplaces as outlined in existing literature. It aims to pinpoint the elements that either reinforce or shift this trajectory. By concentrating on the organizational level, the research aspires to enhance the understanding of how organizational decisions are made and how employees actively renegotiate and shape these decisions. The results suggest a trend towards a more Taylorist style of work organization, with minimal impact from the institutional framework and collective bargaining.
Moorkens, J. (2020)	To enhance efficiency and drawing inspiration from trends within the technology sector and forecasts related to Industry 4.0, major translation firms have started breaking down tasks into smaller elements while overseeing entire workflows. This study explores these processes concerning job satisfaction indicators and the discussion surrounding sustainable work systems. It advocates for companies to focus on long-term benefits and aim to harmonize the interests of all parties engaged in the translation process.
Delfanti, A. and Frey, B. (2021)	This study seeks to explore the future automation initiatives of Amazon and the associated concerns regarding the diminishing role of human labor in warehouse settings. A thorough examination of Amazon's patent portfolio reveals that the complete elimination of workers from warehouse operations is not imminent. Numerous patents highlight technologies designed to enhance worker oversight and manage operational rhythms. These patents illustrate the company's vision of a technological landscape where employees function as extensions of machinery. Within this revised operational paradigm, humans enhance machine capabilities, and through a continuous effort to elevate automation levels, Amazon is establishing new technological foundations that bolster its influence in the digital workforce.

Table 1 shows that a total of 26 articles related to "Digital Taylorism" were identified, covering the period 2009-2024, where the reporting data changed. The Web of Science data recorded 28

articles; however, the content of two articles was not accessible. Consequently, the most cited article from the 26 accessible and analyzable articles is summarized.

Table 2. Studies on Digital Taylorism and Number of Citations

Digital Taylorizm	Citations
Industry 4.0 – organizing routines or innovations?	107
The platform as factory: Crowdwork and the hidden labour behind artificial intelligence	60
The future of human creative knowledge work within the digital economy	58
Humanly extended automation or the future of work seen through amazon patents	49
“A tiny cog in a large machine” Digital Taylorism in the translation industry	41
Digital agriculture and labor: A few challenges for social sustainability	30
The sense of the interface: Applying semiotics to HCI research	18
Big brother's corporate cousin - High-tech workplace surveillance is the hallmark of a new digital taylorism.	16
Digital value chain restructuring and labour process transformations in the fast-fashion sector: Evidence from the value chains of Zara & H&M	15
Digital Taylorism in China's e-commerce industry: A case study of internet professionals	15

The most frequently referenced research in the realm of Digital Taylorism is the qualitative study titled "Industry 4.0: Organising Routines or Innovations?" conducted by Wilkesmann & Wilkesmann in 2017.

2.2. Digital Sustainability

In recent years, the topic of sustainability has garnered significant attention. Originally, the term predominantly focused on environmental concerns aimed at minimizing carbon emissions. However, it has evolved to encompass a broader spectrum of meanings. Nowadays, sustainability extends beyond environmental issues to include economic and social dimensions (Cricelli and Strazzullo, 2021; Yilmaz and Bal, 2022). This evolution signifies that sustainability is now assessed through three key lenses: environmental, social, and economic (Martin and Schouten, 2012). In essence, sustainability is viewed as a movement striving to enhance overall well-being in a sustainable manner for everyone, with a commonly recognized definition linked to the effects of various systems or activities on the environment (Caradonna, 2014). Environmental sustainability is characterized by the ongoing preservation of ecosystems and their functions. Meanwhile, economic sustainability pertains to an economic system's capacity to fulfill human needs over time, closely aligning with sustainable long-term economic growth while safeguarding environmental and social resources (Tiago et al., 2021). The goal of economic sustainability is to strike a balance among natural resources, social welfare, and ecosystems (Choi and Ng, 2011). Over the past two decades, the significance of economic sustainability within supply chains has escalated. The relentless rise in global competition has compelled businesses to integrate sustainable practices to enhance their economic outcomes. Additionally, social sustainability advocates for the well-being of all individuals, ensuring access to essential needs such as food, healthcare, education, and leisure activities. The interrelationship among these three dimensions is evident, as the global

economy has a profound impact on our society and environment (Pieroni et al., 2020; Yılmaz and Erdem, 2022).

Digital sustainability refers to the merging of sustainability principles with digital technologies, with the objective of reducing the ecological footprint of these technologies and preserving natural resources (Stuermer et al., 2017). Research in sustainability largely emphasizes social innovation, sustainable business models, and the interplay between environmental and financial outcomes. Conversely, investigations into digital sustainability focus on the swift evolution and relevance of digital technologies—such as computer science, information technology, artificial intelligence, machine learning, the Internet of Things (IoT), social media, and blockchain—in the context of sustainability (Pan and Nishant, 2023). In a broad sense, digital sustainability involves organizational efforts to promote sustainable development goals through the innovative application of technologies that create, utilize, transmit, or manage electronic data. More specifically, digital sustainability can be characterized as the responsible utilization of digital resources (Wut et al., 2021).

The notion of digital sustainability encapsulates a holistic understanding of how organizations or businesses leverage technology to achieve greater sustainability (Pan and Nishant, 2023). Digitalization strengthens the connections among products, manufacturing facilities, the value chain, and consumers, aiming for the most sustainable production cycles possible. The emergence of new technologies enables companies to foster innovation and entrepreneurship, expand their market presence, minimize energy waste, and facilitate the recovery and reuse of materials (Cricelli and Strazzullo, 2021; Yılmaz and Ecemiş, 2022). Moreover, digital sustainability positively influences productivity and development in emerging economies (Stuermer et al., 2017). It is essential for policymakers, both at regional and international levels, to steer technological advancements towards sustainability and to encourage technological innovation as a vital component for a sustainable future (Sparviero and Ragnedda, 2021). A review of the literature has revealed 80 articles related to "Digital Sustainability" within the Web of Science database, with an analysis of the ten most cited studies summarized in Table 3.

Table 3. An Examination of Researchers and Their Findings on Digital Sustainability

Researcher(s)	Findings
Bradley, K. (2007)	This study explores the concept of digital sustainability and highlights various issues and topics that impact the enduring nature of digital information. It has been demonstrated that digital sustainability offers a relevant framework for digital preservation, as it requires an examination of the complete life cycle associated with the development and management of digital assets, addressing both technical and socio-technical factors.
Stuermer, M. et al., (2017)	This study investigates the notion of digital sustainability and emphasizes several challenges and subjects that affect the long-term viability of digital information. The findings indicate that digital sustainability provides a pertinent framework for digital preservation, necessitating an analysis of the entire life cycle related to the creation and management of digital resources, while considering both technical and socio-technical elements.

Gómez-Galán, J. et al., (2020)	University students frequently utilize the internet, and in certain instances, an addiction to social media platforms can result in depression, harassment, and anxiety, impacting their everyday lives, including their academic duties. The COVID-19 pandemic has intensified these challenges. In light of this, a cross-sectional study utilizing a descriptive and quantitative approach was conducted to examine the pandemic's effects on these concerns, concentrating on students from 14 Spanish universities during the initial wave of COVID-19. The results revealed a notable prevalence of addiction and elevated levels of social media use during this timeframe.
Pan, S. L. and Zhang, S. (2020)	The recent emergence of the COVID-19 pandemic has significantly endangered the health and well-being of billions globally. This research contends that, although the pandemic has inflicted substantial harm on lives and livelihoods, it also offers a unique chance for the international community to unite and leverage this crisis as a catalyst for advancing the United Nations Sustainable Development Goals (SDGs).
George, G. et al., (2021)	This research explores the role of digital technologies in addressing major obstacles in combating climate change and advancing sustainable development. By examining the digital resources employed by leading organizations, it puts forth a research framework that encourages new questions about entrepreneurship, business models, and ecosystems, while also introducing innovative perspectives on trust and institutional logics.
Tiago, F. et al., (2021)	This study assesses the sustainable digital communication practices of small and medium-sized lodging businesses, linking these practices to the intricacies of their online presence. Findings reveal that international accreditations are utilized less frequently than local ones, with smaller enterprises showing a stronger emphasis on eco-labeling in their online promotions. Additionally, it has been noted that achievements in sustainability are more prominently featured on websites that are more advanced in design.
George, G. and Schillebeeckx, S. (2022)	This study examines the rise of environmental and pandemic crises in the context of digital advancement. Multinational Corporations (MNCs) are encountering heightened geopolitical, organizational, and market pressures. The phenomenon of corporate pluralism is contributing to a more intricate global landscape. The results of this study highlight the importance for MNCs to evolve into purpose-oriented entities.
Guandalini, I. (2022)	Inspired by the increasing attention from businesses and regulatory bodies regarding the role of digital transformation in enhancing sustainability, this study examines the interplay between these two elements. The research seeks to progress the area of 'digital sustainability' by conducting a systematic review of 153 academic publications, focusing on three main objectives: 1) to reinforce existing research, 2) to explore the thematic links among various studies, and 3) to pinpoint research gaps that warrant further exploration. The findings of this study are relevant to a diverse audience of practitioners, including managers, consultants, and policymakers.
Liu, Q. et al., (2022)	Digital technology is viewed as a valuable resource for facilitating the shift of production and consumption towards a circular economy. Nonetheless, it is not yet clear which specific roles of digital technologies are most

effective in promoting circularity, nor how these roles can be leveraged to formulate various circular economy strategies. This research undertakes a systematic literature review to fill this knowledge gap. It introduces a framework that delineates seven mechanisms through which digital functionalities can aid in the formulation of distinct circular economy strategies. Furthermore, the framework highlights which pairings of digital functions and circular economy strategies have been thoroughly investigated and identifies potential areas where research may be lacking.

Pan, S. L. et al., (2022)

This research provides a comprehensive examination of Australia's viewpoints and strategies for tackling climate change. It also suggests future research pathways aimed at fostering engagement among scholars in this area, emphasizing the importance of climate resilience, citizen science initiatives that promote climate awareness, and the Environmental, Social, and Governance (ESG) strategies adopted by organizations. Furthermore, there is a call for researchers to actively participate in advancing this discipline.

The most cited article is "Digital sustainability and entrepreneurship: How digital innovations are helping tackle climate change and sustainable development." This research provides a comprehensive examination of Australia's viewpoints and strategies for tackling climate change. It also suggests future research pathways aimed at fostering engagement among scholars in this area, emphasizing the importance of climate resilience, citizen science initiatives that promote climate awareness, and the Environmental, Social, and Governance (ESG) strategies adopted by organizations. Furthermore, there is a call for researchers to actively participate in advancing this discipline.

Table 4. Studies on Digital Sustainability and Number of Citations

Digital Sustainability	Citations
Digital sustainability and entrepreneurship: How digital innovations are helping tackle climate change and sustainable development	260
From fighting COVID-19 pandemic to tackling sustainable development goals: An opportunity for responsible information systems research	131
Digital transformation, sustainability, and purpose in the multinational enterprise	96
A framework of digital technologies for the circular economy: Digital functions and mechanisms.	96
Sustainability through digital transformation: A systematic literature review for research guidance	58
Digital sustainability communication in tourism	51
Defining digital sustainability	51
Digital sustainability: Basic conditions for sustainable digital artifacts and their ecosystems	51
Social networks consumption and addiction in college students during the COVID-19 Pandemic: Educational approach to responsible use	45
Digital sustainability, climate change, and information systems solutions: Opportunities for future research	42

In the realm of digital sustainability, the most referenced work—garnering 260 citations—is the qualitative research piece "Digital Sustainability and Entrepreneurship: How Digital Innovations are Helping Tackle Climate Change and Sustainable Development." This study was conducted by authors George, Merrill, and Schillebeeckx, and it was released in 2021.

3. METHODOLOGY AND RESEARCH METHODS

This research investigates all studies pertaining to "Digital Taylorism" and "Digital Sustainability" found within the Web of Science (WOS) database, concentrating on articles released from 2001 to 2024. To analyze these publications, bibliometric analysis techniques have been applied. Bibliometrics serves as a statistical method that quantitatively examines research articles on a defined subject through mathematical techniques. Additionally, bibliometric analysis can evaluate the quality of the research, identify significant research areas, and forecast the trajectory of future studies (Chen et al., 2014).

The following questions were addressed in the research:

- How are studies on "Digital Taylorism" and "Digital Sustainability" distributed over the years?
- How are studies on "Digital Taylorism" and "Digital Sustainability" distributed by country?
- How are studies on "Digital Taylorism" and "Digital Sustainability" distributed by publisher?
- How are studies on "Digital Taylorism" and "Digital Sustainability" distributed by indexing?
- What is the most frequently used research type in publications on "Digital Taylorism" and "Digital Sustainability"?
- What are the most commonly used keywords in publications related to "Digital Taylorism" and "Digital Sustainability"?

In this study, a co-word analysis was performed utilizing the Web of Science (WOS) database to examine the concepts of "Digital Taylorism" and "Digital Sustainability" from 2001 to 2024. These concepts were examined in the field of business and management, yielding a total of 108 articles. It was noted that the majority of these publications, particularly 107, were written in English. An examination of the annual distribution of articles on "Digital Taylorism" and "Digital Sustainability" reveals a significant increase over the last five years, indicating increased interest in these topics in the academic literature. The annual distribution of these publications is detailed in Table 5.

Table 5. Years of Publication and Number of Publications

Publication Year	Number of Publications on Digital Taylorism	Number of Publications on Digital Sustainability	Total Number of Publications
2024	1	10	11
2023	8	25	33
2022	4	16	20
2021	4	13	17
2020	3	5	8
2019	1	1	2
2018	-	1	1
2017	1	2	3
2016	-	3	3
2013	1	-	1
2012	2	-	2
2011	-	2	2
2010	1	1	2
2009	1	-	1
2007	-	1	1
2001	1	-	1
TOTAL	28	80	108

Upon reviewing the information in Table 5, it is evident that interest in "Digital Taylorism" and "Digital Sustainability" has grown over the last five years, with 2023 marking the peak for publication quantity. The subsequent years referenced include 2022, 2021, and 2024. Table 6 offers a breakdown of the publications related to "Digital Taylorism" and "Digital Sustainability" by country.

Table 6. Published Countries

Country	Number of Publications on Digital Taylorism	Number of Publications on Digital Sustainability	Total Number of Publications
USA	2	6	8
Germany	11	9	20
Australia	1	11	12
Brazil	-	1	1
China	-	8	8
Netherlands	-	6	6
England	4	11	15
Spain	-	5	5
Sweden	-	4	4
Switzerland	-	6	6
Italy	4	8	12
Canada	3	2	5
Singapore	-	2	2
Wales	2	-	2
Turkey	1	1	2
TOTAL	28	80	108

Germany stands out as the foremost nation in the realm of publications regarding "Digital Taylorism" and "Digital Sustainability" within the Web of Science database, boasting a total of 20 entries. Following Germany, England has 15 publications, while both Australia and Italy have produced 12 each. China and the USA each contribute 8 publications. In contrast, Turkey has only managed to publish 2 articles between 2001 and 2024. The predominant volume of research has been carried out in Germany, a trend likely linked to the country's initiation of the Industry 4.0 process at the Hannover Fair in 2011, which emphasized advancements in smart machines and production systems (Nyckel, 2020). An overview of the publication distribution related to "Digital Taylorism" and "Digital Sustainability" by publisher is detailed in Table 7.

Table 7. Number of Publications by Publisher

Publisher	Number of Publications on Digital Taylorism	Number of Publications on Digital Sustainability	Total Number of Publications
Assoc Information Systems	-	3	3
Elsevier	5	17	22
Emerald Group	5	8	13
Mdpi	5	27	32
Sage	3	4	7
Springer Nature	2	4	6
Taylor & Francis	3	8	11
Walter de Gruyter	3	-	3
Wiley	2	9	11
TOTAL	28	80	108

According to the information outlined in Table 8, the MDPI publishing house leads with a total of 32 publications. Following closely is Elsevier, which has published 22 works, while Emerald Group has produced 13 publications. Both Taylor & Francis and Wiley have contributed 11 publications each, positioning them among the top publishers in terms of output. Notably, the journal "Sustainability" stands out as the one with the highest number of publications related to "Digital Taylorism" and "Digital Sustainability," boasting 24 entries. The indexing details for these publications are also listed in Table 8.

Table 8. Publication Counts by Indexes

Index	Number of Publications on Digital Taylorism	Number of Publications on Digital Sustainability	Total Number of Publications
SCI / SSCI	16	38	54
SCI-EXPANDED	1	30	31
ESCI	9	9	18
BKCI-SSH	-	-	-
A&HCI	2	3	5
TOTAL	28	80	108

Based on the information shown in Table 9, it is evident that the predominant number of publications concerning "Digital Taylorism" and "Digital Sustainability" are found in journals listed in the SSCI, totaling 54 publications. In comparison, there are 31 publications indexed in

4. CONCLUSIONS, DISCUSSION AND RECOMMENDATIONS

Digital Taylorism and digital sustainability are crucial subjects in the contemporary business landscape. Digital Taylorism pertains to the utilization of innovative workforce management techniques aimed at streamlining business operations through digital tools and improving overall efficiency. Conversely, digital sustainability highlights how digital platforms and technologies can aid in achieving environmental, economic, and social sustainability objectives (Deveciyan and Alay, 2022; Deveciyan, 2023). This concept reinterprets F. Taylor's scientific management principles within the context of the digital era, focusing on the ongoing surveillance of employees to gather data for enhancing business process efficiency (Duggal et al., 2023). Digital sustainability, in contrast, involves managing information technologies and digital infrastructures to align with sustainability objectives. This idea emphasizes the importance of digital transformation initiatives to yield not only economic advantages but also to address environmental and social obligations (Deveciyan and Alay, 2022). The analytical and monitoring capabilities provided by Digital Taylorism enable businesses to gain insights into their environmental footprint and devise strategies to alleviate these impacts (Klymenko et al., 2021). Nonetheless, integrating these practices with sustainability principles is essential to prevent potential challenges for businesses. For organizations to enhance their efficiency, the application of Digital Taylorism should be compatible with sustainability objectives (Camodeca and Almici, 2021). Moreover, digital transformation can significantly improve companies' sustainability performance (Baranauskas and Raišienė, 2022; Yang et al., 2023). When digital sustainability is integrated with social innovation aimed at generating societal benefits, it fosters the creation of more inclusive business models (Xu et al., 2022). In this regard, organizations need to address concerns such as social network security and employee mental health to effectively manage the sustainable challenges associated with digital entrepreneurship and business ecosystems (Deveciyan, 2023). Therefore, emphasizing sustainability principles is vital for promoting employee well-being in companies that adopt Digital Taylorism (Klymenko et al., 2021).

This study explores the interrelated findings from investigations into digital Taylorism and digital sustainability, revealing crucial insights regarding their mutual influence. It posits that the relationship between these two concepts presents both advantages and obstacles. Numerous studies highlight the beneficial effects of digital transformation on environmental sustainability, including advancements in waste management and enhancements in production processes. Conversely, certain research points out that the processes of digital transformation often favor economic benefits, frequently neglecting environmental and social improvements. The research addresses various aspects, such as the application of digital technologies in businesses, the significance of digitalization in boosting sustainable innovation performance, and the essential operational elements of digital processes. Additionally, some studies suggest that the efficiency improvements associated with digital Taylorism may adversely impact employee job satisfaction and motivation, contributing to heightened stress levels in the workplace and a reduction in overall productivity.

In the findings section of the study, the data presented in Table 5 shows an increasing number of publications over the years concerning digital Taylorism and digital sustainability. This surge in research can be attributed to several key factors. Firstly, the rapid advancement of digital transformation, alongside the growing importance of sustainability objectives, reflects

the evolving landscape of the business environment. Secondly, the global repercussions of the COVID-19 pandemic have significantly influenced this trend. The pandemic has accelerated the process of digitalization across various industries, leading to a greater dependence on digital technologies by companies (George et al., 2021). This shift has fostered the spread of digital Taylorism practices, highlighting the critical nature of digital sustainability goals. Moreover, the rising significance of sustainability within both public and private sectors also contributes to this increasing interest. Numerous organizations are making efforts to incorporate environmental sustainability and social responsibility into their business frameworks, which further amplifies attention to the subjects of digital Taylorism and digital sustainability. As illustrated by the data from the network map of scientific research on these topics (Figure 1), the most commonly used keywords encompass "digital sustainability, digital Taylorism, digitalization, sustainability, sustainable development, labor process, digital transformation, Amazon," among others.

In summary, a significant connection exists between digital Taylorism and digital sustainability. Incorporating sustainability principles into the digital transformation strategies of organizations will promote a more equitable development that addresses both economic and social dimensions. Effectively managing these digital transformation processes is vital for the future of businesses and society as a whole. In this regard, the ethical application of digital technologies and an awareness of social responsibilities will not only improve the effectiveness of digital Taylorism implementations but also establish a solid foundation for a sustainable future.

The constraints of this research are primarily due to its exclusive examination of articles from the Web of Science (WOS) database and its restriction to particular years. Future investigations are encouraged to incorporate additional databases, expand the designated time frame, and assess the theory from a more comprehensive viewpoint. Such measures could alleviate the current study's limitations and aid in the advancement of the theory

DECLARATION OF THE AUTHORS

Approval of ethical committee: All procedures performed in studies comply with the ethical standards of comparable institutional and/or national research committees.

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REFERENCES

- Altenried, M. (2020). The platform as factory: Crowdwork and the hidden labour behind artificial intelligence. *Capital & Class*, 44(2), 145-158. <https://doi.org/10.1177/0309816819899410>
- Ashton, D., Brown, P., & Lauder, H. (2010). Skill webs and international human resource management: lessons from a study of the global skill strategies of transnational

- companies. *The international journal of human resource management*, 21(6), 836-850. <https://doi.org/10.1080/09585191003729325>
- Baranauskas, G., & Raišienė, A. G. (2022). Transition to digital entrepreneurship with a quest of sustainability: Development of a new conceptual framework. *Sustainability*, 14(3), 1104. <https://doi.org/10.3390/su14031104>
- Böttcher, T., Empelmann, S., Weking, J., Hein, A., & Krčmar, H. (2023). Digital sustainable business models: Using digital technology to integrate ecological sustainability into the core of business models. *Information Systems Journal*, 34(3), 736-761, <https://doi.org/10.1111/isj.12436>
- Bradley, K. (2007). Defining digital sustainability. *Library Trends*, 56(1), 148-163. <https://doi.org/10.1353/lib.2007.0044>
- Brown, P. (2024). Education, opportunity and the future of work in the fourth industrial revolution. *British Journal of Sociology of Education*, 45(4), 475-493. <https://doi.org/10.1080/01425692.2023.2299970>
- Camodeca, R., & Almici, A. (2021). Digital transformation and convergence toward the 2030 Agenda's sustainability development goals: Evidence from Italian listed firms. *Sustainability*, 13(21), 11831. <https://doi.org/10.3390/su132111831>
- Caradonna, J. L. (2014). *Sustainability: A history*. New York: Oxford University Press.
- Chapman, L. (2012). Evidence-based practice, talking therapies and the new Taylorism. *Psychotherapy and Politics International*, 10(1), 33-44. <https://doi.org/10.1002/ppi.1248>
- Chen, C., Dubin, R., & Kim, M. C. (2014). Emerging trends and new developments in regenerative medicine: A scientometric update (2000 – 2014). *Expert Opinion on Biological Therapy*, 14(9), 1295-1317. <https://doi.org/10.1517/14712598.2014.920813>
- Choi, S., & Ng, A. (2011). Environmental and economic dimensions of sustainability and price effects on consumer responses. *Journal of Business Ethics*, 104(1), 269-282. <https://doi.org/10.1007/s10551-011-0908-8>
- Cricelli, L., & Strazzullo, S. (2021). The economic aspect of digital sustainability: A systematic review. *Sustainability*, 13(15), 8241. <https://doi.org/10.3390/su13158241>
- Delfanti, A., & Frey, B. (2021). Humanly extended automation or the future of work seen through Amazon patents. *Science, Technology, & Human Values*, 46(3), 655-682. <https://doi.org/10.1177/0162243920943665>
- Deveciyan, M. T. (2023). Dijital girişimcilik ekosisteminde sürdürülebilirlik. *Journal of Awareness*, 8(1), 77-88. <https://doi.org/10.26809/joa.1978>
- Deveciyan, M. T., & Alay, H. K. (2022). Sürdürülebilirlik bağlamında dijital miras kavramı. *Süleyman Demirel Üniversitesi Vizyoner Dergisi*, 13(30), 114-125. <https://doi.org/10.21076/vizyoner.1133194>

- Drydakakis, N. (2022). Improving entrepreneurs' digital skills and firms' digital competencies through business apps training: A study of small firms. *Sustainability*, 14(8), 4417. <https://doi.org/10.3390/su14084417>
- Duggal, H. K., Khatri, P., Thomas, A., & Pironti, M. (2023). Changing learning paradigms: An interplay of Digital Taylorism and technostress on perceived employability. *Journal of Management History*, 30(2), 166-194. <https://doi.org/10.1108/JMH-12-2022-0089>
- Fanti, L., Guarascio, D., & Moggi, M. (2022). From Heron of Alexandria to Amazon's Alexa: a stylized. *Journal of Industrial and Business Economics*, 49(3), 409-440. <https://doi.org/10.1007/s40812-022-00222-4>
- Feroz, A., Zo, H., & Chiravuri, A. (2021). Digital transformation and environmental sustainability: A review and research agenda. *Sustainability*, 13(3), 1530. <https://doi.org/10.3390/su13031530>
- Fuchs, M., Dannenberg, P., & Wiedemann, C. (2021). Big Tech and Labour Resistance at Amazon. *Science as Culture*, 31(1), 29-43. <https://doi.org/10.1080/09505431.2021.1937095>
- Fuchs, M., Dannenberg, P., López, T., Wiedemann, C., & Riedler, T. (2023). Location-specific labour control strategies in online retail. *ZfW-Advances in Economic Geography*, 67(4), 189-201. <https://doi.org/10.1515/zfw-2021-0028>
- Gautié, J., Jaehrling, K., & Perez, C. (2020). Neo-Taylorism in the Digital Age: Workplace transformations in French and German Retail Warehouses. *Relations Industrielles*, 75(4), 774-795. <https://www.jstor.org/stable/27016459>
- George, G., & Schillebeeckx, S. J. (2022). Digital transformation, sustainability, and purpose in the multinational enterprise. *Journal of World Business*, 57(3), 1-8, 101326. <https://doi.org/10.1016/j.jwb.2022.101326>
- George, G., Merrill, R. K., & Schillebeeckx, S. J. (2021). Digital sustainability and entrepreneurship: How digital innovations are helping tackle climate change and sustainable development. *Entrepreneurship theory and practice*, 45(5), 999-1027. <https://doi.org/10.1177/1042258719899425>
- Gómez-Galán, J., Martínez-López, J., Lázaro-Pérez, C., & Sarasola Sánchez-Serrano, J. L. (2020). Social networks consumption and addiction in college students during the COVID-19 Pandemic: Educational approach to responsible use. *Sustainability*, 12(18), 7737. <https://doi.org/10.3390/su12187737>
- Guandalini, I. (2022). Sustainability through digital transformation: A systematic literature review for research guidance. *Journal of Business Research*, 148(1), 456-471. <https://doi.org/10.1016/j.jbusres.2022.05.003>
- Henaway, M. (2023). Amazon's distribution space: Constructing a 'labour fix' through digital Taylorism and corporate Keynesianism. *ZfW-Advances in Economic Geography*, 67(4), 202-216. <https://doi.org/10.1515/zfw-2022-0017>

- Hilali, W. E., Manouar, A. E., & Idrissi, M. A. (2020). Reaching sustainability during a digital transformation: A PLS approach. *International Journal of Innovation Science*, 12(1), 52-79. <https://doi.org/10.1108/ijis-08-2019-0083>
- Holford, W. D. (2019). The future of human creative knowledge work within the digital economy. *Futures*, 105(1), 143-154. <https://doi.org/10.1016/j.futures.2018.10.002>
- Howard, J. (2022). Algorithms and the future of work. *American Journal of Industrial Medicine*, 65(1), 943-952. <https://doi.org/10.1002/ajim.23429>
- Iaia, L., Fait, M., Munnia, A., Cavallo, F., & Nuccio, E. D. (2023). The scientific approach to facilitate the human-machine interactions. The case of Carrozzeria Fratelli Basile. *Journal of Management History*, 30(2), 243-262. <https://www.emerald.com/insight/content/doi/10.1108/JMH-12-2022-0087/full/html>
- Jacobson, J., & Gruzd, A. (2020). Cybervetting job applicants on social media: The new normal? *Ethics and Information Technology*, 22(1), 175-195. <https://doi.org/10.1007/s10676-020-09526-2>
- Klur, K., & Nies, S. (2023). Governed by digital technology?: Self-perpetuation and social domination in digital capitalism. *Work Organisation, Labour & Globalisation*, 17(1), 12-33. <https://doi.org/10.13169/workorgalaboglob.17.1.0012>
- Klymenko, O., Halse, L. L., & Jæger, B. (2021). The enabling role of digital technologies in sustainability accounting: Findings from Norwegian manufacturing companies. *Systems*, 9(2), 33. <https://doi.org/10.3390/systems9020033>
- Konuk, H., Ataman, G., & Kambur, E. (2023). The effect of digitalized workplace on employees' psychological well-being: Digital Taylorism approach. *Technology in Society*, 74(1), 102302. <https://doi.org/10.1016/j.techsoc.2023.102302>
- Kulesza, M. G., Weaver, P. Q., & Friedman, S. (2011). Frederick W. Taylor's presence in 21st century management accounting systems and work process theories. *Journal of Business and Management*, 17(1), 105-120. <https://doi.org/10.1504/JBM.2011.141194>
- Liu, H. Y. (2023). Digital Taylorism in China's e-commerce industry: A case study of internet professionals. *Economic and Industrial Democracy*, 44(1), 262-279. <https://doi.org/10.1177/0143831X211068887>
- Liu, Q., Trevisan, A. H., Yang, M., & Mascarenhas, J. (2022). A framework of digital technologies for the circular economy: Digital functions and mechanisms. *Business Strategy and the Environment*, 31(5), 2171-2192. <https://doi.org/10.1002/bse.3015>
- López, T., Riedler, T., Köhnen, H., & Fütterer, M. (2022). Digital value chain restructuring and labour process transformations in the fast-fashion sector: Evidence from the value chains of Zara & H&M. *Global Networks*, 22(4), 684-700. <https://doi.org/10.1111/glob.12353>

- Mantello, P., & Ho, M. T. (2023). Emotional AI and the future of wellbeing in the post-pandemic workplace. *AI & Society*, 39(1), 1883-1889. <https://doi.org/10.1007/s00146-023-01639-8>
- Martin, D., & Schouten, J. (2012). *Sustainable Marketing*. New York: Pearson.
- Mengay, A. (2020). Digitalization of work and heteronomy. *Capital & Class*, 44(2), 273-285. <https://doi.org/10.1177/0309816820904032>
- Moore, P., & Robinson, A. (2016). The quantified self: What counts in the neoliberal workplace. *New Media & Society*, 18(11), 2774-2792. <https://doi.org/10.1177/1461444815604328>
- Moorkens, J. (2020). "A tiny cog in a large machine": Digital Taylorism in the translation industry. *Translation Spaces*, 44(2), 273-285. <https://doi.org/10.1075/ts.00019.moo>
- Muniroh, M., Hamidah, H., & Abdullah, T. (2022). Managerial implications on the relation of digital leadership, digital culture, organizational learning, and innovation of the employee performance (case study of PT. Telkom digital and next business department). *Management and Entrepreneurship: Trends of Development*, 1(19), 58-75. <https://doi.org/10.26661/2522-1566/2022-1/19-05>
- Nies, S. (2021). A matter of control? Managerial strategies of digitalisation and workers' autonomy. *Berliner Journal für Soziologie*, 31(3-4), 475-504. <https://doi.org/10.1007/s11609-021-00452-8>
- Nyckel, E. M. (2020). "Digital Taylorism"? Data practices and governance in the enterprise software salesforce. *SSOAR*, 1(1), 1-32. <https://doi.org/10.34669/WI.WS/9>
- Ouma, S., & Premchander, S. (2022). Labour, efficiency, critique: Writing the plantation into the technological present-future. *Environment and Planning A: Economy and Space*, 54(2), 413-421. <https://doi.org/10.1177/0308518X211065452>
- Pan, S. L., & Nishant, R. (2023). Artificial intelligence for digital sustainability: An insight into domain-specific research and future directions. *International Journal of Information Management*, 72(1), 102668. <https://doi.org/10.1016/j.ijinfomgt.2023.102668>
- Pan, S. L., & Zhang, S. (2020). From fighting COVID-19 pandemic to tackling sustainable development goals: An opportunity for responsible information systems research. *International Journal of Information Management*, 55(1), 102196, <https://doi.org/10.1016/j.ijinfomgt.2020.102196>.
- Pan, S. L., Carter, L., Tim, Y., & Sandeep, M. S. (2022). Digital sustainability, climate change, and information systems solutions: Opportunities for future research. *International Journal of Information Management*, 63(1), 102444. <https://doi.org/10.1016/j.ijinfomgt.2021.102444>
- Park, S., & Ryoo, S. (2023). How does algorithm control affect platform workers' responses? Algorithm as a Digital Taylorism. *Journal of Theoretical and Applied Electronic Commerce Research*, 18(1), 273-288. <https://doi.org/10.3390/jtaer18010015>

- Pieroni, M., McAloone, T. C., & Pigosso, D. C. (2019). Business model innovation for circular economy: Integrating literature and practice into a conceptual process model. *Proceedings of the Design Society International Conference on Engineering Design*, 1(1), 2517-2526. <https://doi.org/10.1017/dsi.2019.258>
- Prause, L. (2021). Digital agriculture and labor: A few challenges for social sustainability. *Sustainability*, 13(11), 5980. <https://doi.org/10.3390/su13115980>
- Rosário, A. T., & Dias, J. C. (2023). The new digital economy and sustainability: Challenges and opportunities. *Sustainability*, 15(14), 10902. <https://doi.org/10.3390/su151410902>
- Sarfraz, M., Ye, Z., Banciu, D., Dragan, F., & Ivascu, L. (2022). Intertwining digitalization and sustainable performance via the mediating role of digital transformation and the moderating role. *Studies in Informatics and Control*, 31(4), 35-44. <https://doi.org/10.24846/v31i4y202204>
- Seyrek, İ. H., & Yılmaz, E. S. (2016). Tüketicilerin satın alma kararlarında sosyal paylaşım sitelerinin etkisi. *The Journal of Academic Social Sciences*, 4(37), 43-62. <https://doi.org/10.16992/ASOS.11716>
- Scolari, C. (2009). The sense of the interface: Applying semiotics to HCI research. *Semiotica*, 177(1), 1-27. <https://doi.org/10.1515/semi.2009.067>
- Sparascio, C., Dal Lago, S., Manfredi, A., & Gabbiadini, A. (2023). Working objectification 2.0: A theoretical analysis of datafication's impact on labor in the next future. *TPM*, 30(2), 215-229. <https://doi.org/10.4473/TPM30.2.7>
- Sparviero, S., & Ragnedda, M. (2021). Towards digital sustainability: The long journey to the sustainable development goals 2030. *Digital Policy, Regulation and Governance*, 23(3), 216-228. <https://doi.org/10.1108/DPRG-01-2021-0015>
- Stuermer, M., Abu-Tayeh, G., & Myrach, T. (2017). Digital sustainability: Basic conditions for sustainable digital artifacts and their ecosystems. *Sustainability Science*, 12(1), 247-262. <https://doi.org/10.1007/s11625-016-0412-2>
- Sugiyama, M., Deguchi, H., Ema, A., Kishimoto, A., Mori, J., Shiroyama, H., et al. (2017). Unintended side effects of digital transition: Perspectives of Japanese experts. *Sustainability*, 9(12), 2193. <https://doi.org/10.3390/su9122193>
- Tiago, F., Gil, A., Stemberger, S., & Borges-Tiago, T. (2021). Digital sustainability communication in tourism. *Journal of Innovation & Knowledge*, 6(1), 27-34. <https://doi.org/10.1016/j.jik.2019.12.002>
- Webb, S. (2012). Online tutoring and emotional labour in the private sector. *Journal of Workplace Learning*, 24(5), 365-388. <https://doi.org/10.1108/13665621211239895>
- Wilkesmann, M., & Wilkesmann, U. (2017). Industry 4.0 – organizing routines or innovations? *Journal of Information and Knowledge Management Systems*, 48(2), 238-254. <https://doi.org/10.1108/VJIKMS-04-2017-0019>

- Wut, T. M., Lee, D., Ip, W. M., & Lee, S. W. (2021). Digital sustainability in the organization: Scale development and validation. *Sustainability*, 13(6), 3530. <https://doi.org/10.3390/su13063530>
- Xu, G., Hou, G., & Zhang, J. (2022). Digital sustainable entrepreneurship: A digital capability perspective through digital innovation orientation for social and environmental value creation. *Sustainability*, 14(18), 11222. <https://doi.org/10.3390/su141811222>
- Yan, M., Peng, K. Z., & Francesco, A. M. (2011). The differential effects of job design on knowledge workers and manual workers: A quasi-experimental field study in China. *Human Resource Management*, 50(3), 407-424. <https://doi.org/10.1002/hrm.20428>
- Yang, J., Wu, R., & Yang, H. (2023). Digital transformation and enterprise sustainability: The moderating role of regional virtual agglomeration. *Sustainability*, 15(9), 7597. <https://doi.org/10.3390/su15097597>
- Yılmaz, E. S., & Bal, F. (2022). Havayolu firmalarının kurumsal itibarlarının "Şikayetvar" sitesi üzerinden RQ modeli ile incelenmesi. *Gümüşhane Üniversitesi Sosyal Bilimler Dergisi*, 13(1), 436-449, <https://doi.org/10.36362/gumus.1031974>
- Yılmaz, E. S., & Ecemiş, O. (2022). Investigation factors affecting competitive advantage in streaming industry with multi-criteria decision making methods. *JOEEP: Journal of Emerging Economies and Policy*, 7(1), 239-252, <https://dergipark.org.tr/en/pub/joeep/issue/66260/1104044>
- Yılmaz, E. S., & Erdem, A. (2022). Dijital platform üyeliklerinin devamlılığına etki eden faktörler: Netflix örneği. *İktisadi İdari ve Siyasal Araştırmalar Dergisi*, 7(17), 47-67, <https://doi.org/10.25204/iktisad.970186>
- Zhang, Y., & Jin, S. (2023). How does digital transformation increase corporate sustainability? The moderating role of top management teams. *Systems*, 11(7), 355. <https://doi.org/10.3390/systems11070355>