

Artificial Intelligence and Business Strategy Towards Digital Transformation: A Research Agenda

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In the last 10 years, corporations and contemporary literature have focused on machine learning and other advancements in artificial intelligence (AI) technologies. Even while artificial intelligence technology shows a great deal of promise in terms of resolving problems, there are still obstacles associated with its practical use, and there is a lack of knowledge on how it may be strategically utilized to improve businesses. This study will do a comprehensive literature review analysis of the convergence of AI and business strategy. This will be done so that the model can be built. The fundamentals of research technique were discussed in 81 papers that were subjected to peer review. Theoretical framework is developed, addressing the various sources of value creation: "AI and Machine Learning in Organizations, Alignment of AI, Information Technology (IT) with Organizational Strategy, Decision-Making Process". This framework also addresses gaps in future research. These findings give rise to managerial and theoretical points of view, opening up a wide range of potential new management techniques. Despite several literature assessments, there hasn't been much work that has objectively analyzed the literature with a focus exclusively on the phrase "digital transformation" since other words might provide a skewed interpretation. This essay seeks to unbiasedly examine the topic of business and management study known as digital transformation. The findings show that this study area is still in its infancy and has just begun to expand fast. Among all of them, the Internet of Things and its digital doppelganger seem to be a recurring topic.

Keywords: Artificial Intelligence, Digital Transformation, Information Technology, Business Strategy

1. Introduction

Because of the potential for the market environment to shift more rapidly than in previous decades, businesses in this age of digital transformation demand reduced waiting times. This way of thinking has prompted a lot of businesses to start using cutting-edge technology in order to improve their efficiency and gain a competitive advantage. Artificial Intelligence (AI) has emerged as the frontrunner and attracted the attention of both academics and executives in several fields of business. AI refers to the ability of a machine to do activities that a person would normally perform, learn from previous experiences, and adjust to new inputs. It's possible that artificial intelligence is the innovation that will cause the most waves in the near future. Over the course of the last decade, the huge amount of data that has been captured in a variety of formats has expanded at a pace that is unprecedented. It campaigned for the use of new technologies, which sped up the creation of new AI strategies as well as increased the computer processing capability of technological developments. Because of these breakthroughs, companies can now utilize AI to manage vast volumes of data, which allows them to broaden their ambitions to encompass new markets, products, and services [1].

A large number of companies have been motivated to use artificial intelligence technology as a result of the projected results that have been displayed by top digital organisations. When the highly competitive nature of the business world is taken into consideration, quite a few companies have been forced to act in this manner. This setting is marked by the huge volumes of data, the restricted resources, and the consequent demand for making rapid decisions. This is especially true when one considers the predicted results that successful digital firms have shown. As a result of the realisation that the process of transformation requires a review of the business strategy, some of the most successful organisations in the world are in the process of rewriting the strategic plans they have made for the adoption of AI technology. These plans were established as a consequence of the realisation that the transformation process requires a review of the corporate strategy. The immediate reason for this is that everyone is aware that a reevaluation of the business strategy is going to be required as part of the transformation process. Despite assertions that more research is required to understand the role that AI plays in organisational planning and the implementation of business strategy, there are presently only a few theoretical and empirical results concerning the generation of value propositions using AI technology. This is despite the fact that there are claims that more research is required to understand the role that AI plays in organisational planning and the execution of business strategy. This is a direct consequence of the fact that there are so few new discoveries, both theoretical and empirical, in the world today [2].

Businesses have the goal of achieving both sustainable performance and a persistent competitive advantage. In today's fast-paced and ever-changing climate, businesses and other organizations need to be more flexible and sensitive to the process of making strategic decisions. Businesses that are able to preserve their competitive advantage have a better chance of succeeding over the long run compared to their rivals. Very few researchers in the academic world investigate the AI literature through the lens of management, concentrating on topics such as "information management, decision-making, knowledge management, and skills management". This research varies from others that we are aware of in that it does a systematic evaluation of the literature and investigates the link between organizational strategy and AI, a topic that has not been explored in the publications that were cited before in this paragraph.

Despite the fact that AI applications are capable of performing actions that require cognitive processing, the relationship between the use of artificial intelligence (AI) technology. Because of the contradiction that the same person might, depending on the circumstances, have either good or negative assessments regarding artificial intelligence (AI), it is more complicated than was first assumed to derive benefit from financial investments in AI [3].

This article's goal is to conduct a thorough literature assessment on the relationship between corporate strategy and artificial intelligence with the hope of laying the groundwork for related discussions. This will be accomplished in a way that is in line with the body of prior research that has been done in this field. It is crucial to note that these adjustments were made in response to the need to produce and contextualise the most recent research on the relationship between organisational strategy and AI. It is crucial to emphasise that these adjustments have been made for this purpose. The essential elements of a digital strategy are as follows in order to utilise an integrated framework to structure a debate on the subject: In order for companies to successfully compete in the most quickly changing market environment and remain ahead of rivals with superior product and service, the potential for innovation and creativity within the workforce has to be freed [4].

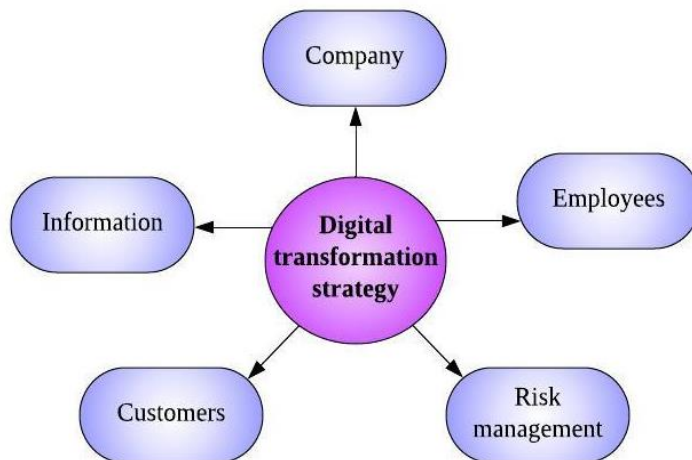


Figure 1: Digital Transformation Strategy Map

In order to cultivate an environment that places a premium on collaborative efforts and new ways of thinking, businesses need to use forward-thinking management practices that extend beyond the traditional models of leadership. In light of this, the next generation of leaders will play an essential role in establishing whether or not hierarchical structures are still applicable, as well as how much opportunity there is for new sorts of organizational development.

This article provides a solid theoretical framework for the body of existing literature by undertaking an analysis of the methodologies that previous studies have used in order to conduct literature reviews. This method is concept-driven, which makes it simpler to grasp how events are continuing to take unexpected turns. It also helps with the study of the numerous concepts and scenarios that are discussed in this article. By reading this study, researchers should be able to get a more comprehensive understanding of prior research in “artificial intelligence (AI), corporate strategy, and the limitations of momentum research” as

stated by the authors of the study [5].

2. Review of Literature

In recent years, there has been a noticeable growth in both academic researchers' and industry practitioners' interest in the concept of “digital transformation”, which has resulted in the development of new independent study areas. In spite of the fact that there have been several studies of literature, There haven't been many studies that analyzed the literature objectively and with a specific emphasis on the phrase "digital transformation". This is because other terms may create a distorted perspective. The concept of "digital transformation" will be investigated in this paper with the goal of providing an objective analysis of the subject matter. The use of bibliometric and co-word network analysis allowed for the objective identification of significant publications as well as the provision of an investigation into the intellectual structure. Despite the fact that it has only been in existence for a relatively short period of time, this field of study encompasses a diverse array of research subjects, some of which include the invention of business models, digital platforms, and the production of value via digital transformation. It would seem that the Internet of Things and digital twins are becoming more popular topics of conversation. This provides a starting point for potential new areas of research to investigate in this field [6].

The present state of the corporate world, along with the period of time during which society is experiencing a more intense digital development, is making it more challenging for businesses to integrate digital processes into almost every aspect of their operations and to carry out the digital transformation of their companies. The transition of a business into a digital entity via conscious effort is one of the essential factors that determines the economic success of a company. This article will explore companies who have successfully finished the process of strategic digital transformation as well as companies that have not been able to achieve the outcomes that were planned for them. This will be done in addition to an analysis of the key requirements for such a transformation [7].

Recent research into success stories has shown that improved competitive positioning of successful businesses is not solely based on the technologies that successful businesses use, but also, and perhaps more importantly, on the leadership strategies that successful businesses use. This is despite the fact that many businesses are currently experimenting with digital transformation. Even at this late stage, there is still a significant gap between leadership goals and the successful implementation of digital transformation programs. It is essential to place a strong emphasis on the strategic considerations that are included into these projects in order to bridge this gap [9]. This research study aims to identify and underline the basic dynamics that are driving the development of strategic business management in light of the most recent waves of digital transformation that organizations all over the globe have been experiencing. The purpose of this research study is to do so in light of the most recent waves of digital transformation. The article provides a concise overview of the previous research that has been conducted, as well as a summary of the previous research that has been done. Both the outcomes of studies published in credible journals and the opinions of professional organizations were taken into account. The digital transformation plan framework was developed so that these problems might be resolved, as well as to promote additional research

into this subject area [10].

Machine learning strategies and artificial intelligence (AI) technologies have come to the forefront in recent years, thanks in large part to the attention paid to them by businesses and modern literature. There are still challenges with the practical use of AI technology, and there is a lack of understanding in the strategic use of AI technology to bring value to enterprises. Despite the fact that AI technology has a significant amount of potential to solve problems, there are still these obstacles. The goals of this research are to first carry out an exhaustive review of the relevant literature, then investigate the ways in which AI are merging, and finally provide a theoretical framework that accounts for the information gleaned from that research [11].

3. Classification Framework for AI Usage and Business Strategy

A number of additional papers were investigated using a classification scheme as the basis for the research. These papers have been organized into four broad categories (“AI and Machine Learning in Organizations; Aligning AI Tools and IT with Business Strategy; AI, Knowledge Management and Decision-Making Process; and AI, Service Innovation and Value”), which will assist future academics in comprehending how AI is utilized and how business strategy is put into action.

☐ Organizational Applications of AI and Machine Learning:

AI has ideas, insights, and methods across a wide variety of fields. It is a subfield of computer science that focuses on developing pieces of hardware and software that are capable of performing actions that traditionally have been reserved for intelligent agents. The area of artificial intelligence (AI) comprises all approaches that allow computers to operate by copying human behaviors to provide the best outcome or, in unforeseen conditions, the best anticipated result. Artificial intelligence was first developed in the 1950s. In the early days of artificial intelligence, the most difficult difficulty was to create programs that could carry out activities that a human could easily correct but that were difficult to explicitly define using mathematical principles. Due to the complexity involved in doing so, it became clear that AI systems. Machine learning is the process through which a computer system acquires the capacity to automatically recognize patterns in and out of data and to act without being explicitly programmed. The evolution of artificial intelligence and the creation of ML algorithms dictated the need for a method to transmit the information collected during the learning process to its ultimate conformation. Because of the importance of this issue, a method of therapy called as "representation learning" was created. These treatments each include properties that, when combined, have the effect of altering an intermediate representation without putting crucial data at risk. When representations are kept in connection to other concepts, such as in the case of complex conceptions, one must use deep learning methodologies in order to learn effectively. Deep learning is a kind of representational learning that may depict the world across a hierarchy of principles, with each definition being compared to unpretentious dimensions. Deep learning may also be referred to as representational learning. The key distinction between AI disciplines is that one requires human intervention to set rules or distinguishing characteristics in order to define a task. Human participation in

the learning process is required less and less as one moves further into the system. “Traditional machine learning algorithms”, which are a kind of artificial intelligence (AI), need a person to manually build the data before they can elicit patterns and learn from them in order to produce a mapping from those characteristics.

There is a subset of machine learning algorithms known as representation learning algorithms. These algorithms begin the process of learning one step earlier than the more traditional machine learning algorithms. Techniques for representational learning may both learn from human characteristics and potentially propose a mapping based on those traits. Deep learning methods are a kind of representational learning where the learner is only needed to recognize the qualities that are the most obvious. From these fundamental traits, they may detect additional dynamic properties in subsequent learning layers, at which point they will be able to provide a feature-based mapping. The earliest research on AI that were published in the 1960s started to improve decision-making from an organizational point of view. This trend continued throughout the following decades. Artificial intelligence (AI) has been employed in enterprises since the 1980s. In light of these considerations, a great number of businesses have planned and carried out the implementation of “computer vision systems, robots, and expert systems in addition to software and hardware”. Furthermore, artificial intelligence (AI) has just lately started to be seen as a potential strategic tool to boost commercial distinctiveness in the then-extremely-competitive environment. The bulk of computer science publications on artificial intelligence (AI) up to the year 2000 focused on algorithms, with the intention of creating new techniques or refining those that already existed.

□ **Aligning AI Tools and IT with Business Strategy:**

Despite the expansion of the digital era, the function and impact of information technology on companies are not now widely discussed issues. In the late 1970s, researchers first began investigating how information technology can influence competition between businesses. A number of academics use the term "strategic use." However, there has been a debate going on for a very long time over the reasons why organizations are unable to get value from their investments in IT systems. This is something that a lot of academics blame on their not being enough alignment between business strategy and IT strategy. Organizational strategy and information technology strategy, in addition to business infrastructure and procedures, as well as IT infrastructure and procedures, are all components that are included in the process of long-term development and transformation that is necessary to combine corporate and IT strategies. Through the use of IT in a strategic manner, the company will be able to maintain improvements in the competitive position in these circumstances. Several conceptual frameworks, concepts, and methods have been developed as a result of research into how business operations and strategies might be aligned with information technology. It is recommended that this take place rather than considering the IT strategy as a separate entity. When it comes to the integration of organizational and IT strategy, many other academics share the same point of view as you do. They believe that in order to get a competitive advantage, you need to have a sensible alignment between IT and organization. the significance of applications that are centered on information technology as well as the analytical skills that resources linked to information technology may be able to supply in order to foster innovation and improve a company's competitive edge in the organizational strategy.

□ AI and Value:

Several papers investigated the use of artificial intelligence (AI) in conjunction with business strategy to develop new products or services. The authors Feldmann and others took into account the application of AI will make machine-to-machine communication easier and open up new organizational opportunities; nevertheless, they did not agree with the proposals that were made by the respondents. On the other side, a number of researchers arrived at the opinion that firms had benefitted from the situation by creating new goods and delivering new services. The capacity of intelligent technologies to directly stimulate innovation inside industry is the most important influence that these technologies can have. The artificial intelligence is rapidly reconstructing the service, completing a variety of duties, developing into a significant source of innovation, and opening the door to the possibility of creative “human-machine interaction”. The results of the study show that using AI technology strategically to increase employee and customer engagement has not been effective, which is surprising given the small number of publications that have addressed the topic of improving the customer experience. The findings of the literature study may now be used to build a theoretical model, and this is possible given that a solid basis has been formed by long-standing research. This was done so that the readers could have a better understanding of the issues that were being discussed.

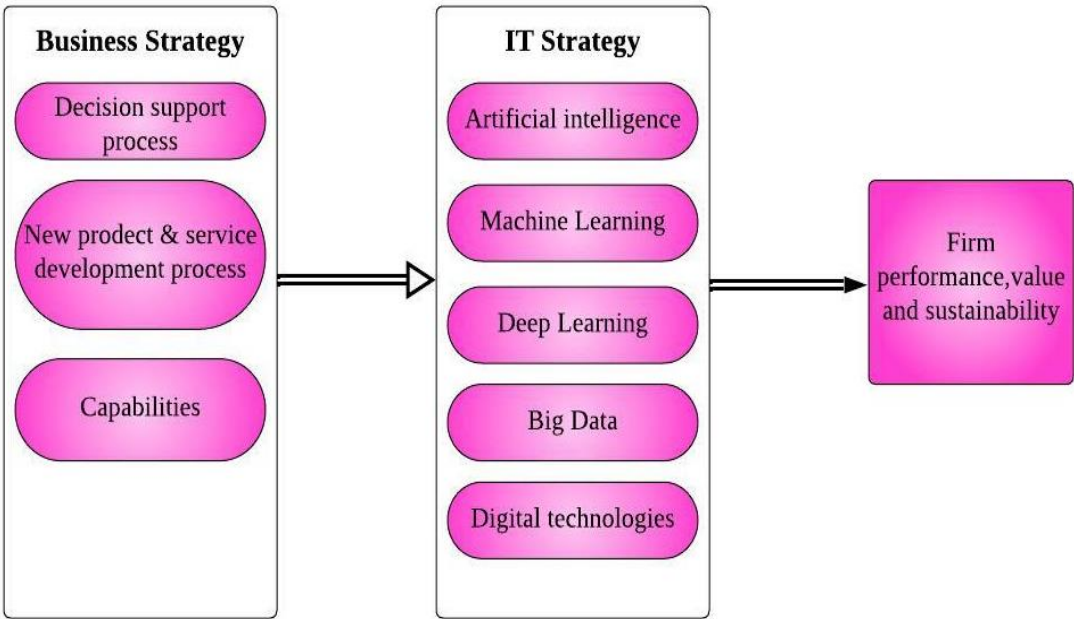


Figure 2: Conceptual Framework

4. Research Methodology

The research that is covered in this article, with a special emphasis on the impacts that digital

transformation has on strategic management, is based on a complete and in-depth analysis and assessment of the earlier work from a variety of expert sources. The article also focuses on the effects that digital transformation has on strategic management. In order to offer a thorough image of the current research environment, over 50 different publications were accessed, considered, processed, and evaluated. This was done in order to provide a comprehensive picture. The article on desk research is intended to establish the framework for more inquiry in this area, with the ultimate objective of expanding the academic debate on the implications of digital transformation on present models and tools for strategic management. This will be accomplished by laying the groundwork for further exploration in this area. This will be accomplished by shifting the emphasis of the discussion to include a broader range of topics. An investigation of the digital transformation process is carried out with the help of Figure 3, which depicts the research's guiding framework.

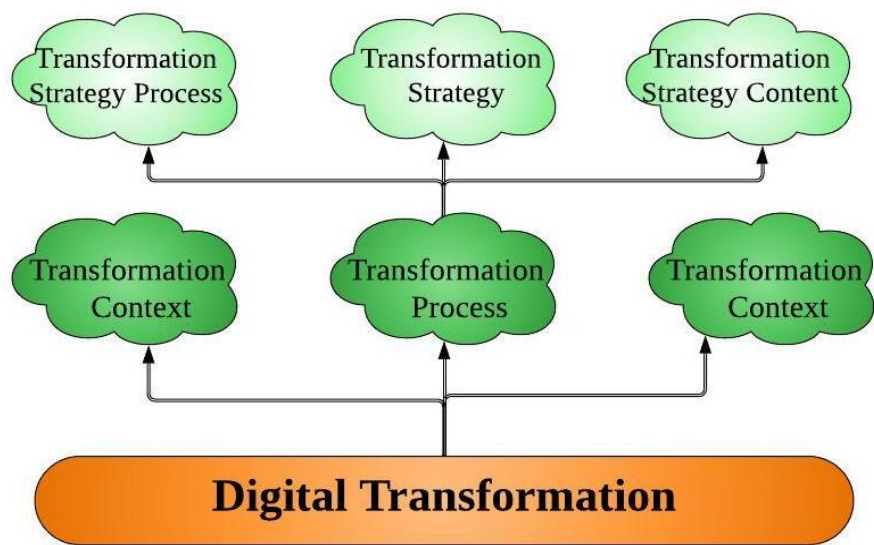


FIGURE 3: GUIDING FRAMEWORK

Overall

There were 456 papers in this field of research that were released between the years 2003 and 2020. the publishing trend, the evolution of which may be divided into two phases. In the first half of the statement, a tendency that is reasonably steady below 5 articles each year is displayed from 2003 to 2015. This pattern was seen till 2015. Between the years 2004 and 2013, there was not a single article published, not in 2005, 2007, 2009, or 2013. The word "digital transformation" is only discussed in three of the 23 total articles that make up the academic topic of "digital transformation." The second phrase made its debut in 2016, the year when the number reached double digits for the first time. This significant increase has continued up to this moment, reaching a peak of 202 articles per year in 2019.

Aligning AI Tools and IT with Business Strategy

Despite the growth of the digital age, the role and influence of information technology in the context of businesses are not now popular topics of discussion. In the late 1970s, researchers

first began investigating how information technology can influence competition between businesses. The phrase "strategic use" in this context refers to the capability of information technology (IT) to develop fresh corporate strategies or support existing ones as well as to give business a purpose. A number of academics use the term "strategic use." However, there has been a debate going on for a very long time over the reasons why organizations are unable to get value from their investments in IT systems. This is something that a lot of academics blame on their not being enough alignment between business strategy and IT strategy. The end consequence of this alignment is the corporate and IT strategies being in sync with one another. Through the use of IT in a strategic manner, the company will be able to maintain improvements in the competitive position in these circumstances. Several conceptual frameworks, concepts, and methods have been developed as a result of research into how business operations and strategies might be aligned with information technology. The use of digital technologies into business strategies has been steadily increasing in importance.

Table 1: Digitalization and Bmi

Constructs	Concepts				Total	
	Digitalization		BMI		Frequency	Percentage
	Frequency	Percentage	Frequency	Percentage		
Organisational innovation	10	32%	21	71%	31	100%
Organisational learning	9	25%	26	75%	32	100%
Strategic alliance	3	21%	9	81%	11	100%

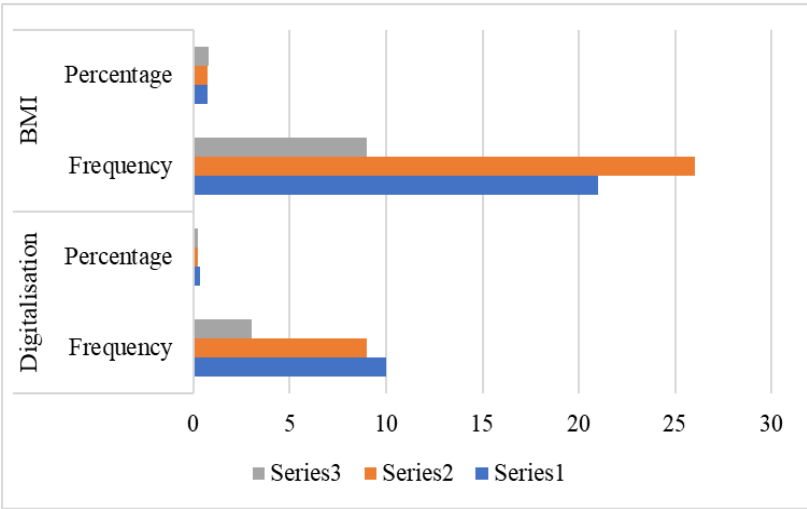


Figure 4: Digitalization And Bmi

It is clear from looking at the Table that there is a connection between digitization and BMI for three different concepts. There were 31 publications that discussed organizational innovation. These papers were spread throughout the digitalization and BMI topics. claims that business model innovation (BMI) is a kind of organizational innovation in which companies look for and exploit new opportunities. disagrees, maintaining that BMI need to be seen as a distinct and additional source of innovation in addition to organizational innovation.

The topic of organizational learning was discussed in 32 of the publications. It has been found out that organizational learning improves a company's capability to investigate and implement business model innovation. agrees, pointing out that organizational learning contributes to both the efficiency of processes and the creativity of organizations. A strategic partnership was discussed in 10 of the publications that were reviewed. Throughout the BMI process, organizations participate in a variety of activities, such as creating strategic relationships, with the goal of providing value to their stakeholders. The customer experience and the product, and that this may be especially true in businesses that are being pushed by digitalization.

5. Analysis and Interpretation

The search turned up 48 different things, or 49% of total results, that were associated to the concept of digitalization. As can be seen in the following table, only ideas that were mentioned more than once were considered for inclusion.

Table 2: Digitalization And Digital Transformation Constructs

Constructs	Concepts				Total	
	Digitalization		Digital Transformation		Frequency	Percentage
	Frequency	Percentage	Frequency	Percentage		
Digital technologies	7	65%	4	39%	15	100%
Digital products	7	49%	9	49%	24	100%
Digital strategy	6	33%	14	64%	21	100%
Digital capabilities	4	75%	3	31%	6	100%

Seven of the articles separately discussing digitalization brought up the topic of organizational adaptability. The information shown in Table 2 makes it very clear that two of the concepts are used by four different structures. An approach that is more traditional is inadequate if one wishes for digitization and change to take place. It is necessary to have a digital business plan in place if one want to stress the fact that digital technologies will continue to be the major focus of the process of achieving corporate goals. In the context of the application of digital goods, the term "digital capabilities" should be understood to refer to "the ability and expertise of a company to manage digital technologies for the development of new products".

6. Result and Discussion

The rationale presented above makes it very apparent that digitalization, digital transformation, and BMI intersect in a clear and obvious manner. Following that, we will discuss the results of the literature study that we conducted on the three different topics. During the course of the literature search, a total of 247 articles were discovered; however, 83 of those articles were disregarded since it was determined that they did not satisfy the criteria necessary for inclusion. As a direct result of this, a total of 160 articles were selected for evaluation and analysis, as seen in Table 3.

Table 3: Literature Search Strings

Search String	Database	Identified	Rejected	Accepted
Digitalization	"EBSCO"	15	5	8
	"ProQuest"	11	3	7
	"Emerald"	19	7	11

	"Sabinet"	7	2	3
	"Springer Link"	8	2	7
	Sub-Total	60	19	36
Digital Transformation	"EBSCO"	25	7	15
	"ProQuest"	19	6	13
	"Emerald"	16	3	12
	"Sabinet"	10	9	4
	"Springer Link"	2	1	2
	Sub-Total	72	26	46
BMI	"EBSCO"	24	13	15
	"ProQuest"	35	8	26
	"Emerald"	41	15	28
	"Sabinet"	8	9	4
	"Springer Link"	7	1	5
	Sub-Total	115	45	78
	Total	247	90	160

7. Conclusion

As a result, the purpose of this article was to carry out an in-depth literature review with the intention of determining the nature of the connection that exists between the implementation of AI and business strategy. The findings and suggestions from prior comprehensive research served as the basis for the literature review that was carried out. The usage of artificial intelligence technologies is widespread in modern businesses. On the other side, a highly competitive mentality is connected to high levels of motivation within businesses. Despite the fact that the study demonstrates how AI may be used to the requirements and plans of organizations, the findings of the research suggest that this field has gotten little attention from academics and that it continues to be a source of problems and worries. This is the case regardless of whether the study reveals how AI is implemented. The research literature focused mostly on two specific applications of artificial intelligence for commercial purposes: the first is to improve corporate strategy by better visualising key performance indicators via the use of predictive analytics, and the second is to discover consumer behaviour through the use of image recognition. Because of this, despite the rapid advancements made in artificial intelligence (AI) in the modern era, there is still a great deal to learn about how to construct and utilize this new age of AI in a variety of settings, each of which has its own one-of-a-kind set of challenges and economic potential.

References

1. Hausberg, J.P., Et AL., Research Streams On Digital Transformation From A Holistic Business Perspective: A Systematic Literature Review And Citation Network Analysis. Journal Of Business Economics, 2019. 89(8-9): P. 931-963.
2. Atkinson, R., 2005. Prospering In An Era Of Economic Transformation. Economic Development Journal, Summer, Pp.33–38.
3. Amit, R. And Zott, C. 2015. "Crafting Business Architecture: The Antecedents Of Business Model Design", Strategic Entrepreneurship Journal, 9(4), 331- 350. Doi:10.1002/Sej.1200.
4. Bashir, M. And Verma, R., 2017. Why Business Model Innovation Is The New Competitive

- Advantage. *Iup Journal Of Business Strategy*, 14(1), 7-13
5. Buliga, O., Scheiner, C.W. And Voigt, K.I. 2016. "Business Model Innovation And Organizational Resilience: Towards An Integrated Conceptual Framework", *Journal Of Business Economics*, 86(6), 647-670.
6. Falagas, M.E., Et Al., Comparison Of Pubmed, Scopus, Web Of Science, And Google Scholar: Strengths And Weaknesses. *The Faseb Journal*, 2008. 22(2): P. 338-342
7. Verhoef, P.C., Et Al., Digital Transformation: A Multidisciplinary Reflection And Research Agenda. *Journal Of Business Research*, 2019
8. Veile, J.W., Et Al., Lessons Learned From Industry 4.0 Implementation In The German Manufacturing Industry. *Journal Of Manufacturing Technology Management*, 2019.
9. Belk, R.W., 2013. Extended Self In A Digital World. *Journal Of Consumer Research*, 40(3), Pp.477-500,
10. Daimler, P.P., 2017. Will Digital Boost Circular? Evaluating The Impact Of The Digital Transformation On The Shift Towards A Circular Economy. *International Journal Of Management Cases* (January).
11. Ebrahimpur, G. & Jacob, M., 2001. Restructuring For Agility At Volvo Car Technical Service (Vcts). *European Journal Of Innovation Management*, 4, Pp.64-72.
12. A. Banik, J. Ranga, A. Shrivastava, S. R. Kabat, A. V. G. A. Marthanda And S. Hemavathi, "Novel Energy-Efficient Hybrid Green Energy Scheme For Future Sustainability," 2021 International Conference On Technological Advancements And Innovations (Ictai), Tashkent, Uzbekistan, 2021, Pp. 428-433, Doi: 10.1109/Ictai53825.2021.9673391.
13. Anurag Shrivastava, Midhun Chakkaravathy, Mohd Asif Shah, A Novel Approach Using Learning Algorithm For Parkinson's Disease Detection With Handwritten Sketches', *Cybernetics And Systems*, Taylor & Francis
14. Ajay Reddy Yeruva, Esraa Saleh Alomari, S. Rashmi, Anurag Shrivastava, A Secure Machine Learning-Based Optimal Routing In Ad Hoc Networks For Classifying And Predicting Vulnerabilities, *Cybernetics And Systems*, Taylor & Francis
15. Anurag Shrivastava, S. Suji Prasad, Ajay Reddy Yeruva, P. Mani, Pooja Nagpal, Abhay Chaturvedi, Iot Based Rfid Attendance Monitoring System Of Students Using Arduino Esp8266 & Adafruit.Io On Defined Area, *Cybernetics And Systems*, Taylor & Francis
16. Charanjeet Singh, Syed Asif Basha, A. Vinay Bhushan, Mithra Venkatesan, Abhay Chaturvedi, Anurag Shrivastava, A Secure Iot Based Wireless Sensor Network Data Aggregation And Dissemination System, *Cybernetics And Systems*, Taylor & Francis
17. Anurag Shrivastava, Midhun Chakkaravathy, Mohd Asif Shah, A Comprehensive Analysis Of Machine Learning Techniques In Biomedical Image Processing Using Convolutional Neural Network, 2022 5th International Conference On Contemporary Computing And Informatics (Ic3i)
18. Keshav Kumar, Amanpreet Kaur, Kr Ramkumar, Anurag Shrivastava, Vishal Moyal, Yogendra Kumar, A Design Of Power-Efficient Aes Algorithm On Artix-7 Fpga For Green Communication, 2021 International Conference On Technological Advancements And Innovations (Ictai)
19. P. William, Narendar Chinthamu, Indradeep Kumar, Manish Gupta, Anurag Shrivastava, Arun Pratap Srivastava, Schema Design With Intelligent Multi Modelling Edge Computing Techniques For Industrial Applications, 2023 3rd International Conference On Pervasive Computing And Social Networking (Ipcsn).
20. Kuldeep Chouhan, Abhishek Singh, Anurag Shrivastava, Structural Support Vector Machine For Speech Recognition Classification With Cnn Approach, 2021 9th International Conference On Cyber And It Service Management (Citsm).
21. A. Deepak, P. William, Rajat Dubey, Shilpa Sachdeva, C. Vinotha, Sunny Masand, Anurag Shrivastava, Impact Of Artificial Intelligence And Cyber Security As Advanced

- Technologies On Bitcoin Industries, International Journal Of Intelligent Systems And Applications In Engineering, Vol-12, Issue-3.
22. Ajay Reddy Yeruva, Esraa Saleh Alomari, S Rashmi, Anurag Shrivastava, Routing In Ad Hoc Networks For Classifying And Predicting Vulnerabilities, Cybernetics And Systems, Taylor & Francis.
 23. J. Prakash Arul Jose, Anurag Shrivastava, Prem Kumar Soni, N. Hemalatha, An Analysis Of The Effects Of Nanofluid-Based Serpentine Tube Cooling Enhancement In Solar Photovoltaic Cells For Green Cities, Hindawi, Journal Of Nanomaterials Volume 2023,
 24. Pooja Bagane, Susheel George Joseph, Abhishek Singh, Anurag Shrivastava, B Prabha, Amit Shrivastava, Classification Of Malware Using Deep Learning Techniques, 2021 9th International Conference On Cyber And It Service Management (Citsm)
 25. Rakesh Kumar Godi, Mule Shrishail Basvant, A Deepak, Arun Pratap Srivastava, Manoj Kumar, Akhil Sankhyan, Anurag Shrivastava, Sentiment Analysis On Omicron Tweets Using Hybrid Classifiers With Multiple Feature Extraction Techniques And Transformer Based Models, International Journal Of Intelligent Systems And Applications In Engineering, Vol-12, 15-S.
 26. Ayan Banik, Jarabala Ranga, Anurag Shrivastava, Subash Ranjan Kabat, Avga Marthanda, S Hemavathi, Novel Energy-Efficient Hybrid Green Energy Scheme For Future Sustainability, 2021 International Conference On Technological Advancements And Innovations (Ictai)
 27. Ajay Rana, Virender Khurana, Amit Shrivastava, Durgaprasad Gangodkar, Deepika Arora, Anil Kumar Dixit, A Zebra Optimization Algorithm Search For Improving Localization In Wireless Sensor Network, 2022 2nd International Conference On Technological Advancements In Computational Sciences (Ictacs)
 28. Balbir Singh, Manjush Tatiya, Anurag Shrivastava, Devvret Verma, Arun Pratap Srivastava, Ajay Rana, Detection Of Alzheimer's Disease Using Deep Learning, Blockchain, And Iot Cognitive Data, 2022 2nd International Conference On Technological Advancements In Computational Sciences, Ictacs
 29. Bikash Chandra Saha, Anurag Shrivastava, Sanjiv Kumar Jain, Prateek Nigam, S Hemavathi, On-Grid Solar Microgrid Temperature Monitoring And Assessment In Real Time, Materials Today: Proceedings, Volume 62, Part 7, 2022.
 30. Shamita Chakaborty, Yogini Dilip Borole, Archana S Nanoty, Anurag Shrivastava, Sanjiv Kumar Jain, Moti Lal Rinawa, Smart Remote Solar Panel Cleaning Robot With Wireless Communication, 2021 9th International Conference On Cyber And It Service Management (Citsm)