



The Role of Artificial Intelligence in Management : The Innovation in Business Models

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Abstract

The role of Artificial Intelligence in management is bringing about innovations in the models of businesses. This research makes a detailed study of the finer characteristics of the models of business, that are driven by Artificial Intelligence, enabling the participants to comprehend the impact of the coming to the forefront, and then growth and significance on the strategies of businesses. The precise role of Artificial Intelligence in restructuring the models of businesses, focusing the adaptabilities between the strategies of business and the innovations in technologies is closely analyzed. The inclusion of Artificial Intelligence in the various roles of the businesses is thoroughly examined by engaging a thematic and systematic analytic process of a variety of case studies, industry reports, as well as journals of academics. This kind of systematic approach aids in a significant understanding of the roles of Artificial Intelligence in the innovations of the models of business, redressing the challenges posed by it and utilizing the opportunities created by it. The observations indicated that the business models driven by Artificial Intelligence have augmented operational efficiency, approaches that are completely customer-centric, and adoptions of the procedures of data-driven decision-making. The most clearly visible aspect is the reconstructive shift from the conventional strategies of business, and projecting the requirement of the roles of leadership, with consideration of ethics, in the present digital era. The significant challenges in the implementation of Artificial Intelligence, that include the dilemmas of ethics, as well as the complications of technologies, are exposed by the study, while focusing the competitive advantage and opportunities for business growth, offered by Artificial Intelligence. The research recommends the need for ethical practices of Artificial Intelligence, feasible processes of adaptation, and a cooperation between human insights and capabilities of Artificial Intelligence.

Keywords : *Artificial Intelligence, innovations, restructuring, efficiency and data-driven*

Introduction

The research focuses on the accepting of Artificial Intelligence as a catalyst for innovative as well as renewable growth of business, and this would make an important contribution to the consultation of Artificial Intelligence in business, that would provide the outline for the research of the next generation and enabling practical applications in the innovations of business, driven by Artificial Intelligence. The appearance of Artificial Intelligence in the present world of business, is a force of conversion from the present industries, to the restructuring of new models, to study the competitions in operations of businesses. The unification of Artificial Intelligence into models of business, is the turning point of the strategies of the contemporary strategies of businesses, while making offers of innovative opportunities for competitive advantage and efficiency.

The models of businesses, that are driven by Artificial Intelligence, are identified by the use of the technologies of Artificial Intelligence, that augment at least one of the components of the business models. The unification of the technology of the Artificial Intelligence, caused the growth of new businesses, that notably modified the existing businesses. The models driven by Artificial Intelligence, utilize a set of techniques, that autonomously improve and garner knowledge, diminishing any requirement of human programming. This autonomy is a significant criterion that puts the models of business, that are driven by Artificial Intelligence, apart, and permits businesses, to answer to the needs of the customers and the changes of the markets with more promptitude. If we consider small businesses, the impacts of Artificial Intelligence, were established to be profound, especially during times of pandemic and natural disasters. The Artificial Intelligence permits small businesses to negotiate in a fast way, that alters the market conditions. When the Artificial Intelligence tools, like Natural Language Processing (NLP) are supported, the businesses could adjust to altering conditions, computerize market research, and remain consistent with the operational efficiency even in critical times. This type of adjustment is critical for small businesses, due to their paucity of resources, as compared to bigger organizations.

The unification of Artificial Intelligence into the models of business pose great challenges. These challenges could be met by deployment of specialized skills, providing priority to privacy and ethical concerns, as well as making considerable investment in technology. The projected benefits include new paths of growth, making the unification of Artificial Intelligence a significant strategy

for the thriving of the business, as well as augmented capabilities of decision-making leading to a highly satisfied customer base. The growth of Artificial Intelligence in the present business environment, along with the diverse models of business, driven by Artificial Intelligence, present a new pattern of businesses, that operate, compete and evolve with new strategies. The unification of Artificial Intelligence is generating challenges and opportunities, from small to large businesses, that redefine the future and reorient the industries.

Objective of Research

The objective of the research is to study the impact of Artificial Intelligence on business models, and provide an outline for future research in business innovations, driven by Artificial Intelligence.

Methodology

The most remarkable growth of the strategization and the operation of the businesses is observed with the unification of Artificial Intelligence into models of business. These models of businesses, that are embodied with Artificial Intelligence for augmenting, innovating, as well as generating, provide a new outlook of the products and the services. The models of business that are driven by Artificial Intelligence could be identified by their skills to support data as well as technologies of Machine Learning, for the generation of more intelligent, dynamic and systematic business processes. These models also make use of the large datasets that are created by the unification of the devices in the environment of the Internet of Things (IoT), for augmenting the processes of decision-making and making rapid insights. This is an absolutely crucial approach, for attaining efficiency and resiliency in certain business sectors, where the union of the integrated and intelligent systems is again pivotal.

The unification of Artificial Intelligence in the sector of customer service, like the sector of electronic commerce, provides a different perspective on the business models driven by Artificial Intelligence. The focus is made on the structure of Artificial Intelligence customer service in electronic commerce, that demonstrates the process of assistance rendered by Artificial Intelligence to human agents, augmenting the productivity and the quality of the customer service. The unification of Artificial Intelligence in the sector of customer service projects the limitations of

traditional models, like inefficiency and limited availability. The customer service models in electronic commerce, that are driven by Artificial Intelligence, are identified by their potential to furnish efficient and personalized service, while supporting the latest technologies, like automated response systems and chatbots. The growth of the models of business in this age of Artificial Intelligence is identified by the change of the business processes from traditional to more active, customer-centric as well as data-driven approaches. These models unite the potential of Artificial Intelligence, Machine Language and the Internet of Things (IoT) for generating efficient and resilient systems, that have the potential for adaptation as well as continuous learning. The growth identifies the move towards more receptive, personalized as well as intelligent operations of business, that satisfies certain needs of the markets and the customers as a whole. The models that are driven by Artificial Intelligence redefine and restructure the traditional strategies, generating new competitive advantages and propositions of value. This type of intersection is prominent in diverse sectors ranging from customer service to manufacturing, where Artificial Intelligence plays an active part in augmenting innovation, operational efficiency, as well as customer requirements. The business models driven by Artificial Intelligence, symbolize a dynamic shift in the environment of business, that is characterized by the usage of Artificial Intelligence and Machine Learning for the augmentation of the various factors of the operations of business, as well as innovation. The unification of Artificial Intelligence is converting the models of traditional businesses, and showing the path to more intelligent, efficient and adaptable processes of businesses.

The methodology mainly relied on the review of literature on the models of business that were driven by Artificial Intelligence in a thematic and systematic analyses approach. This procedure necessitates a methodical process for the probing, choosing, and consolidating the relevant literature for making certain an extensive knowledge of the subject. The guidance to the methodical review process is provided by predefined criteria, and targets the minimization of bias, that supply an explicit and reproduced outline for analysis.

Results and Analyses

It has been observed that the models of business, that are driven by Artificial Intelligence, are restructuring the environment of the diverse industries, by the union of advanced Artificial

Intelligence, and the core strategies and operations of businesses. These models are identified by several significant features, that separate them from the traditional models of business.

One primary aspect of business models that are driven by Artificial Intelligence is the highlight on supporting Artificial Intelligence for operational efficiency and decision-making.

In the healthcare industry, these business models are progressive in nature. These identify the distinctive design elements, as generation of value, supply to customers and transfer of data in the market. The study has revealed that the role of Artificial Intelligence in generating value propositions in healthcare, include effective care of patient with personalized medicine, and focusing the significance of Artificial Intelligence in the transfer of data, and the supply of data in the market. Another core aspect of the business models driven by Artificial Intelligence is the utilization for customized manufacturing factories, that highlight extended service models, intelligent production and networked cooperation. These factories are identified by the optimization of operations, capabilities of intelligent decision-making, self-perception and active reconfiguration. The unification of the technologies of Artificial Intelligence permits the systems of manufacturing to adjust to the required needs and make extraction of process knowledge, that results in higher production flexibility as well as efficiency. This research illustrates the process by which the models that are driven by Artificial Intelligence, converts the traditional processes of manufacturing into more flexible and robust systems.

The models of business, that are driven by Artificial Intelligence, are recognized by their creative usage of Artificial Intelligence for generating augmented operational efficiency, new value propositions and modified processes of traditional business. The models support the distinctive potential of Artificial Intelligence for the autonomous learning, analyses of data, as well as intelligent decision-making, that result in more flexible and active operations of business. The unification of Artificial Intelligence in diverse sectors, from manufacturing to healthcare, demonstrates the potential of conversion of these models, that provide new chances for creativity and growth. The core identifications of business models, that are driven by Artificial Intelligence, include their highlighting of supporting Artificial Intelligence for increased efficiency of operations, optimized decision-making, and the generation of new value propositions. These models restructure the industries by initiating creative ways for unifying Artificial Intelligence into the operations of business, and illustrating the significance of conversion of Artificial Intelligence, in the emerging business scenario.

Artificial Intelligence has brought in a new era in the industry, basically modifying the traditional business models, and initiating flexible models. This growth is identified by a move towards the data-driven, technically advanced and other approaches that are customer-centric. The most notable aspect of this growth is the altering feature of the human-machine interaction and its effect on the competitive strategies of business. The competitiveness pivots on the renewable strategies, that successfully unify the mechanical thinking of Artificial Intelligence and the human innovations. This unification is vital in the processes of decision-making, where Artificial Intelligence could provide data-driven perceptions, while the humans could contribute with innovative and strategic thinking. The research focuses on the significance of the restructuring of the models of business that would lodge the roles of human intelligence as well as Artificial Intelligence, and making certain that the businesses become competitive as well as flexible.

The part of Artificial Intelligence in social interaction and brand engagement represents another feature of the growing models of business. The remarkable aspect is the transformation in the processes of the transfer of data, caused by the key drivers, Big Data, Artificial Intelligence and the Internet of Things (IoT), along with the relationships between the products, individuals and brands. The research emphasizes the impact of the Artificial Intelligence mediated algorithms on the engagement of customer and creation of value, focusing the move towards the interactive and more personalized approaches of marketing. The growth indicates a wider tendency in the models of business, where Artificial Intelligence and digital conversion are core to generating and retaining relationships with customers.

The unification of Artificial Intelligence with the progression of 5G technology is transforming the models of business and pushing the digital conversions across diverse sectors. The phenomenon is encouraging the progression of creative and new applications and services, like highly advanced natural dialogue, and augmented image recognition Artificial Intelligence systems. The progression of technology is not only smoothening the processes of operation, but are also initiating new passages for the provision of services and the interaction of customers. The merger of 5G and Artificial Intelligence, clearly indicates a drift towards the more intelligent, robust, and interlinked models of business, that support the high potential and high speed networks of 5G, for maximizing the capabilities of Artificial Intelligence.

Discussion and Findings

The growth of Artificial Intelligence has commenced a new age of the innovation of business model, making basic alterations of businesses, regarding operating and competing. It stresses the convertibility of Artificial Intelligence on models of business, stressing on the process the start-ups support Artificial Intelligence for the models of business that are based on novel technology. The study also demonstrates the capability of Artificial Intelligence to modify and mechanize the existing models of business, making noteworthy contributions to the growth of economy. Artificial Intelligence is trustworthy, and is the focus to the modification, projecting an outline for the businesses to unify Artificial Intelligence in a process that is, reliable, secure and ethical. The study further finds that the act of utilization of Artificial Intelligence in models of business, also requires suitable legislation as well as incentives for the reuse and sharing of data, that are basic to innovations that are driven by Artificial Intelligence. In other words, there needs to be legal outlines, for the adoption of Artificial Intelligence in models of business.

The significance of Artificial Intelligence on the innovation of the model of business could be observed in several important areas. Artificial Intelligence permits the mechanization of diverse processes of business, that result in the augmentation of efficiency as well as reduction of cost. This mechanization is extended to complex processes of decision-making and beyond all routine tasks, where the ability of the Artificial Intelligence to examine vast quantum of data, would result in timely and informed decisions. In this fashion, new avenues for innovation of service and product, are opened up by Artificial Intelligence. Businesses could support Artificial Intelligence for the development of new products or augment existing ones, generating value propositions that could be easily attained. A notable effect of Artificial Intelligence is also available on customer experience and customer engagement. The tools that are driven by Artificial Intelligence include personalized recommendations, chatbots as well as predictive analytics, that permit the businesses to cater to the requirements of customers in more personalized and meaningful ways. This augments the satisfaction of the customers and also generates businesses with valuable perception of the behaviors and preferences of the customers.

The study also revealed that the unification of Artificial Intelligence into the models of business poses several challenges. It is necessary to overcome the regulatory, technical and

operational hurdles. The ethical use and the guaranteeing of trustworthiness are of the greatest importance, while negotiating the legal and the complex environment, surrounding the deployment of Artificial Intelligence. Businesses need to be satisfied with the changes of culture and organizations, that are necessary for unifying Artificial Intelligence into their operations.

In the rapidly changing environment of the models of business, that are driven by Artificial Intelligence, businesses encounter diverse challenges, that obstruct the unification and the execution of the technologies of Artificial Intelligence. These challenges vary from operational and strategic issues to technical issues. However, by the way of the adaptation of the aimed solutions and strategies, an effective negotiation of the challenges could be made, that would bring forward the entire capabilities of Artificial Intelligence, for enjoying competitive advantage and continuous growth. The most significant challenge in executing Artificial Intelligence in the models of business is the management of the technical complications, that are related to other technologies of Artificial Intelligence and deep learning. The vacillations of the demand of the market, along with the requirement of the production of high quality in the manufacturing sector, indicate the technical complications, faced by businesses. They propose a comprehensive outline for unifying the state-of-the-art technologies of ICT, models of Artificial intelligence and tools for inspection for ensuring minimum defect in manufacturing. This type of progress emphasizes the significance of the holistic strategy, that includes quality control, integrative technology, as well as consistent adoption of the changes of the market.

The unification of the technologies of Artificial Intelligence and digital systems can strengthen the processes of business that augment the operational efficiency and lead to the innovation of strategies. This merger necessitates a thorough understanding of the technological environment and the strategic advancement towards the unification of the business operations with digital technologies. In order to meet the challenges of the operations and the technologies, the businesses need to highlight the building of sturdy strategies of Artificial Intelligence that are positioned with the entire scenario of the business. This requires the right investment in the right technologies of Artificial Intelligence, for making certain that the initiatives of Artificial Intelligence, are renewable and adaptable, and promote the practice of innovation. Furthermore, the businesses need to categorize the capabilities of analytics, as well as the management of data, because these are disfavoring components for the execution of successful Artificial Intelligence. Another significant strategy is the promoting of the sharing of knowledge and cooperation across teams. By breaking

down the storage and promoting cross-functional cooperation, the businesses could support varying expertise and viewpoints, that would pave the way for more effective and innovative solutions of Artificial Intelligence. The practice of conversion and continuous education are much significant in the active field of Artificial Intelligence. There needs to be considerable investment in the training and development programs of the employees, to ensure that the workforce has the updated skills with the latest practices and technologies of Artificial Intelligence. This makes certain that the businesses remain perceptive and flexible to changes and also augments the technical competencies in the environment of Artificial Intelligence. The challenges associated with the models of business, driven by Artificial Intelligence, need a varied approach that include cooperative efforts, strategic planning, continuous education and technical skills. The execution of these strategies could effectively unify the technologies of Artificial Intelligence into their business, that could propel innovation, competitive gains and productivity.

In the business environment, the emergence of the technologies of Artificial Intelligence, has exposed numerous opportunities, that basically change the normal scenario of renewable growth. The unification of Artificial Intelligence into the models of business is now becoming a strategic vitality, that would differentiate the dawdlers from the bigwigs. The flexibility, resilience, as well as the rapidity, with which the businesses combine with the technologies of the Artificial Intelligence, are crucial in determining their viability and the status in the market. The pandemic has further emphasized the significance of the innovation in the sector of technology, that made certain the renewable growth, for the small and medium enterprises. The small and medium enterprises were forced to innovate their models of business by acquiring Artificial Intelligence as well as other automated technologies. This move is not a reaction to the challenges posed by the pandemic, but strategic in nature, towards safeguarding their businesses against similar calamities in future. The unification of Artificial Intelligence, internet technologies, and Big Data analysis, positioned with Technology Acceptance Model (TAM) has come forth as a life-saving outline, for the small and medium enterprises, to re-energize their operations and make certain a renewable growth.

Limitations and Further Scope

The unification of Artificial Intelligence into the models of business project a gamut of challenges, that industries need to negotiate successfully, for supporting this technology. It has been observed

that in the manufacturing sector, the transition from pilot projects to real world applications, pose a great challenge. This gap emerges from the complications of technology, the need for adequate investment in training and infrastructure, as well as lack of specialized skills. The study emphasizes the consequences of the positioning of the initiatives of Artificial Intelligence with the existing technical ecosystems and the objectives of business, recognizing these factors as critical for the successful unification of Artificial Intelligence in the environments of manufacturing.

The execution of business models, that are based on Artificial Intelligence in small and medium sized enterprises, encounter problems of keeping pace with the global competition, for the lack of skill in Artificial Intelligence, as well as lack of resources. The study recommends a techno-social outline, that would enable these enterprises in adopting business models, that are based on Artificial Intelligence. It is observed that the challenges are not just technical in nature, but also comprise of cultural and organizational issues, like inability to understand the potential of Artificial Intelligence, and requirement of strategic attitude towards the transformation.

The study further emphasizes that the challenge posed for businesses is not simply the adaptation to the technology of Artificial Intelligence, but also making the organization ready across the dimensions of organizational governance, knowledge and information, management of technology, security, strategy, culture and infrastructure. The responsibility is to develop the culture that accepts the Artificial Intelligence, and resolves the security issues.

Conclusion

This detailed study that was meticulously made for projecting the reframing impact of Artificial Intelligence on the models of business, has been successful in attaining its targets and meeting its objectives. The study also brought to light the growing environment of the innovation of the business driven by Artificial Intelligence. Diverse literature were methodically reviewed, and that process helped to highlight the complicated image of the combination of Artificial Intelligence in the practices of modern businesses and its contributions in the future strategies of business. The study underscores the crucial part played by Artificial Intelligence in restructuring the models of business. The unification of Artificial Intelligence into the strategies of business had augmented the efficiency of the operation, and encouraged the innovative approaches towards the processes of decision-making, engagement of customers and management of data. The evolution of the models of business,

driven by Artificial Intelligence, that could be identified by the innovations that are customer-focused, centrality of data, as well as high capability of adjustment, indicate a notable alteration from the traditional business models. This alteration has caused the necessity of revising the roles of leadership, with increased stress on ethics, adjustability for the innovations that are induced by Artificial Intelligence, as well as continuous study of the processes.

The study has focused on the opportunities as well as the challenges posed by Artificial Intelligence in businesses. It is observed that notable challenges are posed by the operational and technical hurdles, whereas there is augmentation in the satisfaction of customer experience, opportunities for growth, as well as competitive advantage. If these challenges are successfully negotiated, the support of Artificial Intelligence is gained significantly, in the growing economy of the digital era. The study advocates a strategic approach for businesses accepting Artificial Intelligence. This has the requirement of a steady unification of Artificial Intelligence with deep insights, and encouraging the practices of ethics and innovation, with a steady adjustment to the active environment of Artificial Intelligence. It needs to be considered that the road ahead to success and huge profits lies in the utilization of the potential of Artificial Intelligence to push sustainable growth, and remain cautious regarding the implications of operations and ethics.

It could therefore be concluded that the study meets the stated objectives and also generates a fundamental outline for feasible applications and future research in the environment of the innovations of business, driven by Artificial Intelligence, and set up a standard for the professional and academic discussions in the emerging field.

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