

1. AI-Driven Decision Making in Management:

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Abstract

Several Organizations are directing Artificial Intelligence (AI) driven expertise to assist and analyze the data-insights, gaps and transform their decision-making proficiency, especially when the pressure is high with minimal time-lines. This research article investigates the impact of AI in decision making and its consequences for individuals, company, and society. Decision making is an important stage in effective accomplishment of any organization to reach the defined organization goals. Accurate data, reports and decisions can improve the prediction of business, transform the business strategies, implement and review the mid stage implementation responses on the reports, take quick decisions which increases the productivity and lead business to the roadmap of success and augmentation in future. This article shall also examine how AI transforms internal operations, starting from different departments like transport to consultation management. How it predicts demands, fluctuations, adjusts supply and data levels by prioritizing or optimizing the results, which noticeably reduces operating costs for the companies. Unlike information or data loaded solves the issue by AI software, which allows companies to make data-driven choices, improve customer targeting, and enhance de-

velopment, along with assisting in customizing data and report at convenience to take speedy and precise strategic decisions. This article provides an overview of AI mechanisms like automation efficiency, complex management which includes handling multilayered problems that would overpower human policymakers, succession planning incorporation, business decision which assist in risk monitoring and assessment, compliance and scam recognition. This can be done in various departments like Human Resources, Accounts & Finance, Sales and Marketing etc. and in Industries like Healthcare, Finance, Consulting Business, Transportation, Food & Beverage, also in Government authorities' defining and implementation processes in automation. There are several technologies and tools around the world which facilitate finding, developing, analyzing, and retaining the data, report, or topic which drives the decision-making process for the management. This article not only highlights the optimistic impact of Artificial Intelligence in decision-making process in management operations and a company's success, but also how incorrect decision making could lead to disappointments for an organization. As AI remains to improve business decision-making, there are some challenges which must be addressed in the placement of AI in decision making which includes ethical concerns, AI algorithms, and social allegations, why and how Human-AI association is required. Data privacy protection, transparency and accountability, explainability issues in the AI driven decision-making process, these are the important factors for company's reputation, and it is crucial to address. Companies must spotlight ethical AI methods and ensure transparency, including nonbiased fair decision-making algorithms. This article focusses on the importance of gov-

ernance regulations and policies to facilitate biases and safeguard that AI systems are making decisions aligning with the organization's aims and goals along with opening and highlighting the scope of improvement in AI functionality.

Keywords: *Artificial Intelligence, transformation, complex management, quick business decision, timelines, increase productivity, cost reduction, business success, augmentation, accuracy, ethical and social concern, data protection, transparency, bias, Government regulations.*



INTRODUCTION

In today's business world, the operating style and systems are very dynamic. Organizations are facing rapid change in the business market and therefore expecting the rapid decisions to be taken. Artificial Intelligence (AI) plays a vital role in this, it speeds up the action in examining the massive volume of data and gets the result to further investigation and implementation. AI had a presence for more than six to seven eras now (Duan, Edwards & Dwivedi, 2019), since 1940's till the 2020's which included the basic keypad mobile phones until the first Iphone (Roser, 2022). Gradually AI has shown the drastic and evident change that the kind of capabilities it has. It is standing with power and readiness to analyze Big Data, and it is gaining a great grip in the organization. However, AI can give the combined results in few of the actual world cases and scenarios which are essentially worse than Human results (Roser, 2022). This article is focused on AI driven decision-making process, which will determine the impact of AI, its capabilities, the progress it might lead to, the benefits for an organization and business leaders, administer tycoons concerning advanced decision-making, the cost associated with its implementation in the company, the learning factors in the employee and adapting the dynamics to survive in today's world, the gaps and challenges associated with AI in management like ethical, social and transparency concerns, data protection and prejudiced fears. This study will give the sight of industries and departments which are having implications, including the government sector. It will examine the complexity in decision making which might result in errors and non-viable decisions. This study shall provide a brief overview and foster future possible scope of work for the researchers for improvement of businesses and society.

LITERATURE REVIEW

AI-driven approaches have substantially enhanced the speed of improvement in business activities. With the assistance of machine learning procedures and inherent language processing, management can modernize simplify and customize the processes. This results in faster results, reduces the time involved, and increased responsiveness in decision making capacities and leads to client and customer satisfaction. Management is experiencing AI to explore client response, understanding the preferences, and adapt the alterations (Favour Oluwadamilare Usman et al, 2024). This is aiming to a beyond responsive and buyer-centric approach to modernization. The incorporation of AI expertise has altered internal and external stakeholders' involvement and association in extraordinary ways. Chatbots, virtual assistants, and intellectual suggestion methods have become essential mechanisms of communication tactics (Favour Oluwadamilare Usman et al, 2024). This has made the process faster and easier for management's quick decisions. AI and decision-making process has been implemented in many companies, management is focusing on improving the work culture, way of working style and automate the process. This article has focused on some factors which display an importance, benefits, growth factors associated with AI for management in decision making processes.

The most important factor in the company is the decision-making process, this process has been simplified with the help of AI. Now a days with an option of new equipped systems with the mechanism, where in the huge quantity of data input is only the requirement, upon which the output comes in fraction of second saves time and effort resulting increases

the productivity (Muhammad Eid BALBAA, 2024). AI is benefited in many aspects like increase in efficiency, limits the timeframe (Muhammad Eid BALBAA, 2024), reduce manual working which also result in minimum usage of papers in the company. In the modern business setup, responsiveness has turned into an essential factor for success. The combination of Artificial Intelligence (AI) into business processes has emerged as a key driver in increasing this quickness (Simon Kaggwa et al., 2023). It also avails the accuracy and stability in the data in shorter period as the system will examine the data without being influenced as human could be while investigating the details. The AI also avoids the duplication of tasks which will further enhance and let business leaders invest their crucial time in critical thinking process to make the decisions. It also enables the accurate and fast advance forecast report as human interventions are less (Muhammad Eid BALBAA, 2024). Behavioral analysis can also be done with the help of AI, when it comes to product or service satisfaction, the survey report can be analyzed and corrective actions can be taken (Nauri Hicham, 2023). AI has drastically changed the working pattern of business leaders, technology has benefits in various industries like Consulting, healthcare, logistics and departments like sales & marketing, finance, human resources, procurement. Also, AI is useful in government regulations and procedure, as it has resulted in making the process faster, error free, authentication as per the requirement which accurate more than the human intervention.

The challenges and concerns in AI Decision making process for the management are also many like the quality of the data must be good, if data is inadequate, wrong, or influenced, then the report will have an adverse effect. Pre-

cise checking and authentication are required to overcome this challenge. The data must have clarity so that the result driven from the data could be explained properly, the contributors must have to think about the justification of the result that AI could explain, this could be by using typical-skeptical techniques (Muhammad Eid BALBAA, 2024). Another challenge is the Black box issue in AI in which inputs and operations are not seen to the operator, due to which it becomes problematic to understand on what ground the AI has given the result. This results absence of simplicity and interpretability of AI algorithms (Cracking the Code: The Black Box Problem of AI, 2023). This issue has also raised the ethical concern, as the decisions can't be completely trust in this. To overcome this challenge Explainable Artificial Intelligence (XAI) could be placed in which the procedures allow human users to understand and believe the outcome created by machine learning algorithms (IBM, 2019). AI implementation involves high cost to the company, including the AI advanced software and training programs related to the same. The Employees positive way of acceptance is required during the implementation of the new software, as this is the huge investment for the company and if employees act rigid to change then it becomes another challenge. However, this can be overcome by time to time conducting mentoring session, learning and development sessions for employees, and sharing the goals of an organization which is aimed by the business leaders. AI usually relay upon the huge amount of data which is uploaded in the system, the concern raises when no proper precaution is taken to protect the data, preserving privacy and taking care of the information accurately is very essential (Muhammad Eid BALBAA, 2024).

RESEARCH METHODOLOGY

This assignment consists of mixed research methods, where qualitative and quantitative data are used. This research is based on the observation method by understanding the existing occurrences of activities in my current organization about AI, referring to previous published journal articles (Secondary data analysis), literature papers and books. Scholarly researched Journal articles from the universities like Hult International school, University of Texas and others are referred, many scholars had done the quality piece of work, some of them have been reviewed and referred with honor and citations. Articles from McKinsey & Company, Science Direct and Harvard Business Reviews were also consulted which describe the management of AI decision making equipment and revolution of workforce planning with AI assistance. Different reading materials from the website known as Our World in Data were also thoroughly read and consulted which describe the growth of AI along with the challenges associated with it. Conference reports from the world economic forum about emerging technologies were investigated to get input. Uniting these the methods has helped in putting together the research in a more organized manner.

CONCLUSION

Business leaders of several industries like health care, logistics and other industries can rely upon AI driven decisions as management are getting fruitful results reasonably. Extracting big data becomes convenient and leads to quick decision making testing and re-implementing the strategies. Many service industries are also leveraging the benefits of AI in knowing their customers' needs and taking decisions accordingly. Business leaders can acquire the

market and concentrate on building new strategies as the manual work has been cut down. As AI continues to change and be more combined into decision-making processes, it is important to pass over the ethical complications and safeguard that AI has resulted and adopted in an accountable manner. By attending these issues and accepting ethical facts, AI can be attached as a powerful tool to enhance human decision making and impacting positive social results (Muhammad Eid BALBAA, 2024).

RECOMMENDATION

Government guidelines could be made separately to address the legal frameworks concerning ethicality and use of AI so that any misappropriation could have some control. This is important as these frameworks can show the way as how the pool is been collected, the usage, and placement of AI machineries, certifying compliance with ethical values, safety of individual rights, and responsibility for AI-driven decision making. Partnering between representatives of legal framework from government, business leaders, and ethicicians is vital to determine successful regulations (Muhammad Eid BALBAA, 2024). However certain researchers at the University of Massachusetts also found that AI ideas are harming another important initiative which is environmental sustainability. The world's net zero emissions target, according to the outcomes, training of AI can produce about 626,000 pounds of carbon dioxide, which correspondence to around 300 round-trip flights flanked by New York and San Francisco – approximately 5 times the lifetime emissions of the normal car (Kanungo, 2023). AI driven decision-making process for management is having an optimistic result, but these probably the

same business leaders and top management of the companies who are taking initiative to support the most alarming situation i.e., Environment sustainability. To be considerate more in the line of environmental sustainability as well, they must think that these quick decisions are taken at the stake of environment are how much ethical and justified for future growth of the business, society and the world. Researchers may explore more about the concept of AI and its output to the world in terms of its management work, decision making, productivity and efficiency.

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