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A METICULOUS STUDY ON STRATEGIC LEADERSHIP THROUGH ARTIFICIAL INTELLIGENCE

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ABSTRACT

Artificial Intelligence deck out the business leaders with hard evidence, possible outcomes and give predictions which help them to make well informed, throughout with an unemotional decisions. We are entering in an era where the AI become the serious theory at an executive leadership level where humans and machines work together in future cooperatively and harmoniously. It will be very early to predict the impact of AI in leadership in different level of organization. But in ethos, AI has the capacity to make supplement of human decision making, bringing boardroom to the more complex problem solving methods and also help in data analysis for human in various innovative ways. At present, business world and its related organization is already immersed in AI. Many innovative methods have already taken in order to execute the things in the organization. AI can be used in various aspects like increasing productivity, cost cutting, expanding business, increase the sales in order to increase the market share, expanding communication, launching new initiatives, customer satisfaction, service support, quality control assurance, optimization, financial gains. AI has a great impact on leadership as well. Through AI human seeking out the accurate ways of working. AI has taken its own pace which help the human to prove his efficiency in the organization. Such changes bring inevitable concern in leaders and it should be an important focus on the possibilities to understand that might be empower the human decision in future.

Keywords : Market share, cost cutting, customer support, quality assurance.

INTRODUCTION

The study on leadership is done for more than 100 years, but the study on leadership and artificial intelligence is very recent. The important terms related to artificial intelligence is data analysis, automation, machine learning etc. The artificial intelligence is associated with many industries like health care, service industry, education field etc. Therefore the community of academics taken this subject very cautiously in order to show the improvement in their respective related fields. Now majority of the organization are adopting the artificial intelligence and its emerging methods to improve their performance as an added advantage. It redefines the concept of leadership goals. Artificial intelligence has taken pivotal position and also drawn the attention of several sectors. AI is actually a huge program which connects people, strategy and the process of the organization. Now the question is raised that whether AI has influenced the organization and its people and also the leadership of this era will be relevant in future.

Traditional decision differentiates the decisions taken under the risk and the decision taken under uncertainty. In past few years several data has been collected with variety of formats and also the solutions to the most complicated problems. Artificial Intelligence help the leaders of the different Organization to come out with their creative ways of viewing the things and also to give their inputs. By adopting the AI methods leaders of the organization make their work faster and also help in quick decision making process.. Recognizing that the process of transformation involves a review of the corporate strategy, various leading companies are reconsidering the strategic plans for integration of AI tools . As per Naqvi and Munoz (2018), the issue is that “the cognitive transformation is sweeping through the global economy, and it is not like anything traditional leaders have ever experienced before”. Artificial intelligence is one of the hottest topics in the boardroom today and much has been made of the benefits it can bring. From optimizing loan approval processes to helping on-board new recruits, the gains range from reduced operational costs and increased efficiencies to growing revenues and a better customer experience.

“Scientists estimate that humans make about 35,000 decisions a day, or more than a billion in a lifetime,” says Ola Engebretsen, an Kearney partner. “AI has the potential to help us improve the quality of the choices we make in a wide range of crucial areas.”As each day goes by, more and more business processes are being refined and automated. In fact, CFO.com estimated that 80 percent of online transactions will be handled by an AI-enabled bot by 2024.

This ferocious pace has created a sense of urgency about AI, as organizations start to realize that a failure to act soon could leave them at a disadvantage—or worse: unable to catch up.The good news is that AI can also serve to accelerate decision-making.

Definitions of the Term Artificial Intelligence

Artificial intelligence, the ability of a computer or computer-controlled robot to perform tasks commonly associated with intelligent beings John MCarthy.first coined the term artificial intelligence in 1956 when he invited a group of researchers from a variety of disciplines including language simulation, neuron nets, complexity theory and more to a summer workshop called the Dartmouth Summer Research Project on Artificial Intelligence to discuss what would ultimately become the field of AI. The common idea of most of the definitions of AI is to find the intelligence of machines is equal to or close to humans.

In many cases, therefore, strategy is informed by data that is either out of date, skewed, or both. In scores more, it is also influenced by the educated guesses, presumptions, or pet theories of the people in charge, also known as the HiPPO (Highest Paid Person’s Opinion) effect.This is another place where AI can serve as a tool and actually improve the quality of strategic thinking. By simulating decisions and thinking about the consequences and trade-offs of potential courses of action, it can provide quantitative proof to support or refute a course of action, serving as a valuable check on any potential partiality, whether conscious or unconscious.

The side warning here is that, if not trained properly, AI can actually amplify human biases, so this needs to be given serious consideration in the planning and implementation stages. Meanwhile, as technology continues to drive economic, demographic, and social change, this will require businesses to solve problems and make decisions in ambiguous situations, where there is little or no historic data for AI to learn from or provide a reliable response to. In these cases, human creativity and intuition will need to be applied—quickly, and often at lower levels of the organization.

Leadership in Industry dominated by AI-based technologies

According to many experts, We are not in any technology crisis but actually we are in technology revolution, and in coming years we are going to witness the huge and drastic change in the field of technology in this planet. We are talking about the Industrial revolution 4.0 and this industrial revolution is mainly associated with artificial intelligence mainly in the areas of leadership. Already it is been observed that human task is already taken by the bots in many areas.Therefore, leadership during these times of disruptive technologies, broadly speaking, is associated with the terms “Digital Leadership” or more specifically - “Leadership in Industry 4.0.”

Literary Review

For the purpose of this paper, the author relies on the following definition of the term digital leadership that is "suitable leadership approach within an age of digital disruption" (Breuer and Szillat, 2019, p. 28; Meffert and Swaminathan, 2018).

As for the tasks of the leaders of organizations in the digital disruption times, Abbatiello et al. (2017, as cited in Petrucci & Rivera, 2018) refer to Deloitte Consulting statement, "a [digital] leader will need to innovate and collaborate in new ways in order to bring together vertically integrated, cross-functional teams of people to perform" (p. 55), as well as add that, "a digital leader will need to influence across informal teams, connect networks of teams and people, and create more knowledge sharing all while creating a diverse and inclusive environment" (p. 55).

This list creates parameters for leaders' skills and tasks in the era of disruptive technologies. "The broad collection of technologies, such as computer vision, language processing, robotics, robotic process automation and virtual agents that are able to mimic cognitive human functions" Bughin and Hazan 2017 (p.4).

"The capacity for machines to employ algorithms with data to make choices similar to those of a human being" Yao Jia and Zhou in 2018

"The future of AI is supporting and augmenting human capabilities such that a human-AI team is stronger than either alone" Missy Cummings Director, Humans & Autonomy Lab Duke University.

In certain ways, AI is already outpacing human capabilities: 45 percent of those surveyed reported that their organization's AI deployment is greatly outpacing the accuracy and productivity of comparable human activity. Another 37 percent of respondents said that their AI technology is slightly outpacing humans. But clear differences exist from our country.

Methodology Approach

The keywords used for the current literature review were: "Artificial Intelligence" and "Leadership". We assess the strength of social incentives, which critically depend on the extent of social preferences and social pressure at work, by assessing the difference in human performance when people complete a sequential task with either other humans or robots. We find evidence that, despite maintaining monetary incentives intact, humans who work with robots underperform those who work with other humans, especially under team pay. The lack of altruism toward robots and the lack of social pressure exerted by robots are key to explain this negative effect under team pay. Under piece rate, the lack of envy toward robots plays a crucial role. Artificial Intelligence/Machine Learning have become far more effective and matured in recent years, thanks to rapid advancements in artificial intelligence and cutting-edge technologies. AI/ML systems are amazing learners because they are constantly improving and becoming smarter than humans, allowing them to make predictions with little or no human intervention.

Technology to be a key enabler

Multiple technologies have emerged in recent years that have proven to be instrumental in driving the advancement of smart manufacturing. Along with the host of incentives provided by the Government to boost the sector, the influence of intelligent solutions and smart spaces will prepare India for the next industrial revolution, thus turning the dream of making India a manufacturing hub into a reality.

Given the current pace of adoption of technologies in businesses, most companies have digitized their operations. AI/ML has enabled more innovative processing of data to translate the information, reducing labor costs and increasing efficiency at the same time. AI coupled with data analytics has been a game-changer for industry leaders. The quality of data and intelligence provided by the combination of both these

technologies has proven to empower manufacturers in better & quick decision making and recognize potential improvement areas in the overall operations of the company. The global pandemic has forced manufacturers to re look at traditional production technology to increasingly leverage data analytics and AI to optimize business operations. Manufacturing companies in India have been rapidly adapting to artificial intelligence, with 93% of business leaders claiming that AI is at least moderately functional in their organization. Most of the organisation and the leaders involved in it made the mindset of artificial Intelligence as world is developing in fast phase and in coming years world is going to witness the tech planet.

Results

Key Findings

90% of the executives reported measured benefits from deployment of artificial techniques.

77% of IT leaders were confident that the employees could be trained in their organisation with new job roles and responsibilities.

73% of the respondents guess that AI has brought tremendous change in the business.

53% of the leaders believe that their organisation has increased their job training and workshops for effective management.

45% of the respondents says that because of AI it created outpacing the accuracy and productivity compare to humans.

We are already immersed in the world of AI, where machines were driven and learning to process in meaningful ways something where the domains of human alone. We have to welcome the leaders who adopting the AI and ML techniques to bring revolution in the leaders community.

Discussion

As per Antonakis & Atwater (2002, as cited in Ayman and Lauritsen, 2018), "Along with the expansion of the virtual workplace, e-leadership gained attention" (p. 152).

Additionally, Avolio & Kahai (2003, as cited in Ayman and Lauritsen, 2018) state, "Early research on e-leadership showed how technological structures or processes can moderate leadership effects on group process and outcomes" (p. 152).

Some scholars believe that research is going on for 100 years in the feild of artificial intelligence intersecting with leadership and its dominance which bring the revolution of Industry 4.0.

Conclusion

People and AI good , bad and Ugly

Artificial Intelligence/Machine Learning have become far more effective and matured in recent years, thanks to rapid advancements in artificial intelligence and cutting-edge technologies

The velocity of new cyber issues is growing rapidly, and human led cyber defense organizations have to be one step ahead of preventing it. No doubt, due to cheap

compute and storage, AI technologies are now affordable and accessible to anyone. It's time for us to think about how such powerful technologies should be used for human welfare. The big tech conglomerates should come together, forum consortium with the objective for protecting and leveraging "Tech for Good".

We have to keep our vision focused on Artificial Intelligence and as expected to bring out the new era in the field of Leadership.

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