Artificial Intelligence
A Tool for Organizational Productivity

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Abstract: We are today in the industrial revolution 4.0 in which Artificial Intelligence has arrived with a bang, bringing along the big question - Is it really real or Artificial? The disruptive reforms are forcing intellectuals to think that how it is better than natural intelligence, which is the creator of artificial intelligence. Organizations are keen to adopt artificial intelligence for enhancing the organizational Productivity, to be competent enough in the competitive environment, which in turn is pushing employees towards skill development and higher efficiencies, because in the age of AI smarter are going to prevail. This research Paper has more emphasis on the usage of Artificial Intelligence in Enhancing the Organizational Productivity.

Key Words: Artificial Intelligence, Organizational Productivity, Skill Development, and Efficiency Enhancement.

Methodology:
Descriptive qualitative research methodology is used for this paper. The paper is based on review of secondary data through articles, periodical, books and journals as well as the experience, learning and observations of the researchers.

Pilot Study:
Few Research Papers have been Published on AI as a Tool of Progress, Survival and Sustainability and this is the current area of research on which mostly all sectors are working upon along with active participation of government too, so the talk on AI has attracted the researcher to understand the intensity and its influence on organizational productivity.

Scope:
In general, all profit-driven Human Capital Organizations can use the study analysis and conclusion of this research paper in creating a conducive environment in the professional surroundings, in the age of AI, which can help both organization and individual   to drive maximum advantage.

Introduction:

We can witness artificial intelligence all around us and its usage in our routine life in depth. It is a creation of science and technology, which not only can contribute in performing task like human but also think like them.

Artificial Intelligence is to create technology that allows system to operate in an intelligent way, without human interference. The basic problem of simulating intelligence has been broken down into various sub-

sections. These consist of particular characteristics that we expect an intelligent system to display. AI has entered in almost all the fields and sectors in a progressive way and showing its result and outcomes significantly huge in terms of productivity of the organization. It opens the doors and poses challenges for employees simultaneously, in enhancing their skills sets to be fit in the organization. It has been used from health industry to finance, investments, manufacturing and now in academics too. More is the available data; more is usage of AI in creating algorithm that facilitates cognitive calls by the machines with available data.

Artificial Intelligence:

Artificial intelligence is the intelligence which thinks, acts like a human and created by human to assist them in routine life work.

AI has their presence in voice assistance, face recognition science fiction games and is faster than the humans like playing chess, using apps , sensing the environment and act accordingly. AI is used in goal setting, reasoning, problem solving and knowledge representation.

Organizational Productivity can be gauged qualitatively or quantitatively considering the Vision, Mission, Planning, Strategy, Policy, Culture, Structure, and Communication but most important is the adoption of technological advancement for the betterment of employees and organization. And AI is the best example of science and technology aiding the organizational productivity in a non-intrusive way.

Objectives of the Study:

1.   To study the correlation between the Artificial Intelligence and Organizational Productivity.
2.   To study the correlation between the Artificial Intelligence and Skill Development.

Rationale and Significance of the Research:

Human has never thought that AI will capture their mundane activities so soon. As a result they have to be more active and competent to be in the system for their individual growth. AI is giving the opportunity to learn and sharpen their skill sets to compete with the machine and match their productivity with each other. "Natural and Artificial Intelligence" - no choice left besides adopting the change because change is only permanent and AI is the disruptive change in the Industrial Revolution 4.0 considering productivity, efficiency, competitive age and economic development. Still many people are in thinking mode that is it really real or artificial? However time has come to accept that it is real and assisting in the functional area of human work along with the challenges and threat to be more focused in enhancing the efficiency, skill development and be more productive.

Expected Outcome of the Study:
The researcher is a primary member of the research sample, being a working professional.

Researcher wishes to establish the correlation between the Artificial Intelligence and Productivity of organization as a whole, which include skill development and employees efficiency towards organizational growth and sustainability.

Researcher wishes to use the outcome of the research to further strengthen the field of Organizational Behavior and Industrial Relations in the age of AI through the infusion of upgrading the skills. This could well be a very potent field of study and advancements in the future human - interactions, human motivation, human behavior and human satisfaction in the digitized world.

Literature Review:
Several authors have gone on to write about Artificial Intelligence and it relevance.

Erik Brynjolfsson (@erikbryn) is the director of MIT's Initiative on the Digital Economy, the Schussel Family Professor of Management Science at the MIT Sloan School of Management, and a research associate at NBER. His research examines the effects of information technologies on business strategy, productivity and performance, digital commerce, and intangible assets.

Andrew Ng, VP & Chief Scientist of Baidu (Chinese equivalent of Google), an Adjunct Professor at Stanford University, in his critical analytics published in Harvard Business Review (November 2016) titled **What Artificial Intelligence Can and Can't Do Right Now**, has had a very different take from other scholars. Andrew, who has been a founder lead of Google Brain Team and has been a former Director at Stanford Artificial Intelligence Laboratory, claims that media sometimes paints very fancy picture of AI sometimes, as if it is going to take over the world very soon. He feels the despite the breadth of the impact of AI, its deployment is very limited.

Matthias Breunig, Matthias Kässer, Heinz Klein, and Jan Paul Stein (January 2016)**,** in their study for Mckinsey & Company, titled "Disruptive trends that will transform the auto industry," (Article published under title "Building smarter cars with smarter factories: How AI will change the auto business" on McKinsey.com) clearly opine that "Over the next two decades, artificial intelligence (AI) will enable autonomous vehicles to become mainstream. At the same time, AI will transform most aspects of the auto-manufacturing process, from research and design to project management and business support functions. These changes are fast approaching. Manufacturers should understand what the sources of value really are and then start developing the necessary analytical capabilities and establishing an AI-ready culture." They further go on to identify Six key ways in which AI will improve Automotive industry viz. Less Equipment Failure, More productive employees through robot-human collaboration, fewer quality problems, Leaner supply chains, Smarter project management, Improved Business support functions.

Daniel Faggella (2016, March 21)**,** in his contribution, titled "Exploring the risks of artificial intelligence" highlights the flip side as well. He writes, "Leaps in AI are already being made in the area of workplace automation and machine learning capabilities are quickly extending to our energy and other enterprise applications, including mobile and **automotive**. The next industrial revolution may be the last one that humans usher in by their own direct doing, with AI as a future collaborator and – dare we say – a potential leader."

McKinsey & Company (2017, April), in their study published as "Smartening up with Artificial Intelligence (AI) -What's in it for Germany and its Industrial Sector?", go on to state that AI will be enabler for the performances in German industrial sector and it could increase the productivity in Germany alone by 0.8% to 1.4% annually.

Artificial Intelligence and Organizational Productivity:

AI is not just a vision; it's a reality of today. Multiple sectors of industry are already adopting it and using its benefits. These include areas viz. National Security, Health Care, Finance, Judiciary, Smart Cities, Transportation, Food, etc. There are umpteen examples where AI is augmenting the human effort and capabilities in significant manner and is already creating an impact on the world.

A recent study undertaken by Price Waterhouse Coopers estimates that "artificial intelligence technologies could increase global GDP by $15.7 trillion, a full 14%, by 2030." Similarly, a McKinsey Global Institute study of China found that "AI-led Automation can give the Chinese economy a productivity injection that would add 0.8 to 1.4 percentage points to GDP growth annually, depending on the speed of adoption."

A few cases in point for the improvement in Organizational productivity with the infestation of AI are as follows:

In Banking sector, for examples, with AI introduction the decisions about loans will be made by the AI algorithms based on finely assessed data about the borrower, ignoring the simplistic procedures of credit

scores and background check – which being human driven, can be really erroneous. A case in point is the huge amount of NPAs created in banking industry despite best of checks & balances. AI enabled tools enable overcoming of personal biases as well and get over the costly process of background checks.

In case of security related organizations, Baidu – the Chinese Search engine, has initiated an AI based facial recognition, which helps in finding the missing people. These tools can be used by Security agencies for combating the terrorism or law & Order, by using the identification applications in non-intrusive ways. This was impossible humanly.

The health care organizations can improve their productivity using the deep learning AI based applications and computers, which can differentiate between a normal-looking versus an irregular-appearing lymph node. Once this identification is done accurately, radiological imaging specialists can apply this knowledge to actual patients and determine the extent to which someone is at risk of cancerous lymph nodes. AI may enable a complete transformation of health care industry productivity, as the accurate diagnosis is the key to administering right medication.

Another case of AI productivity relates to Policing & Surveillance. AI technologies make it possible to match images and voices with other types of information, and use the data to improve law enforcement. Law agencies can use AI applications to match the video images, social media activity, online purchases, travel records, and personal identity into an integrated database, which can then be used to keep track of potential law-breakers and criminals. China is already at the forefront of such AI enables systems.

Another case of productivity improvement is going to come in ride-sharing industry viz. Ola & Uber. AI is already the key factor in the development of autonomous vehicles. The cab aggregators see autonomous vehicles as an opportunity, which would directly lead to great customer service and labor productivity. All of the major ride-sharing companies globally are exploring driverless cars. Most of them have signed exclusive agreements with companies like Volvo, GM, Ford, etc. for buying the autonomous cars.

Recommendations

In order to bring the benefits of the productivity in various organizations and sectors, we recommend following few points:
a.　　Improvement in data access
b.　　Government focused policy and investment in AI
c.　　Promotion of development of AI workforce
d.　　Engagement of local and State governments in enacting suitable policies.
e.　　Creating regulatory framework for AI itself, to safeguard against any malicious behaviors, including cyber security.

Conclusion:

Artificial Intelligence is real and all around us. AI has power to challenge people those who have created AI. AI technology has a lot of potential to reshape the organizations and national economies, one has to be aware and alert to hear the alarm of change in technology and flexible enough to adopt it and hence it can be said that Artificial Intelligence is directly co related with skill development of employee with reference to employee efficiency towards organizational productivity And in eliminating the mundane and repetitive parts of their job, AI will allow them to focus on the things they excel in, where they have real value to add as humans.

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