DISRUPTION IN HUMAN RESOURCES SUPPLY CHAIN DUE TO FACEBOOK AND GOOGLE ARTIFICIAL INTELLIGENCE PROJECTS

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ABSTRACT

Advances in technology, internet, and Artificial Intelligence (AI) are transforming the world. The AI is new technology which is expected to process the repetitive tasks. Concerns of all social experts and scientist are how and when AI will replace humans in repetitive tasks? What are the skills which humans need to develop to work with robots? McKinsey Global Institute says 6 out of 10 industrial tasks are technically automatable. It also suggests that robots will take 30% of blue collar jobs by the end of 2030. While UN chief microeconomic policies say that AI is not about losing jobs, AI will transform the situations. Despite all these factors, the fear factor of the labor market cannot be ignored. On another side, the companies which are working on AI are well developed and wealthy companies. The company is also like a legal person living in society. Any human at first strives for success on individual level basic needs. After the achievement as a member he is expected to contribute back to the community. Similarly, Facebook and Google are social to provide educational material and train the blue-collar employees to survive in the AI era. Furthermore, this paper also explores the areas where AI can impact the areas which were least impacted by internet before. Research paper provides guidelines for the government and policy makers and suggests Nash Equilibrium theory implementation on AI developments.

INTRODUCTION

Corporate social responsibility has become a ubiquitous concept in the 21st century; it has been changing over several paradigms continuously. It is one of the most conversed topics in the NGOs, Government Organizations, Private Commercial and Semi-Commercial organization (Sheehy, 2014; Vilke, 2018). Latest developments in technology have transformed human's lives (Buzdar, Janjua, & Khurshid, 2016). These developments have created a knowledge gap between practice and academia. The dynamics of business and society has

changed. Due to social media, telecommunication, artificial intelligence many industries today look entirely different compared to a decade ago structure and dynamics. There is a need to retreat to all previous concepts, and new researchers must explore identify a way forward in the confluence of old and new concepts. Before 21st century there were limited stakeholders of business and their role was very limited. Now a day there are several forces which impact every business. Technology, economic situation, environmental concerns, customer preferences, government rules and regulations (Kumar, 2018; Meyer, 2018; Varadarajan, 2018). The old concept of Caproate social responsibility or social responsibility covers the self-regulations other companies have on themselves. Due to increased customers, awareness and power of social media, now like governments and other business client's customers are equally important for the companies. Hence being tagged as socially responsible is the core goal of every company. Most of the social responsibility programs are implemented once the product has been introduced, But the developments today needs proactive social responsibility. Products introduced today became life online on the first day, like Facebook products, Google, and Amazon at the same time in multiple countries (Sheehy, 2014). Therefore, the aim of this study is to view corporate social responsibility in an era where 54% of the world population has access to the internet.

The core belief of sociology is the humans are social animals. Thinking about other humans is the core reason why humans have the upper hand on rest of the species in the world. In the stone age era, before human civilization, the humans were living like animals. In the animal kingdom, only the strongest survive. However, humans after civilization developed rules and set some guidelines to protect the weaker humans. In welfare states in Canada and Denmark, the weaker and jobless people are given incentives. Today in 21st century somehow due to developments in technology there is the war of survival of strongest. For instance, the income inequality is of the biggest problem which in 21st-century society is facing today (ALVES, 2018; Oishi, Kushlev, & Schimmack, 2018). The inequality is also applicable to a corporate level. In the corporate world revenue of big conglomerates like Facebook, Google and Amazon revenues are increasing exponentially. These companies are disrupting many other industries and continuously acquiring new companies. For instance, Facebook acquired 71 companies so far, which also includes WhatsApp. Googles parent company alphabet has acquired more than 200 companies. The next big target of all these companies is artificial intelligence. Both these big companies and other tech companies main source of revenue is customer data. Based on the available data these companies are focusing on Artificial intelligence. Artificial intelligence basic idea is that intelligent machines will perform human tasks (Russell & Norvig, 2011). It will lead towards creation robots which will perform all automatable tasks. McKinsey Global Institute says that by the end of 2030 six out of ten repetitive trade tasks which are automatable will be replaced by AI. The report also suggests that 30% of blue collar jobs will be taken by robots by the end of 2030. Therefore, the core assumption of this research paper is to conclude that corporate social responsibility starts with the idea. It needs to be incorporated into the product development phase. This study is based on the

thought that that company should proactively take the society, government and people in the society onboard on concerns where impacts of product introduction are increasing fear among people in the society. The goal of this research paper is to find out the industries which will be impacted the most after AI developments and suggest a corporate social responsibility way forward to continue the innovation where is a win-win situation for both society and corporate world.

BRIEF LITERATURE REVIEW

Impact of innovation on society is widely discussed topic among researchers (Gauttier, 2018; Li, Wang, & Wu, 2018; Navimipour, Milani, & Hossenzadeh, 2018; Prentice, 2018). CSR is a universal concept; however defining it is both composite and byzantine. It is complex because it has many stakeholders. Early the CSR was only limited to inside the organization; it was about introducing ethical products, behaving ethically with the employees and producing environment-conscious products. Advancement in technology led to a knowledge economy. The knowledge economy is based on data. Data of people, their product usage, financial, emotional and ethical information these aspects raised privacy concerns. Hence respecting and caring customer's information also became a corporate social responsibility. Having customers, information not only limited to privacy but also include security of people. Leakage of any sensitive information can lead to a massive loss to the company customers. All these aspects have increased the scope of corporate social responsibility, and many corporate social responsibility researchers are concerned corporate social responsibility of the companies in the era of transformative marketing(Elembilassery & Gurunathan, 2018).

Corporate social responsibly has been linked with the performance of the companies in the literature. (Lee, Graves, & Waddock, 2018) Conducted research on the long-standing issue on (CR) corporate responsibility and financial responsibility.Many scholars believe these two aspects as two different poles. There is a long debate in the literature of CSR about the impact of social responsibility on financial performance. Some researchers concluded that CSR has a positive impact on company performance while some studies concluded that it has no impact on financial performance. The researcher studied this unresolved issue of social responsibility and financial performance conflict among 12,000 observations over 14 years period using statistical approaches to validate this hypothesis. The researcher concluded that social does not have any impact on company performance. The study concluded that doing well (implementing corporate social responsibility campaigns) does not mean doing good financially.

Earlier many researchers concluded that CSR has a positive impact on company performance. For instance (Afridi & Khattak, 2013) researched in Pakistan on corporate social responsibility and its role as a competitive edge. Afridi & Khattak (2013) concluded that corporate social responsibility has a substantial impact on having a sustainable long-term advantage over other players in the industry. The companies which are socially responsible earn more profits. Socially responsible companies have a good image in the eyes of customers. Their relationship with customers is comparably better and long-

term compared socially less responsible companies. The researchers further explored and analyzed the perception of customers regarding CSR and role in the loyalty of the customers. It was concluded that the CSR has a significant positive impact on the company performance with the mediating role of trust. This study in telecom context In the context of telecom, there are serval researchers which proves that CSR has a positive impact on company performance(Farooq & Jabbar, 2014).

(Elembilassery & Gurunathan, 2018) Conducted research on the investigation of the global CSR and explored the previous literature related to corporate social responsibility and more of CSR implementation in India. Mainly the researcher has concluded two practical implications. The first business firms can adopt suitable implementation plan. First can looks for social partnerships with companies, direct impact on society, operational plans of education and teaching, efficiency in implementation and showing accountability. The first case is implementable for bigger companies like India telecom companies and operating MNCs. The other plan can also be employee volunteerism, which is implementable in the corporate sector. The second implication of CSR white ch was concluded in this study is the employee commitment and interest of managers in the company. Corporate social responsibility can act as a reason for the employees to work with the company. Companies can make a group of the employees and ask them to volunteer in the interested domain for corporate social responsibility. The research implementation is not only limited to India. These kinds of programs also exist in many companies in Pakistan. For instance, China mobile a telecom company completes social media activity is based on the employee volunteerism. Employees can register themselves in different programs which start from education to playing with children in orphanage homes. The company organizes transportation for the employees. The core goal of these events is to improve company image yet create a positive culture in the company. There are different types of programs like women breast cancer awareness or child education awareness. These companies give their employees to volunteer in CSR programs.

(Abdulai & Hinson, 2012) Conducted research on market orientation, innovation, and corporate social responsibility (CSR) and its impact on business performance This was a quantitative study; the researchers concluded the customer's responses with the help of a questionnaire. The study was conducted in Ghana. The managers and executives in telecom sector Ghana provided their response. The collected data analyzed with regression to check the impact of the market orientation and CSR on company performance and concluded that market orientation and CSR has a positive impact on the innovation which ultimately impacts the performance. The authors have also concluded that market orientation has a significant relationship with innovation. Market innovation mediates the relationship between company performance and CSR. The research had lot implications and way forwards for companies. The same attitude is found in among the successful owners and founders of successful compares. The world most prominent innovators CEOs like Steve Jobs and Bill Gates called their success reason the market orientation and customer focus.

Similarly, Amazon CEO believes that only way to be successful and perform well being market-oriented. Market-oriented starts with the customer centricity. The customer-obsessed companies never fail because its linked with market orientation and **it** has a link with innovation and innovation impacts the company performance.

(Zhao, 2018) Conducted research on corporate social responsibility as a competitive edge. The author is of viewpoint it helps companies in gaining sustainable completive advantage compared to its competitors. In recent times, there have been many issues, which were highlighted at the global level. Especially one case of Facebook, Facebook's influence on people's emotions through controlling information flow, and Google' s self-driving cars causing personal injuries, have caused concern on the issue of corporate social responsibility in the era of artificial intelligence. Based on this, it has become indispensable to explore how to improve corporate social responsibility in artificial intelligence. Corporate social responsibility must manage conflicts of interest, including current and long-term interests, local interests and overall interests, anthropocentrism and sustainable development. We propose to strengthen the construction of corporate social responsibility in the era of artificial intelligence from several perspectives, such as enhancing public awareness of social responsibility, transcending the dimension of time and space, thinking about corporate social responsibility, focusing on sustainable development, and rethinking corporate behavior standards.

Corporate Social responsibility and AI

As from the literature in this study it has been observed in most of the studies the CSR is a good source of competitive advantage. Companies which are socially responsible are more successful. Similarly, in bigger companies like Facebook which already has a competitive edge over other companies because of having the technology and extra resources. These companies are helping humanity to evolve. Innovation itself is making humans live better which is becoming part of the corporate social responsibility. These aspects of improvement in the technology will also have the daily life statistics of humans. Today because of internet most of the people are active online. Because of the data which companies own here comes the is concerns of corporate social responsibility on these companies in the era of transformative marketing.

Due to advancement in technology and development in every sector of life, it is tough to say that humans cannot do anything, therefore due to incisiveness of what we can do? There is a need to focuses on the question what we should do. For instance, there is a general understanding we should not do human cloning because it can harm humans and is not ethical. Similarly, if we are developing something which is impacting our social responsibility as humans, then should we do it or not is the real question? and what should be the extent of any development which is replacing humans? The digitalization has transformed human lives, Humans today are connected more than ever before in human history. With the help of technology, better transportation companies are operating worldwide. Today companies have more data on their customers

than ever before in human history. Every company can easily collect, store and analyze data of its employees and customers. Updates in technology especially the artificial intelligence is leading towards the creation of machines which can perform better than humans. These developments positive impacts are boundaryless, however, at the same time, these developments are also creating concerns about the growth and development of society. A machine doing humans job can make humans jobless. The accident caused by Google self-driving cars cannot be ignored either. This paper explores and provides a way forward on the corporate social responsibility of the companies and government who are inventing artificial intelligence. This paper suggests that for any development government and bigger companies should start education and training programs as a corporate social responsibility to train the people as per new required skill.

Corporate social responsibility is one of the broadest studied topics in the social sciences. It includes initiatives from the most prominent companies to serve the humanities. However, sometimes these bigger companies are also criticized that they are the reason behind the problem. One of the reasons these companies are growing is because these companies are consuming revenue from many sectors of life. In this research paper, we discuss the two possibilities of corporate social responsibility which these companies should care. The example in 2018, Facebook acquired, Google own these companies and Amazon own these companies. These companies are powerful because of two reasons one the data and other is the financial strength of these companies. Due to the availability of data now these companies are going to invest in artificial intelligence. Artificial intelligence can lose many jobs. What the development can do and what are concerns of humans on it. What impact AI can do on humanity.

Roslin Institute in Scotland introduced "Dolly" the first clone of a sheep 20 years ago, but still, we do not have human clones, because suddenly there became the concern of human cloning after the introduction of the dolly. Many researchers do not recommend human cloning due to scientific, marketable and moral reasons (Sharon Begley, 2016). In the last two decades due to advancement in technology, the internet companies have disrupted many industries such as music industry albums system completely disappeared because of YouTube. The companies like Uber has transferred the transportation especial the taxi business. The Airbnb is impacting the hoteling industry. WhatsApp is eating telecom companies voice and SMS revenue. The companies like Facebook and Google not only disruption every business. There are many positive aspects of social media and google. Their e-commerce business is helping people all over the world. The tasks which were done with a salesman are done with MailChimp or contextual marketing campaign of Facebook or google ads. Due to companies like Alibaba and Amazon the small industries offline jobs are disappearing. Every business is online. If these businesses took one side jobs but at the same time created a job for another side. These companies empowered educated people. There became concerns of fraud, but still, these companies made the business environment better (Donnelly, Holden, & Lynch, 2009; Ivy, 2008; Johnston & Kong, 2011; Moorhouse, Dieck, & Jung, 2018; Yerpude, n.d.).

All these developments are making humans life easy but there is another side of the business because these developments there are many blue-collar people are losing their jobs. Because of these developments in 2018, there were around 20 million job losses. If at some side people lost the job but also previously because of Facebook and google new streams of revenues were also generated. Million people earning is associated with these big conglomerates. However, the concept of AI is different. It has the power the do daily human tasks and this task can possibly impact those which are less privileged. Hence there is a need to review the Facebook and Google initiatives and find the areas where these developments can impact.

AI Facebook Projects

Facebook is one of the world leading companies. Its revenue is more the GDP of many countries. Facebook is continuously investing in innovation and make people live better. Facebook already empowered the customers and people to connect with each other and share their feelings. Facebook is continuously improving its people connection and attachment aspect of the business. Facebook claims that they do everything in passion. At Facebook research supersede everything they do. Facebook has resolved many real-life problems. Today many businesses are online It's a source of getting famous. Source of making brands Facebook page option covers many aspects like public fugues, e-commerce site and teachers. It has aspects many covers like location, events, businesses and communities which is appreciable at all level. Facebook also advertise papers. New development and projects are continually updated. The AI projects are the latest projects on which Facebook is focusing now.

Facebooks Augmented Reality /Virtual Reality project This project can be the biggest game-changer, its focused on how all of us interact with a computer each day. Its focused to make the interaction easier and understandable. The computer will understand us better and follow the human orders easily.

Facebooks Computational Photography & Intelligent Cameras:

Mobile graphics and visual processing enhance sharing and connections.

Facebooks Computer Vision: This project is about the Understanding:

the visual world around us. How the computer will understand and respond to the visual world.
Facebooks Connectivity:

This project is about making online easy and accessible for offline people. It's a wide area internet deployment.

Facebook Data Science:

Understanding the unstructured data and getting meaningful data.

FacebooksEconomics & Computation:

Exploring the juncture of economics and computation. It will make implementation of theory and economic rules easy

Facebook AI Research:

Advancing the field of machine intelligence. Advancing the field of machine intelligence. We are committed to advancing the field of machine intelligence and are creating new technologies to give people better ways to communicate.

Facebooks Computer Interaction & User Experience Project :

Understanding and refining social involvements. Human-Computer Interaction and User Experience researchers at Facebook str seeking to improve the experiences of the Facebook users

Facebooks Machine Learning Project :

 This project is about Applying ML science to Facebook products.

Facebooks Natural Language Processing and Speech:

Language is the biggest barrier when people from different languages interact. Facebook in this project is focusing on removing this barrier between people.This project will help people to interact but at the same time many translator jobs will disappear.

Security & Privacy:

Keeping the Facebook community safe and secure. Research into security and privacy is a constant and important part of keeping the Facebook community safe to support each person's communications and personal information.

Facebooks Systems & Networking Project : Constructing the systems to bring the world closer together Knowing more information about employees and customers companies can exploit its employees and customers. The recent crises of Facebook data are evidence of this distraction.

Google AI Projects

Google's Self-driving cars Project
Googles Delivery drones (Wings project)

Googles Loon Project is an internet project. Balloons providing internet service in rural areas
Googles Verily project focusses on wearable devices. It will ultimately help health services providers to identify patients disease virtually.

Glass Enterprise project is working on wearable hands-free computer and computing devices.
Makani is a project where kites will generate wind energy,

Google Project Malta will produce renewable energy from large tanks of liquid.

Googles Project Foghorn was aimed to reduce Carbin emissions by extracting the carbon and hydrogen from seawater and create a new type of fuel. It is discontinued.

Googles Project FSOC core objective to provide internet between two points with the help of light

Google's Project Dandelion is focused on creating an environment free energy. Which is call large amounts of computing power

Robotics at X is a team in Facebook which investigating the machine learning. The team is trying to make a language with which the robots will be able to understand the environment and perform reliably.

Facebooks "Brain" project is on daily tasks which are focusing on machine learning and investing in aspects where Artificial intelligence can replace and perform daily human tasks.

Chronicle is a platform for cybersecurity intelligence and analytitcs. This platform combines massive amounts of computing power, large amounts of computing power and machine learning to help companies understand and manage their security and its related data better.

Possible Industries which can get impacted

Fragmented industries

All Facebook and Google developments will ultimately impact the In fragmented industries. Fragmented industries are the industries where, there is no single company has large enough market share or impact on influencing the industry direction ("What is fragmented industry? definition and meaning - BusinessDictionary.com," 2018) Types of fragmented industries are Health care, restaurants, and education. There aged care, home care, disability support, health care, child care, education (schools, colleges and the universities), recruitment, labor hire, jobseeker/employment services, automotive repairers (cars and trucks), automotive dealerships, hospitality, retail, construction, mining (big companies but they take contract labor and other support), law, accounting, finance (including insurance).

Why there are fragmented markets?

There are several reasons in the literature about the existence of fragmented markets. However, the main reasons are five. The first is because of needs and

wants of the people. For example in the food industry and health sciences. The second reason is the low-level innovation in the products, for instance serving of tea to the people. The third reason is no economies of scale; every transaction needs similar effort product of more does not mean less effort or effectiveness, for example in the health sector more efforts mean doing the job effectively. Earlier three points lead towards the generation of the fourth point which is the competition in the market. A product where economies of scale are not possible can be done at the individual level, which creates competition. This aspect of fragment industries also becomes the logic of not investing in innovation of the industries. The fifth reason behind fragmentation in markets is the high customization of products. It can be observed in education and health. There are million people associate with these industries. For example, in the USA as shown in table-1 156,064 thousand people who are associated with the fragmented industries? This number is expected to grow about above 167,582 by the end of 2026. The includes labor from Nonagricultural wage and salary, Goods-producing, excluding agriculture, Mining, Construction, Manufacturing, Services-providing excluding special industries, Utilities, Wholesale trade, Retail trade, Transportation and warehousing, Information, Financial Activities, Professional and business services, Educational services, Health care and social assistance and Leisure and hospitality (United States Bureau of labor statistics, 2018). These are statistics of United States where because of innovation, technology and other facilities the labor is trained to work with the machine. In rest of the world where there are energy crises, low production of industrial and agricultural firms and fewer education facilities, implementation of AI can take these jobs. The possibility is that if developments happen in AI, the market like USA & UK will start production in their own countries and this impact the world.

Table-1 Employment in Fragmented Industries in the USA

Industry Sector	Thousands of Jobs			Compound Annual Rate of Change		
	2006	2016	2026	2026	2006-16	2016-26
Total [1]	148,988	156,064	167,582	100	1	1
Nonagricultural wage and salary [2]	137,191	144,979	155,725	93	1	1
Goods-producing, excluding agriculture	22,467	19,685	19,904	12	-1	0
Mining	620	626	717	0	0	1
Construction	7,691	6,711	7,576	5	-1	1
Manufacturing	14,156	12,348	11,612	7	-1	-1
Services-providing excluding	114,724	125,294	135,821	81	1	1

special industries						
Utilities	549	556	560	0	0	0
Wholesale trade	5,905	5,867	6,013	4	0	0
Retail trade	15,353	15,820	16,233	10	0	0
Transportation and warehousing	4,470	4,989	5,353	3	1	1
Information	3,038	2,772	2,825	2	-1	0
Financial activities	8,367	8,285	8,765	5	0	1
Professional and business services	17,566	20,136	22,295	13	1	1
Educational services	2,901	3,560	4,066	2	2	1
Health care and social assistance	15,253	19,056	23,055	14	2	2
Leisure and hospitality	13,110	15,620	16,939	10	2	1

Source:(United States Bureau of labor statistics, 2018)

CONCLUSION AND DISCUSSION

Transformation of AI will hit hard and result in a lot of jobs loss around the world. According to McKinsey global institute by 2030 around 30 percent of the human labor will be eliminated by intelligent robots. This will result in losing 800 million jobs, which is one of the biggest concern in the growing world's population. According to (Chatterjee, 2018) AI technology can be beneficial and its already helping in the advancement of the health and medicine industry. The government should implement regulation to re-train blue-collar employees; this regulation will help to protect employee rights and result in a healthy society.(Casares, 2018) Suggests that average and high skilled jobs will be less vulnerable, most of the repeated process jobs will be automated by robots. Most of the new jobs that will be created will be highly skilled programming, big data, and robotics. CSR perspective all these corporates should be responsible for training and educating blue collar employees with the support of government (Brynjolfsson, Rock, & Syverson, 2017). To conclude the main research points, there is no assurance from government or corporates that AI will create more jobs than eliminate. Mostly blue and white collar employee jobs will be affected by AI, though AI will create more jobs specifically high skilled jobs (Helbing et al., 2019).

The revolution of AI will result in significant challenges, and the significant impact will be on white and blue-collar staff, prevention of such situation will help the government to avoid future consequences (Birtchnell & Elliott, 2018).

There is another side of AI developments. This perspective if applied can be harmful to underdevelop and developed countries. All the production houses, manufacturing plans are in developing countries. After the introduction and success of AI, there is possibility that with the help of robot's companies in developed world will start production in their own country. This development can impact the world more. Increase inequality will exponentially increase. This threat can be controlled by making one governance team at United Nations level. The boundaryless benefits of technology cannot be ignored but government and conglomerates must work together to reach on a resolution to mitigate the blue color concerns.

Recommendation

AI technology has emerged, and giant firms like Google, Facebook, and other large tech firms are investing in research and development of AI to ease the work progress to cut down staff and meet the future tech expectations. The critical point with AI related to CSR is that AI transformation and machine learning will replace many blue-collar jobs around the world. The AI backbone is big data and machine learning; such companies already have branches in Kenya, Africa paying \$9/day to their employees to work and key-in data for AI. Furthermore, the AI will also create many jobs to key-in the significant data information for the AI, but these jobs will not be enough to accommodate most of the blue-collar jobs that they will lose their jobs. Government and tech corporates should initiate rules and arrange to train blue-collar employees that they will lose their jobs. It is also imperative that an excellent system should be implemented to the tech firms if there AI system is responsible for losing many people jobs. This could also increase the crime rate, and it could be a big issue for the Government to control this issue. These rules should be implemented together with 5G network deployment because after the deployment of 5G technology the AI system will be usable around those countries. According to (Schroeder, 2018)AI technology will result in many employees to lose their jobs and employees with technical knowledge will survive.

Research Recommendations for future researchers

Facebook and google AI programs are covering all aspects of life. Form this research it can be easily observed that there are many aspects of the business which are going to ranforced in coming years. From publications of Facebook and Google, the manager of every industry must give to training to its employees. Designing course can be a problem for the compares as they are not aware of the possible developments. In the education program, these companies can help others to learn. Secondly here comes the responsibility of the government to incorporate these aspects into their technical education plans. Young generation must be trained to be flexible and cope with the changes. There are developments which will open new streams of opportunities for the companies. In this situation, the core responsibility of Facebook and Google is to provide educational content and update the content.

These aspects open many opportunities for the companies to open new social responsibility aspects. Companies should train their customers to cope with the subsequent developments. The socially responsible aspects will help companies to gain a competitive advantage over their competitors.

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