

The Fourth Industrial Revolution and its impact on job creation- A Study of Major Indian Industries

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Abstract:

Lord Krishna has said that change is the nature of time, and we have to change ourselves with the time. You adopt the change or the condition will make you to adopt the change. Industry 4.0 is a revolution which is considered with automation, internet of things, cyber physical system and artificial intelligence. Through this paper we attempted to explain the concept of industry 4.0 and its impact on job creation on the various industries in India which includes: Textile industry, Food Industry, IT Industry, Health care industry and Banking industry.

Introduction:

Talking about industry 4.0 it is the change which India has adopted. It was mandatory for us to adopt this because India is in the race of global industries and we understand the importance and the necessity of adopting this.

Things can be permanent in the nature if you want to be the continuous part of Survival and growth. Hence the revolution is a must. In today's scenario when everything is changing on a very Rapid scale. Revolution was needed for the industry. In a country like India, where today we are on the Boom period in the economy, it is essential for us to be the part of one of the main revolution that is industry 4.0 for the survival and growth.

The main salt for any economy to take them into the various stages like depression, Boom, recession etc. The performance of the industry is the main reason behind it. When Technology is the new requirement of our country we have welcomed revolution industry 4.0, which has the smarter way of doing things by using smartest tools and technology like

artificial intelligence, cloud Computing, internet of things, Cyber physical system or any technology that can be helpful for the industries. Any Revolution can make a great impact either that impact may be in a positive manner or in negative manner. Industry 4.0 can be a catalyst for making an impact on job in India either in a positive way or in a negative way.

Are the Indian Industries ready for 4.0?

From the British Era we have witnessed that India is having the potential and the skills to take the industry to the boom and manufacture the good no one can. The product our industry has manufacture till now has made a great impact on all of us and it has helped our economy time by time because we are the continuous part of industrial revolution. Till now industry has faced three Revolution and we are the part of the fourth revolution. Some industries have happily adopted the fourth revolution and some industries have to adopt this evolution because the scenario such that anyhow they have to adopt this revolution.

In a country like India where we have brilliant mind those who are running giant technological companies like Google, Microsoft, EMC, Accenture, Ubisoft, Cognizant, Concentrix who may be Considered as the main Pioneer to see the revolution that India is witnessing right now.

The positive aspect was introduction of Industry 4.0 in the banking system was that things are done more quickly but negative aspect is that many employees have lost their job. In India there are so many engineer, doctor, scientist, businessman who have created great impact globally by bringing revolution. But one side of the story is the elementary thing which country should have; India is still struggling to have those things. If you talk about India, In India the industry is divided into various sectors upon the following factors like the process they adopt to manufacture their goods, the kinds of good they manufacture, Number of labor they are having in their industry, number of operations carried out on this industry and most importantly the amount invested in the industry.

What Industrial Revolution 4.0 has provided to Indian industries?

Interconnection

If we want things to perform in a proper manner the things need to be interconnected with each other. In any industry the efforts of the human and the efforts of the machine must be integrated and coordinated at one place and they must be connected with each other.

When human being was required to do a job, now we have machine sensors, machine devices, which are connected and they communicate in such a way that they had created a revolution, For all the operations that have been carried out in the industry. We do not connect the efforts of all human beings in the industry but we connect the effort of human and machine which help any industry to work best of the ability and the best tool that is used today is internet of things and it is also called as internet of people.

If you are connecting human and machine, then some connection is need to be established between them and that connection is establish through internet. The previous scenario in the industry was when any human being wants to operate any machine he should be physically present there to connect to machine to manufacturer good. But today things are connected but not by physical presence but by virtual presence and these all other things which are connected by the internet.

For example: In a manufacturing industry, we do not require any human to find out the defective product, we do have a machine whose sensor are design in such a way that they connected to the production machine and they find out the defective product.

Information traceability and transparency

Any decision that is to be taken by the industry is need to be taken by examines the various pros and cons because the decision taken can affect the industry, in a positive manner or in a negative manner. A decision is always based on the information and there should be a complete transparency in the information. Industry 4.0 has emerged the concept of

complete transparency which helps to get a vast amount of information and it helps management to take the correct and accurate decision.

Earlier what used to happen that company was spending lot of their amount on the various areas of their business. Many amounts were invested but the required result was not there within the Industry. The reason behind this was there is lack of information transparency and traceability. Lot of information was required to take various decision of the industry. The amount of required information was less within the industry and more and more amount was invested on research and development and other innovation project was not useful, because the information was Limited.

There is lot of information that is within the industry. If the industry is very large and its operation is very large, it need to centralized information at one place. Information transparency and traceability is achieved, which has helped the industry to keep the track of information and which is affecting company overall operation in a positive manner. Making the industry to growth, survive and most importantly contributing towards the economy of a country.

For example: One unit of industry has manufactured some goods in which they are dealing, but another department that is sale department of company was unaware of it. Because the information transparency and traceability was not there. in today's scenario we are having information transparency and traceability through the various tools that are used in the industry 4.0

Technical support

Industry 4.0 basically talks about the concept of Technology. As technical support is provided by the industry 4.0, whether it is the concept of internet of things, artificial intelligence, and automation of work. Technical support has helped industry in all the process that is carried by an industry whether it is related to purchase department, sales department, Production department, manufacturing department and other important department of industry.

Let's say workers in the industry need to be trained before manufacturing anything. But there was some lacking in their training and the reason behind this was automation of the things were not there in the industry, but today automation of the things are there in the industry, and this can be achieved only through the technical assistance.

The human beings that are working in the Industry, Are able to work more effectively and efficiently because of the technical assistance, it help then to get more visualized information, which bring more smoothness in their operations that are carried by them in the Industry.

Moreover technical assistant do a work has helped them in the reduction of the cost because generally investing in machine is one time investment, and the human beings that are required in the industry are need to be pay monthly or yearly which may result in a burden to the Industry.

For example: A group of people is needed to be trained by the industry, they can used some virtual methodology to train them which will be more effective way for carrying out operation of the industry.

Impact on job creation through industry 4.0

In India there are various types of industries. If we considered few main industries in India we can understand its impact on job creation. Let us understand the various impact of industry 4.0 on the job creation:-

Textile Industry

When we are talking about textile industry there is no reduction in the job. We can say that there is a positive impact on the job creation; many jobs are created by the help of implementation of Technology in the industry. As India is the one of the largest producer of textiles, industry 4.0 has helped to use more automation of works which is directly

related with the most production of textile products which has helped to create many jobs in the textile industry.

Industry 4.0 has given flexibility to the textile industry because the changing trends can be adopted very quickly by these industries as automation of work allow them to adopt any trend very quickly, which does not make any much impact on the job that is there in the industry.

Moreover more and more production has resulted in creating many jobs because more and more textile products can be manufactured by using automatic sewing machine, cloth designing process and the integration of information at one place globally around the world, regarding what is happening in the textile industry

Food industry

If you are talking about the food industry we have to cover the more important aspect of Food Industry that is agriculture sector. Agriculture sector is the most important sector of India economy if we talk about impact of job creation. We can't only blame industry 4.0 in reduction of jobs in agriculture sector; there are many other factors that are associated with it like political factor, economic factors. moreover Technology like GPS tracking system that farmer use today has help them to predict the weather and plan their farming according to it. Those farmers who are doing farming on the large scale have reduced workers working in the farm because the cost of labor is very high as compared to the using of Machines.

If we talk about other Food Industry who has use more advanced methods and Technology, there is certain decline in jobs in these industries because they are not able to match up with the cost of the large scale industries.

We can't deny the fact that there is no job reduction due to industry 4.0 in the food industry. But if we talk about those food Industries who have gone fully automated and they are using robot and others smart devices to manufacture the product, they have

created a job but the jobs are created only for the skilled people which has resulted into the reduction of the jobs for the unskilled people and their number of people that are involved in the food industry.

IT Industry

We can say that the concept of industry 4.0 has emerged due to software industry. There are many concepts that have been introduced by the software industry like artificial intelligence, internet of things. Which definitely has help the various Software Industry to carry out the operation smoothly and when this technology was introduced it was one of the reason for creating jobs. But in today's scenario it is resulting in decreasing the number of jobs. when human being was required to do any work the concept of artificial intelligence is used to do that work because artificial intelligence do that work more accurately , it is reliable and moreover it cost less to the industry.

System like payroll which is used to manage the workforce of the industry has helped the industry a lot but it has affected many HR jobs. Some reports are suggesting that in India there will be no call centers, and in India there is maximum number of employment in the call centers. If the industries 4.0 do so, number of jobs will be lost. Thus we can conclude that industry 4.0 has reduced many jobs in the software industry and in future many more jobs will be lost.

Health Care Industry

Industry 4.0 has the positive impact on the job creation in the health industry. Maximum number of jobs is created to industry 4.0. Since the scenario is search, there are many health issues that are occurring among the people. Moreover industry 4.0 has helped the Healthcare industry for the digitalization of record, flow of communication, track patient health which has helped to carry the operation smoothly and have created many jobs.

In Health Industry we require maximum number of skilled people and report shows that India has maximum number of skilled people. Industry 4.0 has save countless life and it has improved the quality of life for even more. Industry 4.0 has not changed the experience for the patient and their families but it is also changed the practices of the Healthcare professionals.

Industry 4.0, each and everything can be done through Technology, so it helped to save time money effort and energy. Generally the entire Healthcare sector in India has adopted the concept of industry 4.0 which is attracting more and more patient from the other country coming in the India and it has helped creating many jobs for the people of India. Moreover adopting industry 4.0 was the need of our in the Healthcare sector because there were many health issues in India associated with the people.

Example: Diabetacare's smart glucometers are a fantastic illustration of how IoT in the healthcare sector may help people better control their diabetes.

Banking industry

Banking industry can be considered as one of the most important industry because this industry supports other industry. If you talk about jobs in these Industries there is continuous decrease in these jobs. Some automation process is used by these industries and the banks performed their operations very quickly. In India we are moving towards the concept of industry 4.0 like we have cash deposit machines, cheque deposit machines and all the work that is to be done by the employee of the bank can be done by the machine today.

And people are more comfortable by using the automation because these Machines work faster quickly and it save lots of time and energy of the customer. Moreover it is helping the bank to get more and more profit because the adoption of Technology have cost them very low as compared to the other source of doing the work that were employee. One aspect is also there that industry 4.0 may cause reduction in jobs but at the same time all

the Machines and all the automation process that are used in the industry is carried out by the human only.

Industry 4.0 has increase the competition among the bank, and increase competition has helped to customer to get a good service. Moreover it has helped the digitalization of the operations that are carried in the bank. The fact that we can understand here due to industry 4.0 in the banking sector there will be reduction in the jobs of the people who are just average skill, because their work can be done through automation. Thus we can conclude that previously jobs were many in this industry but today are very less and in future more chances of job lost is there.

Conclusions

The fourth industrial revolution with the massive use of artificial intelligence (AI) will take away more human jobs. However, automation will also create new demand for non-routinized knowledge work. So Employees must focus on skilling themselves by developing the competencies beyond their role. Government Policy related with industry should be re-constructed in such a way that at some extent it allows every industry to easily imply Industry 4.0. Because if we don't do so, we lack, and if this happen in India we will lack in the race of global industries, which will result in less efficiency of industries, resulting in creating no jobs and deduction of jobs.

Reference:

www.skilloutlook.com/skill/will-industry-4-0-impact-jobs

www.thehindubusinessline.com/specials/india-file/ready-for-industry-40/article23805022.ece