

Industry 4.0: A helping hand for entrepreneurship in modern era

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ABSTRACT:

This study is focusing on the Fourth Industrial Revolution which impacting on the smart environment for entrepreneurship. The fourth industrial revolution uses lots of digital techniques, flexible to make more benefits for entrepreneurship. The industry 4.0 has impact on industrialization through information technology, internet, autonomous, integrated products and services, ecosystem of intelligence. Entrepreneurship wants to use all technologies which help to solve the current challenges in newly path that were not thinking before. This paper mainly focused on benefits of industry 4.0 with upgrade technologies and impact of it on entrepreneurship. It also explores the impact of fast-growing technologies on the transformation of socioeconomic and environmental systems, and technological change can generate sustainable economic growth and employment. The main aim of this paper is to improve the productivity and efficiency, increased profitability, better flexibility, and agility through Fourth Industrial Revolution.

Key Words: Industry 4.0, Entrepreneurship, Technologies, Challenges, Environment.

1. INTRODUCTION:

An entrepreneur is a person who wants to set up a new business with the goal to make a profit in the market by some innovative ideas. Entrepreneurship includes an entrepreneur who wants to take a step to make a change in the world that helps to start up entrepreneur to solve a problem. In other words, An entrepreneurship is the way of setting a new venture while building and scaling the ideas through a more profit. In a simple way, Entrepreneurship is the main procedure of creating, designing, processing, launching, and running a new venture, where it is mostly start from the initial stage to solve a real time problem by some innovative ideas. Entrepreneurs play role of an initiator, risk taker, risk reducer, allocator, adhere to the legal norms, forecaster. Entrepreneur plays a vital role in a financial growth and standard of living of the country. These are the six top most roles an entrepreneur that helps to developing the growth of the industry as well as country. Under the fourth industrial revolution the entrepreneurship process is work like- horizontally as well as vertically with the help of internet that can be manage actual time.

2. WHAT IS INDUSTRY 4.0?

Since starting, industry is facing several challenges and changes. Some changes took the form of revolution. **First industrial revolution** was started in the mid of 18th century by **James Watt** who made new **Mechanization** through water and steam power. Through using machines of water wheel and steam engine helps to skilled artisans for making goods by hand. The transition was the most popular in the textile industry, but the effects of the first industrial revolution and felt in almost every aspect of daily life. So, that was industry 1.0. **Second industrial revolution** was started in end of 19th and starting of 20th century by **Henry Ford**'s invention of **mass production** and assembly lines powered by electricity. The second industrial revolution was better to do new using technologies with improving existing. **Third industrial revolution** was started in late 20th century. **The computerized system and automation system** was the theme of this revolution. These progresses brought changes in the scale to enable levels of precision and accuracy introduced at the bottom of the world.

Currently, the **Fourth industrialization revolution** is the smart modest route that sometimes called the future factory, which is the main foundation of the fourth industry revolution. The fourth industry revolution smart modest route includes extensive use of data exchange and autonomy in monitoring processes, including areas likely- advanced analytics, cyber system, artificial intelligence (AI), internet of things (IoT), cloud computing etc. Several manufacturing companies in India has started implementing the power of the fourth industry revolution in the operation using additive manufacturing and Autonomous and robotics. Digital India and

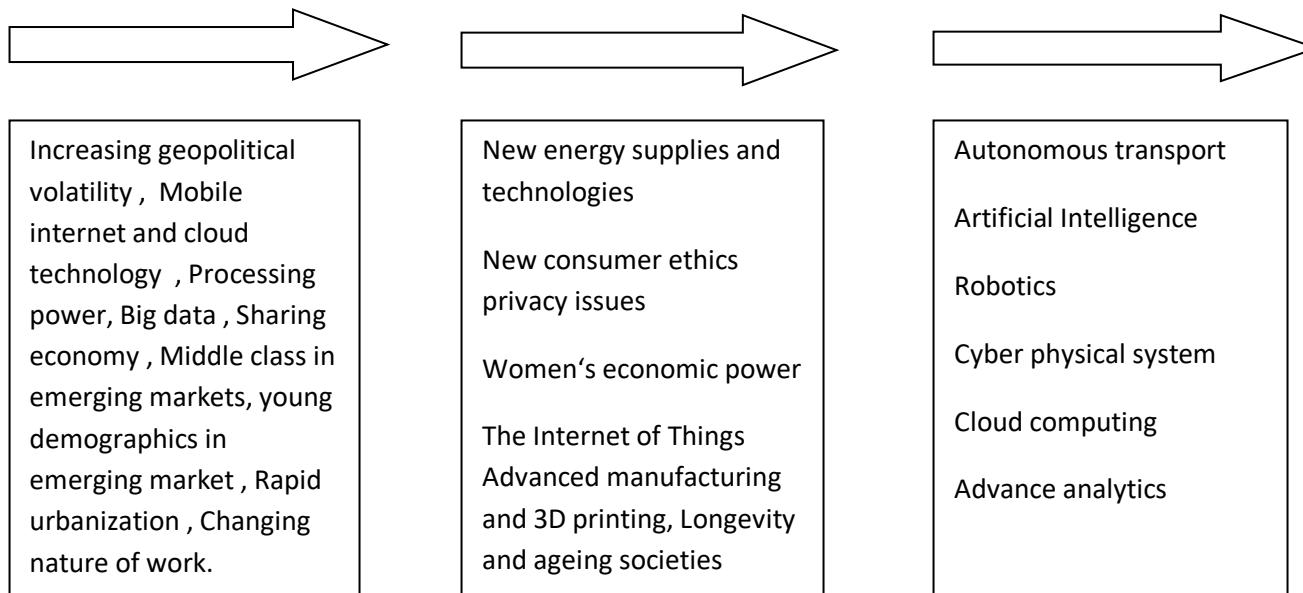
made in India are some steps taken by Indian government in the forward way of implementation of industry 4.0 in India. As it is more commonly known, with a great opportunity, comes great challenges.

3. THE IMPACTS ON ENTREPRENEURSHIP OF INDUSTRY 4.0 MODELS

Impact felt already

2015-2017

2018 -2022



The fourth industry revolution or Industry 4.0 is consign to the main changes impacting the logistics, supply chain, and manufacturing industry. However, the fourth industry revolution consign as the assessment of a smart factory. However, the fourth industrial revolution impacting across lots of sectors. Under this research, there are some **main and biggest impacts that matter on industry 4.0** –

- Reduction in the need for human labor is also necessary for a different skill set of force.
- Real time information and better decision making.
- Improved quality and improved innovation.
- The ability to understand what the customers really want to do.
- On demand manufacturing and customization.

4. RESEARCH METHODOLOGY:

Research methodology is the systematic, theatricals analysis of the method applied to a field of study. It comprises the theoretical analysis of the body of methods and principles associated with a branch of knowledge. The secondary data were collected from various published annual reports, journals, magazines and old research literature and websites.

| | |
|----------------------|--|
| Research design | Descriptive |
| Data | Secondary |
| Data collection tool | Internet, books, magazine and research papers. |

5. BENEFITS OF INDUSTRY 4.0 FOR ENTREPRENEURSHIP

The fourth industry revolution sustains to keep change the way we connect with the world around us, and then new challenges grow. But industry 4.0 has the potential to change the world. Here are some benefits of industry 4.0 for entrepreneurs-

- 1) **Machine learning algorithms:** The machine learning period often changes incorrectly with artificial intelligence but learning the machine is actually an area of artificial intelligence. Machine learning is often also considered as pre- estimated analysis or prediction modeling. Machine learning use algorithms programmed which receives input data and analysis to predict output valves with in hunting range. Because these data is fed to new data, they learn and optimize their operations to improve the developing intelligence overtime.

Actually choosing the right machine learning algorithms depends on many factors like- data size, diversity, quality and also wants to answer the data with the data drive. It also comprises data points, accuracy, parameters, training time, and so on. So choosing the right algorithms is the combination of experimentation, business need, time availability, specification. Can say machine learning algorithms are a cheat sheet that will help you to find one of the most suitable for your specific challenges.

2) Cloud computing: The word cloud computing was famous by **Amazon.com** who realizing its **elastic compute cloud** product in **2006**. For cloud computing the main technology is virtualization. This virtualization software helps to provide the duration of required to speed ups its operations and overcome the cost by increasing infrastructure utilization. Automated automation computing process through which users can manage resources on demand. Reduction of users partnership automation increase the process, labor cost decrease and the likelihood of human error is reduced. The cloud computing utility computer leverages the concepts. So that metric software services can be used. Cloud computing concept take from service oriented architecture (SOA) which can helps to all users to break all phase problems into services can be integrated to the solution. Cloud computing provides all its research in the form of services and allow access to well established standard and best practices to access the cloud service in a global and easy way to obtain ASO's domain cloud computing is also leverages the concept of utility computing the provides metrics for services to be used. Cloud computing is also confer the tools and technologies to make intensive parallel application with suitable prices comprised to traditional parallel computing techniques.

3) Adopt new business model: A business model is a conceptual surtax that helps the provision of a product or industry and involves the goals and purpose of the industry and how it intends to obtain them. Business processes and policies adopted by the industries are the part of business model. Thus, a business model is a rational description of our industry, which delivers itself as well as the value for the customers. The widespread use of business model came in to being with the advent of a personnel computer, which allows the people to test and model different components of the business. Before that successful business model was mostly made by an accident, not by the design. In industries there are only two business model- the first part deals with product design and manufacturing and second part of business models related with everything regarded to product selling by finding the right customers to sell the product. The main **types of business model** are **Manufacture, Distributor, Retailer, Franchise, Bricks and clicks, Fermium, Subscription, High touch, Low touch, Aggregator.**

4) Target potential customer: Under the fourth industries revolution, one of the biggest challenges facing by small industries owners is information about his target market. With the limited fund, it is necessary that you talk your prospects with the right people. It may seem obvious that but there are so many industries owners those who do not give a little thought about who will buy their products or services before starting their distribution, but without some main steps information and knowledge how can you grow a business successfully in the market. So firstly define these steps like- **Define your target market, Reach near target market, Identifying what type of customer they are, Tailor your marketing to your customers.** By using the marketing make sure that your marketing budget has the most impact and is more likely to go to the high value sales and loyal customers coming to the home. So can say dedicating time to specifying the main target market that will supports in much focused, most effective in marketing activities for gained better return investments.

5) Finance their business venture: Finance is the main challenge in front of entrepreneur. While presenting the accounting track and financial information of your industry. Industry finance will help you to manage your money and to make your operation more useful. There are typical **sources of financing for startups- Personnel investment, Angle investors, Business incubators, Love money, Venture capital, Government grants and subsidies, Bank loans.**

6) Entrepreneurs can exploit new digital technologies to enter developing markets: Social, mobile, analytics, cloud and cyber system etc are the main phenomena which can be helpful to leveraging the new digitalization technologies in such way. These all supports to creating and doing much business in the digitalization era. Digitalization entrepreneurship can be explain as embracing by a order to improve

business operation, new business models accelerate business intelligence in high intensity with the use of new digital technologies and connect with customers and interest holders through new channels.

7) Better manage the administrative burden: Owners of industry want to produce more work. Although they are trying to forget the amount the dealing with administration workers, productivity has a direct impact. In fact, there is an important situation to reduce less paper work more efficiently which helps to overcome the administrative burden. By the help of fourth industry revolution, lots of industries is dreaming of a simple and more efficient administration that helps to reduce workload and positively contribute to the quality of each customers relationship. Industry 4.0 helps to manage the administrative burden by the **Use of cloud base specialty HER software, Avoiding postponing task, outsourced billing, advice of a digital mentor, Prioritizing, delegating, and hiring competent staff.**

8) Digital transformation of labor market: Recently digital changes have happened in India and a lot has been said and deservedly. The so-called fourth industrial revolution has become an effective rule for the last few years. Undoubtedly, this digital conversion promises to challenging and stimulating process for organization whose aim is to increase their productivity and performance to meet with their business models or goals. Cultural changes, consequences play the lead role to transformation of labor market. Digital transformation is the main key which entering in a new era vision that has influenced by labor or customer trends and daily life. Now a day's digital transformation is stronger than ever and it will surely have a big impact on industries, economic and societies in the future. Through digital transformation, many industries have adopt new tidies, into their business strategy to trace their consumers needs, desire and more effectively.

9) Improved availability of big data: The term of data availability is used by computer storage manufactures and storage service providers (SSP) which describe the products and services that as certain that data regularly to be available at a expected level of the performance in conditions ranging from normal through disasters. Integrity, confidentiality non-reproduction and integrity information assurance are the main five pillars of availability of data. But information assurance is the one of the main part of availability. Information assurance affected with the storage, which can be at an official facility or can be local.

10) Open up enormous opportunity for entrepreneurship and business in the digital age: The internet is the main part of the digital era which made many tools and techniques to traditional entrepreneurs and it help also an opened ups new place to do business. Entrepreneurial activity is one of the main factors of digital environment. There are no lower or starting capital needed. There are several self employed people who take the internet to create portfolio careers. There are the internet is full with lots of opportunities to hiring the skills, search new market, export, work from home, it helps to people to attracting and making different types of choices related with how they work, the rapidly growth of entrepreneurs has connect with digital age.

6. RESULTS AND ANALYSIS:

Our research suggests that entrepreneurs may get benefited with industry 4.0. Enterprises will need to develop durable organizational structures which help to data analytics as a business level ability. Its main aimed to focusing as an environment of job, employment situations, lack of proper knowledge related to supported sources, fear of failure, focuses on people (customer), and culture to drive transformation, talk to action, deepen digital contact with authorize customers and etc. can say, the fourth industrial revolution change is happening fastest in the field of close to the core business.

7. CONCLUSION:

It may be concluded that industry 4.0 is on the way to occupy the whole world and to provide lots of opportunities. The industry 4.0 will change the modest route of whole enterprises for future development, and economic growth also. Storage system of resources within the cyber system, Innovation in the enterprise helps to emulate, Individual progression, Progress of the network and automated, Unique technologies will transform the whole world, Industries will connect their machines, Smart self-tuning for an enterprise, Communication and interaction with the people, enterprise, customer and industry, different types of products

and machines, better industrial processes in production and new ways of working are the main origin of fourth industrial revolution in India, which helps to use unique technologies, changing in industrial environment overcoming the challenges. In short we can say, the industry 4.0 helps entrepreneurship to lead with more possibilities and opportunities.

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