Robots replacing humans: innovation or injustice.

Outline

I Introduction

Robot replacing human is an innovation because it drives socio-economic level of a nation

II) Manifestation of robots replacing humans

III) How robots replacing humans are innovation

A) Increased productivity
   i.e: Robots work 24/7 without any rest

B) Enhanced workplace safety
   i.e: Automation has reduced workplace accidents by 30-40% in high-risk industries in developed countries

C) Boost to innovation and new job creation

Case study: World Economic Forum (2023) estimates 97 million new roles may emerge due to automation

D) Support for aging populations

i.e: Japan uses care robots for elderly assistance

E) Rise in healthcare automation

e.g: Robotic surgery systems

F) Improve to agriculture automation

e.g: Drone-based crop monitoring and computer-base machine

G) Increase to public sector

i.e: E-challan in Karachi

H) Improve in industrial automation

i.e: Tesla ~~and~~ ~~Toyota~~

IV) Consequences of robots replacing humans

1) Job displacement and unemployment

2) Increase mental health issues

3) Loss of livelihoods

) Way forward to measure robots replacing human

A) Investing in education sector iie:. STEM, critical thinking and vocational training

B) Making policies for social protection systems

C) Developing strong regulations for algorithmic transparency, accountability and bias auditing

) Conclusion.

In the contemporary era, technological advancements in artificial intelligence and robotics are reshaping the global workforce. Robots are performing tasks once carried out by humans from manufacturing to healthcare and customer service. This rapid automation has sparked a debate in the world. It not only enhances productivity but also increases workplace safety. It creates new job opportunities in technological sectors. Japan uses care robots for elderly assistance is a example. Robot also improves health sectors in a society. Moreover, it reduces human error and strengthens agriculture sector. However, it increases mental health issues and fosters loss of livelihood in a society. Therefore, it should be invested in education of robots system and and made good policies according to automation. Hence, robots replacing humans is an innovation because

it drives economic growth and solves critical human problems.

The replacement of humans by robots is evident across multiple sectors and reflects the widespread adoption of automation and artifical intelligence. In industrial manufacturing, robotics arms and automated assembly lines are performing tasks such as welding and packaging, as seen in companies likes Tesla and Toyota, where robots work faster and more than humans. For example, robots serve foods in five star restaurants such as a Noida restaurant. On the other hand, in agriculture, autonomous tractors and harvesters optimize production. In this case, drones and AI-based systems are used for surveillance, traffic management and disaster response. Thus, robots is a major role to replace human in the world.

One of the most significant advantages of robots replacing humans is the substantial increase in productivity. Robots can operate continuously 24/7 without any rest and loss of concentration. Automated machines perform reptitive tasks with greater speed and accuracy and reduce erros. According to the International federation of Robotics (IFR), countries with robot density, such as South Korea and Germany, have experienced notable growth in manufacturing output. Moreover, it shortens production time, enhances consistency in quality, and enables firms to meet global demand competitively. Thus, it is a major part to strengthen national economic growth and replace human.

Furthermore, robot replacing human plays role to enhance workplace safety. Robots are increasingly deployed in hazardous

environments such as mining, construction and chemical plants where human exposure to risk is high. They also reduce the livelihood of workplace accidents and occupational injuries. According to International Labor studies, industries that have adopted automation have reported a 30-40% reduction in workplace accidents, particularly in high-risk sectors. Automation safeguards human lives. Therefore, it is a main part to replace human.

Moreover, robot replacing human has acted as a catalyst for innovation and the creation a new job opportunities. Automation stimulates demand for skilled professionals in fields such as robotics engineering, artificial intelligence and software development. According to the World Economic Forum, estimates 97million new roles may emerge due to automation. In this case, it

generates millions of new jobs with technological advancement. It fosters entrepreneurship and technological self-reliance. Thus, robots replacing humans do not merely eliminate jobs but also shift labour from low level to knowledge-based and creative roles.

Robots replacing humans play a crucial role in supporting aging populations, particularly in countries facing declining shrinking workforces. They help bridge labour shortages and provide elderly care. For example:- Japan uses care robots for elderly assistance, where over 29% of the population is aged 65 or above. These robots enhance the quality of life and ~~kalender~~ independence of senior citizens. In this case, mostly people want to use them (robots). Therefore automation emerges as a practical

and human innovation.

On the other hand, rise in healthcare automation is a part of robots replacing humans. Robotic systems are increasingly used in surgical producers, diagnostics and hospital management. They reduce human error and enhance treatment accuracy. Robotic surgery systems enable invasive operations and lead to shorter recovery times and lower complication rates. According to global health technology trends, robotic assistance has significantly improved operational efficiency in hospitals, particularly in high-volume and high-risk procedures. Thus, healthcare automation represents a vital innovation that strengthens medical systems in a society.

In addition to, automation has significantly improved agricultural productivity and efficiency. Automated tractors, robotic harvesters

and drone-based monitoring systems are replacing manual labor in farming activities such as sowing, irrigation and harvesting. These technologies enable agriculture to optimize the use of water, fertilizers and pesticides. They reduce human error and effort in agricultural sector. In this case, computer-base machine planes land during wheat crops. It enables food security in a society. Hence, the automation of agriculture is a major part to reduce human.

The use of robots and artificial intelligence has significantly increased in the public sector. Governments are adopting automated systems for traffic management, surveillance and administrative services to enhance efficiency and transparency. AI-based traffic control systems, E-challan in Karachi,

reduce congestion and accidents. Moreover, automation in public administration, such as e-governance platforms and digital record management, minimizes bureaucratic delays and human error. Thus, it is a main part to replace human in a society.

Industrial automation has witnessed remarkable improvement due to the integration of robotics and artificial intelligence. Smart machines now perform tasks such as welding, painting and packaging with greater speed and precision than human labour. According to the International Federation of Robotics, countries with advanced industrial automation, Tesla, such as China, Germany and south Korea, dominate global manufacturing output. Furthermore, automation minimizes human exposure to hazardous industrial environments and improves safety standards. Therefore, it is a major resource to reduce

human in industrial sector.

The previous paragraphs explained the importance of robots replacing humans and now, the next paragraphs will discuss the consequences of robots replacing humans.

One of the most pressing consequences of robots replacing humans is job displacement, particularly among low-skilled and routine workers. Automation substitutes human labour in manufacturing and clerical services and renders many traditional jobs obsolete. According to the International Labour Organization (ILO), a significant proportion of existing jobs are at high-risk of automation due to technological advancement. This displacement leads to structural unemployment, as affected workers lack the skills required for emerging technology-driven roles. Thus, it is a major impact of robots replacing human.

The replacement of humans by robots has also contributed to a rise in mental health issue. Loss of livelihoods and declining social status often lead to stress, anxiety, and depression, particularly among middle-aged and low-skilled workers. Moreover, rapid workplace automation increases performance pressure on remaining employees who are expected to compete with machines in speed and efficiency. This leads to psychological exhaustion. In addition, the reduction of human interaction in automated work environments contributes to isolation and emotional detachment. Thus, it is a major issue to increase mental health crisis in a society.

Robot replacing human has played role in the loss of livelihoods for millions of workers worldwide. Automation affects low-skilled and informal sector workers whose incomes

depend on routine tasks. In this case, many people struggle to find alternative employment due to limited education, lack of technical skills and weak social protection mechanisms. In developing countries, like Pakistan, where a large amount of the population relies on daily wages, the loss of livelihood can push families into poverty and social exclusion. Hence, automation threathens the economic survival of vulnerable population in a society.

The previous paragraphs discussed the consequences of robots replacing humans and the following paragraphs will explain the suggestion of robots replacing humans.

Moreover, investing in the education sector is an essential to mitigate the adverse effects of robots replacing humans. Education systems must

be reoriented towards STEM (science, Technology, Engineering, and Mathematics), critical thinking, and vocational training to prepare the workforce for a technology-driven economy. STEM education equips students with technical skills required to operate, manage and innovate automated systems, while critical thinking fosters problem-solving abilities that machines cannot easily replicate. Therefore, it is a major suggestion to safe from automation in the modern world.

Furthermore, effective social protection policies are crucial to reduce robots replacing humans. Governments must establish comprehensive social safety nets, including unemployment benefits, income support programs and health insurance, to protect workers displaced by automation. These measures help maintain social stability by preventing

displaced workers from falling into poverty. In this case, it can reduce poverty from the country. The government needs to make good policies for workers such as entrepreneurship and job placement. Workers enable to re-enter the workforce with upgraded skills. Hence, it is a major resources to increase technology with human beings.

On the other hand, the government should develop strong regulations for algorithmic transparency, accountability and bias auditing for robots replacing humans. It should enforce algorithmic transparency laws that require disclosure of decision-making logic, training data and impact assessments. Moreover, clear accountability mechanisms must be established to determine legal responsibility for automated decisions. In this case,

independent bias audits and ethical reviews, can ensure compliance with ~~these~~ human rights standards. Therefore, it is a significant way forward for robots replacing humans.

In conclusion, robot replacing human is an inevitable outcome of rapid technological advancement in the modern world. Automation, innovation, has enhanced productivity, workplace safety. It not only increases in health sector but also improves agriculture systems. Automation rises in public-sector day-by-day such as E-challan in Karachi. In this case, it creates new small start-up in a society. However, automation has serious consequences, including loss of livelihood and mental health issues, especially in developing countries, like Pakistan. Therefore, the government should invest in education and make strong safety policies regarding it.