



Changing Nature of Work in Digital Era

Introduction

Recently, World Bank has released a 'World Development Report 2019' under the theme of 'The Changing Nature of Work' which has elaborated the possible changes coming in employment types and the nature and pattern of work/job in the emerging developing economies and the advanced developed economies of the world. The report gives us most important guidelines to follow in the near future in our policy implementation for generation of employment opportunities for the increasing work force.

The whole report contains seven chapters which talks about technology and jobs, superstar firms & competitive markets, building of human capital and needful government intervention, lifelong learning and tertiary education, adult learning outside jobs, working women and working in agriculture, strengthening of social protection and labour policies and last but not least is the ideas for greater social inclusion through a 'New Deal' or a 'New Social Contract'.

Innovation and Technology

It is a well-known fact that 21st century is the century of technology and innovation which have transformed our living standards and mobilized us in a new digital era. According to the recent survey in European Union, it has been found out that technology benefits the workplace. 2/3rd of the surveyed, said that it will improve society and improve their quality of life even further. The concerned researcher has tried to find out the attitudes towards the impact of digitization and automation on daily life.

The report emphasise on technology and innovation. It says, technology provides opportunities to create new jobs, increase productivity and deliver effective public services. Through innovation, technology generates new sectors or tasks and forces of automation and innovation will shape employment in the future. Today's digital transformation allows firms to move faster and reach new heights. Digital technologies create global platform-based businesses that differ from the traditional production process with inputs provided from one and output delivered on the other end. New business models including digital platform firms (e.g. flipkart, amazon, Walmart, IKEA, paytm etc.) evolve rapidly from local start-ups to global giant, often with few employees and tangible assets. The rise of e-business and e-commerce have greater impact of technology to reach more people quickly than ever before and so, individuals and firms need more broadband connectivity to trade goods and services on online platforms.

Requirement of Skills

The changing demand for skills also varies accordingly. Hence, it is clear that automation raises the earnings of high-order cognitive skilled people in advanced and emerging economies. Investing in human capital should be the priority to make the most of this evolving economic opportunities. Three types of skills are increasingly important in labour market as acknowledged by WDR 2019.



Building these skills requires strong human capital foundations and lifelong learning as suggested by the report. Human capital foundations should be created in early childhood which will become more important in the generation of future work force. The report says that many developing countries are not prioritizing on this issue of early childhood development. There is a direct link between health and education investments with the productivity of future workers as highlighted by human capital index in the report. Human capital outcomes in basic schooling are sub-optimal.

With the change in technology, creating more quality jobs is also important. In many developing countries, large share of labourers works under informal sector with low productivity with little access to technology. Lack of quality private sector jobs leaves talented young population with few opportunities. High-skilled university graduates are making up almost 30 percent of the total unemployed pool of labour in the Middle East and North Africa.

Human creativity is nowadays generating more revenue to the entertainment sector which comprises the arts, media and creative service industries. Today, the majority of the entertainment sector depends heavily upon advanced digital technology. According to one estimate, global market for creative goods and services grew by 81% between 2003 to 2012. Export earnings amongst developing economies tripled during this period from \$87 billion to \$272 billion. In terms of employment, the entertainment and creative sector supported 29.5 million workers worldwide in 2015.

| Country | Creative Industry Export Market (\$ million) | | % increase |
|-----------|--|----------|------------|
| | 2003 | 2012 | |
| China | 38,732 | 1,56,183 | 300 |
| India | 4,384 | 26,904 | 513 |
| Argentina | 541 | 2,426 | 350 |
| Colombia | 461 | 912 | 98 |

Source: World Development Report 2018

Another area of high demand for job is of social interpersonal skills such as teamwork, relationship management, people management, care etc. It has been found worldwide that those workers who have higher social skills can specialize and doing tasks more efficiently with other workers. In the United States, jobs requiring interpersonal skills grew by nearly 12% between 1980 to 2012. As countries develop, occupation's priority for interpersonal skills become higher. This trends indicate that technological development leads to the rising importance of human interaction as a component of work. Jobs in tourism is another good example of interpersonal skills. As technology developing faster than ever, humans will be in high demand to deliver hospitality and other facilities. For many emerging economies, tourism is the top export category. in 2016, this sector directly supported 109 million jobs worldwide and contributed \$2.3 trillion to the global economy. By 2027, the sector is expected to grow by around 30% and directly provide over 380 million jobs across the world.

Machines will never fully replicate the care that can be provided by one person for another. Even when medical diagnostics have been taken over by computers, doctors will continue to play a role to offer empathy. By 2030, global aggregate demand for health workers will reach 80 million

across 165 countries. Population aging increases demand for home health care aids who can assist with day work and provide valuable social interaction for the elderly.

In areas of teaching and learning, new ways of learning are on the rise, but demand for real life teachers who can mentor students will continue to be a vital part of schooling. In India, 50% of teaching positions across the country were vacant in 2017. China's rural regions are suffering a severe shortage of teachers due to poor amenities and low pay. Africa has the world's largest shortage of teachers.

Digital Infrastructure

Under the sub title of "The Geography of Future Jobs", the World Development Report 2019 has indicated that many jobs will not be replaced by technology due to the comparative advantage offered by human labour in particular area. It is anticipated that urbanization will reach 70% of the world population by 2050 and majority of the jobs will be located in cities, regardless of digital connectivity. Large numbers of young people in emerging economies create a large, dynamic workforce that has the potential to drive innovation. In near future, ICT penetration will drive the establishment of the next big IT cluster. National security issues also will play an important role in the location of jobs.

On the other hand, investment in infrastructure is also need of the hour. Most important is to provide universal, affordable access to the internet to people in developing countries who remain unconnected. With the explosion of the Internet of Things, firms and governments will have to establish innovation hubs for new businesses. Efforts to foster stronger linkages between local technical universities and business and establish start-up oriented co-work centres are also important. It is also noted that sales of high-tech goods such as drones, floor mapping robots and other smart home appliances are increasing. Jobs involving high sophisticated technologies will be prevalent in the near future for environmental purposes, biodiversity protection, curing major diseases etc. Labour saving technologies will eventually extend to agriculture also. Food industry will have significant growth in the middle income countries.

In the context of rapid technological transformation, there should be universities that are built on the foundation of higher cognitive and the most in-demand skills for the future. Curriculum structure will have to be improved which focus on building socio-emotional skills such as use of effective communication, impressive teamwork, self-confidence, resilience and self-expression. As the WDR 2019 has mentioned that the demand for these skills is likely to grow over time, since jobs intensive in socio-emotional skills, such as nursing or education, are harder to automate. In a survey of employers of engineers in India, socio-emotional skills were ranked at or above technical qualifications and credentials in terms of their significance for the employability of recent graduates.

Conclusion

At last, we can say that India is on the right track to develop and focus on wider application of digital technology. Government of India started many schemes for the betterment of future generation who will get the fruits of today's hard work and digital sensitivity. Due to effective implementation of digital technology, governance system will improve and people will have easy access to government services at home only without waiting in long queue. Hope Digital India campaign can become widespread and fulfil the desire of common man in India.

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