



Digital Transformation of the Economy Challenges and Opportunities

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Abstract: The new technologies hold great promise. They create new avenues and opportunities for a more prosperous future. The digitalization brings innovation, ease of working, new job opportunities and growth in the economy. It helps to bring transparency in the system. The use of digital technologies shows the impact that how work gets done, transform how customers and companies engage and interact, and create new (digital) revenue streams. Digitization—the continuing convergence of the real and the virtual worlds will be the main driver of innovation and change in all sectors. This paper examine how digital transformation is driving economy and provides an understanding the potential benefits in developing technology applications with a fundamental positive contribution to our quality of life. This paper concentrates on barriers in the pre digitalization of transactions and also on the difficulty in accepting digitalization.

Keywords: digitization; Internet of Things; cyber security;

1. INTRODUCTION

Digital transformation is the way of using digital technologies to transform the old patterns of business to new one. It affects business activities, processes and business models to create value for the customers, adopt new capabilities in response to rapidly changing market scenarios to improve efficiency of the business.

“Digital transformation is the process that uses technology to do business efficiently and make everything easy for the customers.”

We are living in a time of exciting technological innovations. Digital technologies are driving transformative change. Economic paradigms are shifting. The new technologies are reshaping product and factor markets and profoundly altering business and work. The latest advances in artificial intelligence and related innovations are expanding the frontiers of the digital revolution. Digital transformation is accelerating in the wake of the COVID-19 pandemic. Digital platforms can provide trustworthy and timely information and advice during this period. Online platforms connect millions of students and workers to their schools and offices from home. Due to the need of this, the market for the Internet of Things is expected to grow very fast in 2022. By 2028, it is estimated that 7.8 billion people and 18 billion objects will be connected to mobile networks [1]. The future is arriving faster than expected. Globalization in recent decades has placed increasing pressure on every sector to change. The globalization of production has led to the formation of complex and dynamic ‘cross-border production networks’ [2]. The need to ensure digital literacy remains necessary to fully grasp the possible opportunities associated with the development of the digital economy. Education and Skills need to develop plans to ensure the acquisition of digital knowledge. Sustainable development of the digital economy also requires deeper knowledge on the functioning of work platforms and their structural characteristics [3].

2. OBJECTIVES OF DIGITAL TRANSFORMATION

Digital transformation is necessary because companies must evolve to remain competitive. Digital transformation initiative will have its own specific goals and the primary purpose of any digital transformation is to improve your current processes. The main objectives of digital transformation:

1. To know how the quality of life is improved through the concept of digital transformation.
2. To understand how every step gives benefits in making world digital and its economical impact.
3. To enhance the work efficiency of government services with innovative ideas and practical solutions
4. To make world digital with the help of necessary suggestions and ideas.

3. DIGITAL TRANSFORMATION IN BUSINESS AND MANAGEMENT

Before analyzing the thematic evolution of the research on Digital transformation in business and management, it is useful to differentiate Digital transformation from other related terms that are often used interchangeably [4]. These include (i) digitization, (ii) digitalization, and (iii) digital transformation. According to the Gartner IT Glossary, digitization is the process of changing from analog to digital form.

Digitization—i.e. the networking of people and things and the convergence of the real and virtual worlds that is enabled by information and communication technology (ICT)— will be the most powerful driver of innovation over the next few decades and will act as the trigger of the next wave of innovation. It will transform all key infrastructures in fields such as energy, mobility, healthcare and manufacturing [5]. Digitization essentially refer to taking analyzed information and encoding it into zeroes and ones so that computers can store, process and transmit such information e.g. scan a document.

Digitalization has emerged as a game changer for the under-served as well as un-served low income households and micro and small enterprises. Hence with the prospects of getting near to billions of customers, both banks and non-banks started offering the digital financial services. Digitalization also creates an environment for digital business [6].

Digital transformation is really business transformation enabled by digitalization. “Digital transformation is the profound and accelerating transformation of business activities, processes, competencies, and models to fully leverage the changes and opportunities brought by digital technologies and their impact across society in a strategic and prioritized way.

4. HOW DIGITAL TRANSFORMATION IS DRIVING ECONOMY

Digital technologies have dazzled with the brilliance and prowess of their applications, they have so far not fully delivered the expected dividend in higher productivity growth. Indeed, aggregate productivity growth has slowed in the past couple of decades in many economies. A digital economy is built on digital platforms that facilitate business processes and enable better economic value. Hyper-connectivity is the backbone of digital business, expanding the connections between people, organizations, and machinery through the internet, mobile technology and IoT. Every organization's business model is different, but in a digital economy, key aspects need to be considered [7], such as:

- Creating of unique ideas using right digital infrastructure
- Re-evaluating customer acquisition and retention businesses.
- Reviewing or updating ordinary ideas about the products or services.
- Use of technology like social media and mobile application for enhance customer experience.
- Driving business by making best use of advanced technology, AI and virtual reality

Table 1: Element of digital economy

1. E-commerce → Provide virtual platform to buyers and sellers
2. E-banking → Money flow virtual and easier for the masses
3. E-payments → Online send and receive money without credit or debit card details.
4. E-Governance → Departments and jurisdictions have been integrated to provide easy and single window access to all persons.
5. Internet advertisement

5. ADVANTAGES OF DIGITAL ECONOMY

Following are the advantages of Digital Economy:

- Goods and services are available digitally so there is no need for tangible products anymore. Same is true for banking and insurance, etc.
- The society has been transformed into a knowledge based and digitally empowered economy. It has ensured citizen participation and empowerment with the technology that is transformative, affordable and sustainable.
- Four distinct technology layers have been provided to the people; presence-fewer layers, paper-less layer, cashless layer and consent layer.
- The business process outsourcing movement for smaller towns is facilitating balanced regional growth and creating job opportunities. A steep growth in mobile manufacturing but also empowered citizen with enhanced employment opportunities
- As most of the transactions happen online the scope of corruption, black money and parallel market economy is reduced and transparency increases.
- Digitization of the economy is all inclusive as it has enhanced the employment prospects for women, people with disabilities and has given a boost to start-up sector.
- Digitization enables successful and improved tax reform for the government.

5. THE CHALLENGES ASSOCIATED WITH DIGITIZATION

Over the next few decades, the Internet is set to join the transport network and the power grid as a defining—and system-critical—infrastructure. However, this also means that it will only be possible to take advantage of the opportunities it provides if the relevant challenges are addressed from an early stage

- *Shortage of technological resources:* Apart from the talent shortage, businesses also faced with a shortage in other resources crucial to the adoption of digital initiatives. The global microchip shortage still poses a roadblock to many industries. Then, there are still prevalent issues hampering the supply chain for IT hardware and equipment. The shortage inhibits the timely deployment of adequate resources to the right initiatives.
- *Continuous Evolution of Customer Needs:* Organizations are always evolving – what a customer wants. That changes as the world evolves and industries change. Digital transformation is not an easy project, and intensive transformation efforts can take years to accomplish.
- *Unemployment/new employment:* the digital transformation will bring along its own myriad of technical challenges and there is need the right people on board. Trained new employ which are digitally literate can only help them to build. There is need to cut those who are not internally expertise in such environment.
- *Insufficient budget for technological change:* For businesses that faced significant losses during the pandemic, digital transformation practices may have been set back due to financial constraints. The fact is that implementing new digital solutions is an expensive process that requires hefty investments.
- *Cyber security:* As organizations adopt remote work, digital processes, and cloud-based technology, they are exposed to higher levels of risk. For this, they are required to implement higher security measures and improve their cyber security to defend themselves against threats. Not protecting data and other valuable assets of an organization can lead to enormous risks and negative consequences.
- *Talent and culture:* High level of digital illiteracy is the biggest challenge in the success of digital programme. A business culture that resists change impedes growth and development. There is risk-averse culture within many enterprises when it comes to digital transformation

6. OBSTACLES TO THE ADOPTION OF DIGITAL TECHNOLOGIES

Following are the obstacles to the adoption of Digital Technologies:

- Change is inevitable, but people seem to hate it when people resist it because they are not ready for it and find difficult.
- It is difficult to build trust among the people for change. Because people in the low-power positions tends to find more difficulties as compared to higher-power position.
- People are not aware of its use and benefits. Because there is need of ICT skill among staff
- The unavailability of infrastructure requirement obstructs the reach of facilities to the people.
- Lack of knowledge about the changes going is the technology for better reforms
- Recruitment and retention require only highly skilled ICT staff. Also opportunities given only to highly skilled employed.
- cost of development implementation is high due to new technologies

7. CONCLUSION

Digitalization can also play an important role in achievement this goal as it can have a greater reach to the people. By this we can reach on a conclusion that the new technology needs to be harnessed well and for this it is not only the availability but also the knowledge to use it and get benefits from it. For successful implementation, there must be modifications in various legislations that have for extensive hindered the growth of technology. The success of digitalization is possible by maximum connection with internet with minimum cyber security risks. For this we need a strong anti-cyber-crime team which maintains the database that protects it.

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