

A REVIEW ON EMPOWERING EFFECTS OF DIGITIZATION

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ABSTRACT

Digital technologies being a key driver in the present world it is imperative to coordinate the economy by making advanced markets and parallelly making its mark on the modern society through the evolution of acceptance, innovation, and infiltration. This paper unveils the diverse aspect technologies and interfaces which lead to the opening doors of the advantages but with the addition to the dangers and potential drawbacks on society and economy. The dimensions on which this paper focuses on are employment and e-commerce industry, how digitization has affected these fields and how they are interdependent on each other. The major index to measure the socio-economic growth due to digitization is the consumption, supply and the expenditure, consumption in the form of the information consumed or used by the individual and the organization and supply here refers to the number of new technologies that are made available for the users by various companies in various fields and expenditure involved in innovation, leveraging and research of these digital technologies. Combination of all these which has indulged in shaping the modern era.

keywords: digitization, economy, e-commerce, and employment.

INTRODUCTION

Digitization is a conversion of analog information into a digital format. Digitization is the way toward changing over simple data into an advanced arrangement. In a more extensive societal surroundings, digitization is characterized as the monetary and social change activated by the atrocious reception of advanced innovations to create, process, share and execute data. Digitization expands on the development of system get to the semiconductor advancements, and programming designing. It uses the overflow impacts coming about because of their utilization (regular stages for application improvement, e-government administrations, internet business, interpersonal organizations, and accessibility of online data). From a reasonable outlook, digitization puts extra accentuation on two measurements: total effect of data and correspondence advancements and use. The combined, comprehensive investigation perceives that effect of discrete advancements can't be led in seclusion given that their reception and utilization is very integral. Besides, the investigation of utilization of the broadcast communications and IT foundation gives a look at applications and administration appropriation, which supplements more conventional points of view, for example, innovation infiltration. The advancement of digitization in business has the significant effect on the profitability and financial standard of the general public. As technology(internet) is playing a vital role in everyday life, correspondingly adding up to it is the different organization which is providing these facilities and the zest of consumers to incorporate these technologies in a day to day life. Based on this the use of this digitization can be majorly characterized as follows (PayelChaudhri, 2015):

1. **Mobilization** :It refers to the amount of time spent by the individual online by making use of gadgets such as smart-phones, laptops, tablets etc. The main benefit of these gadgets is that they are portable, they can be used at any time any place to search any kind of information.
2. **Social media**: activeness on social media is the most popular activity performed by the individual in this digital era. It gives both positive and negative impact on the society. This media has removed the barriers communication among the people of the world by making everything just one click away. The similar way it comes with the consequences that impact on a psychological behavior of an individual.
3. **Multiple channels and instant access**: The various technologies and organization cumulatively provide several channels to make the information easily accessible which is of enriched content. Users accessing the data on multiple platforms and use of these multiple platforms are imperative.
4. **Data and Data Providers** : with the recent advancement in the use of technical data and the data providers has hugely contributed to the economy and business fields. Higher the consumption of data resulted in the birth of various data providers industry and in turn provided data with low cost, high speed, and other facilities.

II. Literature Review

The above graph shows the extensive use of digital technologies and digitized gadgets for the communication purpose, conversely where communicating with people was a tedious task in previous years now with aid technology it is remotely and efficiently connecting the people around the world within the fraction of seconds through the usage of smart devices. It is valuable, to begin with, a concise outline of observational work embraced to build up the connections between digitalization and profitability development, and between digitalization, business, prosperity, and improvement. A huge group of confirmation has risen on the connection between computerized advances and profitability development. Koster et al., Early investigations on the effect of digital technologies on development deserted to build up a vigorous relationship with efficiency. On account of further developed econometric systems and better information, the second era of concentrates collectively discovered positive come back to interest in computerized advancements. For example, vital complementarities have been found between interests in computerized innovations furthermore, different resources, for example, human capital, hierarchical changes and process developments, i.e. information based resources (Colecchia Schreyer, 2002). Besides, ICT (Information and Communication Technology)-related changes in firms are regularly part of a procedure of pursuit and experimentation, where a few firms succeed and develop and others come up short and vanish (Autor, D. H. 2015). Nations with a business domain that empowers this procedure of inventive decimation might be better ready to grab the profits by ICTs than nations where such changes are more troublesome and ease back to happen (Bloom, and Reenen, 2016) likewise locate that because of positive “overflow impacts” that advantage other areas, computerized innovations tend to display abundance returns, both inside and crosswise over parts. The connection between advanced advances and development, notwithstanding, has been found to shift significantly crosswise over nations, with more grounded impacts saw in nations, for example, the United States and the United Kingdom contrasted with mainland Europe (Ahmad and Schreyer, 2016). The presence of such heterogeneity recommends an essential part for foundations in deciding the successful commitment of advanced innovations to profitability. Ensuing studies about have discovered that control in labor and item showcases has a tendency to diminish motivators to put both in computerized advances and other corresponding resources, for example, hierarchical capital (Ahmad and Schreyer, 2016). Recent OECD (Organization for Economic Co-ordination and Development) discoveries (Colecchia and Schreyer, 2002) propose that up until this point while promoting rebuilding and reallocation, ICTs have not contributed to the unemployment issue. In the event that embraced effectively, i.e. in the event that joined with hierarchical changes and great administrative practices (Autor, D. H. 2015), ICTs can add to expanded efficiency, which logically converts into bring down costs and additionally new items, higher last request and higher work, along these lines adjusting for the underlying activity removal. There is, in fact, confirm that ICTs have so far not delivered an expansion in innovative joblessness. The SBTC (Skill-Based Technological Change) an appearance of profitability improving mechanical change, has been a fundamental factor connected to development over late decades. Most new innovations have required more elevated amounts of talent to use than those they uproot. This is a long-standing pattern. Examination proposes that the speedier the rate of innovative change, the more extensive the expansion in wage scattering, the more prominent the increment in the supply of talented workers, and the slower the expansion in wage scattering (dx.doi.org).

III. Challenges And Opportunities of Digitization

As the world is experiencing the revolution of digitization in the exponential rate, the evidence to such a change is the ubiquitous system, mobile supercomputing, neuro- technological brain enhancement, genetic editing, self-driving cars etc (Torben Rick, 2015). The advent of digitization has left its mark on various fields but one the sector whose has advantageous of this revolution is the consumers, it has contributed to the economy of the world by raising the standard of living of the people and facilitating with various easy to go technologies which they are able to use in their routine life, for example, buying a product and making payment transaction has made easy through e-banking similarly booking hotels, flights, cabs can be made effortlessly. Observing these the challenges and opportunities which are faced by various sectors are illustrated below:

A. Digital revolution on industrial field

The advancement in the digitization has contributed to the world's economy through the technologies like information communication technology which has changed the dimensions of the supply chain markets and making them go digital and transformed into e-commerce. In the production area, numerous businesses are seeing the appearance of new advancements that make altogether better approaches for serving existing requirements and fundamentally agitate existing industry esteem chains. Significant moves on the request side are additionally happening, as developing

straightforwardness, buyer engagement, and new examples of purchaser conduct (progressively based upon access to versatile systems and information) drive organizations to adjust the way they configuration, advertise and convey items and administrations. These innovation stages, rendered simple to use the cell phone, assemble individuals, resources, and information—in this way making totally better approaches for devouring products and ventures simultaneously. Furthermore, they bring down the obstructions for organizations and people to make resources, modifying the individual and expert conditions of laborers (Khan, etal 2015). These new stage organizations are quickly increasing into numerous new administrations, extending from clothing to shopping, from errands to stopping, from back rubs to travel. The enhancement in the field of e-commerce had contributed over \$2 trillion to worlds economy.

Contributing to the world of e-commerce are the various fields they are the online shopping, real estate industry, financial sectors, logistics etc. The below graphs depicts the growth of Indian e-commerce with respect to traveling, e-tailing(includes grocery, books, clothes etc), financial services, classifieds and other miscellaneous sectors.

On the whole, the industrial digitization has impacted four major effects these are on client desires, on item upgrade, on cooperative development, and on authoritative structures. Regardless of whether shoppers or organizations, clients are progressively at the epicenter of the economy, which is tied in with enhancing how clients are served. Physical items and administrations, additionally, would now be able to be upgraded with advanced capacities that expansion their esteem. New advancements make resources more solid and strong, while information and investigation are changing how they are kept up. A universe of client encounters, information-based administrations, and resource execution through examination, in the interim, requires new types of joint effort, especially given the speed at which development and interruption are occurring. Furthermore, the development of worldwide stages and other new plans of action, at long last, implies that ability, culture, and authoritative structures should be reconsidered.

Contrary to the opportunities comes the challenges of handling the amount of data that is being digitalized , providing efficient management of the virtual resources ,customer satisfaction , quality of the product, maintaining authenticity of the product or the content, security of the customers and organization and the major challenge is to make the manpower or the human resource of the organization to adapt to these changes(Torben Rick, 2015)(improving skill set of the human resource). The above-listed issues i.e maintaining huge data is handled by technology making use SaaS(software as services), BI(business intelligence), AI(artificial intelligence), data mining technologies for performing storage of data, instant communication and efficient response to customers by making intelligent decisions automatically. Some ground rules need to be established by the organization to maintain the quality of the product, assigning skilled people to maintain the resources efficiently. The security in today's world is the key challenge for the organization. Providing security for the banking transaction made by the customer, maintaining the privacy of the customer. To secure these things the customer might be provided with the biometric signature or DNA signature and customize the access tools with the high level of secured encryption and decryption facilities.

B. Digital revolution on employment

Both developed and developing country are harvesting the benefits of digitization. The developed nations have quantifiable impacts of development for digitization as they rely upon household utilization making non-tradable areas critical. Developing nations concentrates more on sends out and tradable parts. Along these lines, for them picks up originate from the impact of digitization on work instead of from its impact on development(weforum.org). The 6 million occupations that were made by the digitization impacts were observed to be 94% from developing economies(weforum.org). The e-commerce industry, on one hand, proving job opportunities to the technical people, on the other hand, it is affecting the income of the traditional industry. ICT related jobs would be boosted as demands for computers and information system managers, computer system analysts, computer engineers, computer support specialists, database administrators, computer scientists and computer programmers would increase (Khan, etal 2015). In addition to this artist and commercial artists, designers and writers and editors would also be in demand (weforum.org). Digitization makes employment, with a 10 point increment in the digitization score prompting a 1.02 percent drop in the joblessness rate (Torben 2015). This is 4.6 times more noteworthy than the impact that the boundless appropriation of broadband has on decreasing joblessness; broadband cuts the joblessness rate by only 0.22 percent (whatis.techtarget.). Taking an account of the recent trends that have occurred the near future as predicted by the world economic forum survey persist a potential risk to the employment (whatis.techtarget.). The digital revolution may yield a larger inequality which is a potential threat to the labor market. As robotization substitutes for work over the whole economy, the net replacement of workers by machines which may deplete the economy. Then again, it is likewise conceivable that the removal of laborers by innovation will in total result in a

net increment in safe and compensating employment. This will offer ascent to work advertise progressively isolated into “low-ability/low-pay” and “high-expertise/high-pay”(Torben 2015) portions, which thus will prompt an expansion in social strains. Innovation is consequently one of the principle reasons why earnings have stagnated, or even diminished, for a larger part of the populace in high-salary nations: the interest for very talented specialists has expanded while the interest for laborers with less instruction and lower abilities has diminished. The outcome is work advertise with a solid request at the high and low finishes, however an emptying out of the center (Khan, etal 2015). Understanding present requirement there is a major requirement of education and skill development. Focusing on the various trends in the skill set that needs to be upgraded are shown below based on the survey conducted by world economic forum

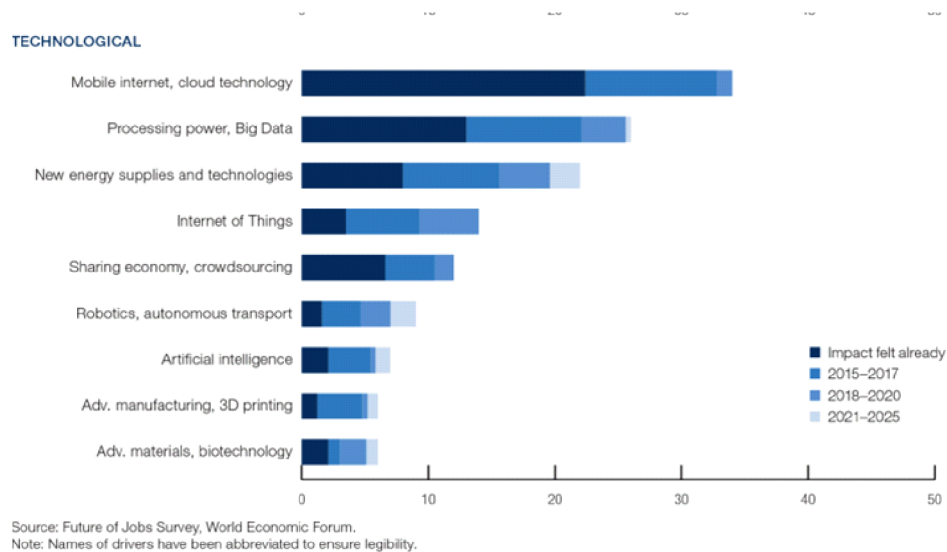


figure 1: technologies and their growth over years (weforum.org)

Based on the upcoming demand the skills required in 2020, more than one third (36%)(Torben Rick, 2015) of all employment overall businesses are relied upon by our respondents to require complex critical thinking as one of their center abilities, contrasted with under 1 of every 20 occupations (4%)(Torben Rick, 2015) that will have a center prerequisite for physical capacities, for example, physical quality or adroitness.

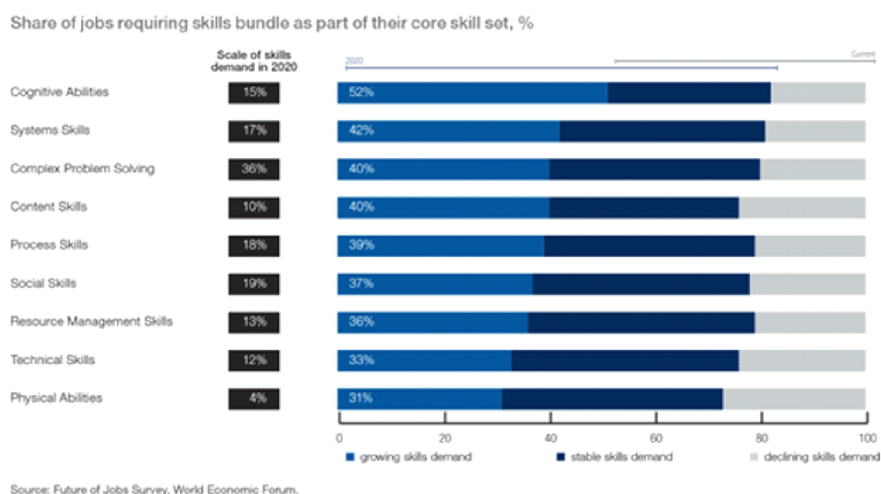


figure 2 : changes in demand for core skill in the industry between 2015-2020 (souce:www.weforum.org)

CONCLUSION

Digitization has made a huge impact on the economy of the world through the revolutionizing the physical markets and molding it into the digital business due which the new opportunities were created and prolonging to the era of digitization the potential threats proposed to employment. Stating the drawbacks of e-commerce in the form

of security and risk of unemployment or leading towards underemployment and providing countermeasures that need to be adopted to avoid these risk by adapting to the developing advancements of the modern era.

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