
THE DIGITAL ECONOMY AND GLOBAL TRADE SINCE THE 21ST CENTURY: AN ASSESSMENT

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Abstract

The digital economy has significantly boosted global trade by expanding market access, lowering costs, and increasing efficiency. E-commerce platforms, digital payment systems, and have made cross-border transactions faster and easier. The study being a qualitative research largely depended on secondary sources of information. The study concluded thus, that the digital economy has improved supply chain management, have reduced operational expenses for organisations, have made businesses have a wider reach beyond their domestic markets and much more. The digital economy has also created new trade opportunities such as online education, online medicare, online banking, online entertainment amongst others, and it has also created new job opportunities. However, challenges like cybersecurity risks, and the digital divide remain. The digital economy faces several challenges, including cybersecurity risks, as online transactions and data storage are vulnerable to hacking and fraud. The digital divide is another drawback of the digital revolutionary economy as it limits participation, as poor people in many regions of the world still lack access to reliable internet and technology. Job displacement due to automation threatens traditional employment sectors. Lastly, data privacy concerns arise as companies collect vast amounts of user information, leading to ethical and legal issues. Addressing these challenges is crucial for a sustainable digital economy. Despite these, the digital economy continues to drive global trade growth and innovation.

An Introduction

The world has become digital and so has the economy. The digital economy is the result of the transformation of traditional economic activities, products, and services into digital form. It is based on the internet and supported by electronic means. The digital transformation of the economy has led to the creation of new business models, new products and services, and new ways of doing business both locally and internationally. This digital economy is growing at a rapid pace and is expected to continue to do so in the coming years (UNCTAD 2021).

The digital economy refers to all economic activities that rely on digital technology. A traditional economy involves the exchange of goods and services in physical and brick-and-mortar locations. Traditional economies have several characteristics that are unique compared to the modern digital economies. Traditional economies are geographically and locally based. The digital economy differs from a traditional economy because the digital economy relies on digital technology, online transactions and its transformative effect on traditional industries. Digital innovations such as the internet of things (IoT), artificial intelligence (AI), virtual reality, blockchain and autonomous vehicles all play a part in creating a digital economy.

The dawn of the digital economy brought access to these same goods and services offered by traditional economies but through the internet and networked information systems. The digital economy is important for both local and international businesses because it helps companies of all sizes expand their reach by attracting customers across new channels and across boundaries. The tools of the digital economy also play an instrumental role in improving operational efficiency, helping to establish profitable new business models based on customer data (Tavbulatova, Z. K. 2020).

The digital economy is made possible by a wide variety of existing and emerging technologies. The digital economy reflects the move from the third industrial revolution to the fourth industrial revolution. The third industrial revolution -- sometimes called the digital revolution -- refers to the changes that took place in the late 20th century with the transition from analog electronic and mechanical devices to digital technologies. The fourth industrial revolution builds on the digital revolution as technologies today continue to bridge the physical world and cyberworld.

The digital economy continued to advance over the past two decades, driven forward by powerful technology and market forces. And then came COVID-19 with the adoption of technological as a response mechanism to the pandemic that was ravaging the globe, from videoconferencing to online shopping, meant that digitalization had already reached levels that were not foreseen in many years. The COVID-19 pandemic further accelerated digital economic growth as remote work, online shopping, telemedicine and digital entertainment became essential during lockdowns and social distancing.

Digital Economy & Global Trade: A Conceptualization

The digital economy refers to the economic activities that emerge from connecting individuals, businesses, devices, data and operations through digital technology. The digital economy is the online sphere of the global economy, where goods and services are marketed and sold via the internet. These economic activities began shifting to the internet in the mid-1990s, as digital technology made it possible for consumers and traditional companies to conduct business virtually from almost anywhere in the world. The digital transformation of the era also introduced a slate of new digital services, from web design to online banking (Tapscott, D, 1995).

The digital economy differs from a traditional economy because of its reliance on digital technology, online transactions and its transformative effect on traditional industries. Digital innovations such as the internet of things (IoT), artificial intelligence (AI), virtual reality, all play a part in creating a digital economy. The digital economy is what we get when the traditional methods and activities of an economy are digitized or when new economic activities that are only possible because of the internet and digital technologies emerge (Varian, H. R, 2018).

Digital technologies on the other hand are devices that process data or information and they include our computers, phones, tablets etc. These devices enable new ways of organizing the production of services, unconstrained by spatial distances. By making it possible to carry out a service from everywhere in the world, digitalization has facilitated the increased outsourcing of services that were previously constrained by the need for geographic proximity between buyer and seller. It encompasses the online connections and transactions that take place across multiple sectors and technologies, such as the internet, mobile technology, big data and information and communications technology (OECD 2020).

The Structure of the Digital Economy as given by Thomas Mesenbroughg, an American statistician and economist, are: E-Business Infrastructure which refers to the electronic systems that businesses use to conduct their operations. E-business infrastructure thus, is the hardware, software, data storage systems, telecom, networks, including human capital, etc. Second is E-Business which refers to how business is conducted. Thus, it is any process that an organization conducts over computer-mediated network. It is thus, the conduct of business activities through the use of electronic systems which includes the processes of buying and selling and the marketing, production, and delivery of goods and services digitally. Third is E-Commerce which is the buying and selling of goods and services through electronic systems. This includes exchanging money, goods, and services between businesses and consumers. E-commerce thus, is the transfer of goods, for example when a book is sold online (Goldfarb, 2019).

This digital transformation is driven by the following: first is the internet – The internet has taken over the world and transformed how we live, work, and play. It's created a global market for goods and services and made it possible for businesses to reach new markets and customers (Brynjolfsson, 2014). Second is the electronic means – The digital economy is powered by electronic means such as computers, smartphones, and other digital devices like smart TVs, wearable devices, and so on. Third is data which is the lifeblood of the digital economy. It's used to create new products and services, make decisions, target customers, and much more. The digital economy thus, is the result of billions of daily connections between people, businesses, devices, and data. It's a global, interconnected economy that's not limited by geographical boundaries (Varian, H. R, 2018).

The concept of Global trade on the other hand (also known to as International trade) is the exchange of capital, goods, and services across national boundaries. Nations are inter-dependent, and no one nation has all products and services, be it primary, secondary, or tertiary products. Amongst many objectives of trade, profit or revenue generation is the prime target for states. Global trade is necessary about trade in merchandized or tangible goods as traditionally perceived. Since the evolution of the World Trade Organization in 1995, there has been more emphasis on trade in service goods. Hence today, entertainment sells, transportation is big business across the globe, education sells across borders using the internet today. Medical services online is equally getting bigger than ever etc. The Categories of Goods in Global Trade in summary include: Industrial Goods: Industrial goods are made up of machinery, manufacturing plants and raw materials, and any other good or component used by other industries or firms; Consumer Goods: Consumer goods are ready for use, or for consumption, or satisfaction of human wants, such as food or drinks or clothes; Intermediate Goods: Intermediate goods are partly-finished goods, and they are used as inputs in the production of other goods including final goods or may be a part of a final good. Most spare parts or assembled parts of a commodity fall into this category. They are not finished goods yet, but can only be used in the completion of a final good; Service Goods: Services are intangible products such as banking services, consultancy, education, medical treatment, transportation, entertainment (music, movies etc), publication etc.

Origin/Evolution of the Digital Economy

The digital age was born in the early 1990s with the opening of the internet to commercial users and Internet service providers. The term “digital economy” is sometimes traced to management consultant Don Tapscott's 1995 book, *The Digital Economy: Promise and Peril in the Age of Networked Intelligence*, which focused on information technology's impact on the transformation of the business world. Don Tapscott thus, is the first to have coined the term digital economy in this 1995 bestselling book. In its earliest days, the digital economy was sometimes called the internet economy, the new economy or the web economy because of its reliance on internet connectivity. Participation in the digital economy thus, is by internet connectivity. The advent of the internet marked the historical transition from the industrial economy of the previous two centuries to a new kind of 'digital economy'. Anyone with a personal computer, a browser, and an internet connection could now communicate via email with families, friends, colleagues, customers, and business partners anywhere in the world. They could access huge amounts of information on the fast-growing World Wide Web. And they could deal with the many transactions in their everyday life, from shopping to banking (Tapscott, D, 1995).

The digital economy is also not unconnected with the consistent rise of capitalism. Hence, capitalism they say is inherently expansive. Capitalism is not stagnant, it is rather highly *innovative*. It is a system where industrial entities are at liberty to pursue wealth to unlimited levels, unlike other political-economic systems. Capitalism has transformed to several phases including the present phase of globalization and *digital capitalism*. We are thus, in an era of *digital capitalism*. Digital capitalism is basically synonymous with the term *digital economy*, but the latter is a more professional and less radical lexicon. The world thus, has witnessed the transition of the capitalist growth from the period of *industrial capitalism* to now *digital capitalism* that is manifest in this period of globalization. This transition of the capitalist phases from industrial capitalism to digital capitalism consists of some epochs.

First, the birth of capitalism in the 18th century was the seed of today's digital economic revolution because it marked the dawn of the enhancement of global trade. During this time when man's instruments of labour had greatly improved from manual to factory/machinery production, Europe experienced the mass production of goods on a consistent basis that led to the under-consumption of goods, and hence, the search for overseas markets to trade. This period from the 19th century marked the expansion of global trade, as new transportation systems were established to facilitate trade across national boundaries and across regions. Cargo ships and cargo planes were all established to facilitate this.

Secondly, from the mid-20th century, specifically from the 1940s and above, the capitalist world seeking to shorten trade, reduce tariff barriers, and expand profits, engaged in massive capital investments across national and continental borders. This era witnessed the proliferation of multinational corporations (MNCs) in especially manufacturing sectors, moving production closer to their export markets in especially Africa, Asia, and Latin America.

Thirdly, after the process of decolonization from the 1960s, with the increasing establishment of state controlled economies by former colonies across the exploited regions,

the Capitalist world seeking to hold firm of their markets and increase penetration of the state-controlled regions engaged the IMF and World Bank as their machinations to create a *globalized economy by pegging all national economies to a standard economic procedure that was purely capitalist oriented based on the principles of liberal trade policies and limited government intervention* in the economy.

Fourthly, after the IMF liberal policies created more problems than solutions for several former colonies during the early and mid-1990s, the next phase was the gradual evolution of technology, a new capitalist phase that would be more attractive than any phase ever, destroying boundaries and bringing the consumer ever closer to the capitalist through digitalized means. This marked first the *advancement of technology* in the capitalist world and secondly, *the global spread of technology* from the capitalist world to the poor exploited countries of the world which reached new heights since the 21st century. The internet is a major contributor to this progress, and it helps connects trade and business on a global scale.

Elements of the Digital Economic Revolution on Global Commerce

The digital economy has evolved significantly since its inception. There are numerous examples of companies transforming to succeed in the digital economy. The following are some notable examples of utilizing the digital economy's evolution especially for commercial purpose: First of the elements here is Digital payments. The rise of digital payment capabilities has served as a major vehicle for driving the digital economy, providing the infrastructure for online transactions.

Digital payment systems such as PayPal and other online payment apps have changed how people conduct financial transactions. Today with our phones, or with our automated teller machines (ATM), or with POS machines, we can all make digital payments locally and internationally without the stress of going physically to our banks for transactions. But more importantly, several digital banks can ensure we engage in successful international transactions in the comfort of our rooms through the use of credit and debit cards. The aim is to make transactions more convenient but it does not go without charges. Hence, it is business for those that provide the platform for online-transactions who trade on finance by profiting from deductions they make when you transact online.

A second element of the digital economy is *Digital marketing*: Digital marketing is the element of marketing that uses the Internet and online-based digital technologies such as desktop computers, mobile phones, and other digital media and platforms to promote products and services. It is thus, the use of websites, apps, mobile devices, social media, search engines, and other digital means to promote and sell products and services. Many of the tried-and-true tactics of traditional marketing have been adapted to digital technology, creating more touch-points for reaching online consumers. Companies once focused on marketing through print, television, and radio because that was all they had. Although those options still exist, the internet gave companies another way to reach consumers and gave rise to digital marketing. The new technologies and trends forced companies to change their marketing strategies and rethink their budgets. Email became a popular marketing tool in the early days of digital marketing. Then the focus shifted to search engines, which allowed businesses to tag and keyword items to get themselves noticed.

The development of social platforms like Facebook, Instagram, Twitter (now X) made it possible for companies to track user data and deliver their messages to very specific audiences.

A third element of the digital economy is the evolution of E-commerce platforms: E-commerce is the trading of goods and services online. This is when the internet allows individuals and business entities to buy and sell digital goods, physical goods, and service goods using online platforms. The surge of e-commerce has been seen in the rise of platforms such as Jumia, Konga, Alibaba, eBay etc which have transformed online buying and selling and reshaped trade with new technologies and business models.

Fourthly, we cannot discuss elements of the digital economy without mentioning Trade in digital devices/technologies. The starting point of the digital economy is in fact the acquisition of a primary hardware digital device. These are digital devices such as desktops computers, laptop computers, smart phones, smart TVs, tablet computers etc. The capitalist world has some of the most influential producers of digital devices that are exported to the developing world to enhance participation of the latter in the new digitalized global economy. Big technological computer companies in this regards are the likes of Apple, MicroSoft, Acer, HP (Hewlett-Packard), IBM (International Business Machines), while for smart phones and tablet computers we have the likes LG, Samsung, Apple, Nokia, Infinix etc

Fifthly, aside the commerce of digital devices is the Trade in Internet Services. The next point of commerce in the the digital economic revolution is thus acquiring the internet itself. Selling the internet itself is big business for the capitalist of today. The internet surely sells. Today, a lot of high technological companies are involved in providing internet services or networks for connectivity to as many that can afford. The only sure way to become a participant of the digital economic revolution is internet connectivity. India's Airtel, UK's Vodafone are some big internet service providers across the globe. In Africa, the Mobile Telecommunications Network (MTN) provides to millions across Africa internet connectivity, a service trade which has become far more viable than providing voice call services.

Sixthly, we have big corporations that provide Internet Search Engines. A number of High tech companies trade on providing web search that help people find information they are looking for online using keywords or phrases. These are e-business companies focused on providing a question and answer based platform on the internet. The search engines provided are able to return results quickly even with millions searches ongoing simultaneously. Some of the most popular high tech companies in this trade business include Google, Yahoo, Amazon, Microsoft Bing, Ask.com,

The seventh element of international commerce that proceeds from the digital economy is the Social media Platforms. The emergence of social networking platforms such as Facebook, WhatsApp, Twitter, Instagram and LinkedIn has provided communications and connections for many people to promote, advertise, and sell their products across national boundaries. People from organizations and institutions across national borders can share ideas through virtual means like Skype, Zoom for mutually beneficial purposes..

Eighthly, the digital economy has equally provided room for Online Workspace: The Covid pandemic caused a change in workplace culture as more people accepted to work using apps such as Zoom and Skype for continued organizational goal efficiency. For instance, institutions involved in export trade like Nigeria's NNPC had management and staff meetings using Zoom during the lockdown to ensure the continued trade that the industry is involved in. The digital economy has evolved as a result of this trend, which has reshaped how businesses function and manage their workforce. Equally, trade negotiations can take place between political entities through virtual means reducing the need for shuttle diplomacy.

Ninthly, we can also talk about AI and automation: Automation and AI have significantly shaped the digital economy and assists in international businesses. Virtual assistants, chatbots and recommendation algorithms powered by AI improve consumer experiences and provide more personalized services. AI advances are continuing to accelerate. These advances are expected to have profound economic implications. Two 2018 reports, one by PwC and the other by McKinsey concluded, over the next few decades, AI will be the biggest commercial opportunity for companies and nations.

Using different methodologies, they each estimate that AI will increase global GDP by roughly 15% by 2030, adding around \$12 trillion to the global economy (Endovitskaya, E 2022).

Tenthly, and very importantly in today's digital economy is Digital entertainment. Digital entertainment is a type of entertainment experienced thanks to electronic devices such as computers and smartphones. For the last decade, technology gave man a large range of entertaining devices, on a daily basis. Anything can be done from a computer or a digital device. It is now easy to reach a big audience, especially when you know that more than half of the world's population has an access to internet. We now have a tremendous amount of digital entertainment available anytime and anywhere. Every kind of entertainment can be found online. We used to be very restricted and have limited options, however, with the constant evolution of technology, entertainment has changed and evolved too. Digital technology has made the marketplace of entertainment into something bigger with great diversity, from gaming to streaming services, online purchasing, to numerous apps.

The entertainment industry has thus, undergone significant changes due to the rise of international streaming services such as Netflix, Prime-Video, Showmax, Spotify, Apple Music, YouTube etc. Technology has indeed transformed analog entertainment and led to the rise of streaming services. These platforms have revolutionized media consumption by providing instant access to an array of content. They thus, trade in media entertainment across several parts of the world.

The eleventh element of the digital economy is *Telemedicine or WebHealthCare*. Telemedicine or WebHealthCare is the use of electronic information and communications technologies to provide and support health care when distance separates the participants. It is thus, the provision of remote clinical services, via real-time two-way communication between the patient and the healthcare provider, using electronic audio and visual means. It allows long-distance patient and clinician contact, care, advice, reminders, education, intervention, monitoring, and remote admissions.

The COVID-19 pandemic accelerated the spread of telemedicine and made remote medical care possible through digital platforms. Today, tele-health, WebMedicine (WebMD) are a crucial component in providing healthcare services worldwide to millions of people.

Twelfth is Online Education. Online education is a course format where students and instructors correspond and interact using virtual methods such as: email, Web conferencing, and learning management systems and are delivered asynchronously. Also referred to as 'eLearning' (short for electronic learning) is an umbrella term that refers to all types of training, education and instruction that occurs on a digital medium, like a computer or mobile phone. Online education or e-Learning is also known as distance education, or distance learning, and it is the education of students who may not always be physically present at school but learn through digital means.

Today, education through digital technology is growing fast enabling more opportunities for more online distance learning. The UK and Canada in particular have a number of Universities running certified online courses, including courses for first and post graduate degrees where candidates from any part of the world can enroll. Online distance learning would most likely become one of the biggest contributors to internally generated revenues for educational institutions adopting the blended learning approach that incorporates the virtual means of studies.

And for the thirteenth, we have Digitalization in Transportation. Several transport operators across the world now use digital means to make their services easier and more reliable. Airlines across the world have made travel faster and more convenient by enabling intending customers to book for flights through online means rather than go physically to the airline booking centers or the airport. The digital economy has transformed how people also enjoy transport services globally, as exemplified also by the Uber, Bolt road transport companies etc that are amongst the biggest online car transport service platforms globally.

And finally on this, which we put as our number fourteen, is the evolution of digital currencies also known today as 'cryptocurrency'. A cryptocurrency is a digital means of payment using an online system. Credit is transferred from one user to another in the form of computer code. This type of transfer is documented by a cryptographically signed transaction in the blockchain. Cryptocurrency is also a medium of exchange, created and stored electronically, using cryptographic techniques to verify the transfer of funds. Blockchain forms the bedrock for cryptocurrencies like Bitcoin, Binance etc. This design also allows for easier cross-border transactions because it bypasses paper currency. Blockchain combines several technologies to provide a tamper-resistant record of transactions between parties without a central authority, such as a bank. Bitcoin for instance, enables faster and cheaper international transactions by eliminating intermediaries and 'currency conversion fees' associated with traditional forex banking system.

Benefits of the Digital Economy

The digital economy highlights the opportunity and need for both local and international organizations and individuals to use technologies to execute business better, faster and often differently than before. Such opportunities for existing entities to do better, do more, do things differently and do new things is encompassed in the related concept of digital transformation (Mesenbourg, T. L, 2001).

The digital economy provides numerous benefits thus, which have contributed to its rapid expansion and positive effect on a variety of industries: first is, it has resulted to increased productivity. The digital economy has increased the productivity of businesses as they can now use technology to automate their operations and processes. Digital technologies also contribute to accelerate workforce productivity since the artificial intelligence technology introduction has led to the increased workforce productivity and increased profitability.

Businesses thus, can continually improve their productivity and efficiency by using digital technology to automate their operations and processes. Secondly, is that the digital economy also creates increased competitiveness. Businesses today are able to use the internet to reach new markets and customers to market their products against rival competitors. Moreover, they can also use technology to improve their products and services. This has also increased the competitiveness of businesses (Goldfarb, A, 2019).

Thirdly, the digital economy has brought about reduced costs in business settings. Digital frameworks eliminate the need for substantial 'physical infrastructure' and capital expenditures, enabling organizations to scale up and down as needed. Uber for instance, did not have to own any cars to become the world's biggest taxi company. A fourth benefit of the digital economy is extended reach. Businesses can have a wider reach and presence through online platforms and technologies, thus expanding their customer bases and market opportunities. On the consumer front, the digital economy has made it possible for people to access a wide range of products and services with just a few clicks. Not just products and services, but people can also now access information and knowledge and connect with others with the help of the internet. A fifth benefit is that it creates faster transactions for businesses. The digital economy has made it possible for businesses to conduct transactions faster as they can now use online payment methods. This is not just restricted to businesses but extends to individuals as well, who can now transfer money online with just a few clicks (Goldfarb, 2019).

The digital economy also enables the review of data. This is a seventh benefit of the new technology. The digital economy produces large amounts of data that can be analyzed for insights, trends and data-driven decision-making. Jumia for instance has a 'review-feature' for every product it sells to give intending consumers deeper awareness of how other consumers feel of same product already purchased. This advantage does not exist when you go to a physical shopping mall. Rather the only advice you may get in a physical shopping is to 'give it a try and see if you may like it' (OECD, 2020).

In addition, another benefit, the eighth, of the digital economy, is that it brings *greater convenience*. Consumers can purchase goods and services from the convenience of their homes. E-commerce and mobile commerce let customers purchase products whenever and wherever they want. The digital economy has made it possible for people to work from anywhere in the world. This has improved the quality of life of people as they can now balance their work and personal life. Also *Improved customer experience* is another benefit of the digital economy. Businesses can deliver faster through digital channels and chatbots. Finally, one cannot talk about the benefits of the digital economy without talking about Job Creation.

In another word, it has led to *increased employment opportunities*. The digital economy has generated new job opportunities as new businesses are springing up because of this new form of commerce. It has also created new job roles spread all over the world.

The rise of digital technology has led to numerous new roles and industries. From app developers to data scientists, cybersecurity analysts to digital marketers, a host of new jobs has emerged that did not exist a few decades ago. Similarly, new sectors, like e-commerce, social media, and cloud services, have sprung up, creating many more employment opportunities.

Drawback Effects of the Digital Economy

The success of the digital economy depends heavily on reliable infrastructure, such as high-speed internet, data centers, and digital payment systems. While urban areas enjoy access to this infrastructure, rural and remote regions still face inadequate connectivity and electricity issues. While the digital economy provides many advantages, it also presents the following challenges some which are *Cyberfraud*. This is often the first problem of the digital economic revolution. The increased use of technology has also led to an increase in cybercrime. This is because criminals can now use technology to commit crimes like identity theft, fraud, and money laundering. Many people are out to extort the users of digital economy through falsified trade. Also referred to as internet fraud, it is a type of cybercrime fraud or deception which makes use of the Internet and could involve hiding of information or providing wrong or deceitful information for the purpose of luring victims out of money, property, and inheritance. Internet fraud is not considered a single, distinctive crime but covers a range of illegal and illicit actions that are committed in cyberspace. It thus, involves using online means to commit fraud. With the development of the Internet and online banking and other transaction means via the internet, cybercriminals' schemes have been evolving and becoming increasingly elaborate.

One of the immediate and severe consequences of cyber fraud is financial loss. Individuals and organizations may find themselves drained of funds due to unauthorized transactions, fraudulent schemes, or ransom payments demanded by cybercriminals. These financial hits can be debilitating, affecting both personal livelihoods and the economic stability of businesses. Some of the major cyberfrauds include: Phishing Attacks, which is a devious tactic wherein cybercriminals craft deceptive emails, messages, or websites that mimic trustworthy entities to extract sensitive information. These attacks often prey on human vulnerability, relying on individuals clicking on malicious links or providing confidential details, thinking they are interacting with a legitimate source. Another cyberfraud is Online Shopping Scams. These scams exploit the rising trend of e-commerce by creating fraudulent online stores or manipulating existing platforms. Scammers deceive consumers into purchasing non-existent or counterfeit products, leading to financial losses and disappointment for unsuspecting buyers. Counterfeit luxury goods, fake ticket sales, and fraudulent online marketplaces are common avenues for these scams, requiring consumers to exercise vigilance and verify the legitimacy of online sellers (OECD, 2020).

Business Email Compromise is another cyberfraud that is on the rise. Business Email Compromise involves cybercriminals gaining access to business email accounts to orchestrate fraudulent activities. Commonly, attackers use compromised accounts to authorize unauthorized wire transfers or manipulate employees into conducting financial transactions. CEO fraud, a prevalent form of BEC, sees cybercriminals posing as high-ranking executives to trick employees into transferring funds, highlighting the vulnerability of organizations to such sophisticated attacks. Also, Credit Card Fraud, another cyberfraud encompasses the illicit use of credit card information for unauthorized transactions. Stolen credit card details are often traded on the dark web, where fraudsters may use them to make online or in-person purchases. Social engineering attacks another growing cyberfraud, use psychological manipulation to trick individuals into revealing sensitive information or taking actions that jeopardize security. Impersonation, pretexting, and baiting are common tactics, exploiting human emotions such as trust or fear to achieve the attacker's objectives. Another major cyberfraud that has become deadly is cyberterrorism. The internet can be used by terrorists to finance their operations, train other terrorists, and plan or threaten terror attacks. The more mainstream idea of cyber terrorism is the hacking of government or private servers to access sensitive information or even siphon funds for use in terror activities.

Another flip side of the digital technology is that it can lead to displacement of human jobs. Automation and AI, in particular, can perform repetitive tasks more efficiently than humans, leading to job losses in certain sectors, as seen already in the fast food industry with burger-flipping robots or automated pizza delivery or in banks with Automated Teller Machines in place of cashiers. This is also evident in manufacturing, retail, and transportation, as expressed in the World Economic Forum Report (2023). These are some of the industries most vulnerable to automation with companies already negotiating plans with governments and institutions to bring their robots, apps, and tools to markets. The digitization of the economy has thus, led businesses to replace human workers with technology leading to an increased unemployment rate in these sectors. The digital age, with its myriad technologies and trends, has drastically reshaped the employment landscape no doubt. This transformation is complex, creating both opportunities but at the same time challenges for workers and businesses alike. Many workers also lack the necessary skills for the jobs of the digital age, leading to a mismatch between talent supply and demand. Individuals might need to acquire new skills for ongoing employability, which can cause temporary economic disruption (UNCTAD, 2021).

Furthermore, one of the biggest disadvantages of the digital economy is the digital divide. This is the gap between those who have access to technology and those who do not. This divide exists not just between countries but also within countries. This has created a new form of inequality in the world. The existence of the digital divide is thus, another adverse effect, and it about the disparity in access to technology and the internet. This division can result in inequalities concerning access to information, education, employment prospects and economic advancement. Today, much information is passed through digital means, and not acquainted or having access is a major disservice to anyone. Some of the very aged or those in poor rural communities may be in this category. Wealthy countries and companies are still far more digitally connected than poorer ones.

It will be hard to close the gap. This is because success in the digital economy is determined not by the number of mobile phones and wireless connections, but by ownership of infrastructure, code and data. Richer countries in North America, Western Europe and East Asia house well over 90% of the world's data centres, while Latin American and African states are home to less than 2%. The US and China account for over 75% of cloud computing, 75% of all patents related to blockchain, and 50% of spending on internet of things (IoT). Between them, they have over 90% of market capitalization in the world's largest digital platforms. As a result, some countries, companies and sectors are benefiting far more from digitalization than others (WEF, 2023).

In a nutshell then, the dividends of the digital economy are still unevenly shared. Some countries like the US, China, Japan and European Union states reap more benefits of the global digital economy together with a handful of firms like— Amazon, Alphabet, Apple, Google, Facebook, and Microsoft alongside Alibaba, Baidu, Huawei, Tencent, WeChat and ZTE – which have achieved dominant market positions and account for 90% of all revenue and profits. Major retailers and manufacturers are restructuring and digitalizing, or risk being extinguished. Most businesses are going virtual in the hopes that they may benefit from network effects and greater competitiveness (UNCTAD, 2021).

Another major concern of the adverse effect of the digital economy has to do with privacy concerns. It is better referred to as data security risks. With businesses collecting more and more data about their customers, there is a risk of this data being leaked or stolen. This can lead to a loss of trust between businesses and their customers. Also, another demerit of the digital economy is that it requires heavy capital investment for its efficiency. It does not come cheap. The digitization of businesses requires heavy investments in technology and the internet. This is a challenge for small businesses which might not have the resources to invest in technology.

Conclusion

The digital economy has expanded global commerce no doubt, by increasing market access, lowering costs in production, and improving efficiency. Online platforms and the new digital payment systems have promoted international transactions making them quicker and simpler. The digital economic revolution has thus, reduced operational expenses for business organizations, creating a wider reach that transcends local markets. New opportunities in e-commerce have facilitated trade in services such as online distance learning, web-medicare, internet banking, digital entertainment amongst others.

In the same vein, the digital economy has created new job opportunities in several respects. However, some drawbacks exist, especially the risk of cybercrime and the inequalities brought about by the digital divide. Internet transactions and data storage are susceptible to crime hacking and fraudulent practices. Job displacement is also a threat physical employment. Lastly, privacy concerns evolve as business entities collate numerous data of users, creating possible moral issues.

Nevertheless, the digital economy has continued to advance over the past two decades, driven forward by powerful technology and market forces.

Then COVID-19 global pandemic was a watershed that witnessed high levels of the adoption of technological behaviors in response to the challenges of limited mobility and social distancing. This period saw the rise in videoconferencing to online shopping, reaching levels that were not expected for many years.

For years, companies found all kinds of reasons for not embracing work from home, virtual meetings, online learning, telemedicine, and other online applications. But not only have these digital applications worked remarkably well over the past years especially since the COVID-19 era, they now offer a number of important benefits, like not having to travel for hours to participate in a 45-minute meeting or having to wait in a room full of sick people for a simple medical consultation or having to travel far for education. In the coming years, we can expect major innovations to improve the user experiences of such online applications. But importantly, digital capitalism is at the hallmark of these, and this is capitalism being at its true nature, that is, it is never stagnant, it is always innovative, it seeks new means to continually acquire capital and surplus value.

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