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The new normal: Digital transformation of the business world and digitalization

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ABSTRACT

The COVID-19 pandemic currently plaguing the world has engendered many disruptions around us, with extremely dramatic effects on not only business activities and people but also on the global economy and its future. The victims of the unprecedented outspread of the pandemic have been primarily Micro and Small Enterprises, especially in developing countries. Not just that, many large enterprises have been forced to revaluate their business models, resulting in variations in growth patterns in the business world. During this time too though, new avenues have opened, and there has been an evident rapid growth in the digitalization sector. Despite the large-scale digitalization across the world, businesses, especially SME's have landed in a slump due to the lack of resources, disruption of the supply chain as well as lack of sustainability and ability to cope with the digitalization of businesses around them. The pandemic has also exposed real-world challenges faced in digitalization, while developing avenues of growth yet to be explored. This paper discusses significant changes and problems faced by the business world, how digitalization reshapes businesses and their working during the pandemic and what new avenues and problems the world may face due to the advent of COVID-19 and the simultaneous emergence of a new era led by digital transformation.

Keywords: Pandemic, Disruptions, MSMES, Economy, Business Models, Digitalization, Sustainability, Digital Transformation

1. DIGITALIZATION IN THE NEW AGE

Digitalization is one of the most vital forces driving existent and forthcoming businesses on the road to sustainability. Digitalization has been identified as the most significant technological trend that is changing both, society, and business (João Carlos Gonçalves dos Reis, 2020) (Päivi Parviainen, 2017).

Digitalization is a fundamental disruptive force which was triggered by Fourth Industrial, which has changed the way we approach and think about business processes. In this increasingly digital age, relationships between organizations and customers are being reshaped and new business models are being invented. In business, digitalization most often refers to enabling, improving and/or transforming business operations and/or business functions and/or business models/processes and/or activities, by leveraging digital technologies and a broader use and context of digitized data, turned into intelligence and actionable knowledge, with a specific benefit in mind (i-SCOOP, 2016). A large aspect of digitalization is driven by Information and Communication Technology (ICT), which forms the fundamentals of digitaltransformation too.

2. INFORMATION AND COMMUNICATION TECHNOLOGY ININDIA

Over the decades, the proliferation of ICT's has accelerated not only the formation of digital businesses but has also laid the foundations of introduction of Internet of Things (IoT) and radically changed business models. Despite the crucial role of ICTs in the developmental processes of not only specific businesses but in the whole business forum, the adoption of these has been rather inadequate in India in comparison to other regions. Not only India but all SAARC nationshave fell behind in provisions of cellular as well as broadband users and facilities. While the number of internet users has grown rapidlyfrom 34.4% in 2019 to 44.82% in 2021, the internet penetration rate fell from 48.48% in 2019 to 45% in 2021. Though India ranks second in the total number of internet users in the world, less than half of the people in the country have access to internet. The inability to access the ICTs has led to near flattening of the curve of the people being able to access thebenefits of the Digital Revolution.

Table 1: Status of ICTs Adoption among Different Regions (Per 100 Inhabitants)

Regions	Fixed Telephone	Cellular Subscribers	Internet Users	Broadband Subscribers
ESCAP[1]	14.2	11.5	11.9	2.9
LLDC	6.6	13.3	8.0	0.1
LDC	0.8	0.3	0.5	11.8
SIDS	15.4	30.9	15.0	0.5
ASEAN	8.0	13.8	10.2	6.2
SAARC	5.3	15.3	5.0	0.1
Central Asia	11.1	20.1	6.2	--
Low Income	4.0	14.5	5.2	1.8
Middle Income	23.9	40.2	11.4	22.0
High Income	48.7	84.0	68.4	--
Africa	3.1	20.0	4.7	--
Latin America & Carib.	17.7	44.2	18.2	2.7
North America	57.8	75.0	69.0	39.7
Europe	45.0	101.4	43.1	15.6
Other Asia Pacific	22.9	51.2	19.3	7.1
World	19.4	40.9	17.4	4.3

Note: Data for year 2006, compiled by researcher. LLDC (Least Developed Countries); LDC (Least Developing Countries); SIDS (small Island Developing States)
Source: Statistical Yearbook for Asia and the Pacific, 2007.

Figure 1: Status of ICTs adoption among different regions (Per 100 Inhabitants)

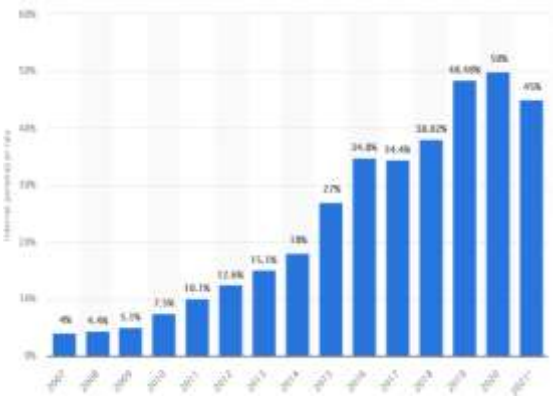

Figure 2: Internet penetration rate in India went up to nearly around 45 percent in 2021, from just about four percent in 2007. Although these figures seem relatively low, it meant that nearly half of the population of 1.37 billion people had access to internet that year. This also ranked the country second in the world in terms of active internet users.(Keelery, 2021)

3. THE EXPOSURE OF THE DIGITALDIVIDE BY COVID-19

The advent of the COVID-19 pandemic servednot only as a new opportunity for digital transformation across the nation resulting in the formation of a digital business setup, but also worked like a "natural breaching experiment" (Samer Faraj, 2021) which revealed problems on the path to digitalizationas well as the digital divide and its impact on the new digital world. The digital divide is the gap that exists between individuals advantagedby the internet and those individuals relatively disadvantaged by the internet (Rogers, 2001). The exposure of a countrywide divide, such asthe one seen in India, coupled with digital exclusion as well as brittle unchecked digitalization posed a serious threat to the foundation of a digitally transformed business environment. The pandemic caused a sudden absolute shift from face-to-face interaction towards a relatively new digital realm.

4. DIGITAL EXCLUSION

It has been observed that there exists a persistent divide that leaves out technologically marginalized sections of the society-rural residents, low-income families, digitally illiterate individuals, ethnically marginalized communities, socially secludedcommunities, the older population, and those with little regular access to digital facilities. For instance, in India, 9.9% of rural populationcan operate a computer in contrast to 32.4% in urban areas. Furthermore, only 13% of rural population can use internet while 37.1% of urban population can use the internet in India. Uneven access to digital infrastructure has alsobeen seen as a result of social exclusion.

Social exclusion on bases such as disabilities, geography, illiteracy, poverty, and ethnicity also result in a subsequent digital exclusion ofthese groups. Digital exclusion is a multi-dimensional issue—based on a denial of resources, rights, goods and services and the inability to participate in normal relationshipsand activities (Eshita Mukherjee, 2017).

5. THE LACK OF REQUIRED DIGITAL INFRASTRUCTURE

The resources have not been provided in manyregions due to poor implementation of broadband networks in the country. Many companies who undertook the task of setting up the National Optical Fibre Network in India only accomplished 35.68% of their total targets on an average, thus leaving out a substantial portion of the country's population in need of the services. The COVID-19 pandemic has exposed that many processes remain vulnerable to weaknesses inherent to unchecked digitalization (McKinsey & Company, 2020). While digitalization may radically increase the speed and automaticity of organizing, the tight coupling of systems with each other creates the possibility of propagating and amplifying errors (Samer Faraj, 2021). This pandemic breach has exposed many hidden flaws in the digital infrastructure across the country which had caused unprecedented implications in the digital business environment, leading not onlyto the collapse of many businesses but also the development of many new problems which arose due to the sudden need to shift to the digital world, combined with the inability to shift to digital markets and cope with the lack of resources and appropriate business models.

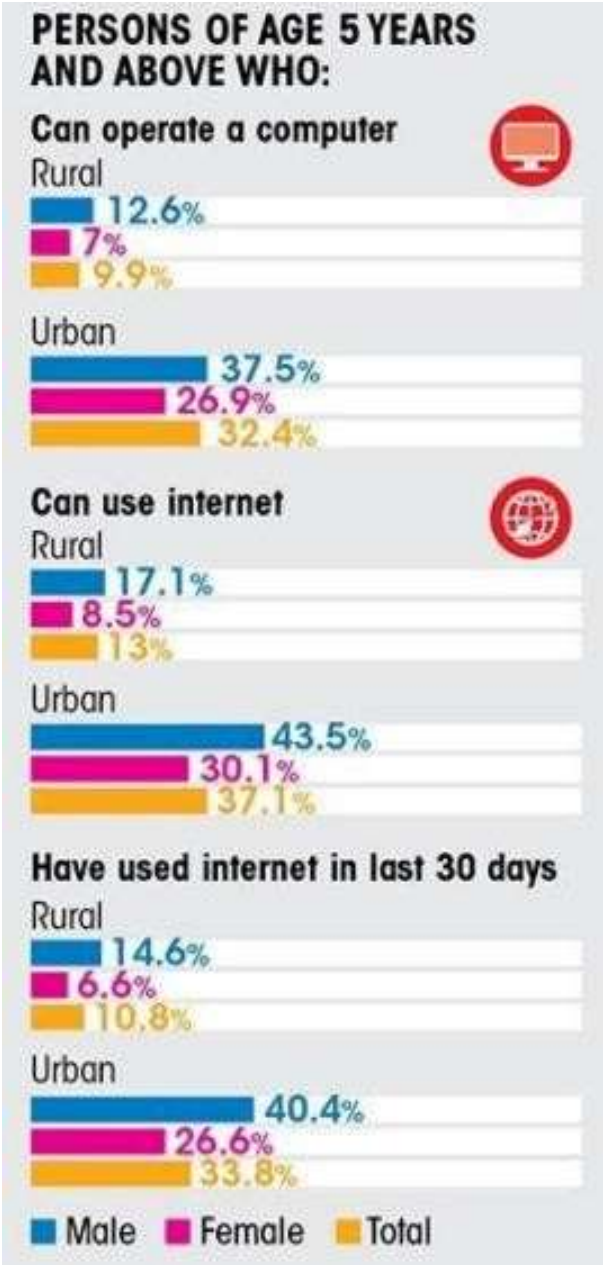

Figure 3: Disparities amongst various communities in internetaccess in India. Along with community-based disparities, there also exist regional disparities. For instance, while Uttarakhand has the second highest internet access rate for urban regions, it has very low computer access in rural regions. Conversely, Tamil Nadu has the highest rural computer access, but it has very low rural internet access. (Sushma Modi, 2020)

Table 3: Implementation Status of NOFN by Partner

Implementing Partner	Districts	Blocks	Gram Panchayats	Optical Fibre to be Laid (KM)	Optical fibre laid (KM)
BSNL	410	2146	84,336	1,85,742	70,298 (57.85%)
RailTel	44	225	8676	19,331	4967 (25.69%)
PGCIL	28	356	7156	17,198	7239 (42.07%)
TOTAL	482	2727	1,00,2000	2,22,271	82,501 (37.12%)

Source : Department of Communication Outcome Budget 2016-17

Figure 4: Implementation status of NOFN by Partner

6. IS DIGITALIZATION OF MSMEs IN INDIA EFFECTIVE?

Though the pandemic and lockdown took theirtoll on the entire business world, they did not affect all parts of it alike. The COVID-19 outbreak has landed the small and medium enterprises (SMEs) in a position where thriving is nearly impossible with their existentbusiness models. India has 6.33 crore MSMEs,99.4% of which are micro-enterprises, 0.52% are small enterprises and only 0.007% are medium businesses. These employ about 40% of the total workforce of the country and contributes approximately 48% of all exports of the country, directly and indirectly. The micro small and medium enterprises (MSMEs)have been accepted as the engine of economic growth and for promoting equitable development (Syal, 2015). They play a vital role in running the economy of the country sustainably. However due to advent of COVID-19, a variety of problems have risenwhich impair the proper functioning of the MSMEs. With the lockdown in 2019, going digital was the only forward for businesses to remain active while be able to generate profits.However, going completely digital led to a rapid cost escalation for small businesses which could not be taken up at once. Thus, a lot of MSMEs were unable to sustain their businesses while still incurring so many losses due to the improper transformation from analog to digital. Long constrained for liquidity, MSMEs now also have to cope with loss of demand, labour shortage, and heightened risk aversion in the financial system due to the Covid-19 pandemic (Business Standard, 2019). All this will stretch their already-strained financials. Survey reports have shown that disruptions caused by the Covid-19 pandemic have impacted MSMEs earnings by 20-50%, micro and small enterprises faced the maximum heat, mainly due to liquidity crunch (Tripathi, 2020). So, not only do the MSMEs incur heavy losses, but they also face competition from big as well as small and emerging businesses due to formation of a common platform with similar target market. This would make it very tough for them to compete against big enterprises who had already turned digital as they would lack the first moment advantage. Due to lack of enough resources, a trend of hiring freezes and furloughs as well as layoffs. There is also a certain resistance to change from analog to digital businesses due to the fear of rationalization of the jobs and inability to regain market from larger entities. A survey conducted by a non-financial banking institution, in the second half of May 2020, focused on the fiscal impact of the pandemic on MSMEs and their outlook towards the earnings. It is based on responses from 14,444 MSMEs (The Economic Times, 2020). Nearly 50 per cent of micro, small and medium enterprises (MSMEs) were reported to have witnessed a 20-50 per cent reduction in their earnings (Ramaswamy, 2021). Due to the series of the upliftment of lockdown followed by its subsequent placement again resulted in a supply chain disruption for small businesses working remotely for their customers as the demands were often not fulfilled, thus further reducing their outreach. They often lack market knowledge about competitors, and market trends. Hence, they are unable to access new cost-efficient markets which could help them get back on their initial levels of production. A lot of sales channels that small businesses could use to their advantages locally by directly contacting the customers were blocked due to the physical restraints caused by the lockdown. Most of the remaining sales channels that could have beenaccessed online are already being occupied bylarge businesses. Therefore, the MSME's remain incapable or contacting any customerswilling to use their products or services. Due to the uncertainty of future as well as non- uniform cash inflow, it becomes rather difficult for analysts to create a fund flow statement based upon which the new business model could work.

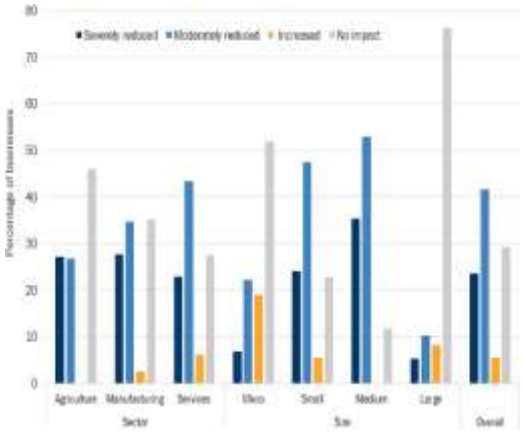

Figure 5: An analogy can be drawn from this graph, giving us a stark contrast between the repayment abilities of large businesses and MSMEs. Thus, it can give us a brief representation of the economic drawbacks faced by MSMEs which are far more severe as compared to larger enterprises.(Nathan Sunady, n.d.)

7. THE NEED FOR NEW BUSINESSMODELS

However, well planned, and sustained digitalization techniques could help the MSME's take a quantum leap at both organizational as well as industry levels. A lotof customers who earlier remained unwilling to shift to digital goods and service providers too turned to them as they could resort to nothing else, thus recreating the target marketon an online platform. However, all the targetmarkets have been dispersed while the ability to track them remains extremely limited. So new target-specific business models would be required so that current sales channels can be acquired while maintaining contact with the old ones. A common example would be how restaurants had to rethink their business models during the lockdown to survive. Even traditional restaurants turned to online deliveryservices, leading to the formation of a nation- wide digitally enabled network of providers ofgoods of a certain type. Due to the lockdown, the orders for ready-made food also increased, thus providing a larger target market as compared to the analog settings.

8. DIGITAL TRANSFORMATION

So, in order to cope with all the challenges posed, all MSMEs must undergo a drastic digital transformation of either business model, business process, domain, or an organizational transformation. The transformation of business processes includes innovations implemented digitally as well as remotely to meet the demands of the customers. It uses data, analytics, APIs, and other technologies to reinvent process in the corporation with primary goals such as increasing quality or reducing costs. In contrast to this, business model

transformations aim at redesigning the foundations of the value added to the industry by a particular enterprise. With the advent of modern technologies, entirely new business opportunities can be opened for small companies adding more profits as well as value to the company. This refers to domain transformation. Organizational transformation,on the other hand, refers to a full, long term digital transformation that requires redefining organizational mindsets, talents, and capabilities (Annacone, 2019). The content analysis in the transformation driver dimension shows that most occurrences are related to the general social changes as a driver, which can be understood in a way that SMEs strongly focus on their environment and their role in society. Social changes are closelyfollowed by the customer and organizational drivers. This means that SMEs are aware of the significance of customer centricity, internal organizational capacities, and maturity (Iva Gregurec, 2021). MSMEs that base their business models and core approaches upon these while also allowing them to change in a dynamic environment could successfully be able to shift to online networks and regain customers despite physical restrictions. Digital transformation and digitalization are led by a few key elements which help them adapt to thenew environments. Social media and platformsand mobile technologies are the two most commonly appearing technologies, followed closely by artificial intelligence, virtual reality,internet of things and autonomous systems.

Figure 6: This provides us an insight into what all measures were taken so as to drastically convert a large part of organisations into digitally transformed setups so that they would successfully be able to cope with the economic slump and rise as soon as it recedes. Furthermore, it is also able to devise a possible strategy which can allow MSMEs to follow the same trend (Microsoft News Center India, 2017)

9. TRANSFORMATION INTO SMARTBUSINESSES

Many businesses have also undergone a paradigm shift to a smart business, which embrace the emerging modern technologies and use them to ensure operational excellence across internal core processes and external supply chains. Inclusive business models, which may or may not have undergone digital transformations, would be able to connect the dynamics between the government, private sector, and low-income and poor communities,including the micro and small enterprises for achieving national and regional objectives.

Businesses maintaining a balance between digitization and automation while being able encode embedded systems for data storage anduse could provide a sustainable and self- functioning service business model which would function on existent data to provide results and analyses, which would mostly be accurate as they are based on a certain dataset which is related to the issue faced at hand.

Automation based businesses would not only be able improve efficiency, but they would also reduce human intervention thus in turn reducing the chances of human error. Also, by combining analytics with automated processes,a business can access value-added insights thatwould have been difficult to obtain previously (Herring, 2020). With the arrival of a new digitally transformed business world, new avenues of development are bound to rise.

10. NEW AVENUES BROUGHT FORTH IN THIS CONDITION

Along with its downsides, the COVID-19 pandemic has also served as an entrepreneurship, innovation, digitization, and digitalization accelerator a fair number of times (Sorin Gavrila Gavrila, 2021). The levelsof remote working have skyrocketed during the lockdown and are expected to remain higher than pre-crisis levels. Lockdowns, although limiting person-to-person contact, are amplifying project reviews and workshops with global teams (Neil Siri, 2020). For 60 per cent of MSMEs, digital modes of doing business are now acknowledged as being more successful avenues to conduct business. (The Hindu Business Line, 2021). But there lie more ways to tap into the benefits of the pandemic for digitalization. This can be done by augmenting security capabilities to prevent and manage cyber-attacks, thus increasing the avenues for employment in such setups. Along with this, MSMEs must leverage predictive analytics to address cashflow, liquidity and supply chain flexibility (Neil Siri, 2020). New business models relying on online sales as wellas existent offline sales channels would help build a sustainable business model for MSMEs. Furthermore, it would be profitable for upcoming business to establish themselves in high growth sectors along with their traditional sectors so as to not only get a short-term boost in their profits but also a stable setup after the passing of the pandemic.

Certain policies in India would make it easierfor MSMEs to grow if they had lost the advantage in the beginning, including addressing and promoting digital literacy, incentivising digital adoption withing specificsectors and easing various licensing and compliance regulations (The Economic Times,2021).

11. PROBLEMS IN THIS PROCESS AND HOW THEY MAY BE DEALT WITH

Though many MSMEs may take to digitalization soon enough, they would still face many complications while doing so. A large part of MSMEs will tend to gig based economy. Gig workers and the gig economy islikely to increase in scale, raising questions of work allocation, collaboration, motivation, andaspects of work overload and presenteeism.

Online fraud is likely to grow, along with research on managing security. Workplace monitoring and technostress issues will become prominent with an increase in digital presence for workers who have just started getting inducted into such working environments (Neena Pandey, 2020). Another problem faced by both MSMEs and large scale businesses alike would be the uncertainty of new strains of the virus, but the MSMEs can make the most of this situation as they would still tend to rely upon both the initial domestic markets as well as global markets by wideningtheir domains, so they may succeed in getting a boost at that juncture (Annual Report 2020- 21 - MSME, 2020-2021). The problems faced after digitalization can be dealt with strategic partnerships with larger business who have been able to make better use of the condition and undertake similar, yet business specific, financial models in an attempt to cut off more losses. A large part of the problem is also lack of awareness amongst the employees. To deal with this, skill development and training sessions and conferences can be organized at large within the MSMEs as well as through larger institutions.

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