**Role of Industry 4 0 during COVID 19**

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The world is rapidly transitioning from a time when people worked with computers to a time when computers are functioning without humans. Industry Revolution (IR) 4.0 or Industry 4.0 has revolutionized the whole world through the creation of synergistic blends between the physical, digital and biological spheres across various industries. Contrary to its devastating impacts on the global economy, the COVID-19 pandemic has served as a driving force for the adoption of digitalization and automation of business operations. Businesses that had a virtual platform were able to continue some of their operations during these unprecedented times. As the world is still reeling from the continuing devastation of this deadly virus, a hypothesis has emerged that the proactive digitalization of business processes has served as the key to business survival during COVID-19. This also holds true for the banking industry, which predominantly functioned and survived due to its digital platforms during the early days of this pandemic.

Fueled by the Green Banking ideology, digitalization had started taking place in the global banking industry for the past few decades. Bank-of-Things (BoT) technology enables a bank to be in continuous contact with their customers through cyberspace thereby having the opportunity to offer limitless services, such as automated guidance on investment, spending, savings, etc. based on a customer’s real-time financial data and preferences. Banks are offering customer wearable payment devices, called “Beacons” that are Bluetooth powered devices that can be attached securely to most wearable items such as watches, fitness bands or key rings. Customers can make instant touch-and-go payments using these devices.

Bluetooth Beacon network are also being placed inside branches and ATMs to gauge customer behavior patterns such as duration of visit, the busiest days and time intervals, number of monthly visits, types of transactions, time to deliver a specific service, waiting time. Such information can be accurately measured and play a role in improving customer service and branch performance. The technologies being introduced through BoT revolution will also play a major role in the adoption of Green Banking and in reducing the banking industry’s adverse environmental impacts.

The COVID-19 pandemic has highlighted the need for clean, green, and digital products and services for the survival of humanity

Although comparatively lagging behind the rest of the world, the Pakistan banking industry has also started adopting Green Banking practices by creating green and digitalized banking solutions to its consumers. Banks are moving towards paperless banking by offering One-Touch banking solutions such as Biometric ATMs and cash deposit machines. Some of the leading banks are collaborating with technology giants, such as IBM to adopt Fin-Tech and develop Smart branches. Green Banking can in turn trigger the development of Pakistan’s green economy through provision of Green Finance. In Pakistan, an investment opportunity of US$ 34 billion exists in various digital infrastructure projects involved in the digitalization of the country. According to a McKinsey Global Institute (MGI) report, Pakistan can experience an increase in its GDP by a cumulative 7% points (roughly US$ 36 billion) and create around 4 million new jobs during 2016- 2025 via an increase in the use of digital financial services. The number of internet users in Pakistan increased by 17% between 2019 and 2020, with approx.75% of the total population having mobile connections. On the other hand, in a country of about 220 million people, there are only 55 million bank accounts (25%) all of which are not active. The data points towards a substantial but unsaturated consumer market that can be targeted with various digitalized banking solutions.

The defining characteristic of this industrial revolution is synergy through connectivity. A single industry sector cannot adopt and reap the benefits associated with IR 4.0. The effective and efficient adoption of this paradigm-shifting business ideology and its associated technologies are based on the collective revolutionization of all complementary industries.

Based on the principles of real-time connectivity, IR 4.0 cannot be adopted in Pakistan until all the public and private sectors are digitalized in the true spirits. The COVID-19 pandemic revealed glaring gaps and inadequacies in the digitalization of the country’s public sector institutions. Absence of public contingency planning was evident when the majority of the public offices and the services they offer were closed down during COVID-19 lockdown. IR 4.0 adoption offers contingency planning through the digitalization of the whole value chain.

Some digital initiatives have been started by the government such as Digiskills, Erozgaar, Pakistan Citizen Portal, and the automation of various government departments. However, these are at the infancy stages of adoption and development. Various obstacles in the form of insufficient stakeholder knowledge, incorrect consumer perceptions about cyber-security issues, lack of real-time data availability, lack of virtual connectivity between various public and private sectors, weak infrastructure, etc. are blocking Pakistan’s journey towards IR 4.0.

The COVID-19 pandemic has highlighted the need for clean, green, and digital products and services for the survival of humanity. Industries such as banks, educational institutions, high-end retail chains, etc., survived the economic crunch due to digital contingency planning in the form of environmentally sustainable virtual business presence. It is time that we, as a nation, realize that we either ‘Go Green’ or risk losing everything our forefathers gave up their lives for.

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