

Chapter 9

Impact of Technology on Business Continuity During COVID-19

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ABSTRACT

Digital technology has developed over the years with numerous innovations that have improved how we live, communicate, and work. In business, such innovations have occurred predominantly at larger or newer organizations or e-commerce companies as resources are required to design, implement, and maintain bespoke digital technology solutions while other commercially available solutions and their integration into business operations have not been favored over the more traditional work methods. A business continuity plan is established when a company needs to quickly recover to maintain business operations following a disruption such as a pandemic. In this chapter, various business continuity planning initiatives that may occur during a pandemic, the types of digital technologies used by businesses, and their impact on business continuity during such occurrences are discussed. Recommendations are provided herein for businesses to continue successfully in the volatility, uncertainty, complexity, and ambiguity (VUCA) of this world.

INTRODUCTION

The global COVID-19 pandemic lockdown disrupted business operations as many companies had to remain closed or only provide essential goods and services. Such disruptions should have been identified during the business continuity planning process. However, without the consideration of appropriate digital technology, companies would have had no choice but to remain closed if their business continuity plan

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failed to meet the requirements promulgated for social distancing and working from home. The chapter details the literature reviewed for business continuity planning during a pandemic, the types of digital technologies used by businesses and their impact on business continuity during a pandemic.

The COVID-19 Pandemic

COVID-19 is a recent virus outbreak that was first identified in Wuhan, China in December 2019. The COVID-19 virus causes the coronavirus disease that can lead to severe illness and in some cases death (Centers for Disease Control and Prevention, 2020). The World Health Organization characterized the outbreak as a pandemic on 11 March 2020 as the number of infections increased. At the time there were more than 118 000 infected cases in 114 countries and 4 291 deaths (World Health Organization, 2020). As the virus spread, it has impacted economies and businesses so nations have attempted to contain the spread of the virus with lockdown measures (Jones, Palumbo & Brown, 2021).

Pandemics as an Interruptive Disaster

Cambridge University (2021) defines a pandemic as "... a disease that exists in almost all of an area or almost all of a group of people, animals or plants". Wallace and Webber (2017) indicate that pandemics differ from sudden disasters as these often last for extended periods as compared to other natural disasters such as hurricanes or severe snowstorms. Some of the techniques that are recommended for inclusion in the business continuity plan for a pandemic are social distancing, sanitation, communication, and timing. Pandemics faced in recent times include the Severe acute respiratory syndrome (SARS), Zika virus, Ebola virus, and Swine Flu (Wallace & Webber, 2017) and most recently COVID-19 which disrupted business operations globally.

From south African context, very little is known what strategies were used to continue operating businesses during the black swan events. Therefore, the objective of this study was to identify the types of technologies were used to operate businesses during covid-19.

LITERATURE REVIEW

COVID-19 Pandemic Impact on Business

The COVID-19 pandemic, thought by some researchers to be a black swan event, is regarded by theorist, Nassim Nicholas Taleb as rather being a white swan event as it had been foreseen by himself and others. The pandemic has impacted all sectors of the economy as it has caused challenges for management in trying to protect employees and minimize disruptions to their customers whilst managing revenue gaps, stabilizing financial liquidity, reducing working capital, and identifying other financial sources.

Patnaik (2020) adds that some businesses as a result will not survive the pandemic which has been likened to the Great Depression in the 1930s. Bloom, Bunn, Mizen, Smietanka and Thwaites, (2020) equated the onset of the COVID-19 pandemic as the largest economic shock since World War II considering the impact of capital and labor reallocation costs, social distancing, capital utilization and productivity, working from home and factor inputs, labor quality and business use of intermediate inputs on productivity. These impacts were considered during a survey conducted by Bloom *et al.* (2020) on

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