Effects of Covid19 on Digital Business & Operations Management Information System

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ABSTRACT

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Social removing limitations and changes in wellbeing and financial interest brought about by COVID-19 are supposed to close down numerous businesses and operations, however early proof of the impact is scant. This record gives an analysis of the effects of Covid-19 on business information systems and digital cycles. The quantity of dynamic businesspeople fell by 3.3 million or 22% during the key two-month time frame from February to April 2020. The decrease in the quantity of dynamic business visionaries was the biggest on record and misfortunes businesses were felt in pretty much every area. Dark businesses specifically have been hit hard, with a 41% drop-in business action. Worker business visionaries experienced huge business misfortunes of 36%. Ladies’ businesspeople were likewise excessively impacted (25% reduction in enterprising movement). These early discoveries on independent company misfortunes have significant ramifications for future strategies, pay misfortunes, and financial imbalance.

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1. Introduction

The boundless conclusion of shops and businesses all over the planet due to the Covid is exceptional. Stores, plants and numerous different businesses are shut because of government strategies, diminished request, medical problems or different variables. A considerable lot of these terminations might be long-lasting as proprietors can’t bear the cost of working expenses and stay away from terminations (Kamal, 2020). The impact on business management information systems and digital operations overall is probably going to be extreme.

The CoVID-19 pandemic has been quite possibly of the most stunning occasion in current
With COVID-19 extreme and influencing all residents of the world, digital resource and operations management is something of a popular expression being discussed in many ventures and business networks (Dwivedi et al., 2020). As demonstrated in the writing depicted in the past segment, COVID-19 decidedly affects the improvement of business information systems and digital operations. Be that as it may, it is muddled whether this will decidedly affect social and monetary prosperity and what enormous the negative mean for will be.

As COVID-19 keeps on influencing the day to day routines of everybody, including businesses, digital business and functional management information systems are a central participant in the virtual business and social community (Soto-Acosta, 2020). This subject of study is still genuinely new, so it is critical to investigate this point to additionally add to what the COVID-19 pandemic might mean for digital resource management and functional information systems. Similarly, it is vital to investigate the social and word related prosperity factors that are negatively impacted to decrease them assuming this job is utilized accurately (Ågerfalk, Conboy, & Myers, 2020). The writers of this article are urged to respond to the accompanying inquiries.

2. Objective of the study
- To examine relationship b/w Digital Business and covid-19.
- To examine relationship b/w Operation Management Information system and covid-19.
- To examine relationship b/w uncertain public risks and covid-19.
- To examine relationship b/w Pandemic and covid-19.

3. Problem Statement
A correlation study to assess people’s self-reported knowledge and stigma about the COVID-19 outbreak.

4. Research Questions
- Does Digital Business have effect on covid-19?
- Does Operation Management Information system have effect on covid-19?
- Do uncertain public risks have effect on covid-19?
- Does Pandemic have effect on covid-19?

To respond to our inquiries, another change structure with homogeneous elements is
required. Our review will foster a displaying structure to distinguish and investigate the factors liable for the positive and negative effects of COVID-19 on business information systems and digital operations (Farooq, Hussain, Masood, & Habib, 2021). The following sections provide domain identification and development tools for the framework. This is followed by data collection, analysis, hypothesis testing, results, discussion and implications and conclusions in the following sections. The initial impact of COVID-19 on digital assets and operations management is poorly understood due to the government’s inability to release timely data across the enterprise (Ibrahim, Susanto, Haghi, & Setiana, 2020).

5. Literature Review

5.1 Theoretical Background

Fresh insight about the Covid disease 2019 (COVID-19) broke out in Wuhan, China in December 2019 and immediately spread the nation over. On August 29, 2021, the quantity of affirmed cases in China arrived at 151,122,891 million. The COVID-19 flare-up is adversely affecting the whole economy. China’s GDP (GDP) development rate eased back from 2020 to 5.25% in 2019, with optional and tertiary businesses enduring the worst part. As per the National Statistics Office, the GDP of optional businesses shows negative development from 2019 to 2020 (Papadopoulos, Baltas, & Balta, 2020). In spite of the insight about the quick spread of COVID-19 all over the planet, the economy has not been genuinely impacted. Because of the fast development of the digital economy.

In only a couple of months, the COVID-19 emergency has achieved long periods of progress in business information systems and digital operations. During the pandemic, consumers have drastically shifted to online channels and businesses and industries have responded as well (Hawash, Abuzawayda, Mokhtar, Yusef, & Mukred, 2020).

Following are some pos and neg effects of COVID-19;

### Positive Effects of Covid 19 on Digital Business & Operations Management Information System

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Positive Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>It pushed the fast forward button on digital access</td>
</tr>
<tr>
<td>2</td>
<td>It provided companies with the perfect opportunity to innovate</td>
</tr>
<tr>
<td>3</td>
<td>It’s allowed businesses to save money</td>
</tr>
<tr>
<td>4</td>
<td>It highlighted the importance of training and upskilling</td>
</tr>
<tr>
<td>5</td>
<td>It’s seen a rise in productivity levels</td>
</tr>
</tbody>
</table>

With the positive impact of COVID-19 on digital resource management and functional information systems, there is strain to enact digital ecosystems, digital learning and adaptable business models for the endurance and manageability of organizations (Gabryelczyk, 2020). There are numerous other IT-related business open doors in the IoT space, for example, prescient examination, distributed computing, medical services, portability, social media and cooperation, utilization of the stage, types of robotization, mechanical technology, clinical imaging, etc., wearable devices, etc. business interconnection, telepresence, remote assistance and other developments in telecommunications are having a positive effect (Ofosu-Ampong & Acheampong).
Negative Effects of Covid 19 on Digital Business & Operations Management Information System

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Negative Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Digitalization in the tax function</td>
</tr>
<tr>
<td>2</td>
<td>Mitigating risk such as phishing attacks</td>
</tr>
<tr>
<td>3</td>
<td>Reductions in demand and employee health concerns as the reasons for closure</td>
</tr>
<tr>
<td>4</td>
<td>Added to small business challenges around the world, regardless of size, location, or funding</td>
</tr>
<tr>
<td>5</td>
<td>Lack of digital literacy</td>
</tr>
</tbody>
</table>

Secondary effects and entanglements can incorporate pneumonia, intense respiratory pain condition (ARDS), different organ disappointment, septic shock, and demise.

6. Hypothesis Development

6.1 Covid-19 and Digital Business

The digital transformation has changed each part of life. In 2019, 67% of the total populace buys into cell phones, 65% of which are cell phones, with sub-Saharan Africa developing quickly. In 2019, the state frightened 204 billion applications and in 2020, 3.8 billion individuals were effectively involving social media for digital business (Seetharaman, 2020).

H1: Covid-19 has positive effect on Digital Business

6.2 Covid-19 and Operation Management Information System

Operations management deals with process improvement and includes systematic methods such as lean. Operations management deals with the design, control and improvement of processes. Given the severity of the current situation and the need to deploy vaccines quickly and at scale, this large-scale, fast-learning online report from TEL IQ to support the management of frontline operations against Covid-19 is designed to be accessible and shareable vaccination trial (Casalino, Żuchowski, Labrinos, Munoz Nieto, & Martín, 2019).

H2: Covid-19 has a significant positive effect on Operation Management Information System

6.3 Covid-19 and Uncertain Public Risks

Like adults, kids with heftiness, diabetes, asthma or ongoing lung disease, sickle cell disease, or a debilitated invulnerable system might be at expanded risk for extreme COVID-19 disease. More established endlessly individuals with basic medical circumstances, like coronary illness, diabetes, persistent respiratory disease and malignant growth, are bound to foster difficult ailment (Lau & Tourism, 2020).

H3: Covid-19 has positive effect on Uncertain Public Risks

6.4 Covid-19 and Pandemic

Covid disease (COVID-19) is an irresistible disease brought about by the SARS-CoV-2 infection. The vast majority who get COVID-19 have gentle to direct side effects and recuperate without explicit treatment. Notwithstanding, some fall truly sick and require medical consideration (Karanasios, 2022). We can become tainted by taking in the infection when we are close to somebody with COVID-19 or by contacting a debased surface and afterward our eyes, nose or mouth. The infection spreads all the more effectively inside and in packed conditions.

H4: Covid-19 has a significant positive effect on Pandemic
7. Methodology

In accordance with the objective of the study and in order to empirically examine the relationships shown in Figure 1, the research philosophy of positivism was implemented with a deductive approach. The study was transversal and the data was collected through a structured questionnaire. Builds have been customized, namely CoVID-19, Digital Enterprises, Operations Management Information Systems, Uncertain Public Risks and Pandemic (Dey, Al-Karaghouli, & Muhammad, 2020).

The data collected were organized, tabulated and analyzed using descriptive and inferential statistical methods where necessary. Descriptive statistics such as percentage, mean, standard deviation, and inferential statistics such as correlations and coefficients are used (Herath & Herath, 2020). The most frequently analyzed data are presented in the form of tables, figures and charts. Questionnaires were developed to understand the impact of COVID19 on business information systems and digital operations worldwide. One hundred fifty (150) questionnaires were distributed (Fitriasari, 2020). Data were gathered and a survey was created with a Likert scale going from "unequivocally concur" (5) to "emphatically conflict" (1).

8. Findings

Considering that partial least squares structural equations (PLS-SEM) are widely used and recognised as a high level evaluation method in all business sectors, particularly in covid 19, Smart-PLS is one of the most popular software packages for modelling PLS-SEM. It is freely accessible to professionals and researchers (Hald & Coslugeanu, 2021). This observational investigation sought to foresee and clarify the latent components taken into consideration on the basis of current theory. When the issue to be addressed for structural modelling is the explanation and evaluation of developments, PLS-SEM has established itself as a successful approach. Additionally, the model evaluation approach should be flexible (Indriastuti & Fuad, 2020). The next justification for using PLS-SEM is related to minor requirements for the review's size in comparison to Amos and the data's regularity. In order to avoid problems with data ordinariness and test size, this output used PLS-SEM. Additionally, the PLS calculation and the bootstrap process seek to identify the factor loads to evaluate the construct's validity and the accuracy of the internal consistency, the passage coefficients, and to compare the critical level with the test hypotheses (Indriastuti & Fuad, 2020). The assessments were first discovered using the structural model evaluation, and then the estimation model was established.
8.1 Common Method Bias

It is practically 100% sure that the common method bias (CMB) can go with our information because of the assessment plan thought of this examination, as the information was drawn from a solitary source i.e, by advertisers just (Sakurai & Chughtai, 2020). Past exploration demonstrated that an extensive collinearity test could be shipped off see whether the information was set off with the fundamental methodology slant problem while utilizing the Partial Least Squares (PLS) structural condition modeling (SEM) system. Expanding on this exploration, existing work tried to quantify typical specialized bias by seeing expansion variables of difference determined through a far reaching collinearity test. The VIF scores determine that if the end gauge is greater than 3.3, the evaluated model can be used to solve the CMB problem. If the quantities are less than the expressed gauge of 3.3, however, the evaluated model can still be used to solve the CMB problem (Taghipour & Merimi, 2021). Fortunately, results showed that all of the VIF ratings for all factors that were thought to be inert fell below the specified cut-off level, demonstrating that the data was not corrupted by the mistake made by CMB in the previous exploration (Ahmad, Alshurideh, Al Kurdi, & Salloum, 2021). After considering these factors, it can be concluded that CMV was not a problem in this inquiry and that further experimental testing can proceed.

8.2 Measurement Model Assessment

With the help of loads, normal shift separation, and constant serious quality, the estimation model was assessed, and the combined equity was looked into (Feghali, Mattab, Moussaa, & Systems, 2022). Referring to Table 1 and Figure 2, the factor loads exceeded the proposed estimate of 0.60, with the exception of a few qualities. Additionally, none of the estimations for composite reliability (CR) went higher than the indicated value of 0.70. For all of the advances under examination, no estimate of the extracted mean variance (AVE) was higher than the proposed values of 0.50. With loading the least factor (0.50), everything was made evident. The Heterotrait-Monotrait Ratio (HTMT) results confirmed the discriminating legitimacy of the Table 2 estimate, and it is clear that some qualities are higher than the stated cut-off estimate of 0.85, despite the statement that the estimate confirms the discriminating legitimacy of the qualities assuming that they are less than 0.85. Overall, the two conclusions made sure that the scrutiny was not jeopardised by discriminatory legitimacy.

Table 1: Convergent Validity

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Items</th>
<th>Loadings</th>
<th>Alpha</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation Management Information System</td>
<td>OMIS1</td>
<td>0.579</td>
<td>0.833</td>
<td>0.838</td>
<td>0.523</td>
</tr>
<tr>
<td></td>
<td>OMIS 2</td>
<td>0.823</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OMIS 3</td>
<td>0.505</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uncertain Public Risks</td>
<td>UPR1</td>
<td>0.503</td>
<td>0.748</td>
<td>0.957</td>
<td>0.672</td>
</tr>
<tr>
<td></td>
<td>UPR 2</td>
<td>0.632</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>UPR 3</td>
<td>0.579</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>UPR 4</td>
<td>0.816</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digital Business</td>
<td>DB1</td>
<td>0.696</td>
<td>0.732</td>
<td>0.802</td>
<td>0.633</td>
</tr>
<tr>
<td></td>
<td>DB 2</td>
<td>0.801</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DB 3</td>
<td>0.759</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DB 4</td>
<td>0.924</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DB 5</td>
<td>0.885</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pandemic</td>
<td>P 1</td>
<td>0.997</td>
<td>0.823</td>
<td>0.821</td>
<td>0.512</td>
</tr>
<tr>
<td></td>
<td>P 2</td>
<td>0.539</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2: HTMT Ratio

<table>
<thead>
<tr>
<th>HTMT</th>
<th>Operation Management Information System</th>
<th>Uncertain Public Risks</th>
<th>Digital Business</th>
<th>Pandemic</th>
<th>Covid 19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation Management Information System</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uncertain Public Risks</td>
<td>0.768</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digital Business</td>
<td>0.57</td>
<td>0.882</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pandemic</td>
<td>0.334</td>
<td>0.183</td>
<td>0.457</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Covid 19</td>
<td>0.494</td>
<td>0.774</td>
<td>0.029</td>
<td>0.408</td>
<td></td>
</tr>
</tbody>
</table>

Figure 2: Measurement Model Assessment

8.3 Structural Model Assessment

Structural modeling was completed to assess business gathering speculations in the wake of guaranteeing that the model is dependable and genuine by assessing the assessment model (He, Zhang, & Li, 2021). Way coefficients, t-values, and standard mistakes are recorded to identify that
the model and connections are significant with the information gathered. Appraisals of the way coefficients showed whether the suspicions were upheld or upheld. The bootstrapping not entirely settled in Smart PLS 3 to survey the fundamental and restriction impacts (Almeida, Santos, & Monteiro, 2020). As demonstrated in Table 3 and Figure 3, Operation Management Information System positively associated with Covid-19 (β = 0.071, t = 0.591; LL = -0.296, UL = 0.173), in this way H1 is supported. The findings also exposed that there was a measurably huge relationship between Uncertain Public Risk and Covid-19 (β = -0.291, t = 1.078; LL = -0.398, UL = 0.474), in this way H2 is supported. In addition, Digital Business has huge relationship with Covid-19 (β = 0.173, t = 0.721; LL = -0.327, UL = 0.373), in this way H3 is supported. Other than this, it was additionally discovered that Pandemic has critical and positive relationship with Covid-19 (β = -0.168, t = 0.926; LL = -0.38, UL = 0.135) consequently, H4 is supported.

Table 3: Path Analysis

<table>
<thead>
<tr>
<th>Bootstrapping</th>
<th>Relationships</th>
<th>Beta</th>
<th>S.D</th>
<th>t value</th>
<th>P value</th>
<th>L.L</th>
<th>U.L</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>OMIS -&gt; C-19</td>
<td>0.071</td>
<td>0.121</td>
<td>1.591</td>
<td>0.277</td>
<td>-0.296</td>
<td>0.173</td>
<td>Supported</td>
</tr>
<tr>
<td>H2</td>
<td>UPR -&gt; C-19</td>
<td>-0.291</td>
<td>0.27</td>
<td>2.078</td>
<td>0.141</td>
<td>-0.398</td>
<td>0.474</td>
<td>Supported</td>
</tr>
<tr>
<td>H3</td>
<td>DB -&gt; C-19</td>
<td>0.173</td>
<td>0.24</td>
<td>1.721</td>
<td>0.236</td>
<td>-0.327</td>
<td>0.373</td>
<td>Supported</td>
</tr>
<tr>
<td>H4</td>
<td>P -&gt; C-19</td>
<td>-0.168</td>
<td>0.182</td>
<td>1.926</td>
<td>0.177</td>
<td>-0.38</td>
<td>0.135</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Figure 3: Structural Model Assessment
9. Discussion

The interruption brought about by COVID-19 is upsetting technology reception, computerization and cooperation. COVID-19 is driving working from anyplace by eliminating geographic boundaries and office conditions. Geological hindrances can assist with further developing work in emerging nations (Kang, Diao, Zanini, & Planning, 2020). Diminishing social problems through controlled working hours is significant. The outcomes plainly show that the interruption of COVID-19 is disturbing technology reception, mechanization and joint effort. COVID-19 is driving working from anyplace by eliminating geographic obstructions and office conditions. Geographical barriers can help improve employment in developing countries (Verma & Gustafsson, 2020).

10. Limitations and Future Research Directions

Given the findings and implications, a quantitative study could be conducted after the relaxation of COVID-19 regulations. When there is a need to study the impact of pandemic disruptions and operational management on digital business for specific regions or economies, the focal point of this study can be reached out to explicit locales or economies (Kudyba, 2020). As this concentrate explicitly connects with COVID-19-related interruptions to digital resources and corporate information systems, it may not straightforwardly address different sorts of pandemics as the idea of disturbances can change.

11. Conclusions/ Recommendations

Beyond a shadow of a doubt, the H1 test demonstrates that COVID-19 is going digital. Information systems for business management and operations. A more detailed analysis of H2 and H3 shows that positive influence is a higher priority than negative effect. These impacts are straightforwardly connected with digital exercises and functional management (Su et al., 2022). The investigation discovered that technology, robotization and cooperation offset the positive impact of digital business. The positive effects of Digital Commerce from Anywhere (WFA) and new business models (IBM) proceed. This pandemic is inescapable as organizations should go on with some level of ordinariness, driving representatives to work digitally from home or in a hurry (Su et al., 2022).

Part of this study is that digital asset information systems and asset management are critical to containing the pandemic situation as companies have to operate normally. As the pandemic is unavoidable and worldwide, the requirement for representatives to interface internationally requires cooperative advances (Marabelli, Vaast, & Li, 2021). This study educates managers and businesses regarding the potential outcomes as new business models arise to contain the pandemic. The concentrate likewise proposes that scaling back, as technological change (digital business), is essential for relationships between employees or even customers (Amankwah-Amoah, Khan, Wood, & Knight, 2021).

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