Digital technology in a crisis: Role and importance of Workplace Innovation (WPI) in relation to digital company strategies

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ABSTRACT

The COVID-19 epidemic forced Singapore to implement a smart lockdown in April 2020. As a result, many businesses were forced to rapidly expedite their shift to digital technologies. Despite many businesses' valiant efforts and great accomplishments, the epidemic has revealed the various ways in which these businesses are susceptible to a crisis. Digital technology has proven to be one of the most essential options for many businesses seeking to grow. This entails making the transition from active experimenting to active scaling up. Regardless of the immense obstacles that many businesses are facing today, they have now recognized that this is the moment to focus and act on new principles and strategies in order to adapt to the changing situation.

This article tries to explore how far Financial Services Institutes, or FSI, in Singapore are tackling workplace innovation and digital technology in order to come up with a more resilient business plan. To answer this paper's research topic, a qualitative content analysis was performed. The analysis of the content is based on a collection of 200 newspaper stories regarding corporations and their strategic decision-making process that was researched between April and August 2021.

To ensure continuity and resiliency of these businesses in Singapore, they need to adopt digital technologies and workplace innovations methods in the formulation of these companies' strategies. Future research should look into if companies that adopted digital technologies have a lower negative impact, or if they recovered faster when the corona epidemic has passed.

Keywords: Digital technology, workplace innovation, digital and cloud maturity, COVID-19, Corona epidemic, strategies, business resilience.

1. INTRODUCTION

Ever since the start of the Covid-19 pandemic situation, there has been a negative impact on almost all businesses. As the global epidemic was starting, firms were forced to respond and adjust quickly to this unprecedented shift in their customer and business behavior. Many firms were forced to fully rewire to allow their workers to work at home and to mostly assist consumers through digital channels or portals (Chauhan & Shah 2020). Corporate operations, supply chains, customer services, and worker cooperation all needed to be further digitized as part of this new transformation wave. In order to control the spread of the virus and to control the negative impact of the pandemic, the businesses were forced to rapidly expedite their shift to the digital technologies, which also shows the various ways in which the businesses are susceptible to a crisis situation.

The COVID-19 crisis in 2020 had basically exacerbated the environmental instability and the uncertainties which were already present in the business environment. Therefore, in order to deal with such a situation, the organizations need to consider how continuous, resilient as well as long-term sustainability should or are to be addressed in the company plans (Ku et al. 2020; Fenner & Cernev 2021). For the managers and leaders of a company, it is important to understand the link between digital and innovative technologies and the business strategy development, which in turn can help them to handle resilience-oriented difficulties while formulating and implementing their business plans.

The innovative technologies, which include the Internet of Things, cloud computing, and digital technologies, do increase the scope and volume of tracing and tracking systems, as well as the development of supply chain financing software and information pipeline systems. However, research shows that those companies that do invest in digital technology will only reap the benefits if and only if workplace innovation is centered on their investment process and the process of strategic development (Li et al. 2020; Serbulova et al. 2020). In terms of workplace innovation, there are four essential features that are geared toward strategic formulation that might lead to a robust organization that includes flexible or adaptable structures, systems cohesion or synergy, human capital, and procedures.

In order to obtain additional insight into establishing business strategies that are robust and resilient, quality empirical researches are needed urgently. This is because there is no empirical study done on the motivations for excluding or incorporating workplace innovation from company plans that are targeted at establishing resilient business strategies (Bell, Brown & Weiss 2018). These are the observations that serve as the foundation for this paper and its main goals as well, while focusing on the case study of the Financial Services Institutes in Singapore. Therefore, this research study will focus on the creation of organizational collaboration and

competence-based resilience methods that will address the implication of the corona epidemic to a business through a realistic case study.

2. RESEARCH AND METHODOLOGY

2.1 Purpose of the Research

The purpose of this research study is to explore how far the Financial Services Institutes, or the FSI in Singapore are creating or adjusting their business strategies based on digital technology to become more robust in contexts marked by high uncertainty levels and disruptions. This is important because during the difficult time of the Covid-19 pandemic situation, both, workplace innovation and digital technology have been found out to be significant to come up with a business plan that is more resilient.

Therefore, this research study has this objective:

Research Objective: To learn how far companies establish robust business plans for workplace innovation to improve their long-term viability and resilience.

With the help of these research objectives, this paper looks into how the decisions about digital technologies are made in connection to strengthening and enhancing robust business strategies. And in doing so, the research also focuses on how the trade-offs between short-term, efficiency and profitability-oriented, and long-term, sustainability and continuity-oriented, business objectives are factored into those decisions. Therefore, the results of this research study would help the managers and leaders of the businesses to gain more insight about the concept of workplace innovation which in turn can be used for the implementation of the practical steps to improve workplace creativity in the business plans. On the whole, the results of the study can also be used in the form of a reference for organizations to enhance the digital strategy with the focus on improving customer experience and integration.

2.2 Research Questions

This study investigates the role and impact of digital technologies and workplace innovations in an organization's business strategies with the aim of improving resilience and, as a result, the continuity of the business in circumstances marked by high disruption and uncertainty levels. The main research questions of this study include the following:

Research Question 1: How are the Financial Services Institutes in Singapore altering or developing strategies that are based on workplace innovation so that they can become more robust in situations marked by a high degree of disruptions and uncertainties?

Research Question 2: Have organizations that have integrated digital transformations into their overall business strategy responded better to various changes which are caused by the corona epidemic situation?

Research Question 3: How and to what degree are organizations adjusting or creating strategies based on workplace innovation for them to be more flexible and resilient in circumstances marked by high disruption and uncertainty levels?

2.3 Data Sources and Methods

This study employs qualitative content analysis, which includes document analysis and thorough deductive categorization (elements, concepts, and dimensions) approaches. For this research study, the analysis of the content was based on a collection of 200 newspaper stories regarding corporations and their strategic decision making process during the time period between March to December of the year 2020. The reason why this time period was chosen is that these were the initial months when the corona epidemic forced businesses to change their strategy fairly immediately.

The study has a focus on the business approaches from a variety of industries, providing a holistic and comprehensive perspective based on their approach to organizational business strategy, during the time of the Covid-19 pandemic. Also, the Financial Services Institutes that were featured in public media including news websites and newspapers, as during the above mentioned period that elaborates on the renewal of the strategy for doing business during the epidemic were taken under investigation.

In addition to the data from 200 newspaprs, the data from 950 journals in the Nanyang Technological University (NTU) database was also obtained, analyzed, and evaluated. The database keeps information on businesses as well as their corporate strategy decisions during the COVID-19 pandemic. Many quotations from employees, managers, and entrepreneurs are included in the data, revealing how they dealt with the dilemma as a company and to what degree their strategic decisions were made through workplace innovation.

2.4 Research Propositions

Based on the information obtained from the database, the concepts and the six propositions were examined, which included the following:

- 1. Due to enhanced employee engagement and cooperation, as well as seeking both exploitation and exploration, ambidextrous organizations may have a good impact on resilient company strategies."
- 2. Exploiting workplace innovation prospects is influenced by short-term vs. long-term strategy priorities.
- 3. Companies are more likely to focus on market and product strategies as a means of maximizing profits rather than investing in workplace innovation, therefore, the influence of workplace innovation is undervalued."
- 4. External situational stress, including the COVID-19 crisis, raises awareness of smart organizing, which can help a company become more resilient and proactive."
- 5. COVID-19 uncertainty indicates that organizations are more motivated for product-market enhancement and strategy orientation than for smart organizing."
- 6. Customer's expectations of financial institution services have grown dramatically as these institutions push toward digitization, which has been hastened by the Corona epidemic.

The propositions had two purposes: they reflected on current ideas and they tested the research topic through cub-claims. For this study, every proposition and concept was evaluated using the content analysis approach. For the analysis of the data, the dataset was analyzed by comparing as well as encoding transcripts using a logical code tree that includes various characteristics like product-market enhancement, smart organizing, and strategy orientation. Additionally, an encoding software (RapidMiner) was utilized to investigate reproducibility and reliability and also to aid in the inventive coding process.

3. RESULTS OF THE QUALITATIVE CONTENT ANALYSIS

The results of this research study helped to analyse the relationship between resilient strategies (which include elements such as finding new opportunities and markets, improving services and products, productivity, digital technologies, external cooperation, and knowledge absorption capability) and workplace innovation (which include elements such as job security, sickness absence, mental environment, changeable working hours, working from home, health management, physical environment, and networking employees).

3.1 Strategic Orientation

For the dimension of strategic orientation, the aspects which were employed included: networking employees, knowledge absorption capability, and external collaboration.

3.1.1 Employee Networking

During the Covid-19 pandemic, organizations were responding by refocusing their techniques on fostering workers' creativity and learning capacity by providing training options so that they can improve their employees' competence as well as knowledge, which boosts the company's flexibility, resilience, and agility. Some workers were also relocated and the managers improved the working circumstances, contract terms, and balance to work-life. The managers made use of the approach of Employees-first because in partnership with and among workers, the company can provide focused guidance. Worker participation in strategy formulation is strengthened, which can also have a favorable influence on the performance of the employees and also increase resilience to the pandemic (Nelson 2021; Jarrahi et al. 2020).

Companies like Starbucks and McDonalds used adaptation and local response as they realized that they are heavily influenced by the human component. The decisions were based on the local considerations during the Covid-19 pandemic, which shows that the organizations were taking alternative approaches to strategy formulation. These organizations were more resilient throughout the preliminary months of the Corona Pandemic, thanks in part to their strategic flexibility.

However, some companies like American Today and MS Mode, periodically refocused their strategic approach to protect cash flow, turnover, and margin. Remedies included curtailing investments programs, layoffs, temporarily suspending workers, furloughing staff, and postponing payments. This shows that in the periods of uncertainties, while some businesses made use of the approach of Employee-first, other businesses reacted more quickly and made decisions focused on giving temporary support to workers, short term, and employing the "cashis-key" methods in order to survive the pandemic.

3.1.2 Knowledge Absorption Capability

Organizations which shifted business orientation and strategy to the new "digital way of working" before COVID-19 disruption and uncertainty, became more robust as a result of the pandemic (Murashkin & Tryvainen 2020). Several organizations' strategic orientations centered primarily on self-organizing teams which are given the authority of making bottom-up judgments which improve capability and engagement. Companies have also utilized a hybrid strategy that combines deliberate strategy planning and spontaneous methods that are focused on progressive programs and activities that are meant to improve robustness. Several companies also make use of a 5 – year roadmap or a blueprint, combined with their goal, vision, and objectives, as well as bottom-up progressive techniques that are meant to tap into their employees' contributions and resources.

Several companies also concentrated on numerous scenario planning during their strategy formulation which focus on the need to devise contingency measures for unforeseen circumstances. Such companies which had a contingency plan were prepared to handle the repercussions of the pandemic as well as undertake a swift renewal of course (Nayal et al. 2021). These findings reveal a link between emergence strategy and deliberateness formulation, as well as durable business plans.

3.1.3 External Collaboration

As a consequence of the uncertainties created by the COVID-19 situation, organizations are shifting their approach toward co-creation and joint innovation, onshoring, and platform development, to boost robustness and long-term viability. Management was dealing with major operational issues in their supply, that is, in their logistics, raw materials, and parts, which were harming their clients' delivery reliability. Therefore, to balance robustness and global value chain resiliency, the strategy formulation process now includes, onshoring, reconsidering business unit physical positioning, developing buffers in the organizational design, as well as examining the full value supply chain for any potential hazards.

During the height of this pandemic, the bottom-up activities and suggestions received increased attention. To avoid the disaster in the short-term, decision-making and real and immediate steps are essential. Ability to solve challenges, inventiveness, loyalty, skill, knowledge, and employees' knowledge have quickly become apparent. This could result in the emergence of new career opportunities if companies choose to engage their workers more freely and focus on employee job refinement.

3.2 Product Market Enhancement

The following features were employed for the dimension of product-market enhancement: services and product improvement, digital technologies, discovering new clients and markets, and productivity.

3.2.1 Services and Product Improvement

During the Covid-19 pandemic, many businesses came up with new services or products (which is known as exploration), or improve existing services or products (which is known as exploitation). For exploration, the businesses improved their services and products by educating their personnel and the supply chain to be more adaptable, like expanding production lines, using new technology and new machinery, etc. Additionally, the strategy for product development and enhancement around digitization has been boosted by social distancing and lockdown measures that were enforced all around the globe. As a result, the pandemic accelerated the online strategy and created a platform where workers were forced to adopt digitization.

Businesses like DoorDash and the Henkel Singapore Limited that concentrated most of their activities on digitization had the potential of making new items and designs which shows that the COVID-19 pandemic has accelerated innovations upon exploitation and exploration in various methods for product development. For companies to become resilient, so that they can continue providing their services and products to their customers in both long and short terms, they need to be flexible and adaptable to product development. This should also be based on the market demands.

3.2.2 Digital Technologies

Due to Covid-19 pandemic, robotization development has increased. Most e-commerce and supermarket chains that were using robotic technologies had a significant improvement in their productivity and resiliency. Several e-commerce businesses are also establishing e-fulfillment facilities which deploy robotic technologies to achieve their objectives. Nevertheless, companies that are investing in robotics-related technologies, like Artificial Intelligence, Big Data, applications, sensors, and 3D printing, are affecting employment negatively. However, findings suggest that businesses that are investing in these technologies may swiftly enhance production scalability and efficiency, as well as increase employment opportunities.

A company called MSV has developed the "indoor positioning technology," which helps production workers work productively and securely by maintaining a proper safety distance. This type of technology fails to diminish job levels, rather, it improves the workspace in a robust and sustainable manner, allowing for continuing output during times of pandemic. An additional

component of using digital technology and automation is the transition to higher-value tasks and professions that require more skills and knowledge, which helps to better services and products' performance and plans. Therefore, the decision of investing in digital technology is derived from a wide range of strategic objectives, such as: increase labor productivity, shift to highly valued jobs, and acquire market share by strengthening the companies' market power etc.

3.2.3 Discovering New Clients and Markets

During the COVID-19 pandemic, the consumer behavior has also shifted to the internet world as more people are relying on the internet to make their purchases. In times of the pandemic, organizations see changing behavior as a chance of converting their dwindling physical demand to web sales channels. And companies that are concentrating on process flexibility and diversification strategies in respect to digital technology believed that customer demand rose or stayed constant. As a result, companies that pursue diversification methods are more robust and adaptable.

Furthermore, during pandemic, enterprises made short-term transfers from low-demand products like ice cream, to high-demand products like the sanitizer and disinfectant (Island Creamery, 134). In addition to concentrating on various market development technique, companies could focus on a diverse and large consumer portfolio in conjunction with adaptability in various processes of work, like a new product line for a new market.

3.2.4 Productivity

During the pandemic lockdowns, organizations like Ford could maintain production by shifting workflow topographically, and by using digital facilitating system and digital work activities for the workers who could work online (Ford, 555). Despite all lockdown efforts, this is an indication of a company that is maintaining continuity in important business operations, which include technology development. During a period of uncertainty, a connection between product-market enhancement and applied digital technology initiatives is likely to occur: digital technologies can assist organizational resilience, and raise productivity. However, higher production during the preliminary stages of the pandemic does not always imply more job opportunities as companies decide to stop employing new workers in order to save money and also concentrate on operational optimization and efficiency.

In order to gain a better insight into consumer behaviour and demands, companies focused on Big Data technology, particularly during disruption times which help to understand what to provide to the clients and how to organize the internal structure to ensure that those services and items are produced, purchased, sold, and shipped. In times of pandemic, an emphasis on cash flow necessitates a comprehensive low stock strategy that does not jeopardize service

levels among other elements. Companies can achieve this objective with the use of data technology. Nevertheless, many businesses increased their stockpiles to establish buffers against supply chain disruptions, which can also help to increase resilience during the pandemic.

3.3. Workplace Innovation

Workplace innovation can be described as the extent to which businesses seek out new ideas in order to improve the engagement of their employees by improving their working conditions, fostering a culture of competent environmental change response, and increasing productivity (Oeij et al., 2019). Research shows that all over the world, many companies are developing workplace innovation programs (Pot, 2011; Oeij, Rus & Pot, 2017). These innovations can help the managers to develop better strategies and methods of work (Kopp et al., 2019) which can help to improve the performance of the company (Dhondt, Oeij and Preenen, 2015).

For the dimension of workplace innovation in this paper, the elements which were employed included: job security, sickness absence, mental condition, changeable working hours, working from home, health management, and physical environment.

3.3.1 Job Security

The pandemic prompted unclear strategic changes in terms of job security. Some organizations made strategic decisions about internal restructuring, which include layoffs and reorganizations, or the diametrically opposed, recruitment and corporate investments. Therefore, job security has been a source of consternation, with a fixation on job satisfaction and retention mandated by various government regulations and deliberation with labour unions, even though many businesses have begun cut back on spending by downsizing their workforce, which is caused by internal realignment or bankruptcies.

For the companies that were already in financial trouble, the pandemic has hastened strategic decisions as they trimmed their personnel to improve operations and minimize expenses. Due to realignment, elderly or low-skilled employees and those on temporary or flexible contracts suffer greatly. However, many businesses pursued employment preservation and expansion through agreements with unions and governments, as well as an emphasis on attracting highly skilled staff

3.3.2 Sickness Absence

During the Covid-19 pandemic, companies faced a high rate of absenteeism and sick reports (Magenta, 55; SMRT, 79). Panic and fear of becoming ill was a significant reason for absence in the first few months. To counter absenteeism, some businesses choose to implement an

intervention strategy by combining health and safety adapting measures. Some companies also expanded the medical leave program to include all employees who are unable to work due to COVID-19 pandemic (Workday, 140).

3.3.3 Mental Condition

During the uncertain and difficult times, workers have a higher need to communicate and connect mutual difficulties. Organizations have frequently emphasized unrestricted communication as a way of motivating staff and creating creative arrangements that incorporate the mental and social components of the worker to build endurance. The study also show that workers are acknowledged and recognized, and that probable work-related anxiety will be identified, accompanied by a feasible action plan to ensure a productive and happy worker. Therefore, several firms have also increased their support for teamwork, autonomy, and shared responsibility. Companies like Carrefour emphasize the worker's roles in shared participation, responsibility, as well as open discussions as an important basis for increasing resilience and possibly fostering employee engagement during the uncertain times (Carrefour, 394).

In addition, policy developments in the form of instruments for working from home, make sure that employees perform effectively, and exciting stall ensures they are functioning well mentally. The coupling of mental resilience and ergonomic working demonstrates that companies like Grab and AIM4, strive to establish a sociable working environment with adaptability in order to ensure consistency and productivity (Anthony Tan, 300; AIM4, 812).

However, to achieve an effective digital migration a company also needs to emphasize the need of fostering staff engagement and privacy preservation (Solvay, 346). Some businesses, on the other hand, exploit workers by refusing to pay them or refusing to pay them if they fail to complete their tasks. Lacking a safe environment as well as the fear culture create an unsafe atmosphere which cause work tension and stress, negatively impacting workers' engagement and proactivity. Multiple corporation's new sophisticated monitoring tools assure that workers' mental environments and experiences of flexibility do not enhance, but rather increases tension and stress which violates privacy and imposes pressure.

3.3.4 Changeable Working Hours

The COVID-19 pandemic, which saw many people working from home for grounds of safety, workability, and sustainability; spurred flexibility and the creation of a variety of working hours. Companies like Fidelity, and Meyer Werft, gave improved safety and assistance to their staff (Fidelity, 816; Meyer Werft, 250). Several companies also offered their staff the opportunity to plan a day for themselves in order to boost their performance. This can lead to a work-life balance, employee resiliency, and in turn, productivity.

3.3.5 Working from Home

Owing to the prevalence of digital technologies, the most prominent adjustment that businesses made in the course of the COVID-19 issue were teleworking or working from home as the new mode of operation. Companies were able to continue operating resiliently and flexibly despite numerous lockdowns after using the new style of functioning such as cloud computing and other digitalized business procedures (VO-A, 265). Many corporate procedures were more effective as a result of teleworking.

Both employees and employers see the benefits of remote working and this could have lengthy implications for how enterprises organize their work following COVID-19, rather than simply returning to the normal style of working. The new mode of operating could lead to even a more adaptable balance between remote and office work. Additionally, this might have both short-term and long-term favorable impacts on work-life balance, secondary workplace conditions, and employee resilience.

3.3.6 Health Management

Due to the sheer COVID-19 situation, businesses have accepted the responsibility of safety protocols, employee training, and personnel health and safety. Companies like Twitter have modified their policies and created safety guidelines in order to stay functioning and also to promote the well-being of their workers and improve the general working conditions. Additionally, several companies have changed their personnel policies by enabling the employees to care for their kids at the workplace, give company-sponsored day-care centers, or give paid parental leaves. These policies have a great effect on workability.

However, as a result of the COVID-19 situation, certain incidents have serious effects on the safety and health of workers, as well as on how businesses enforce employee policies. Individuals who are at high-risk (diabetics and chronic leukemia) are urged to keep on working as normal. In such a situation, the companies have to involve a health and safety official.

3.3.7 Physical Environment

The COVID-19 pandemic forced many workplaces to quickly make critical modifications for some or all their operations. Companies were forced to adapt to the situation by implementing social separation between mudguards, their normal routine, reliable ventilation, and also working schedules to help prevent the spread of the disease. Companies who failed to incorporate the requirements were not able to continue with their operational processes and business operations, resulting in a reduction in their workforce.

The pandemic has also had a good effect on various workplaces around the globe as workplace design improved which help employees in working ergonomically, securely, and transparently. Companies now understand that flexible and critical environments boost resilience and engagement among workers. Governments, unions, and employers are taking steps to reconstruct workplaces like the ministry of health has launched a 'code of best practices" which outlines the enhanced safety precautions to prevent the spread of the COVID-19 virus (ANFAC, 435). Companies that invest in their workspaces and are also focused on their employees' safety have high proactivity, resilience, and flexibility, and it also improve their preparedness to deal with future volatility.

3.4 Financial Institution Role in this Era of Uncertainty

The dynamics that were unveiled by the corona epidemic have a dramatic impact on both people as well as the organizations' working environments in the Financial Services Institutes or the FSI in Singapore (Campanella et al., 2020). Even though catastrophes are always dreaded, they also offer incredible chances to foster protracted endurance by clearly separating how society was from how it will be in the future. For example, the 1997 - 1998 Asia's Financial Crisis that sent several Southeast Asian nations into a serious recession, also helped these nations on the other hand to increase their reserves of foreign exchange as a cushion, and also permitted the floating of their exchange rates. This makes their fundamentals better than it was witnessed in the late 1990s (Park, 2016). For that same grounds, they fared better during the 2008 Global Financial Crisis.

Similarly, the Corona epidemic has compelled businesses to use digitization as a critical preliminary response move for firms to establish continuity initiatives as well as to stabilize the operations in order to prosper and survive in the future. Companies have been increasing and reviewing their digitization plans in order to boost tolerance while also optimizing business operations by industry cooperation, collaborations, and also cocreation with partners who are digitally enabled to help them manage their journey through a transformation in an efficient manner (Gardner, 2020). The financial services industry has recently led in the digitization efforts since it has emerged to be a 'truly elite' industry due to its ability to swiftly integrate Massive Tech methodologies in order to give new solutions to key business concerns (Gandhi et al. 2016). Four main pillars of digital technology have emerged in the financial services industry which include: rethinking supply chains, assuring operational agility, embracing end-to-end digitization, and also turning to ecommerce.

3.4.1 Supply Chains and Trade Revolutionizing

Due to the Covid-19 pandemic, supply chain issues like higher air cargo charges, longer transit times, and travel restrictions have lately arisen as a result of global supply chain and trade

tensions. As a result, many businesses have already begun to revamp their supply networks to diversify distribution and production, as well as to secure accessibility to supply chain finance during times of crisis. Many companies are also using digital solutions to handle supply chain and finance interruptions. The financial services industry, including banks and financial institutions in Singapore and all over the world, have cooperated with other industries to automate their whole payments procedure through their APIs, or the Application Programming Interfaces. This has eased supplier payments as well as accelerated the shipment of their products and also the provision of their services during the time of the Covid-19 pandemic.

3.4.2 Assuring Operational Agility

During the time of the pandemic, agility and dynamic capabilities are also necessary for navigating abrupt challenges that might be faced during the transformation. As a result of the Covid-19 pandemic, firms quickly learned that embracing flexible production practices as well as advancing digitization will allow them to become more robust. So companies used the policies to increase agility regardless of whether it was trying to repurpose its cart-part line of assembly in order to create ventilators, putting up supply chains that are hyper-local, or to swiftly expand digital fulfilment centres to physical small scale food and beverages marketplaces. This adaptability goes to the employees as well. The epidemic has prompted a shift in the notion of the workspace, resulting in the investment in remote working tools as well as digital technologies. And many of these modifications are permanent for the financial services industry and for the other industries as well.

3.4.3 Embracing end-to-end Digitization

During the uncertain and difficult times of a pandemic, digitization with the goal of promoting protracted resilience will continue to be a priority. Therefore, many firms are speeding end-to-end digitization through Artificial Intelligence (AI), incorporating data-focused decision making processes, investing in cybersecurity measures, removing bottlenecks, updating treasury and credit processes, as well as transitioning to cloud and also Software-as-a-Service. As a result, in the financial service industry, the paper-based procedures which are more difficult are digitized. However, through digital technology, companies can now transform their mode of operation in a way that raises transparency, minimizes settlement risks, and also lowers costs throughout the entire supply chain.

3.4.4 Turning to E-Commerce

Aside from the eye-catching spike in online purchasing, the Covid-19 crisis will be remembered to be the most watershed point in the comparably underdeveloped realm of Business-to-Business (B2B) payments and e-commerce. As more businesses are expected to catch up, the

increasing rate in e-commerce is expected to quadruple by 2024 in many countries around Asia-Pacific (Tan, 2020). By embracing digital technologies, many firms are transforming their operations with the help of all-encompassing or integrated partnerships. This can be seen on nexus which enables businesses to swiftly establish their customized financial services without the normal difficulty of being a provider in digital financial services, which opens up new income streams and also different use cases to make its consumers firmer to the company's ecosystem.

Overall, the pandemic has prompted organizations to focus on and also reconsider established business practices, and digital technology has proved to be among the most important element during this journey.

4. CONCLUSION AND DISCUSSION

In this research study, six propositions were developed based on research on workplace innovations and how they might help businesses to become more resilient and robust. The findings support proposition 1 which is: "Due to enhanced employee engagement and cooperation, as well as seeking both exploitation and exploration, ambidextrous organizations may have a good impact on resilient company strategies." Ambidextrous businesses that are pursuing both exploitation and exploration in product enhancement and development have a favorable impact on resilient company strategies. Some companies employed both aspects to adapt to the severe COVID-19 pandemic by speeding up innovation as well as staying operations by enhancing old products in order to meet the current market requirements using the power of digital technologies. That conforms with the results of Wang et al. (2021) who claimed that ambidextrous organizations are more resilient.

The findings partially supported proposition 2, which is: "Exploiting workplace innovation prospects is influenced by short-term vs. long-term strategy priorities." During the initial time of the Covid-19 pandemic, many companies used a reinvigorated short-term plan, focusing on unpaid furloughing as well as downsizing in order to safeguard liquidity and cash flow, which can have a negative effect on the exploitation and exploration of workplace innovation. This is not possible to quantify if workplace innovation aids in overcoming the predicament of short-term versus long-term strategies, as demonstrated by Dahlke et al. (2021). Nevertheless, companies used workplace innovation in form of flexibility, new workplaces, and enhanced working conditions as a short-term strategic approach, as well as wanting to enhance this continuously in the long run.

Proposition 3 was not supported: "Companies are more likely to focus on market and product strategies as a means of maximizing profits rather than investing in workplace innovation, therefore, the influence of workplace innovation is undervalued." As consistent with Tamers et al. (2020), the results show that the pandemic heightened the urgency of workplace innovation, and many organizations did demonstrate that motivated employees and improved working conditions did generate higher productivity. The findings did indicate that, due to the COVID-19 pandemic, the implication of workplace innovation is becoming noticeable more in making corporate decisions. Moving on, Proposition 4 was supported: "External situational stress, including the COVID-19 crisis, raises awareness of smart organizing, which can help a company become more resilient and proactive." The findings indicated that the pandemic heightened the interest in smart organizing. As a result, businesses have implemented employee safety and health measures, open communication, flexible tasks, and working timeline, improved working conditions, as well as remote working.

Proposition 5 was not supported: "COVID-19 uncertainty indicates that organizations are more motivated for product-market enhancement and strategy orientation than for smart organizing."

The findings indicated that as a result of the COVID-19 pandemic, businesses are more interested in improving and adapting their workplaces, as well as enhancing employee flexibility, whereas Cesaroni et al. (2020) contented that businesses are focusing more on business strategy, and sales. Contrary to this, many other businesses used short-term techniques that include layoffs and internal restructuring, to continue improving liquidity. This hampered the development of smart organizing. Moving on, Proposition 6 was supported: "Customer's expectations of financial institution services have grown dramatically as these institutions push toward digitization, which has been hastened by the Corona epidemic." For the financial service institutions, customers' aspirations have risen as digital technologies have advanced centered on digital banking and innovation. Many financial institutions have been implementing digital services and are also employing a mobile-first perspective like contactless banking, centralize datasets, and personalization data strategy etc.

Overall, the results show that the COVID-19 pandemic has indeed caused many business tactics to shift. During the preliminary period, all organizations revised short-term plans and restructure in terms of workplace flexibility and strategy. Organizations have been under pressure to make changes in smart organizing, strategic orientation, and product-market enhancement, which make a business resilient and robust through technological innovation (Miao et al., 2021). The COVID-19 pandemic also highlights the importance of workplace innovation in terms of staff engagement, motivation, and improving their working environment, by focusing on health, safety, and flexibility to continue being resilient even in uncertain times and in the future. During Covid-19 pandemic, organizations quickly realized that internal realignment and remote working gives the ability to continue to operate even though there are restrictive policies and social lockdowns. Companies relied on teleworking, thanks in part to the already readily available digital technologies, which further improved employees' productivity.

Many companies also deployed exploitation and exploration techniques in their strategies by using digital technologies. Companies that included such workplace innovation while formulating their business strategy were likely to become resilient and robust even during the COVID-19 pandemic. With this, a number of workplace innovation techniques have emerged with companies nurturing and implementing self-organizing teams, changeable working schedules, responsibility sharing, and open communication, which increase employee engagement and productivity. Nevertheless, there is no common ground on which is the best approach when it comes to workplace innovation that every company must adopt. As indicated by this study, a diffusion of techniques resulted in better working conditions and productivity. On the whole, the study show the importance of incorporating workplace innovation in business plan to become resilient and robust even in the face of the COVID-19 disruption and uncertainty.

REFERENCES

- Bell, S.T., Brown, S.G. and Weiss, J.A., 2018. A conceptual framework for leveraging team composition decisions to build human capital. *Human Resource Management Review*, *28*(4), pp.450-463.
- Campanella, F., Del Giudice, M., Thrassou, A. and Vrontis, D., 2020. Ambidextrous organizations in the banking sector: an empirical verification of banks' performance and conceptual development. *The International Journal of Human Resource Management*, 31(2), pp.272-302.
- Cesaroni, F.M., Sentuti, A. and Cubico, S., 2020. Small family firms and strategies coping the economic crisis: The influence of socio-emotional wealth. In *Entrepreneurship and Family Business Vitality* (pp. 27-48). Springer, Cham.
- Chauhan, V. and Shah, M.H., 2020. An empirical analysis into sentiments, media consumption habits, and consumer behaviour during the Coronavirus (COVID-19) outbreak. *Purakala with ISSN*, pp.0971-2143.
- Dahlke, J., Bogner, K., Becker, M., Schlaile, M.P., Pyka, A. and Ebersberger, B., 2021. Crisis-driven innovation and fundamental human needs: A typological framework of rapid-response COVID-19 innovations. *Technological Forecasting and Social Change*, *169*, p.120799.
- Dhondt, S., Oeij, P.R.A. and Preenen, P.T.Y. (2015) 'Working in the digitalized world: the meaning of the link between advanced manufacturing and workplace Innovation in the EU growth strategy', In *Schlick, C.M. (Ed.): Arbeit in der Digitalisierten Welt, pp.155–170, Campus Verlag, Frankfurt Main*.
- Fenner, R. and Cernev, T., 2021. The implications of the Covid-19 pandemic for delivering the Sustainable Development Goals. *Futures*, *128*, p.102726.
- Gandhi, P., Khanna, S. and Ramaswamy, S., 2016. *Which Industries Are the Most Digital (and Why)?*. [online] Harvard Business Review. Available at: [Accessed 3 January 2022].
- Gardner, E., 2020. *Why transformation is essential to a COVID-19 recovery*. [online] Ernst & Young Global Limited. Available at: https://www.ey.com/en_my/covid-19/why-transformation-is-essential-to-a-covid-19-recovery [Accessed 3 January 2022].
- Jarrahi, M.H., Sutherland, W., Nelson, S.B. and Sawyer, S., 2020. Platformic management, boundary resources for gig work, and worker autonomy. *Computer supported cooperative work (CSCW)*, 29(1), pp.153-189.

- Kopp, R., Dhondt, S., Hirsch-Kreinsen, H., Kohlgrüber, M., & Preenen, P. T. Y. (2019). Sociotechnical perspectives on digitalisation and Industry 4.0. *International Journal of Technology Transfer and Commercialisation*, *16*(3), 290-309.
- Ku, S., Cavusgil, S.T., Ozkan, K.S., Pinho, C.R.D.A., Pinho, M.L.C.D.A., Poliakova, E., Sanguineti, F. and Sharma, S., 2020. The Great Lockdown Recession and International Business. *Rutgers Business Review*, *5*(1), pp.113-135.
- Li, K., Kim, D.J., Lang, K.R., Kauffman, R.J. and Naldi, M., 2020. How should we understand the digital economy in Asia? Critical assessment and research agenda. *Electronic commerce research and applications*, *44*, p.101004.
- Miao, M., Saide, S., Ratna, S. and Muflih, M., 2021. Business Continuity Innovation in Disruption Time: Sociotechnical Systems, Business Analytics, Virtual Business, and Mediating Role of Knowledge Absorptive Capacity. *IEEE Transactions on Engineering Management*, 61(3), pp.397-407.
- Murashkin, M. and Tyrvainen, J., 2020. Adapting To The New Normal: A Qualitative Study of Digital Leadership in Crisis. [online] Available at: https://www.divaportal.org/smash/record.jsf?pid=diva2%3A1448962&dswid=469 [Accessed 3 June 2022].
- Nayal, P., Pandey, N. and Paul, J., 2021. Covid-19 pandemic and consumer employee organization wellbeing: A dynamic capability theory approach. *Journal of Consumer Affairs*.
- Nelson, K.A., 2021. Managing business ethics: Straight talk about how to do it right. Nurunnabi, M., 2020. Recovery planning and resilience of SMEs during the COVID-19: experience from Saudi Arabia. *Journal of Accounting & Organizational Change*.
- Oeij, P. R. A., Preenen, P. T. Y., van der Torre, W., F., Van der Meer, L., & Eerenbeemt, J. (2019). Technological choice and workplace innovation: Towards efficient and humanised work. *European Public and Social Innovation Review, 4(1),* 15-26.
- Oeij, P., Rus, D., & Pot, F. D. (Eds.). (2017). *Workplace innovation: Theory, research and practice*. Springer.
- Park, D., 2016. *Five Lessons Asia Must Learn to Survive the Next Crisis*. [online] Development Asia. Available at: https://development.asia/explainer/five-lessonsasia-must-learn-survive-next-crisis [Accessed 3 January 2022].
- Pot, F. (2011). Workplace innovation for better jobs and performance. *International Journal of Productivity and Performance Management, 60(4),* 404-415.
- Serbulova, N., Morgunova, T. and Persiyanova, G., 2020. Innovations during COVID-19 pandemic: trends, technologies, prospects. In *E3S Web of Conferences* (Vol. 210, p.02005). EDP Sciences.

- Tamers, S.L., Streit, J., Pana-Cryan, R., Ray, T., Syron, L., Flynn, M.A., Castillo, D., Roth, G., Geraci, C., Guerin, R. and Schulte, P., 2020. Envisioning the future of work to safeguard the safety, health, and well-being of the workforce: A perspective from the CDC's National Institute for Occupational Safety and Health. *American journal of industrial medicine*, 63(12), pp.1065-1084.
- Tan, M., 2020. *Growth Opportunities Rise as APAC B2B Payments Market Prospers*. [online] Frost & Sullivan. Available at: https://www.frost.com/news/growthopportunities-rise-as-apac-b2b-payments-market-prospers/ [Accessed 3 January 2022].
- Wang, Y., Yan, F., Jia, F. and Chen, L., 2021. Building supply chain resilience through ambidexterity: an information processing perspective. *International Journal of Logistics Research and Applications*, pp.1-18.

About the Author

Dr. Kang (Khoon Seang Richard) is a highly experienced software engineering management professional with over 20 years of experience working with global customers and organizations in Asia and North America, across industries including Intel-Altera, Barclays, Goldman Sachs, and Amazon. He has been driven to help organizations achieve sustainable growth and success by bringing his expertise in technology, people, and business strategy. Dr. Kang (Khoon Seang Richard) was inspired to earn his doctorate in Business Administration from Collegium Humanum by his observation of how some organizations were able to thrive during the pandemic. His research focused on the impact of technology on business strategy and the keys to successful digital transformations, emphasizing the importance of sustainable technology leadership and a people-focused approach. Dr. Kang (Khoon Seang Richard) also holds a Master of Science degree from the National University of Singapore.