

Applied Project Submission

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LEARNER NUMBER	51706695
NAME	Shayanne Lyrio
COURSE	Applied Project
DISSERTATION TOPIC	The impact of technology on business during the COVID-19 pander and if any measures were kept in the post-pandemic world.
SUPERVISOR	David Smyth
WORD COUNT	5471
DUE DATE	30/11/2022
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THE ROLE OF TECHNOLOGY DURING COVID-19 PANDEMIC AND AFTER

By Shayanne Lyrio Independent College

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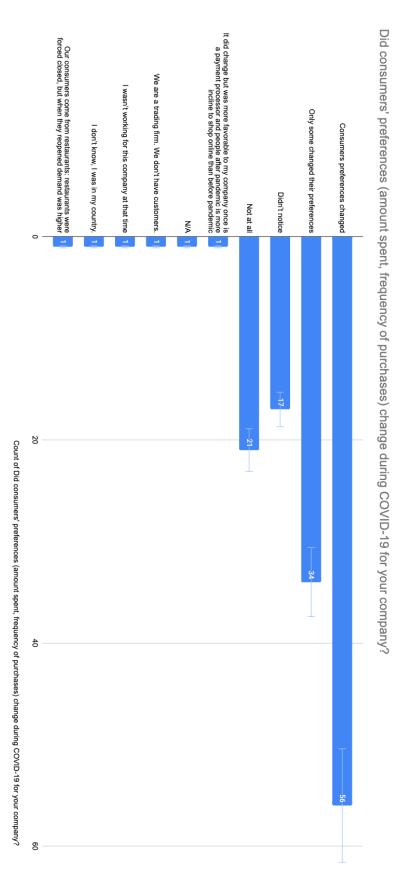


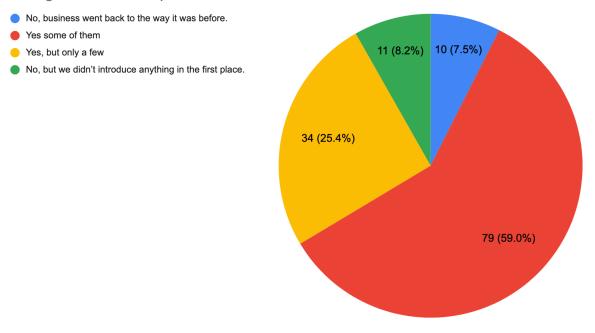
FIGURE 10

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FIGURE 12

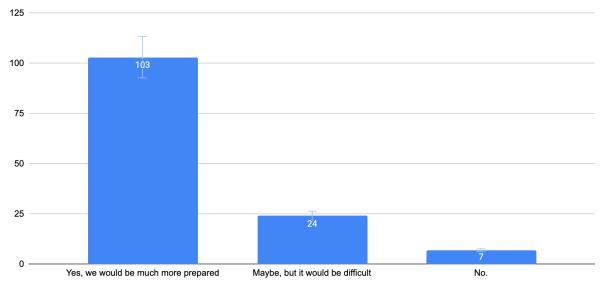
Count of Did your company keep any of the technological solutions that were used during the COVID-19 pandemic after it ended?



24

FIGURE 13

Count of In your opinion, would your business be able to respond faster to any unexpected global event like the COVID-19 lockdown now that it is more familiar with digital solutions?



Count of In your opinion, would your business be able to respond faster to any unexpected global event like the COVID-19 lockdown now that i...

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Chapter 1: Introduction

1.1 Overview

The impact of Covid-19 on Small and Medium Enterprises (SMEs) has been farreaching. Before the pandemic struck, technology had already begun to reshape many businesses around the world in ways that blurred the distinctions between office life and remote working. With the onset of the virus, however, this transformation took on a sudden urgency as companies scrambled to adjust to unexpected changes with businesses having to completely transform their operations for remote working to survive. The utilization of different communication and conferencing platforms made an abrupt shift from physical offices to virtual ones possible

1.2 Background of the topic

Covid-19 has undoubtedly been a reason for upheaval in our lives and that of the businesses in the market. Small companies and big multinationals have found it difficult in maintaining a level of productivity during these times, due to restrictive measures implemented by the government, labour shortage, disruption of the supply chain and decrease in consumer demand. In an attempt to accommodate and rearrange their operations, both small and large companies have had to make extensive changes in their processes. Unprecedented technology upscaling had to be done overnight, employees were asked to work from home, and services were digitized to help with the running of a business. These changes aimed at providing money or food-related intervention or services could be seen across all major industries like healthcare, manufacturing, hospitality, retail etc.

However, in spite of all this, it has also been a catalyst in inducing the changes that some have argued must be made in order to get closer to a total digital transformation of business. The role Covid-19 played is crucial in this process as it induced an immediate necessity for change

among businesses which would otherwise not come into being until much later than now. It is possible that these changes might set a precedent for further advancements in the post-pandemic world making them permanent participants of the new market space. Indeed, the conviction that Covid-19 will act as a permanent shift in the conduct of business has been compared to Kurt Lewin's 1947 paper "Change in Three Steps", where the author hypothesised that businesses remain in a static state until a major event occurs that causes an 'unfreezing' which can, if businesses are sharp enough, facilitate implementation of 'change' which is then followed by a refreezing to the new standards (Watermeyer, et al. 2021).

1.3 Rationale of the research

The research conducted will be focused on the identification of the role that technology played in ensuring that companies were able to survive the impact of Covid-19 and what, if any, measures were kept after in the post-pandemic world.

1.4 Aim of the research

The main aim of the research paper is to identify the role of technology in the business during and after the impact of Covid-19.

1.5 Objectives of the research

- To understand the role of technology in the business throughout the covid-19 pandemic.
- To understand the benefits and limitations of the technological changes.
- To ascertain whether the technological changes actually helped.
- To see what, if any, technological changes were kept after the pandemic period.
- To see in particular how this translated to SMEs in Ireland.

1.6 Research Question

The following is the research question selected for the research paper:

➤ What was the major role of technology in business during Covid-19 and how did companies (particularly SMEs) adjust to different business challenges during the pandemic era and post-pandemic era?

1.7 Structure of the dissertation

Chapter 2: Literature review – In this chapter, a comprehensive analysis will be conducted on the previous research that has been conducted by authors in journals and articles.

Chapter 3: Methodology – In this chapter, a thorough analysis will be shown on the method that will be followed for the collection and analysis of the data.

Chapter 4: Results and Findings – In this chapter, an investigation will be led about the results that have been generated from the investigation of the collected data in the paper.

Chapter 5: Conclusions – In this chapter a proper conclusion on the research that has been conducted will be presented.

1.8 Summary

The research paper is aimed at exploring the different approaches implemented by Irish companies in order to continue their business within the difficulties and restrictions of Covid-19 and after. The paper specifically focuses on how technology was integral in aiding them in this regard. It also looks at what motivated various enterprises to adopt a technological change as opposed to traditional methods when it came to growth strategies during a pandemic.

Chapter 2: Literature Review

2.1 Overview

This chapter reviews preceding literature on the various strategies adopted by companies in response to the impacts of Covid-19. The literature review will provide insights

into how small and large businesses have adapted, implemented change, and coped with the multifaceted economic effects of the pandemic. This section aims to provide an overview of the research topic and its related aspects, as well as the perceptions of authors regarding necessary changes for organizational resilience during a pandemic environment.

2.2 Role of technology in the business during and after the era of Covid-19.

Abed (2021) posits that technological advancement has an inestimable impact on small businesses during the Covid-19 pandemic. The growing tide of modernization has enabled these businesses to optimize their procedures for increased productivity, an innovation which could prove immensely helpful in meeting their short-term and long-term goals. Through implementing the correct advancements, companies have managed to restructure their foundations so that they can remain active and make the most of the resources available even amid trying times such as a global pandemic. It is with this concept of technological assimilation that companies are able to reap rewards without compromising on quality services while still remaining resilient against economic turmoil.

In their 2020 research paper, Nah and Siau proposed that advancement in information technology played a significant role in the development of small businesses. To highlight the need for data analytics and artificial intelligence, they established how these tools enabled companies to adopt machine learning systems and digital commerce. Therefore, they concluded that these tools are crucial components in enhancing the competitive outlook of firms amid the challenges caused by the current pandemic. Moreover, it was suggested that their implementation is no longer an advantage but rather a fundamental requirement to ensure survival for small businesses. Under this context there is an urgent need for companies to streamline their supply chain processes and incorporate advanced which was very much important due to the effect of the lockdown. The enhancement of the business strategies was

also implemented with the help of technological advancement which made the companies much more resilient in nature.

2.3 Challenges faced by the healthcare and hospitality sector during and post Covid-19.

The healthcare industry has seen significant developments in the past few years, particularly during the Covid-19 pandemic. This affected hospitals' ability to provide optimum service to the different types of patients that are associated with the industry. The organizational values of the Healthcare industry were not being maintained in a proper way due to the fact that there was an ongoing demand for digital solutions during the Covid-19 and it was also identified that the customers were not being provided efficient service due to the presence of the pandemic (Khiong 2022). It was important for Health Care to safeguard against this, so it became necessary for these companies to consider the implications of introducing advanced technologies into their operations.

In the words of Kaushal and Srivastava (2021), a lot of challenges have been confronted by the tourism industry during Covid-19. The travel ban in numerous countries, along with border closures, created a lot of challenges for the tourism industry to have access to a greater number of customers. On top of this, countless events were cancelled, and many countries implemented quarantine protocols which created a lot of challenges in the regular operations that are being conducted by the tourism industry. The hospitality sector was not capable of hosting a greater number of visitors which resulted in a decrease in the overall revenue that is associated with the industry and many small tourism companies that were present during the pandemic were not capable of sustaining the extreme challenges that were being faced by them. The tourism industry also had a lack of optimal funding which affected the overall operations of the system.

2.4 Strategic approaches of small and large companies adopted to cope with the new business environment.

As observed by de Lucas Ancillo, del Val Núñez and Gavrila (2021), the pandemic has led to a wide range of alterations within workplace practices. The ever-changing nature of work means organisations must remain attuned to identifying effective ways of introducing policies that promote employee welfare. For example, remote workplace practices allow companies to remain resilient while providing flexibility and autonomy in terms of location and scheduling. Additionally, research indicates such approaches have helped organisations effectively fulfil governmental expectations during this unprecedented period Azizi et al. (2021) have identified the different methods assumed by a company to cope with the changing environment of their business. To ensure a sustained market position, it is necessary for companies to make timely changes in accordance with the progress of the market. At present, two major current changes are pertinent to be taken into account: technological advances and global competition. Competition has been growing steadily on an international scale as businesses realise that they need to play a significant role in driving market advances. On the other hand, technology has enabled companies to build better product offerings and enhance customer experiences. Organisations must therefore consider investing in suitable technologies and services that would enable them to keep up with advancements while ensuring a competitive edge despite global competition.

2.5 Technology and solutions incorporated to enhance survival of business in postpandemic era.

The full impact of the Covid-19 crisis is still unfolding and being felt in many industries. Nevertheless, one conclusion remains clear: it is critical for businesses to withstand the shocks of this pandemic by keeping pace with technological advancement and meeting their

customers' needs. According to Gigauri (2021) businesses have come to adopt entirely new strategies that have not been seen before, like that of a 'low touch economy' wherein the amount of physical contact (whether it be between customers and employees or even literal physical interaction with an actual space or object) is kept to a minimum (p.3). Such concepts, Gigauri claims, go against conventional wisdom but are likely here to stay in the post-Pandemic world. It has been identified by Hitt, Arregle and Holmes Jr (2021), we live now in a 'non-ergodic world' which requires not just a 'new normal' but an acceptance that major disruptions will continue to be the status quo, thus requiring flexibility in all future strategies going forth.

2.6 Strategic business approach of large and small companies to tackle Covid-19 and the difficulties that arose from their adoption of digital solutions.

It has been stated by Giunipero, Denslow and Rynarzewska (2022), the Covid-19 pandemic was a problem for all businesses, but in particular for small ones, who usually had limited access to public financial markets and thus were more likely to have cash flow problems which were spurred by fluctuations of revenue. Indeed, according to their research of trucking companies, they found that it was imperative to navigate sudden drops in business and to develop a network that would alert them to opportunities as well as dangers and other dynamics inside the industry, a lesson that could be applied to all SMEs.

The onset of Covid-19 and the prolonged persistence of nationwide lockdowns shuddered the economy of the world and, in doing so, created massive disruptions in global business. Every business entity irrespective of its size has witnessed financial and future market instability (Fletcher and Griffiths, 2020). It is identified that small businesses operating across the sections like food service, accommodation, educational services, and others are most affected due to dramatic changes in customer behaviour. Following are the key challenges that almost every business entity has witnessed during the lockdown.

Lack of team engagement

Lack of team engagement is found to be one of the primary challenges that have been witnessed by different business entities across the globe. The key reason behind this statement is that due to a rapid shift in the working process, employees and employers both were trying hard to cope with the new normal business environment (Samaroudi *et al.* 2020). In order to adapt to the new working process virtually, employees have witnessed challenges like inadequate working environment, lack of official infrastructure, lack of knowledge to operate digital platforms for executing activities, and more. Dramatic job cuts have also been raised during Covid-19 that negatively impact employees' commitment and their proactive engagement (Sadiq, 2020). This, in turn, negatively impacts overall organisational performance and business stability.

Difficulty in building a virtual team

After the outbreak of Covid-19, it became essential for the global business sector to operate its activities remotely. This generates urgency for leaders or business entities to develop virtual teams that lead to the generation of challenges like fostering team unity while employers and employees are working apart (Ferrell and Kline, 2018). It is identified that employees working remotely and from different geographic locations may generate the team issues such as lower level of team trust, team conflict, different opinions, lack of collaboration, and others. This, in turn, affected organisational ongoing performance and business efficiency.

Communication gaps

Communication gaps have often been generated after the transition of business operations virtually due to the pandemic situation. Lack of effective communication flow has led to the generation of incomplete projects, minimal team commitment and engagement, and many more (Muszyńska, 2021).

However, despite the identified challenges, it is recognised that the adoption of technology has contributed effectively to the global business environment in terms of continuing business operations in the midst of Covid-19. By perceiving the advantages and effectiveness of technology-based solutions, companies have adopted digital business strategies to overcome the perceived challenges and enhance their business survivability.

Chapter 3: Methodology

3.1 Overview

This unit provides information about the methods designated for completing the research paper, as well as how data was gathered and analysed.

3.2 Research philosophy

The approach taken by this research in terms of research philosophy is one of positivism. Positivism, by its definition, is a paradigmatic approach to research that focuses on trying to find and identify explanatory associations or casual relationships in its subject and environment by way of quantitative approaches (Park, Y.S., Konge, L. and Artino, A.R., 2020). This approach's success is greatly dependent on a large data set to create generalisable inferences which the data set will examine.

3.3 Research approach

In research, there are generally two different approaches that can be taken: induction and deduction. The approach that will be used in this paper is deduction. Deductive reasoning works from the more general to the more specific. In other words, it starts with a set of axioms or premises that are already known to be true, and from there, reaches a logical conclusion (Blackstone, A., 2018). This method is well-suited for this paper because the goal is to test a hypothesis that has already been proposed. By starting with known premises and working

towards a logical conclusion, it will be possible to determine whether or not the hypothesis is correct. Additionally, using a deductive approach will help to ensure that the research is thorough and well-supported (Mishra and Alok 2022).

3.4 Research design

In business and academia, research is essential in order to gain new insights and understanding. However, sometimes the answer to a question cannot be found in existing literature. In such cases, exploratory research can be used in order to find new knowledge. As the name suggests, exploratory designs are used when something hasn't been looked into before, in a way, asking a question where one has not yet been provided by research fully (Newman and Gough 2020; Brink, P.J. and Wood, M.J, 1998). This means that the researcher must be flexible and creative in their approach in order to properly explore the topic at hand. Often, exploratory research results from an examination of the literature where the researcher can't find an answer to their question. However, it can also be used to formulate new hypotheses or theories. Ultimately, exploratory research is a useful tool for expanding our understanding of the world around us and for this reason it is the approach of this research paper.

3.5 Data collection process

The data comes from a google survey of 134 Irish respondents primarily living in Dublin. This is important because Dublin is the capital city of Ireland, and it is home to a large percentage of the country's population. The results of the survey give a snapshot of the opinions of Irish people living in Dublin on a variety of issues related to their experience working during the Covid-19 pandemic.

3.6 Ethical considerations

The paper has made efforts to adhere to the fundamental principles of academic ethics.

To begin with, voluntary participation and informed consent were provided with the google

survey, meaning participants were free to opt in or out at any time. Informed consent was provided meaning all participants of the survey were made aware of the purpose of the survey, what university it was attached to, and how it would be utilised. Anonymity was also provided, as is customary with google surveys, thereby protecting the identities of participants. Confidentiality was also ensured so that the identity of the participants of the survey was kept hidden and the personally identifiable data was anonymised. An effort was also made to ensure that no harm was inflicted on participants. In short, this paper and the data collection associated with it adhered to standard academic practices (Rinjit, 2020).

3.8 Research limitation

As with any research, a larger data set would have greatly helped. Ireland has a population of over 5 million and as such a survey that collected 134 responses is naturally going to be limited by comparison. Moreover, some of the more surprising responses in the data certainly merited follow-up questions which, given the anonymity of the google survey structure, meant it was difficult to access the same responders for more inquiries.

Chapter 4: Results and Findings

4.1 Overview

In this section, the results of the survey are presented in a variety of formats, from tables to pie charts and graphs, in an effort to show and visualise the data by the best means possible.

4.2 Tables

Figure 1

Row Labels	What is your age?	
18-30		75
31-40		42
41-50		9
51+		8

Grand Total	134
Orania rotai	IUT

Figure 2

Row Labels	What is your gender?
Female	94
Male	39
Prefer not to	
say	1
Grand Total	134

Figure 3

Row Labels	Are you an employee or an employer?
Employee (this includes part-time and freelancers)	114
Self-Employed	14
Employer	6
Grand Total	134

Figure 4

Row Labels	How large is your company?
Large- 250 or more	49
Small- 10-49	39
Microenterprise- less than 10	26
Medium- 50-249	20
Grand Total	134

Figure 5

Row Labels	Did you work during the lockdown? If yes, was it remote work or on-site?	
Yes- remote work		82
Yes- on site		30
No- my hours were suspended No- I was made		13
redundant		9
Grand Total		134

Figure 6

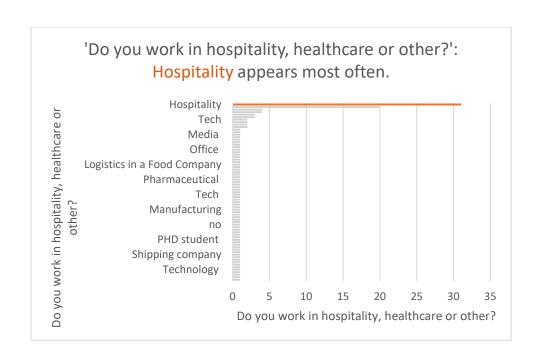


Figure 7

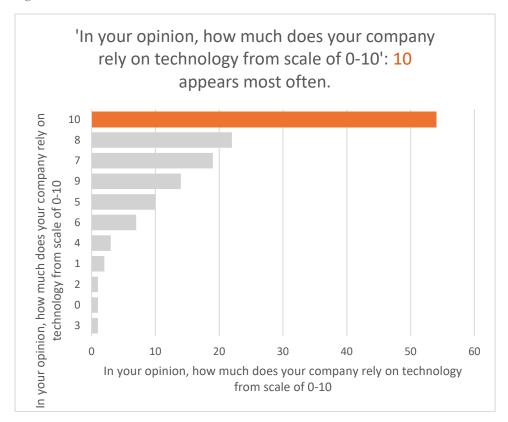


Figure 8

Did consumers' preferences (amount spent, frequency of purchases) change during COVID-19 for your company?

134 responses

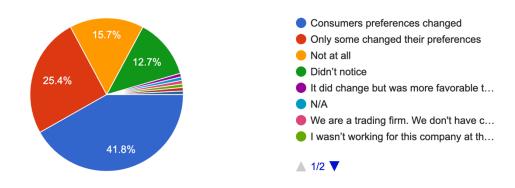
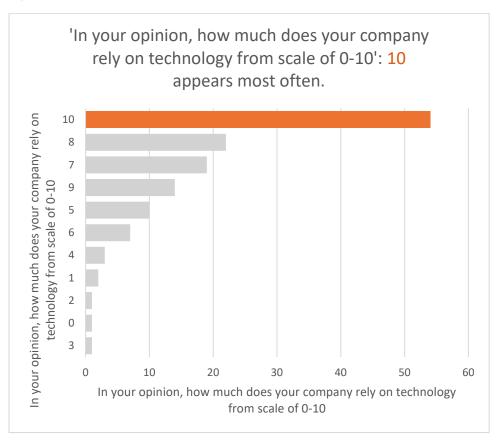


Figure 9



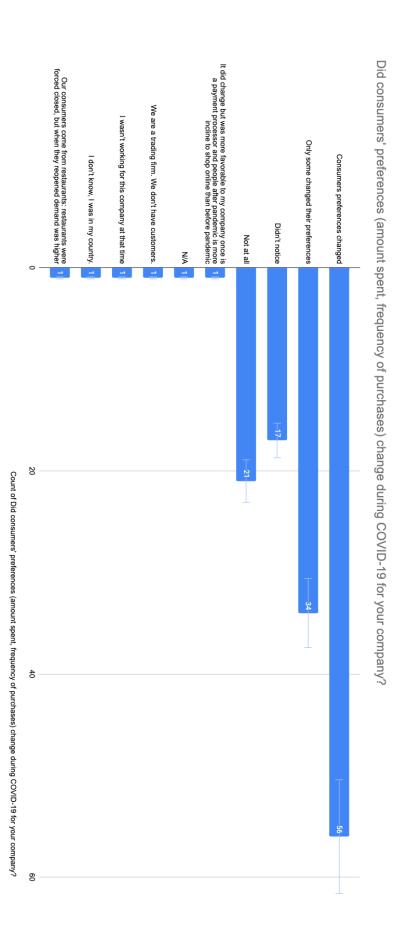
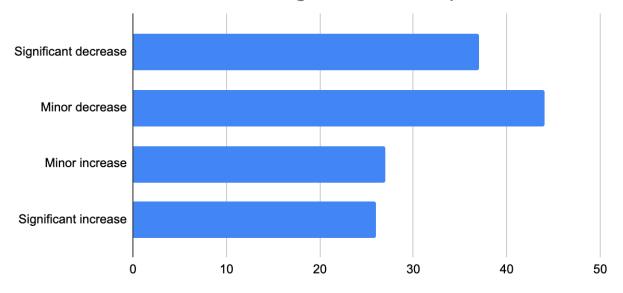


Figure 10
Figure 11

Count of Did your business see an increase in profits and customers or a decrease during the COVID-19 pandemic?



Count of Did your business see an increase in profits and customers or a decreas...

Figure 12

Count of Did your company keep any of the technological solutions that were used during the COVID-19 pandemic after it ended?

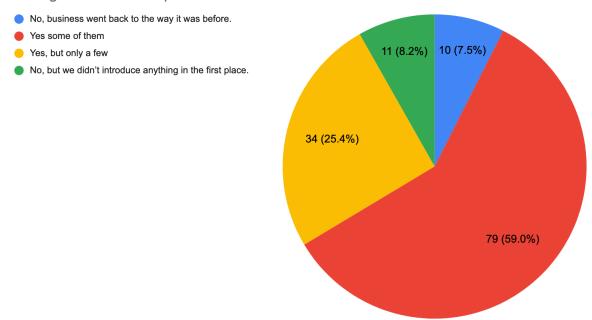
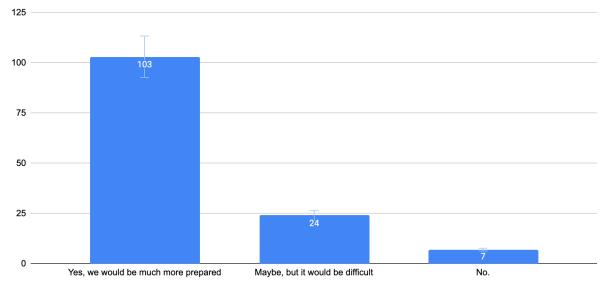


Figure 13





Count of In your opinion, would your business be able to respond faster to any unexpected global event like the COVID-19 lockdown now that i...

4.3 Summary

The overall approach that has been undertaken in the research findings clearly identify the effect that the implementation of academic on the tourism and healthcare industry has been quite imperative in nature and it has also provided the companies with an occasion to comprehend the importance of digital marketing approach.

Chapter 5: Conclusions

5.1 Findings and interpretations

In conclusion, the findings of this study suggest that the vast majority of respondents worked for SMEs, which falls in line with current information about business in Ireland, where it has been studied that 99 per cent of businesses in Ireland are SMEs (Krenz, J. et al, 2021). Of the people working for an SME that were surveyed, they believed that they were able to successfully adapt to the remote working model in the face of Covid-19. The credit for the survival of their firm is largely given to digital solutions, which allowed them to continue

operating with little to no interruption. This study also found that consumer behaviour changed drastically in the face of the pandemic, with a preference for digital solutions over traditional methods. The primary problems faced by companies during this time were related to internet connectivity, suggesting that better infrastructure is needed in order to fully support the shift to remote working. However, despite the challenges faced, it appears that most companies have embraced the changes brought about by COVID-19 and are unlikely to return to their prepandemic ways of operating.

5.2 Conclusion

5.2.1 Linking to objectives

Objective 1: To understand the role of technology in the business during the covid-19 pandemic.

Looking over the data, it is clear to see that for businesses, in particular SMEs, the role of technology was entirely critical to the continuity of a company's ability to create revenue. While this continuity was impacted by the pandemic and lockdowns, the respondents evidently believed that without technological solutions, their company would simply not survive. This highlights the importance of investing in technology, in order to ensure the continuity of a business.

Objective 2: To understand the benefits and limitations of technological changes.

According to the survey, there were several problems that workers who worked remotely in Ireland felt during the COVID-19 pandemic. First, many respondents felt that their living conditions were not fit for purpose. This is likely due to the fact that many people had to work in cramped, stressful conditions. Second, respondents felt that more importantly, internet speeds were simply not fast enough. This is a significant problem because it suggests that 5g must arrive sooner rather than later. Third, respondents also felt that communication was a

significant issue. This is likely due to the fact that many people are simply not used to communicating via technology. Finally, respondents also felt that productivity was a significant issue. This is likely due to the fact that many people are simply not used to working from home. In conclusion, there were several problems that workers who worked remotely in Ireland during the COVID-19 pandemic faced. However, with the right support and infrastructure in place, these problems can be overcome.

Objective 3: To ascertain whether the technological changes actually helped.

First, it is quite clear from the data that technology overwhelmingly helped and was outrightly intrinsic to a company's survival. This is noteworthy, as many respondents worked in hospitality, a large sector of Irish business in Dublin. In addition, it is also worth noting that the majority of respondents who stated that technology was helpful were also those who had the experience of working in companies that had embraced technological change. This would suggest that there is a correlation between a company's technological advancement and its ability to survive during periods of economic difficulty.

Objective 4: To see what, if any, technological changes were kept after the pandemic period.

It's very clear that most respondents' places of work kept technological changes in place even after the pandemic and lockdown ended. This is logical, as there has been a widespread embrace of many solutions from the Covid-19 era, like remote working and online meeting platforms. Many businesses have realized the benefits of these technologies and are now using them on a permanent basis. It will be interesting to see if this trend continues in the future, as it could lead to a more decentralized and flexible workplace.

Objective 5: To see in particular how this translated to SMEs in Ireland.

The survey shows that SMEs in particular responded in overwhelming numbers and clealry kept most of the technological innovations and solutions even if they did experience

some negative financial impact. Given the consistency of issues with the digital solutions, mainly problems with remote working and problems with productivity and internet connectivity, it suggests that perhaps the living conditions in Ireland are not optimal for the 'new normal'. Furthermore, it suggests that Irish weather and geography might be negatively impacting internet connectivity. The survey, therefore, provides useful insights into how businesses are adapting to the changes brought about by digitalisation. However, further research is needed to understand the specific impacts of digitalisation on SMEs in Ireland.

5.3.2 Recommendations

Here are a number of recommendations based on the research and findings:

- In the Post-Lockdown era, working preferences have shifted dramatically among employers and employees. As mentioned by Blanchard *et al.* (2020), employees show their preferences for *WFH* (*Work from Home*), flexible work schedules, remote working, and others. The data also attests to this viewpoint, showing that workers were convinced that their company's ongoing survival was dependent on such measures. This generates urgency for the companies to improve organisational policy and introduce the following strategic approach to cope with the new normal business environment by meeting the working needs of the employees.
- According to the survey, some felt that there were problems centred on the blurring of lines between work and home, especially noting that the home environment was not always conducive to a proper work experience. Indeed, the blurring also led many to find that their 'free time' at home and their work time at home were mixed too often. The pandemic has forced many businesses to adopt digital technologies in order to stay afloat. However, this newfound reliance on technology has come at a cost. Workers are now under constant scrutiny and pressure to be available at all times, leading to increased levels of 'technostress', where employees must learn ever-changing technologies, stay connected to digital devices all the time, and cope with the demands

of multi-tasking (Ayyagari, Grover, & Purvis, 2011; Tarafdar, Tu, Ragu-Nathan, & Ragu-Nathan, 2007). As a result, workers' organizations are likely to demand no-digital hours in the post-pandemic era in order to manage stress levels. While businesses may resist such demands, they will need to take them into consideration if they want to avoid the increasing number of workplace injuries that are being attributed to technostress Many firms introduced "work-life balance" (WLB) practices in order to enhance employee engagement and their proactive commitment to their respective job role (Ashencaen Crabtree et al. 2021). It signified that introducing this strategic approach in post lockdown helps companies to maximise their productivity by minimising absenteeism and sickness. Along with this, obtaining WLB features enables companies to generate job satisfaction by improving the mental health and well-being of their respective employees more accurately and systematically (Rodríguez-Rivero et al. 2020). The employees of the company must be capable of being aware of the technological advancements that are related to the company.

- Flexible work arrangements are another strategic approach that companies in this era have been adopting to minimise the work discrepancies that they had witnessed during Covid-19 (Merla and Murru, 2022). Incorporation of this strategic approach helps companies to improve employee engagement and increases overall organisational productivity. Along with this, flexible work arrangement also helps and will help companies to maintain business continuity in the midst of emergency circumstances systematically and accurately. The data bore this out and showed that many companies kept their measures which have by extension made them more prepared for a future pandemic.
- > The limitations of technology itself are perhaps the greatest impediment to any company's future but also to society itself. For example, blockchain technology has

seen a noticeable increase but as its importance grows it will necessitate research design and regulations. Moreover, online fraud is likely to grow, along with research on managing security. It is no secret that the internet has become a breeding ground for fraud and other malicious activity in recent years.

- with the rapid growth of online commerce and the increasing reliance on internet-based services, criminals have been presented with many new opportunities to exploit. Unfortunately, it is likely that online fraud will continue to grow in the coming years. This is particularly true in light of the COVID-19 pandemic, which has seen a dramatic increase in the use of online tools and services (Agarwal, Sengupta, Kulshrestha, Anand, & Guha, 2017). As such, it is crucial that steps are taken to improve the security of the internet and to protect users from fraudsters. One way to do this is by increasing the regulation of the internet. By introducing more stringent rules and regulations, it will be possible to create a more secure online environment. This, in turn, will help to reduce the incidence of online fraud and other crimes. Another way to tackle this problem is by increasing research into the area of online security. By better understanding how criminals operate online, it will be possible to develop more effective countermeasures. However, it is clear that any efforts to reduce online fraud will need to be supported by a robust regulatory framework. Only by taking these steps will it be possible to create a safe and secure internet for all users.
- Another point that will likely become more contentious for policy makers going into the future is the increase in the gig economy in the post-pandemic world. The Covid-19 pandemic has seen a rapid increase in gig work, as people have lost their jobs or had their hours reduced. This increase is likely to continue in the post-pandemic world, as businesses seek to reduce costs and workers seek to increase their flexibility. While the gig economy offers some advantages, such as increased flexibility and freedom, there

- are also some disadvantages, such as insecurity and a lack of benefits. Policy makers will need to grapple with these issues in the post-pandemic world.
- The pandemic has exacerbated the problem of the digital divide. With strict social and physical distancing measures in place, new routines require accessing the internet for most services. The concomitant increase in the use of digital technologies has highlighted the disparities in internet access and digital skills between different communities. The digital divide is a term used to describe the gap between those who have access to the internet and those who do not (Armbrecht, 2016). It is a structural issue that is shaped by a number of factors, including socio-economic status, geography, age, and gender. The pandemic has brought the issue of the digital divide into sharp relief, as those who are not connected to the internet are facing total exclusion. While some governments have taken steps to mitigate the impact of the divide, such as providing free or subsidized access to internet-enabled devices, these efforts are often insufficient. In addition, many people lack the digital literacy skills required to make use of online services. As a result, the digital divide continues to exclude millions of people from fully participating in the digital economy. The pandemic has underscored the urgency of addressing this problem and ensuring that everyone has equitable access to the benefits of the digital age. This is true even in developed nations like Ireland, where the need for internet access and a platform for businesses are only being noticed now by major companies here.

Reference List

Abed, S.S., 2021. A literature review exploring the role of technology in business survival during the Covid-19 lockdowns. *International Journal of Organizational Analysis*. Abed

Agarwal S., Sengupta D., Kulshrestha A., Anand S., Guha R. The Economic Times; 2017. Internet users to touch 420 million by June 2017: IAMAI report.https://economictimes.indiatimes.com/tech/internet/420-million-to-access-internet-on-mobile-in-india-by-june-iamai/articleshow/58475622.cms

Akpan, I.J., Soopramanien, D. and Kwak, D.H., 2021. Cutting-edge technologies for small business and innovation in the era of COVID-19 global health pandemic. *Journal of Small Business & Entrepreneurship*, 33(6), pp.607-617.

Akpan, I.J., Udoh, E.A.P. and Adebisi, B., 2020. Small business awareness and adoption of state-of-the-art technologies in emerging and developing markets, and lessons from the COVID-19 pandemic. *Journal of Small Business & Entrepreneurship*, pp.1-18.

Al-Omoush, K.S., Simón-Moya, V. and Sendra-García, J., 2020. The impact of social capital and collaborative knowledge creation on e-business proactiveness and organizational agility in responding to the COVID-19 crisis. *Journal of Innovation & Knowledge*, *5*(4), pp.279-288.

Ashencaen Crabtree, S., Esteves, L. and Hemingway, A., 2021. A 'new (ab) normal'?: Scrutinising the work-life balance of academics under lockdown. *Journal of Further and Higher Education*, 45(9), pp.1177-1191.

Tarafdar M., Tu Q., Ragu-Nathan B.S., Ragu-Nathan T. The impact of technostress on role stress and productivity. Journal of management information systems. 2007;24(1):301–328. Taylor & Francis.

Azizi, M.R., Atlasi, R., Ziapour, A., Abbas, J. and Naemi, R., 2021. Innovative human resource management strategies during the COVID-19 pandemic: A systematic narrative review approach. *Helivon*, 7(6), p.e07233.

Blackstone, A., 2018. Principles of sociological inquiry: Qualitative and quantitative methods. Saylor Academy Open Textbooks.

Blanchard, O., Philippon, T. and Pisani-Ferry, J., 2020. *A new policy toolkit is needed as countries exit COVID-19 lockdowns* (pp. 20-8). Brussels: Bruegel.

Brink, P.J. and Wood, M.J. eds., 1998. Advanced design in nursing research. Sage.

Campisi, T., Basbas, S., Skoufas, A., Akgün, N., Ticali, D. and Tesoriere, G., 2020. The impact of COVID-19 pandemic on the resilience of sustainable mobility in Sicily. *Sustainability*, 12(21), p.8829.

de Lucas Ancillo, A., del Val Núñez, M.T. and Gavrila, S.G., 2021. Workplace change within the COVID-19 context: a grounded theory approach. *Economic Research-Ekonomska Istraživanja*, 34(1), pp.2297-2316.

Dwivedi, Y.K., Ismagilova, E., Rana, N.P. and Raman, R., 2021. Social media adoption, usage and impact in business-to-business (B2B) context: A state-of-the-art literature review. *Information Systems Frontiers*, pp.1-23.

Ferrell, J. and Kline, K., 2018. Facilitating trust and communication in virtual teams. *People & Strategy*, 41(2), pp.30-36.

Fletcher, G. and Griffiths, M., 2020. Digital transformation during a lockdown. *International Journal of Information Management*, 55, p.102-185.

George, G., Lakhani, K. and Puranam, P., 2020. What has changed? The impact of COVID pandemic on the technology and innovation management research agenda. *Journal of Management Studies*. https://dash.harvard.edu/handle/1/37370410

Gigauri, I., 2021. New economic concepts shaping business models in post-pandemic era. *International Journal of Innovative Technologies in Economy*, (1 (33)).

Giunipero, L.C., Denslow, D. and Rynarzewska, A.I., 2022. Small business survival and COVID-19-An exploratory analysis of carriers. *Research in Transportation Economics*, 93, p.101087.

Gregurec, I., Tomičić Furjan, M. and Tomičić-Pupek, K., 2021. The impact of COVID-19 on sustainable business models in SMEs. *Sustainability*, *13*(3), p.1098. https://www.mdpi.com/969072

Ilmudeen, A., 2021. The impact of managing IT on business-IT alignment and firm performance: an empirical study. *foresight*.

Hitt, M.A., Arregle, J.L. and Holmes Jr, R.M., 2021. Strategic management theory in a post-pandemic and non-ergodic world. *Journal of management studies*, 58(1), p.259.

Jafari-Sadeghi, V., Garcia-Perez, A., Candelo, E. and Couturier, J., 2021. Exploring the impact of digital transformation on technology entrepreneurship and technological market expansion:

The role of technology readiness, exploration and exploitation. *Journal of Business Research*, 124, pp.100-111.

Kang, J., Wang, T. and Ramizo, D., 2021. The role of technology in business-to-consumer e-commerce: Evidence from Asia. *Asian Development Bank Economics Working Paper Series*, (632).

Kaushal, V. and Srivastava, S., 2021. Hospitality and tourism industry amid COVID-19 pandemic: Perspectives on challenges and learnings from India. *International journal of hospitality management*, 92, p.102707.

Khiong, K., 2022. Impact and Challenges of Digital Marketing in Healthcare Industries during Digital Era and Covid-19 Pandemic. *Journal of Industrial Engineering & Management Research*, 3(5), pp.112-118.

Khotari, C. R. (2004). Research Methodology: Methods and techniques (2nd revised edition). New Age International Publisher.

Kren, Janez et. al, New Survey Evidence on COVID-19 and Irish SMES: Measuring the impact and policy response (No. 698) ESRI Working Paper

Lewin K (1947a) Frontiers in group dynamics: Concept, method and reality in social science; equilibrium and social change. Human Relations 1(1): 5-41.

Mathivathanan, D., Mathiyazhagan, K., Rana, N.P., Khorana, S. and Dwivedi, Y.K., 2021. Barriers to the adoption of blockchain technology in business supply chains: a total interpretive structural modelling (TISM) approach. *International Journal of Production Research*, *59*(11), pp.3338-3359.

Merla, L. and Murru, S., 2022. Families facing the Italian lockdown: Temporal adjustments and new caring practices in shared physical custody arrangements. *Journal of family research*, 34(1), pp.429-457.

Mishra, S.B. and Alok, S., 2022. Handbook of research methodology.

Mohajan, H.K., 2018. Qualitative research methodology in social sciences and related subjects. *Journal of economic development, environment and people*, 7(1), pp.23-48.

Muszyńska, K., 2021. A bibliometric review of research on communication in virtual project teams. *Procedia Computer Science*, 192, pp.4770-4779.

Nah, F.F.H. and Siau, K., 2020, July. Covid-19 pandemic—role of technology in transforming business to the new normal. In *International Conference on Human-Computer Interaction* (pp. 585-600). Springer, Cham.

Newman, M. and Gough, D., 2020. Systematic reviews in educational research: Methodology, perspectives and application. *Systematic reviews in educational research*, pp.3-22.

Nithya, N. and Kiruthika, R., 2021. Impact of Business Intelligence Adoption on performance of banks: a conceptual framework. *Journal of Ambient Intelligence and Humanized Computing*, 12(2), pp.3139-3150.

Park, Y.S., Konge, L. and Artino, A.R., 2020. The positivism paradigm of research. Academic Medicine, 95(5), pp.690-694.

Pandey, P. and Pandey, M.M., 2021. Research methodology tools and techniques. Bridge Center.

Plé, L. and Koles, B., 2021. The influence of technology on business schools curricula: a triple crown perspective. In *Handbook of Teaching and Learning at Business Schools*. Edward Elgar Publishing.

Rinjit, K., 2020. Research methodology.

Rodríguez-Rivero, R., Yáñez, S., Fernández-Aller, C. and Carrasco-Gallego, R., 2020. Is it time for a revolution in work-life balance? Reflections from Spain. *Sustainability*, *12*(22), p.9563.

Sadiq, M., 2020. Policing in pandemic: Is perception of workload causing work-family conflict, job dissatisfaction and job stress?. *Journal of Public Affairs*, p.e2486.

Samaroudi, M., Echavarria, K.R. and Perry, L., 2020. Heritage in lockdown: digital provision of memory institutions in the UK and US of America during the COVID-19 pandemic. *Museum Management and Curatorship*, 35(4), pp.337-361.

Water, Ret al COVID-19 and digital disruption in UK universities: Afflictions and affordances of emergency online migration. Higher Education 81 (3), pp. 623-641

Zhang, Y., 2022. Research methodology. In *Assessing Literacy in a Digital World* (pp. 51-71). Springer, Singapore.