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Enterprise Risk Management

How do Fintech organizations transform digital risks and other critical issues into strategic opportunities in the Covid19 Era?

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School of Economics and Management

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MASTER THESIS

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Summary:

The research aims to examine how do Fintech organizations transform digital risks and other critical issues into strategic opportunities in the Covid19 Era. More specifically to investigate how fintech companies that operate globally and in Cyprus, turn the threats by the pandemic and crisis situations into strategic opportunities by exploiting any opportunities that arise. The research dealt with how the pandemic impacted risk identification practices in the Fintech Industry during the pandemic thus far. In addition, it identifies how a strategic direction (and profitability) changed, if at all, from crisis management opportunities for the organizations during the pandemic. The methodological approach that has been followed is the Mixed Methods that aim to understand the general perception of the organizations regarding the crisis and the risk exposure from this event of COVID-19. The field of research is small to midsize businesses of Fintech Industry. The sample is fifty-two random employees from different departments that answered the questionnaire and 10 managers that responded to the interview. After the completion of the data collection and gathering all the responses from the participants, the analysis performed in the SPSS statistical program which is a statistical coding, processing and data analysis package.

Acknowledgments:

I would like to thank my family that was supporting me the past two years and even prior to my participation to Enterprise Risk Management program, as they encouraged me to follow this program in order to enhance my knowledge. I would also like to thank Dr. Petrou who was supportive throughout the academic year and was always showing interest in my progress. Through his guidance and support I was able to finish my dissertation.

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Chapter 1

Introduction:

During the past two years, the world faced an unknown threat. This threat is Covid19 which entered our lives and changed the way we operate individually and operationally. Every organization across the globe has been affected by this crisis and they have tried to face the threat with various ways.

The purpose of this research proposal is to investigate how Fintech organisations continue to face digital risks and other critical issues and how COVID-19 might have forced them to accelerate their efforts as part of digital transformation. The specific aim is to examine how the financial technology industry and online payment industries that operate globally and in Cyprus, for the purpose of this research, transform threats and risks that the pandemic created and other relevant crisis situations into strategic opportunities, using a digital risk Ecosystem Perspective to guide research in Strategic Crisis Management (SCM). In the early stages of the research, as part of a comprehensive literature review, risks faced by a sample of Fintech organizations and affects their profitability in the industry will be identified and analysed. Initially, the risk identification will be broader than digital risks in any specific company to start to frame the ecosystems context for the study. The contents of the literature review will be studied and then an analysis will be made so that questionnaires for empirical research can be designed. Through the analysis of the literature and the research that will be carried out, we will try to explore and understand how critical responses and interruptions to business due to Covid19 can also create strategic opportunities for growth in the Fintech Industry.

Objectives:

1. To understand threats, risks and changes in strategic direction in Strategic Crisis Management and the use of the Digital Risk Ecosystem Perspective in

organisations.

2. To understand how professionals in Fintech organisations prioritise their digital risk experiences.

3. To ascertain how infusion of a Digital Risk Ecosystem View / Ecological Perspective into strategy development helps anticipate and mitigate digital risks.

4. To identify specific strategies Fintech organisations used to digitally transform risks into growth.

Research Aim:

The purpose of this research proposal is to investigate how Fintech organisations in Cyprus continue to face digital risks and other critical issues and how COVID-19 might have forced them to accelerate their efforts as part of digital transformation. The aim is to examine how the financial technology industry and online payment industries that operate globally but mostly in Cyprus, for the purpose of this research, transform threats that the pandemic created and other relevant crisis situations into strategic opportunities, using a digital risk Ecosystem Perspective to guide research in Strategic Crisis Management (SCM). Moreover, the research will show how selected organizations exploit any opportunities that arise for differentiation in the Fintech Industry. In the early stages of the research, every risk that is faced by a sample of Fintech organizations and affects their profitability in the industry will be analysed. Initially, the risk identification will be studied and then a comparative analysis will be made. Through the analysis of the literature and the research that was carried out, an understanding of how critical responses and interruptions to business due to Covid-19 can also create strategic opportunities for growth in the Fintech Industry were explored. Having now completed the empirical research for the dissertation, it should be noted that 52 questionnaires were collected and analysed from study participants. Furthermore, 10 interviews were completed with study participants. Findings, analysis, and discussion from the above are all reported in this dissertation in a systematic manner and recommendations and conclusions are developed addressing the objectives and aim of the dissertation. In essence, the aim of this master thesis is to examine how the Fintech industry turn the threats that the pandemic created and thus the crisis situations into strategic opportunities by exploiting any opportunities that arise.

Chapter 2

2.1.Literature Review:

The financial technology, or fintech, industry refers to the group of companies that are introducing innovation into financial services through the use of modern technologies. Some fintech firms compete directly with banks, whilst others have partnered with them or supply them with good or services. What is clear is that fintech companies are improving the financial services world through introducing innovative ideas, allowing for speedy delivery and increasing competition. (Schueffel, 2017)

Financial technology integrates various types of financial service into the day today lives of customers. Millennials, as well as the generations coming up behind them, are used to technology and want to manage their money in an easy and quick manner, instead of walking to physical branches to perform transactions and other operations. Fintech is redefining financial services in the 21st century. Originally, the term applied to technology used in the back-end of established trade and consumer financial institutions. It has expanded to include various innovations in technology, including cryptocurrencies, machine learning, robo-advice and the Internet of Things. (Rubini, 2017)

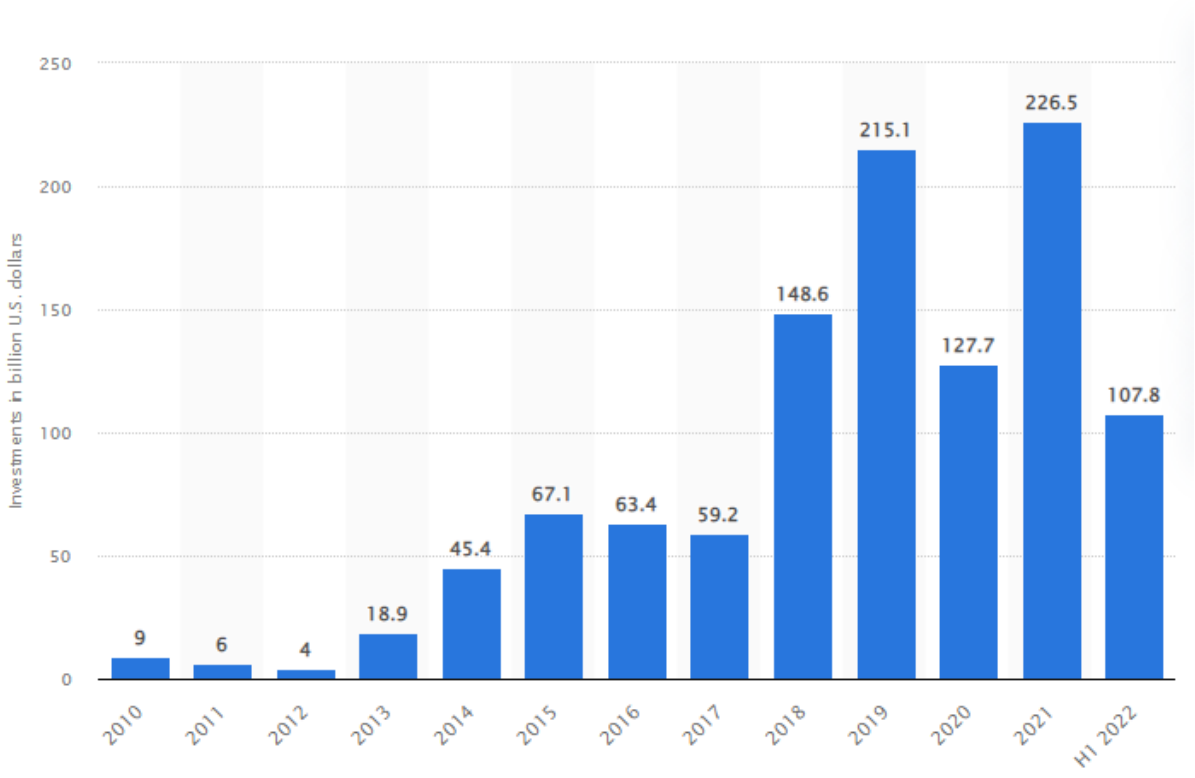
Henceforth, Fintechs are start-up companies which came in to surface in the late 2010's particularly in the US, but are notably spreading across the rest of the world. FinTechs' ecosystem features a variety of business propositions which can span from peer-to-peer lending to digital payments or Big Data analytics. Hence, if we look at the business philosophy and aspirations the most quick and simple definition based on the industry's traits and ambitions are that they are focused on: digitalization, analytics, specialization, and long-tail consumers. (Alt, 2022)

Moreover, the development of Fintech is described as an ongoing process whereas finance and technology have evolved together. In essence, this led to numerous incremental and disruptive

innovations, for instance Internet banking, mobile payments, peer-to-peer lending amongst other, which indicates that Fintech has significantly spurred innovation. (Diamandis, 2020)

Naturally, as the name of the industry indicates, it is an industry that is heavily based on technology. Thus, digitalization plays a major role, because digital tools allow the creation of captive customer experiences in order to tear down the barriers to enter financial services, hence fostering borderless competition against well-established institutions. Most of today's FinTechs make usage of analytics to generate competitive business propositions in terms of marketing, positioning, social media, and handling of Big Data. They feature a high level of specialization, hence very narrow and simple business propositions, to profit from a concerted attempt to unbundle financial services into leaner and specialized digital offers. Finally, they target directly or indirectly long-tail consumers to disintermediate established providers with cheaper services. Typically, they are Business to Consumer firms (B2C), but Business to Business (B2B) and Business to Business to Consumer (B2B2C) models are emerging to fill the void between starlight innovators and the need of financial institutions to transform fast. Fintech is an industry that is evolving fast and it manages to attract more firms. (Sironi 2016)

In addition, Fintech is an industry which is constantly transforming and changing almost every quarter. For instance, the value of investments in Fintech firms have grown by 75% in 2015 to USD 22.3 billion compared to the previous year. In total more than USD 50 billion have been globally invested in Fintech firms from 2010 to 2015. Henceforth, the total value of investments into fintech companies worldwide increased dramatically between 2010 and 2019, when it reached 215.1 billion U.S. dollars. In 2020, however, fintech companies saw investments drop by more than one third, reaching a value of 127.7 billion U.S. dollars, but the investment value increased again in 2021 up to 226.5 billion U.S. dollars as shown in the below table that was retrived from Statistica (Skan 2016). Thus, it is shown that the industry is rapidly changing and that huge investments were made over the years.



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https://www.statista.com/statistics/719385/investments-into-fintech-companies-globally/

2.2. Arrival of Covid-19:

The first official cases of COVID-19 were recorded on the 31st of December, 2019, when the World Health Organization (WHO) was informed of cases of pneumonia in Wuhan, China, with unknown cause. Shortly, WHO declared the rapidly spreading COVID-19 outbreak as a Public Health Emergency of International Concern on the 30th of January 2020. It wasn't until the following month, however, on the 11th of February that the novel coronavirus got its official name - COVID-19. Nine days later, the US Centers for Disease Control and Prevention (CDC) confirmed the first person to die of COVID-19 in the country. The individual was a man in his fifties who lived in Washington state. (Moore, 2022)

In a globalized community, this pandemic could not leave unaffected the industries as strict measures of social distancing, crowd limitations in closed areas, and halt of flights appeared. The virus exposes the industries to risks of safety impacted health, and reduce travel engagements, behavior, preference of customers, and consequently the economic sustainability of the organizations. (GitHub. 2022)

Moreover, many governments across the globe tried to politicalize this issue in terms of decision making in order to mitigate the negative effects of covid-19, in the society and thus the affected industries by implementing strict measures. Most of the countries went into strict lockdowns in compliance to WHO recommendations in order to deal with the spread of the virus and to reduce the infection rate in the community and to manage their healthcare system to mitigate the ICU's numbers. As this was improving healthcare and the safety of the citizens, it was simultaneously affecting badly the industries economically, by involving them in uncertainty for their sustainability. Naturally, Cyprus was badly affected by Covid-19 as well. Once the first cases identified on the island, the government reacted authoritatively in order to protect the public and not to burden the healthcare system as it was not ready for an unknown crisis of this magnitude. A strict total lock-down at the end of March of 2020 with an approximate duration of two months supported to suppress the transmissions and gave the appropriate time for the healthcare system to be better prepared with necessary equipment, more ICU's and experience with the virus. (Constantinou, 2020)

2.3. Signs of the crisis

The signs usually precede a crisis event and if these are noticed and anticipated at early stage, then the organization can identify the different aspects that the crisis affects daily operations to control the consequences according to Kash and Darling,1998. The first signs of COVID-19 risk exposure for the world, were seen with the isolation of a cruise ship in Japan (Vikrant,2020).

Between February and March, more than 20 cruise ships reported COVID-19 cases during their trip, and some of which were "trapped" at sea until a decision was made under the fear of

spreading the virus (Daniel,2020). When the importation of goods was affected then the global community was affected as no one was importing goods for a period of time due to uncertainty and fear of the new situation that rose. In short, the virus was spread from tourists who were infected without knowing and then they visited other countries and thus the virus was spread. But the Fintech industry sector was one of the few industries that was affected positively for the pandemic as the lockdowns drove consumers to buy online and thus all the companies were "forced" to digitalize their organization. (Fu, 2022)

2.4. Causes of the crisis:

Covid19 is not the first major crisis to impact the globe. Throughout history, mankind faced a lot of health crises. However, this global, public health crisis still needs more study to ascertain its impact. Naturally, the fintech industry experiences a crisis knowledge research gap in potential crises or disasters that could affect the industry and specific organizations. This lack of research in terms of crisis management and the response to an unexpected event for the organization are important skills for a business continuity plan. Moreover, the fintech industry has experienced many crises in its history. (Bondarenko, 2015)

The 21st century started with the digitalization of banking services. The financial crisis coupled with the rise of smartphone usage had a massive impact on the fintech industry. For instance, the 2008 global financial crisis created a disbelief towards traditional banking institutions, and together with the broad-based rise in digitalization, kickstarted what we now recognize as the fintech industry. (Fu, 2022)

In addition, a crisis such as the Covid19 pandemic, which was an unpredictable crisis, created a great shock worldwide. The main source of communication, were the media and with little information given to them by WHO and by governments, the uncertainty grew as the public did not have enough information to know what they were dealing with. The lack of information on the situation, was a big challenge for companies such as Fintech, to manage and respond to the crisis. Dealing with a crisis causes increased communication and the complexity of information environments. The approach on the way that the information will be managed in all the stages of

the crisis such as the pre-crisis stage, during, and post-crisis is directly correlated, and determines the degree of exposure to an event and as a result how well the crisis is overall managed. (Coombs, 2019)

2.5. Impact of Covid19 on Fintech:

The fintech market has continued to help expand access to financial services during the COVID19 particularly in emerging markets, with strong growth in all types of digital financial services except lending, according to a joint study by the World Bank, the Cambridge Centre for Alternative Finance at the University of Cambridge's Judge Business School, and World Economic Forum. Henceforth, Access to affordable financial services is vital for the reduction of poverty and thus, for economic growth. Moreover, Fintech innovations are helping reduce the cost of providing services, making approachable to a wider audience, and reducing the need for face-to-face interactions, essential for keeping up economic activity during the pandemic. (Price, 2020)

Henceforth, it is clear that Covid19 has affected the global economy with some restrictions that continue to affect organizations and consumers. Notwithstanding this challenging situation, the industry proved that it is resilient and adaptable to these changes. With their operations they contributed to pandemic relief efforts and served vulnerable markets and gave the chance to businesses despite their size. Covid-19 is accelerating change in how people interact with financial services, which has led to unprecedented demand from developing countries to progress their transition to secure and inclusive digital finance. (Windmill, 2022)

A study that was contacted by CCAF, World Bank and World Economic Forum 2020, which gathered data from 1,385 FinTech firms in 169 jurisdictions from mid-June to mid-August 2020, showed most types of FinTech firms reporting strong growth for the first half of 2020 compared to the same period in 2019, which was prior to the pandemic. These findings are a strong indicator that Fintechs were affected mostly positively from the pandemic. Moreover, firms in areas including digital asset exchanges, payments, savings, and wealth management reported growth in transaction numbers and volumes of 13 percent and 11 percent, respectively. But every

situation has winners and losers and it can be shown that digital lending slumped 8% by volume of transactions, while also suffering a 9% jump in outstanding loan defaults. But in overall Fintechs were making money during the pandemic. Significantly, the Middle East and North Africa saw an outstanding growth, up to 40%, sub-Saharan Africa and North America, both up 21%. In contrast, emerging markets and developing countries experienced faster growth than developed markets. (World Bank and World Economic Forum 2020)

Naturally, not everything was smooth and going their way. Firms also reported some operational and funding challenges during the pandemic. In addition, two-thirds of firms said they had changed their business model in response, including by reducing fees, changing qualification criteria, and easing payment requirements in order to anticipate the situation. A portion of 60% reported launching new products and value-added services, such as offering information. Furthermore, 40% of firms that took part in the survey claimed that they have either introduced or are in the process of introducing enhanced fraud or security measures as a response to business conditions during Covid19. More operational challenges reported by firms included more agent or partner downtime and increases in unsuccessful transactions and access requests. Thus, fintech firms reported increases in expenses for onboarding and data storage. (Shilling, 2022)

2.6. Digital Ecosystem

A digital ecosystem is a complex network of stakeholders that connect online and interact digitally in ways that create value for all according to Lazazzara, 2020. Every digital ecosystem extends across multiple industries. Companies that view their customers, competitors, and business partners through the lens of a single industry are far less able to recognize the new types of customers, competitors, and business partners they will need to interact with as their sector increasingly goes digital. Or when they do recognize them, it is often too late. (Skilton, 2016)

The specter of digital ecosystems supplanting traditional industries as the organizing construct has played out in industry after industry—especially those whose products or services can be fully digitized. (Diana, 2019)

Moreover, Ecosystems are rapidly changing and with the help of technology they become more complicated, thus the risks are more difficult to deal with. Naturally, technological advances are creating an entirely new risk ecosystem in which the risks are interconnected and continuously evolving. Organizations face more threats to reputation and regulatory compliance. In addition, unmanaged risks spread in an instant across the ecosystem and they compromise business reputation along with customer trust. Managing risks in the changing era of the growing ecosystem is now critical to an organization's sustainability. (KPMG. 2021)

2.7. Why digital ecosystem is important?

A digital ecosystem is important for Fintech companies as:

Fintech companies heavily rely on access to data to make informed decisions and provide personalized services to their users. Furthermore, digital ecosystems enable them to access and analyze data from multiple sources, including banking transactions and thus it allows them to have a better understanding of their customers and provide customed financial solutions according to their needs. (Parker, 2017)

Integration with banking systems: Fintech companies need to integrate with banking systems to provide financial services such as payments, lending, and investment management. Digital ecosystems allow fintech companies to connect with banking systems more easily, giving them the opportunity to offer innovative financial products and services. (Walton, 2017)

Collaboration with other fintech companies: Digital ecosystems enable fintech companies to collaborate with other fintech companies more easily by providing a platform for data sharing and they create new financial products and services for their users. (Andriole, 2018)

Adaptability: Fintech companies need to be able to scale their operations quickly in response to changes in demand. Digital ecosystems enable fintech companies to scale rapidly by providing flexible and scalable infrastructure, such as cloud computing and APIs. (McAfee, 2018)

Innovation: Digital ecosystems provide a platform for innovation by bringing together different technologies and services. Fintech companies can utilize digital ecosystems to develop new financial products and services that meet the changing needs of their customers. (Parker, 2017)

Competitive advantage: By using a digital ecosystem, Fintechs can gain a competitive advantage by improving their efficiency, customer experience, and innovation. This gives them a competitive advantage over their competitors and in essence to attract and retain customers. (McAfee, 2018)

In addition, a digital ecosystem offers increased innovation as it allows business and partners to share knowledge between them and it enhances new innovative solutions for both parties. hence, the ability of a digital ecosystem to collect and analyze data from various sources across the market, it provides businesses with tools that can give them insights in the market and by that to create better strategic decision making. (Lazazzara, 2020)

Overall, a digital ecosystem can help businesses stay competitive and adapt to the rapidly changing digital landscape and it can improve efficiency by helping businesses rationalize their processes, make tasks automated and henceforth, reduce manual labor. By allowing businesses utilize a digital ecosystem the result is that the efficiency and productivity are increased.

2.8. Risks of Digital Technology:

With every opportunity digital technology has provided to banks, customers and counterparties, it has also altered existing risks and often introduced new ones. While digital transformation is creating major opportunities, understanding and navigating through those risk areas is critical. Moreover, as technology continues to usher in a new era and drive transformative changes in every industry, corporates and financial institutions are altering their business models and redefining their operations underlined by automation, robotics and AI. While digital

transformation is capturing new possibilities to head off the threat of disruption, it's creating new risks that haven't been encountered before. (Gilman, 2019)

Naturally, with opportunities come threats such as cybersecurity, data leakage, system failures, privacy and unethical automated decision making and that is just the tip of the iceberg. As financial organisations become exposed to a broader range of risks in a digital environment, embedding a robust digital risk management strategy will be crucial to success. Indeed, the next decade in risk assessment may be subject to more transformation than the last and unless banks act now and prepare for these changes, they may be overwhelmed by the new requirements. "Risk assessments enable organisations to navigate amid chaos and meet their strategic objectives. Therefore, the process must be baked into every step of their digital transformation if they are to achieve long-term success. (Maurice, 2016)

Moreover, financial institutions must look beyond the traditional areas of digital risk.
As organisations pivot to increase the level of digital access offered to consumers and workforce members involving personal and business-oriented information, it creates entirely new forms of risk that must be mitigated compared to traditional ways of conducting business. Failing to do so, organisations might face devastating effects. When it comes to data and personal information, it makes businesses a target for cyber-attacks. If the organization is under a cyber-attack and fails to prevent it then the personal data of users are stolen and the company loses creditability and public image. Thus, inadequate risk assessments impact all of a firm's control processes such as compliance, information security and finance. Since risk assessments are the building blocks of a firm's overall control framework, stale or incomplete assessments will have vast effect upon them. (TrustBuilder Corporation. 2021)

In contrast, with mass decentralization of data, information was already spread across many corporate systems and stored in many different formats. This has always made it very difficult for institutions to know what data they actually hold, let alone how secure it is across the network. This risk has increased throughout the pandemic. When this increase in the threat to the security of data and decrease in information oversight combines with the ever-increasing risk of

cyber related infiltrations, financial institutions face a new frontier of accountability and defensibility. (McClune, 2022)

Additionally, facilitating remote working and the surge in online transactions has brought a fresh set of challenges, forcing businesses to revisit their approach to risk management and uncertainty. Moreover, Covid-19 has highlighted the need for financial firms to be more forward-looking when it comes to risk management to build future resilience. Businesses now have an enhanced understanding that a single root-cause issue can quickly develop into an enterprise-level risk that affects every operation. From one hand, remote working can be of great advantage specifically to large corporations for it offers more flexible hours of managing productivity. In fact, several firms have seen its potential as soon as they incorporated working remotely in their respective organizations. This type of work relatively benefits both the employees and the company they are working with. (Aronen, 2017)

For instance, in the US alone, various companies have resorted to incorporate remote workers as part of their workforce for they contribute more outputs. In addition, integrating remote workforce cut down pertinent costs such as commuting expenses. It also promotes higher rates of efficiency and productivity. In fact, according to research conducted by Global Workplace Analytics, over two-thirds of employers' report increased productivity among their telecommuters. (Popovici, 2020)

From the other hand, working remotely also tenders negative impact on the workers. One challenge they may face is being isolated. Feelings of isolation may arise for employees due to their lack of interaction with others. An employee may begin to feel lonely and socially isolated due to absence of face-to-face interactions (Flores, 2019)

2.9. Digital Risk Prioritization:

Laying out the building blocks of the digital risk strategy is crucial to its success. An immediate step by organizations is to have robust measures around cybersecurity and the easiest approach is

to perform typical information security and/or cyber security assessments of systems. The questions which need to be addressed are, 'Is this enough? Is cybersecurity the only risk to a digitally enabled organization?' For an effective digital environment to meet the desired objective, it is critical to consider risk areas beyond traditional risk. For example, social media is becoming an integral part of marketing, thereby, creating risks to brand value and reputation. Similarly, customer profiling is prominent for better customer experience, but then profiling process should be aligned to protect privacy of customer data. Another important aspect to be considered is digital resiliency–due to large dependency on the technology, the availability of the systems is nonnegotiable. There are several other scenarios across different industries and operations that cover other risk domains that could be considered. (Mahajan, 2018)

Customer experience is much more than just customer service. While the latter is usually reactive, customer experience mainly discusses the whole journey of a customer. From the moment they choose to use the services of a firm until the moment they go through the end of the service. This includes every aspect of their experience such as how easy is to navigate through the system of the company and if they find any issues along the way and how the company helps them to solve it. This process is a fast-evolving process which is constantly changing in the past decade or so. For instance, a few decades ago the idea of having a good "customer experience" may mean having a pleasant experience at a physical bank or other financial services firm. Nowadays, it may include anything from being able to access an account from multiple locations or devices, to having an inquiry immediately resolved by an automatic answer from the platform or getting a reply from an actual person within a reasonable timeframe. (Kotarba, 2016)

Henceforth, customers still look for the "old-fashioned" way which involves people and a more personalized solution from the financial institution they are using. In addition, customers seek to manage all their finances from one place, on the device which is more convenient to them, such as a mobile phone, a tablet or their computer. Moreover, customers expect nothing less than real-time engagement when they need it. They will value simplicity, efficiency, and transparency. And they will not tolerate even the slightest possibility of a data breach. On top of all this, financial services companies are no longer just competing with other financial firms for

consumers' attention, but with any company that's offering a positive customer experience—including other brands. (Gomber, 2018)

Being in control of the high-risk data must be the first step in mitigating these risks. Henceforth, the key to treating information risk is to have full control of that information. If an institution is unfamiliar with what data it has, who is doing what to it, and where and how it is stored within its systems, it will be unable to control it or protect it in the future. Additionally, the best ways to treat that risk are avoidance and mitigation, by removing high-risk data that is no longer needed. Thus, reducing the likelihood of a spill of sensitive information by finding all the high-risk data and targeting it for hardening. To conclude, risk assessment needs to focus first and foremost on understanding and quantifying the risk. But not through sampling, guesswork, or ad hoc searches, instead by creating a complete and comprehensive inventory of all their data, and automatically flagging its risk, value and compliance obligations. In short by assessing their holdings. (Mahajan, 2018)

2.10. To ascertain how infusion of a Digital Risk Ecosystem View / Ecological Perspective into strategy development helps anticipate and mitigate digital risks.

First of all, a successful implementation of digital transformation of business models extends operations beyond the boundaries of a single firm. The strategy literature uses a variety of concepts and labels to describe the interdependent system of companies. Such labels include the value system, ecosystem, interorganizational network, and sometimes even the platform. Multiple synonymous concepts can be found for these terms. Ecosystems can exist within the value system. They operate using market or networked organizational forms. These systems are organized as hierarchies, markets, or networks. An interorganizational network is typically described as an organizational form between markets and hierarchies, suggesting that a network

is more integrated than the market but less integrated than a hierarchy. This is important when business models are conceptualized within ecosystems, acknowledging the interdependency and alignment between a firm and ecosystem actors. (Kohtamäki, 2019)

Moreover, digital risk transcends the business ecosystem across every part of the value chain. This means it also transcends traditional business units. Additionally, while a holistic view of risk is especially vital to understand how digital risk can impact an organization from every angle in this transformative age the risk is there lying in the small details. A more general view of digital risks and opportunities needs to be matched with a nuanced, expert one. Henceforth, the risks that are posed by digital are differentiate from industry to industry. (Hacioğlu, 2022)

Organizations that have the ambition to thrive in today's rapidly changing environment are developing a multi-level strategy to identify and embrace their risk profiles and they are all aligned with where they want to go from a strategic perspective. They increasingly see risk analysis as a vital part of both strategy's development and its execution. They are deploying agile risk management approaches to predict and respond to high-velocity risk to minimize downside and seize upside risks. The digital age presents opportunities for vast value creation. (Brachio, A., 2021)

At the forefront of this model shift will be a reimagined risk function. Furthermore, a unit that can enable the organization to be more agile is required to embrace risk, promote a more predictive risk approach, and harness new technologies and risk ecosystems to drive improved outcomes and lower costs without losing the independent perspective that is so important to managing risk. But the biggest risk is moving too slow. or doing nothing at all at a time when the velocity of risk is higher than ever. This will not only make you more vulnerable to both current and future risks, but also lose the trust of shareholders, staff and customers, and see competitors overtake you. (St-Hilaire, 2022)

In technology-based companies, where the executive's primary attention and priority is towards innovation and keep up with the constantly changing market, risk management used to take the back seat. In the past decade not, much attention was given to risk

management but this changed in the last years as it became a major aspect of every business. Moreover, the discipline of risk management was a lower priority with many in the fastmoving and highly competitive technology sector. That changed the moment where strategists, as well as financial and operations executives begun to associate risk management, often forced on them as an oversight function, with low value damage control, or worse as an obstacle to effective business execution. Experienced risk practitioners know the opposite should be true. Effective risk management empowers executives to dare in a way that puts the odds of success squarely in their favor. Effective Risk Management therefore is not just about risk mitigation, but should also be about driving incremental value to the company, including new revenues. (PwC, 2014)

Henceforth, being aware of risks is one thing whilst taking specific action to address them head on is another. Many companies have tended to look at risk management as something they should react to instead as something that they should build into the company culture. The problem with this mindset is – with the facets of risk constantly shifting – solely reacting to change may no longer be a viable course of action. Companies frequently have neither the resources nor the energy to constantly address issues relating to managing strategic risks. This reactionary posture has contributed to the destruction of shareholder value by underestimating strategic risks. It's also important to recognize that risk has both positive and negative impacts. A company that thinks about its risks in advance may hold a distinct advantage over a company that only reacts to risks as it encounters them. Those companies that are proactive may be more likely to both out respond and outperform their peers. Since risk is closely associated with unpredictable circumstances, effectively understanding and managing risk can decrease negative impacts and increase potential opportunities. The challenge is recognizing and capitalizing on the right risks, and managing both upside and downside impacts. This capability is what separates the consistently great companies from the rest of the pack. For companies to manage and monitor risk more effectively across all areas of operations, they may benefit by applying proactive methods of risk identification, risk prioritization and risk response. Executives may want to establish a more holistic risk management strategy to embrace the spectrum of business risk, one that leverages. (Hovenga, 2022)

Moreover, a robust risk management program should begin with understanding the company's strategic objectives at first, and then by identifying the risk profile of each option when executing the goals of the firm. In order to do so, companies should possess a deep understanding of the industry specific risks that affect achievement of strategic goals. Moreover, this capability is beyond the grasp of traditional Enterprise Risk Management (ERM) efforts. Furthermore, to have the tools, the means, the methods, and the experience to uncover strategic risks, a company must also be able to implement performance management techniques, for instance linking and aligning objectives to the company's appetite and tolerance for risk, and taking specific care to look at the management and allocate correctly the capital. Finally, a company must have the required resources to enable them to investigate further when a red flag or a crisis emerges. (PwC, 2014)

Proactive risk assessment, detailed reporting, horizon scanning and expert judgement will be key to reducing the likelihood and severity of risks in future, helping organisations to reach a level of preparedness like never before. Consequently, financial companies learned the lesson of acting promptly when it comes to risk awareness and mitigation. In 2021, there will be continued disruption for financial institutions caused by pandemic-derived digitalization challenges. (Gilman, 2019)

Thus, when a risk is identified and assessed scholastically, a company must examine which of the following four decisions is more eligible to their objectives and capital. The four choices are to either accept or embrace the risk, to avoid it, to transfer it via insurance or other means that will help them to avoid cost and lastly to mitigate it. While using one mitigation technique, to avoid strategic blunders, a company should address the financial and operational aspects of what they do. Actions such as findng a different way to face a challenge such as changing the way that cash flow is managed, the way that currency risk is managed, developing a more resilient supply chain, or transforming the way the company operates to enable achievement of the strategic objectives may help companies address strategic risks. (Howard, 2016)

When, identifying areas for improvement within established business processes can also reduce instability, increase efficiency, and increase effectiveness of controls. Finally, a more holistic

approach to risk assessment and mitigation efforts may give management the opportunity to identify and accept the appropriate risks that may help drive growth.

Nevertheless, the risk infrastructure, if used correctly as a strategy, will evolve to support several other building blocks which will enable companies to more efficient and provide a better experience to their customers. Including innovative data storage solutions, new interfaces, easier access to the vendor ecosystem, and so on. This will enhance the experience of the consumer and it will make the company more attractive to new customers. For instance, the use of techniques such as an application as a service, obtained from application service providers even on open banking platforms. (Hopkin, 2022)

In addition, risk can deliver its insights in more intuitive, interactive, and personalized ways through risk dashboards, augmented-reality platforms for customers, and other user-friendly interfaces. Henceforth, risk can cooperate with external providers to vastly improve customer onboarding, credit underwriting, fraud detection, regulatory reporting, and many other activities. Two-thirds of respondents see fintechs more as enablers than disruptors while 63 percent of North American plan to use industry utilities to deal with regulatory burdens according to research by the Institution of international finance (McKinsey, 2017)

Risk is now devoting more effort to identifying and mitigating evolving risks arising from the more pervasive use of digital channels, the greater exposure of digital assets, the rise of analytics, and increasingly interconnected businesses. Henceforth, many of the evolving risks are not new risks, but existing ones that rose up due to current circumstances such us structural changes introduced by digitalization. Some of the risks discussed prior, include cyber-risk, model risk, and contagion risk. (Hurd, 2016)

Cyber-risk refers to exposure to losses and damages resulting from the misuse and theft of intellectual property or from the disruption of business. It is the main emerging risk on the minds of risk leaders, given the large volume of data held by banks and the extraordinary costs of a breach. Meanwhile, data breaches often involve millions of records. This risk is unlikely to

subside. Risk will need to guard its own perimeter against cyber-risk, and role-model genuine digital resilience. (Evans, 2022)

Model risk refers to losses arising from the incorrect use of models, defective models, incorrect or outdated assumptions, or underlying data issues. With models increasingly integrated into business processes, the number of models rising by 10 to 25 percent a year at large institutions,12 and models becoming increasingly complex, the appropriate management of model risk will be critical. One global bank had losses of over $5 billion, partly as a result of inaccuracies in risk measurement resulting from a flawed value-at-risk model, a lack of modeling experience by the operator, a lack of back testing, and operational problems. (McKinsey, 2017)

Contagion risk refers to the risk that negative developments in one entity will spread to others and result in financial losses across the financial system. The interconnectedness of business is increasing because of the ease of doing business with automated and digital processes. This poses a material risk, since failure in one corner of the value chain can easily ripple through an entire industry. Contagion risk in the financial system has been a critical focus of regulators. (Hurd, 2016)

2.11. Fintech beyond COVID-19:

As the COVID-19 pandemic continues to create uncertainty, numerous Fintech companies are under stress on a number of fronts. But, as the broader economy shifts from “respond” to “recover”, new opportunities may be created for some fintechs. A key question is how fintechs may leverage their unique assets and skills to seize new opportunities in the future. It could be an opportune time to think big and act boldly. Access to funding was already becoming difficult, especially for some early-stage ventures, as many investors focused on established fintechs with clear business models. In addition, recent interest rate cuts and the economic slowdown have radically changed many industry assumptions. (Al Nawayseh, 2020)

Yet as the broader economy shifts from respond to recover, COVID-19 may create new opportunities for some fintechs. For example, as social distancing has taken hold worldwide, there has been tremendous growth in the use of digital financial services and e-commerce. Henceforth, the most immediate danger is managing through the current uncertainty. Many fintechs, like the rest of the financial system, have gone into overdrive to respond to the crisis. Additionally, various companies are shoring up their capital and funding from investors and lenders as a result of Covid19. From the other hand, other companies have implemented cost-saving measures, including workforce reduction in order to survive. For most of the Fintech companies, the main sources of revenue are transactions based on volume, thus, a priority strategy at the moment is making sure that most of the expenses are variable and fixed expenses are minimized. (Shilling, 2022)

Another major concern is maintaining operational resilience. Lending fintechs are being overwhelmed with customer requests for forbearance and relief, as well as for help in securing the small business loans established by the Payroll Protection Program (PPP) of the Coronavirus Aid, Relief, and Economics Security Act (CARES Act). Likewise, payment and wealth focused fintechs are bolstering their infrastructure by expanding capacity or investing in new resources to withstand the stress to their systems from higher transaction volumes. The implementation of internal servers that can withhold the transactions volume is vital, as the sole focus of these kind of organizations is the consumer experience. Additionally, some actions could be especially challenging for fintechs that depend on transaction volumes for revenue and are thus cash-starved at the moment. (Al Nawayseh, 2020)

For insurtechs, winning the attention of investors is expected to get even more difficult, given the number of startups already in the market. And attracting end-users likely won't be any easier as insurers shift their focus to immediate needs and expense management in the wake of the COVID-19 outbreak.

Beyond these more general finance and operating considerations, each category of fintechs is responding to some unique challenges. Many online lenders, for instance, are tightening their

underwriting standards to retain the quality of their balance sheets and mitigate any potential rise in defaults. They may also soon find that the historical data they use to make underwriting decisions could be less reliable in today's environment, and they will have to adjust their models accordingly. (Shilling, 2022)

2.12. Strategic Approach:

The pandemic brought some changes in the marketing environment, which forced organizations to adopt strategic agility. As defined by Freedman: "Strategy is the process when an organization has long-term goals and objectives, and thus they adopt specific actions, as well as the allocation of necessary resources to achieve these goals" Freedman, L. 2013. The magnitude of Covid19 was more than a shock that changed the way of operating for organizations and thus the long-term organizational goals set by a business. The rapid spread of Covid19 across the globe, forced organizations to create new strategy that will allow organizations to have business flexibility. Responding to a crisis requires the development of systems, tactics, and functions that are integrated into internal and external processes to innovate and create new markets that reach new consumers. (Lloyd, 2020)

A strategy refers to a long-term goal and objectives, thus it does not include disruption of crises like the pandemic. Due to Covid19 organizations reassessed organizational visions, goals, and missions taking into consideration the changes that the pandemic brought, in preferences and perceptions of their customers and competitors as they changed. The objectives nowadays are oriented towards social responsibility and they are integrated into the long-term sustainability of the organization. (Stephen, 2002)

Henceforth, the rapid transition into online communications and change is a key aspect as companies continue to be sustainable from face-to-face interaction to interaction through online media. (Price, 2020)

In recent decades, organizations have had as their strategic perspective, globalization in order to gain a competitive advantage through the promotion of their products in external markets. The pandemic, however, proved to be more challenging for global companies to temporarily stop operating/exporting as consumers who had a preference for a specific global brand were now limited to local markets. Fundamentally, the initial stages of the crisis depend on response, perception of the risk from the organization, and the effectiveness of dealing with the crisis. In

fact, the health crisis around the world where uncontrollable spread of the virus consequently brought further negative effects for the industry. (Paraskevas, 2006)

2.13. Business Continuity Planning:

A vast majority of organizations globally have adopted and developed a business continuity plan (BCP). The main purpose of BCP is to mitigate the impact under disaster conditions before the crisis occurs. The Business Continuity Plan is designed to address three interdependent objectives, to identify significant risks that disrupt the business operations and profitability, develop a plan in order to mitigate the impacts of a crisis and train the employees to test the plan and ensure continuity. (Coombs, 2019)

A plan that is a necessity for business sustainability nowadays under a crisis such as Covid19. The main responsibility of the business continuity planning is to keep running the operations of the organization regardless of potential risks, threats and natural disasters such as epidemiological attacks. (Gerontogiannis, 2014)

In order to understand the importance of BCP, surveys in recent decades for medium to large companies, reported that only 53% had BCP. Even as of 2020 a survey found that only 51% of companies across the globe don't have a business continuity plan. This statistic shows that companies did not learn and do not adopt BCP in order to operate with a plan. The COVID-19 pandemic demonstrated just how vulnerable a large percentage of businesses were, and a report by the Economic Times underscores the value of having a business continuity plan. This type of plan is a proven method for businesses to recover from disaster. (Shulmistra, 2021)

The possibility of involving business continuity planning on a strategic level in the organization was examined back in 2004 and it showed that this approach is reporting alignment of strategic management with business continuity in terms of capability development, planning processes, resilience and socio-technical environment. Moreover, BCP is directly related to the main capabilities such as innovation, the performance of the organization, efficiency, and the level of acceptance in digital changes in order to manage and prevent any risk. (Lindstedt, 2017)

Digital technologies assist businesses to generate and harvest a large proportion of data, analyze them and therefore assist in the development of new processes that prepare the organization to deal with risks of disasters magnitude by identifying, preparing, preventing, measuring, and for recovering. (World Bank and World Economic Forum 2020)

BCP is a tool that provides organizations with actions of how they can resume business practices. Henceforth, BCP is consisted by 4 levels of crisis and continuity management which are prevention, preparedness, response, and recovery. An important factor of comparison between the risk management and a PPRR model is the alignment of the prevention, the preparedness related to the likelihood, the response, and the recovery with consequences. (Lewis, 2006)

2.13.1. Prevention:

The prevention level is directly related to risk management issues as it includes the identification process, prioritization and assessment of the risks, strategic development, and implementation. Early warnings for crisis prevention could be the initial steps for the strategic process and development in order to manage and reduce effectively the probability of an issue becoming a crisis and disrupt the business operations. (Jaques, 2010)

2.13.2 Preparedness:

The business preparedness for the worst-case scenario depends on the proactiveness and the planning taking into account the likelihood that an event can disrupt the operations. Crisis preparedness is directly related to the planning processes where you start your preparedness plan when a crisis occurs by assigning responsibilities and roles. Several studies in the past in Europe and USA showed that more than 80% of companies are not prepared with a comprehensive and well-tested plan where an event can disrupt the business contingency and suffers within two years from a major disaster. (Lindstedt, 2017)

However, the level of preparedness depends also on the manual and systems that the organization as they are part of the crisis management. Manuals can be effective practice during a crisis and improve communication plans within the organization. Additionally, preparedness focuses on the systems and processes that can provide an integrated plan of business protection,

stakeholder communication, reporting, training and crisis team selection. Another important factor that can affect business preparedness is the training that provides flexibility and the adjustment to an incident. This factor includes testing and systems familiarization. (Engemann, 2012)

2.13.3. Response:

Each organization must set the criteria to define when an incident might become a crisis and the transition into a response for crisis event management. The response should become once the incident happens with the main purpose of it to minimize the loss of lives and properties by involving the communication response and operational management. The response to a crisis incident includes the activation of backup systems and processes and the effective mechanisms. The quick response will determine the level of risk exposure and damage that will affect and impact the business. Under a natural disaster, the response might be not effective. For example, in August 2005 when Hurricane Katrina occurs in Louisiana, the US Federal authorities initially has not identified the full impact and as a result, the response and system activation was slow. According to other events in the past sometimes the authorities failed to implement a response and this was a result of a lack of planning and testing. (Tucker, 2015)

2.13.4. Recovery:

Recovery is part of post-crisis management and includes operational recovery, business momentum, financial costs, share price protection, and market retention. After a crisis, there is a desire within the business to proceed quickly as possible and resume the business functions as usual. This is a part of availability in the business recovery plan of the organization which focuses on the infrastructure breakdowns. However, the reality is that the exposure to risks in the post-crisis stage could be even more than during the crisis occurred. (Zechariah, 2015)

Chapter 3

3.1. Macro-environment Analysis:

3.2. PESTEL Analysis

A PESTEL analysis will be presented in order to identify the external factors (Covid) that affected the industry. The external factors are the Political, Economic, Social, Technological, Environmental, and Legal factors that affect the practices and the operations of an organization. The analysis will be more focused on the Technological factor as technology is the heart of the industry. Henceforth, with the analysis of these factors, the organization will be able to identify any factors that could be potential risks or opportunities. (Oxford College of Marketing Blog. 2022)

3.3. Political

COVID-19 has created a significant shift in political priorities and policies, resulting in increased regulation and oversight of financial institutions, including fintech companies. The increased regulations provided stability and consumer protection, but created additional barriers for new fintech companies to enter the market and in addition it increased compliance costs for existing players. Moreover, fintech companies also face various challenges related to government stimulus programs and changes in trade policies that impact their revenue and profitability on a great scale. (Pro, 2022)

Regulations:

For instance, regulations related to technology and financial services are a critical political factor that has an impact on fintech companies. The policies and regulations that governments and regulatory bodies enact in regards to data privacy, cybersecurity and consumer protection restrict the growth of fintech companies. Fintech companies must keep up-to-date with regulatory changes and ensure compliance with all relevant regulations in order to avoid unnecessary backlash to their day-to-day operations. (England, 2022)

Intellectual Property Protection:

Intellectual property (IP) protection is another important political factor that could affect FinTech companies. Fintech companies invest heavily in research and development to create new technologies and products. Protecting their intellectual property is therefore critical to their success. Governments can enact laws and regulations that protect intellectual property and prevent infringement, enabling fintech companies to protect innovation. (Medeiros, 2017)

Political Stability:

Political stability is another critical factor that can impact fintech companies. Political instability, social unrest, and other geopolitical risks can disrupt the business environment, impacting fintech companies' operations, investments, and growth prospects. Additionally, governments that are hostile to foreign companies or restrict access to technology can limit fintech companies' ability to enter new markets. (Pro, 2022)

Infrastructure:

Infrastructure is another political factor that can impact fintech companies. Governments can invest in infrastructure projects that will open the way for digital technologies adoption from the companies, such as high-speed internet, mobile networks, and cloud computing services. Additionally, governments can provide support for research and development of new technologies, enabling fintech companies to access the latest innovations. Fintech companies must also consider infrastructure risks, such as power outages, natural disasters, and other disruptions that can impact their operations. (England, 2022)

Companies like Nuvei, NAGA, Capital.com and Payabl (amongst others) that operate globally and have offices in Cyprus, can take advantage of trade blocks and trade treaties, that have been formed and signed by the respective country of origin. Trade blocks can facilitate businesses like the mentioned companies, by lowering resource costs, lowering cost of doing business, as well as increasing the supply of talented people. When an organization has offices in various countries it allows them to recruit people from different countries and thus, to choose the best from those countries. Strong industrial ties could be developed and maintained under trade blocks across borders, and in different countries which could help companies benefit from advanced knowledge, knowhow and technology as well. (Pauliukevičienė, 2018)

3.4. Economic

The pandemic has had a significant impact on the global economy, resulting in a recession and an uncertain future. This has caused significant challenges for fintech companies, including reduced demand for their products and services, decreased revenue, and increased competition for funding. Fintech companies may also face increased loan defaults and decreased investor confidence, making it more challenging to secure funding. (Haddad, 2019)

Foreign Exchange Rates:
Foreign exchange rates can impact fintech companies that operate in multiple countries. Currency fluctuations can impact revenue, profitability, and cash flow, making it difficult for fintech companies to plan and forecast. Henceforth, currency risks can impact cross-border payments and transactions, making it more challenging for fintech companies to expand into new markets. (Yong Jae Shin, 2018)

Inflation:
Inflation is another economic factor that can impact fintech companies. Inflation can increase the cost of goods and services, reducing consumers' purchasing power and demand for financial products and services. Additionally, inflation can impact fintech companies' operating costs, making it more challenging to maintain profitability. Therefore, fintech companies must monitor inflation rates and adjust their pricing strategies and operating costs accordingly. (Fauzi, 2022)

The COVID-19 pandemic has impacted economic sectors disparately. The leisure and hospitality sector lost the largest number of jobs since January 2020, and persons last employed in this sector have consistently exhibited some of the highest unemployment rates throughout the pandemic. Additionally, the education and services sector and the government sector have exhibited the second and third-largest losses in jobs since January 2020, despite relatively low unemployment rates among persons last employed in these sectors. (Yong Jae Shin, 2018)

3.5. Social

COVID-19 has resulted in significant changes in social behavior, including an increase in remote work and social distancing measures. While fintech companies can benefit from increased demand for digital financial services, they may also face challenges related to financial inclusion and access. Additionally, fintech companies may need to address social and cultural factors related to the pandemic, such as increased consumer demand for financial security and uncertainty about the future. (Chriscaden, 2020)

Demographics are a critical social factor that can impact fintech companies. The age, income, and education level of the population can impact the demand for financial products and services. For example, younger generations may be more likely to use mobile banking and digital payment solutions, while older generations may prefer traditional banking methods. Fintech companies must understand their target audience's demographics to develop products and services that meet their needs.

Cultural Attitudes:

Cultural attitudes are another social factor that can impact fintech companies. The perception of finance and financial products varies across different cultures, impacting the demand for financial products and services. Fintech companies must consider cultural attitudes when developing and marketing their products and services. (French, 2011)

Consumer Behaviour:

Consumer behaviour is another critical social factor that can impact fintech companies. Changes in consumer behaviour can impact the demand for financial products and services. For example, the shift towards digital banking and cashless payments can impact the demand for traditional banking methods. Fintech companies must monitor consumer behaviour trends to develop products and services that meet evolving consumer needs. (Chriscaden, 2020)

3.6. Technological

COVID-19 has accelerated the adoption of digital technologies, including online financial services and digital payment methods. While fintech companies can benefit from increased

demand for their products and services, they may also face technological challenges related to increased demand for their services, such as network capacity and cybersecurity risks. Fintech companies must continue to innovate and invest in new technologies to remain competitive in an increasingly crowded market.

Innovation:

Innovation is the lifeblood of fintech companies, and technological advancements are the key drivers of innovation. New technologies such as blockchain, artificial intelligence, machine learning, and big data analytics are continually emerging, providing new opportunities for fintech companies to improve their offerings, streamline processes, and reduce costs. Fintech companies must keep up with the latest technological trends to remain competitive and stay ahead of the curve. (Lawley, 2016)

Cybersecurity:

During Covid the cyber-attacks saw an increase. Prior to the pandemic, about 20% of cyberattacks used previously unseen malware or methods. During the pandemic, the proportion has risen to 35%. Fintech companies handle vast amounts of sensitive data, including financial information, personal information, and other sensitive data. Cybersecurity is, therefore, a critical concern for fintech companies. Cyberattacks, data breaches, and other security incidents can result in significant financial losses, reputational damage, and legal consequences. Fintech companies must invest in robust cybersecurity measures to protect their platforms and their customers' data. Additionally, they must remain vigilant and proactive in identifying and addressing potential security vulnerabilities. (Nabe, 2020)

Cloud Computing:

Moreover, cloud computing has revolutionized the way businesses operate, and fintech companies are no exception. Cloud computing provides innovative, cost-effective, and flexible solutions that allow fintech companies to access computing resources on-demand. In addition, cloud computing also allows fintech companies to store and process vast amounts of data securely. Fintech companies must leverage cloud computing to optimize their operations, reduce costs, and improve the customer experience. (Gordon-Wilson, 2021)

Mobile Technology:

Mobile technology has transformed the way people access financial services, and fintech companies must capitalize on this trend to remain competitive. Mobile technology enables fintech companies to provide customers with easy and convenient access to financial services anytime, anywhere. Additionally, mobile technology enables fintech companies to leverage advanced technologies such as biometrics, location-based services, and near-field communication (NFC) to enhance the customer experience. (Chaffey, 2022)

Open Banking:

Open banking is a new model of banking that allows customers to access their financial data through third-party providers. Open banking enables fintech companies to provide personalized financial services and products by leveraging the data available through open APIs. Fintech companies must adapt to the open banking model to remain competitive and leverage the vast opportunities available through open banking. (Chan, 2022)

Regulatory Compliance:

Moreover, regulatory compliance is a critical concern for fintech companies, and technological advancements can help them stay compliant. Fintech companies must ensure that they comply with various regulations, such as anti-money laundering (AML), know-your-customer (KYC), and data privacy regulations. Technological solutions such as artificial intelligence and machine learning can help fintech companies automate compliance procedures, reduce costs, and enhance the customer experience. Additionally, fintech companies must work with regulators to ensure that they understand and comply with the regulations that apply to their businesses. (Yavaş, 2020)

Fintech has also made use of the high internet penetration to reach consumers, and for marketing and promotional strategies in order to directly interact with consumers and get a direct impact. Naturally, the higher internet penetration has helped the industry to improve its quality and delivery, as well as allowed it to engage in strategic communications and marketing processes. (King, 2016)

3.7. Environmental

COVID-19 has highlighted the importance of environmental factors, including health and safety concerns related to the pandemic. Fintech companies may need to implement measures to ensure the safety of their employees and customers, such as remote work policies and contactless payment methods. However, fintech companies may also face challenges related to climate change, such as increased risks associated with environmental disasters and the need to transition to a more sustainable business model.

Sustainable Investing:
Sustainable investing is an environmental factor that can impact fintech companies. Consumers and investors are increasingly interested in investing in environmentally sustainable and socially responsible companies. Fintech companies that offer sustainable investment products and services are likely to attract socially conscious consumers and investors. Additionally, fintech companies can invest in environmentally sustainable projects to support sustainable development and reduce their environmental impact. (Hamilton, 2014)

Green Finance:
Green finance is another environmental factor that can impact fintech companies. Green finance refers to financial products and services that support environmentally sustainable projects and initiatives. Fintech companies that offer green finance products and services are likely to attract environmentally conscious consumers and investors. Additionally, fintech companies can invest in green finance initiatives to promote sustainable development and reduce their environmental impact. (Investopedia. 2022)

3.8. Legal

COVID-19 has resulted in significant changes to legal regulations, including changes to financial regulations and increased focus on consumer protection. While increased regulation can provide stability and consumer protection, it may also create additional barriers to entry for new fintech companies and increased compliance costs for existing players. Additionally, fintech companies may face legal challenges related to increased fraud and financial crime associated with the pandemic. Fintech companies must prioritize compliance and invest in legal expertise to navigate the changing regulatory landscape. (Pauliukevičienė, 2018)

Regulatory Compliance:

Regulatory compliance is a critical legal factor that can impact fintech companies. The financial industry is highly regulated, and fintech companies must comply with various financial and data privacy regulations. Fintech companies must stay up to date on regulatory changes and adapt their operations and products accordingly to avoid legal and financial penalties. (England, 2022)

Data Privacy:

Data privacy is a legal factor that can impact fintech companies. Fintech companies collect and store significant amounts of personal and financial data from their customers, making them targets for data breaches and cyber-attacks. Fintech companies must comply with data privacy regulations, including GDPR and CCPA, to protect their customers' data and avoid legal and financial penalties. (Yavaş, 2020)

Anti-Money Laundering:

Anti-money laundering (AML) is a legal factor that can impact fintech companies. AML regulations require financial institutions, including fintech companies, to monitor and report suspicious financial activities. Fintech companies must comply with AML regulations to avoid legal and financial penalties, maintain customer trust, and protect their reputation. Moreover, Fintech companies must comply with AML regulations, including Know Your Customer (KYC) and Customer Due Diligence (CDD), to prevent money laundering activities. Fintech companies must also stay up-to-date on regulatory changes and adapt their operations and products accordingly. (Yavaş, 2020)

Chapter 4

4.1 Methodology:

The methodological approach that will be followed is Digital Risk Ecosystems and with reliance on mixed methods for data collection. The field of research will be a select group of organisations in the Financial Technology industry (Nuvei, Payabl, etc.). Our research attention will be directed to how Fintech professionals view and prioritize digital risks and how they speak of others in the digital ecosystem who either many help or hinder cybersecurity. The methodology that will be followed is the Ecological Approach with attention given to the Ecosystem as a unit of analysis along with Digital Risk. Because of a research gap that occurred from the research about digital ecosystem risks the dissertation will answer the gap from the perspective of those in Fintech organizations. To carry out this research, questionnaires are chosen as a data collection tool. The questionnaires will be handed to employees of Fintech industry to get their sense of digital risk priorities they may have amidst Covid19. Specifically, a sample of ten to sixteen employees from each company within the industry will be selected to answer the questionnaire and study their responses. Not all participants are expected to finish the questionnaire due to other time commitments, and some are expected not to participate at all. Moreover, some interviews with Managers of each organization will be completed. Taking into consideration these factors, even though these managers work in the same industry, they come from different background and companies thus the answers are expected to be different. Henceforth, the quantitative data that will be collected from the questionnaire replies will be inserted into SPSS to be manifested into statistical processing and present some graphs that will help furthermore to understand the replies. Additionally, qualitative research will be used as an identifier to outline all the factors that affected organizations during Covid19, but we also will take in any other instances of crisis Fintech professionals may wish to offer to illustrate strategic responses to crisis situations.

4.2 Methods:

Henceforth, the main purpose of the research is to investigate whereas the findings could be generalized to a wider group of individuals. Despite the fact that the most trustworthy findings could come from a survey in which participants will give a great sample of the target group in order to get a more generalized idea of what their perception is. The questionnaire was answered by 52 employees amongst the industry and 10 interviews were made with higher ranking employees replying(managers). Therefore, it is important to use a sample from the target population as very often a population is almost inexperienced and is impossible to study all members, thus the replies do not reflect the whole area. In addition, the measurement or study of a large population are extremely time-consuming and costly for the researcher, lastly the data that can be collected from a small sample are time consuming. Hence, in order to generalize the results of a survey from the sample studied from the participants, the sampling principles have to be followed. Sampling is the process of selecting a sample from the population and could be as representative as possible to the society they belong to. It is understandable that if only a sample of the population is used, the generalization will be made for the whole population. Naturally, there is some inconsistency between the values of the sample that has been selected and the true values of the population, as it was already mentioned a sample of the population does not represent the society they belong to. Therefore, the deviation of the sample is expected to be small in order to be valid and representative of the population.

Additionally, the research concerns various organizations within the Fintech industry and how the management of organizations dealt with the ongoing crisis (Covid19) in terms of crisis management. The replies came from various organizations such as Payabl, Nuvei, NAGA markets, sKash, eXness amongst others. The tool that was used for this research was an anonymous questionnaire, handed out to members of those organizations via email, Linked In and other social media platforms. Moreover, a sample of approximately 7 employees from each organization was selected to answer the questionnaire and study their responses. However, some are expected to refuse to answer the questionnaire and some are not expected to answer completely. Taking into account these factors, a deviation in the answers from the questionnaires of the five people from each company is expected. So, a total number of sixty people from all companies are expected to answer the questionnaire. Specifically, the questionnaire has been fully answered by 52 people of the industry.

Furthermore, taking into consideration the outcome of the preliminary investigation qualitative research will be used to identify all the factors that affect the businesses during the COVID-19 – crisis situation.

4.3. Questionnaire Design:

The design of the questionnaire determines the type of research questions that want to be answered and the type of questions are used for this purpose (Creswell, 2009). The construction of the questionnaire was carried out by the researcher and the questions concerned from the collection of information related to the research. The questions are expected to be closed type because they will be more easily analyzed.

Then must emphasize the fact that in the research and study of the relationships mentioned above are used specific questions, which first adapted to the data of the organization, in more detail to be able to define how Fintech companies based in Cyprus and globally turn the threats by the pandemic and crisis situations into strategic opportunities by exploiting any opportunities that arise. The questions focused on the way that the participants perceived the threats and risks that appeared by this pandemic and any opportunities that arose.

Also, questions have been constructed to investigate how this crisis situation impacted the risk identification practices in each organization and industry. After the queries that concern the impacts are examined the Strategies that are followed by organizations in each industry to ameliorate risks and to enhance opportunities for strategic advantage. The next aspect of this research is to examine the strategic direction including the profitability that changed, if at all, from crisis management to opportunities for the organizations thus far.

4.4. Questionnaire handout:

The questionnaire was handed to the participants via various methods (email, social media) and the participant must complete the questionnaire without the presence of the researcher. Of course, once opening the questionnaire there is an introduction which clears to the participant that the questionnaire is anonymous and it is used solely for the completion of this Thesis.

Moreover, it explains to the participant the reason why the questionnaire is conducted and why the specific person was selected to take part (industry). Henceforth, the questions were not mandatory and the participant can skip some questions which makes it more difficult to have a complete picture of the situation for the researcher. In addition, some refused to answer at all.

Once all the possible answers of the questionnaire were collected, the data was imported into SPSS statistical tool. Moreover, the data analysis begins with the descriptive analysis of the responses gathered by the participants in the questionnaires. The main purpose of the questionnaires was to observe the perception of the crisis of the employees during the crisis. The questionnaires have been sent to over 100 employees but only 52 agreed to respond.
First and foremost, the first questions that the participants were asked to answer were demographic questions such as Age, Gender, Years of employment in the industry and their Job Title. After the demographic questions, the participants were asked about their organization's operations before and during Covid19. The answers were given based on a five-level scale with the values as:

1. Very Poor
2. Poor
3. Neutral
4. Efficient
5. Very Efficient

In the second part of the questionnaire, the participants were asked to rate some statements about how the crisis affects the business and their perception about the response whether they agree or disagree. Again, the answers were given based on a five-level scale with the values as:

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

Chapter 5

5.1. Data Findings, Analysis and Discussion:

At first the participants were asked about their Age.

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-30	27	51.9	51.9	51.9
	31-45	17	32.7	32.7	84.6
	46-60	8	15.4	15.4	100.0
	Total	52	100.0	100.0	

The majority of the participants were between 18-30 years old with a 51.9% of the total participants, which indicates that Fintech is recruiting young talent.

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	41	78.8	78.8	78.8
	Female	11	21.2	21.2	100.0
	Total	52	100.0	100.0	

78.8% of the participants are Male.

Where do you live?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	East Europe	11	21.2	21.2	21.2
	West Europe	15	28.8	28.8	50.0
	South America	10	19.2	19.2	69.2
	North America	7	13.5	13.5	82.7
	Middle East	5	9.6	9.6	92.3
	Asia	4	7.7	7.7	100.0
	Total	52	100.0	100.0	

Most of the participants in this section live in West Europe (28.8%) but the interesting part is that 19.2% live in South America, which shows the penetration of Fintech into South America.

How long do you work in Fintech Industry

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than a year	14	26.9	26.9	26.9
	1-4	25	48.1	48.1	75.0
	5-10	10	19.2	19.2	94.2
	10 or more	3	5.8	5.8	100.0
	Total	52	100.0	100.0	

The most common answer was that most of the participants are working in the industry for 1-4 years, thus they experienced the pandemic effect into the workplace.

JobTitle

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Reconciliation Analyst	7	13.5	13.5	13.5
	Risk Specialist	5	9.6	9.6	23.1
	IT Engineer	5	9.6	9.6	32.7
	Sales Specialist	1	1.9	1.9	34.6
	HR Specialist	7	13.5	13.5	48.1
	Risk and Regulatory Capital Executive	2	3.8	3.8	51.9
	Reconciliation Manager	3	5.8	5.8	57.7
	Auditor	5	9.6	9.6	67.3
	Finance Analyst	4	7.7	7.7	75.0
	Payment Support	4	7.7	7.7	82.7
	Power System Engineer	1	1.9	1.9	84.6
	Data Analyst	3	5.8	5.8	90.4
	Compliance Officer	3	5.8	5.8	96.2
	Risk Manager	2	3.8	3.8	100.0
	Total	52	100.0	100.0	

The Job Title part showed that different employees from different departments replied the questionnaire and thus it gives to the researcher the opportunity to get different point of views from different departments.

Organization performance before COVID-19?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Poor	4	7.7	7.7	7.7
	Neutral	11	21.2	21.2	28.8
	Efficient	28	53.8	53.8	82.7
	Very Efficient	9	17.3	17.3	100.0
	Total	52	100.0	100.0	

Organization performance during COVID-19?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	6	11.5	11.5	11.5
	Neutral	10	19.2	19.2	30.8
	Efficient	21	40.4	40.4	71.2
	Very Efficient	15	28.8	28.8	100.0
	Total	52	100.0	100.0	

We can see in the above 2 figures that the organization's performance was not greatly affected as the Very Poor answers that were given for the performance before Covid19, during Covid19 they were shifted to Poor and Very Efficient. Thus, the organizations understood the crisis and they improved in a way their performance.

Even in the absence of full planning, the organization was ready for a worst-case scenario in a scale of COVID19?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	9	17.3	17.3	17.3
	Neutral	18	34.6	34.6	51.9
	Efficient	20	38.5	38.5	90.4
	Very Efficient	5	9.6	9.6	100.0
	Total	52	100.0	100.0	

The findings indicate that in overall the organizations were Efficient into dealing with a crisis of Covid19 magnitude. The most common answers were Neutral 34.6% and Efficient 38.5%.

How would you describe the organization growth and new business development of your company during COVID19?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	22	42.3	42.3	42.3
	Efficient	19	36.5	36.5	78.8
	Very Efficient	11	21.2	21.2	100.0
	Total	52	100.0	100.0	

This figure shows that organizations grew during Covid19 and their business was not disrupted as there was no answer of Very Poor or Poor. The most common answer was Neutral 42.3% and Efficient 36.5%

The organization's risk management helped to overcome COVID19 obstacles.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	7	13.5	13.5	13.5
	Neutral	13	25.0	25.0	38.5
	Agree	17	32.7	32.7	71.2
	Strongly Agree	15	28.8	28.8	100.0
	Total	52	100.0	100.0	

The Risk management was efficient as the most common answers were Agree 32.7% and Strongly Agree 28.8%.

Some more detailed replies from participants were:

"Preventive actions and guideline in staff have been given early and also changes were done easily to overpass difficulties."

"Supplying necessary equipment to employees to work from home, organizing mental health and other seminars for all employees, organizing workout/yoga sessions for all employees. Providing necessary training to managers and talking to employees about the new situation."

This shows the preparedness and the involvement of risk management with the employees in order to help them face the new situation.

Organization utilized opportunities that have arisen from this crisis situation to enhance its business connections

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	4	7.7	7.7	7.7
	Neutral	12	23.1	23.1	30.8
	Agree	25	48.1	48.1	78.8
	Strongly Agree	11	21.2	21.2	100.0
	Total	52	100.0	100.0	

The most common answer was Agree 48.1% which shows that organizations tried to enhance their business connections and to operate smoothly. A participant replied:

"The advantages of virtual meetings becoming more of a norm had a positive impact as more participants could be involved around different parts of the country."

The organization's levels of revenue generation were reduced by COVID19

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	20	38.5	38.5	38.5
	Disagree	11	21.2	21.2	59.6
	Neutral	13	25.0	25.0	84.6
	Agree	8	15.4	15.4	100.0
	Total	52	100.0	100.0	

The revenue was not affected by Covid19 as the most common answer was Strongly Disagree 38.5%. Some of the participants answers were:

"Exactly the opposite - team members were more motivated, costs of rent/ travel etc were much less therefore revenue and profits were actually much higher"

"No"

"Financial results increased on the year over year results."

These replies show that organizations took advantage of the situation and found a way to increase their revenues in comparison with before Covid19. Moreover, the cost for employees was reduced as they did not have travel expenses.

Remote work is part of the organization's culture post COVID19

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	8	15.4	15.4	15.4
	Agree	6	11.5	11.5	26.9
	Strongly Agree	38	73.1	73.1	100.0
	Total	52	100.0	100.0	

It can be seen that most of the organizations adopted the remote work as 73.1% of the participants replied that it is a part of their lives even today. Some of their replies show that they took positively this situation and it is the new norm.

"There were times when it was easier to communicate via meetings/ calls that were more organized with a clear purpose, but there were also times when more senior team members were unavailable due to issues at home etc"

"The company improved by setting up more calls and updates to ensure we were aware of the ongoing situation."

"we are using technology now, teams of microsoft, zoom and all other communication platforms"

"Due to remote work more conversations, more understanding, better relationships built that leads to a more effective communication."

Employees embraced remote work and they are happy as the built better relationships with members of other departments and they claim that the communication is more effective.

Practices used by organization ensured the safety and security of the staff during COVID19.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	11	21.2	21.2	21.2
	Agree	18	34.6	34.6	55.8
	Strongly Agree	23	44.2	44.2	100.0
	Total	52	100.0	100.0	

Strongly Agree was the most common answer with a 44.2% of the participants. Not everyone was satisfied by their organization but most of them were.

"Neutral - other than working from home, and then taking a rapid test once a week when we went back to the office no other practices to ensure the safety of staff."

"Safety has always been the number one priority of the business. So systems were put in place especially as the world moved even more to the digital space more control measures had to be implemented."

"Work from home, clean desk policy"

"Increase cyber security at a corporate level"

"not for all departments"

"Work from home, weekly covid pcr tests offered by the organization, mental health seminars offered, all technical equipment supplied to the employee house. Minimizing close contact with other employees"

This shows the preparedness of organizations and alignment with governmental policies.

5.2. Interviews:

Some interviews were handed out to different managers of different brands but only 10 replied. The interview was composed with 11 questions. The purpose of the interview is to get more insights of the business operations and more specific answers from the questionnaires. Moreover, the purpose is to answer the objectives that were set in the beginning of this research such as 2. "To understand how professionals in Fintech organizations prioritize their digital risk experiences" and 4. "To identify specific strategies Fintech organizations used to digitally transform risks into growth."

The first question was "How was the communication effectiveness within organization before COVID19?"

- Reconciliation Manager from Nuvei replied that the communication was efficient before Covid19 but it improved during Covid19 as the meetings were more efficient via microsoft teams. The transition from being at an office to being home was smooth and the company helped a lot by making weekly meetings to ensure that everyone was settled and that the operations were not disrupted.
- Payment Support Manager replied that the communication effectiveness was effective both between the coworkers and the customers. Working in a tech company teams and communication via email was part of our life before Covid.
- Risk and Capital Manager of Payabl replied that the communication was efficient prior Covid19 as the organization was organizing events with every chance and the employees had the chance to get to know each other and socialize, thus Covid19 disrupted the events but they managed to organize virtual events in order to keep employees involved.

- Scheme Director replied that Communication before COVID was well established and effective as we could perform efficiently without being at the office.

The second question was “Organization performance before COVID-19?”.

For this question the replies were more or less the same as the performance of the interviewees organizations was efficient but during Covid19 their profitability was increased notably.

“Organization took actions to mitigate most risks to the organization due to COVID19 Pandemic.”

1. The organization prioritized the wellbeing of employees and took the demanded measures to ensure that they would continue to work without the threat of Covid19. Remote work was adopted from the company and when they were required to go to the office, they provided free rapid tests to employees.
2. Another reply was that: we were already using a hybrid model and with Covid we shifted easily to work from home as the company already equipped us with the necessary equipment to do so.
3. The other manager replied that: the organization put into effect their risk assessment strategy in order to assess the risk and to create an environment whereas the operations were not disrupted by Covid19.
4. Another reply was that, Management decisions along with government restrictions has led most employees working from home for a significant period.
5. The organization implemented health and safety measures to protect employees and customers, such as requiring masks, social distancing, and frequent cleaning.
6. We updated our business continuity plans to ensure that we could continue to operate during the pandemic.
7. During that challenging period our technological department accelerated the adoption of technology to support remote work and digital operations.
8. We transited to remote work and the organization ensured that we had the necessary equipment.
9. Remote work allowed us to continue operating without any disruption to our day-to-day work.
10. At the initial stage of Covid we were working from home and when we were allowed to go back to the office, the organization provided free rapid tests and masks. In addition, our department established rotation.

In overall the replies show that most organizations mitigated most of the risks successfully, without disrupting their operations and provided health and safety measures and remote working for their employees.

“Even in the absence of full planning, the organization was ready for a worst-case scenario in a scale of COVID19”

1. Two managers replied that their organization had planning for crises but they were not ready at first for such a big crisis that would affect their everyday operations. But swiftly they ensured that business would go as usual.
2. Based on the knowledge that I have, this was the first crisis we dealt with and the company faced the challenge without any major backlash.
3. Organization has built up and shared a business continuity program that in the case of a worst-case scenario operations will resume as is.
4. I don't believe that anyone was ready for such an unexpected crisis, but our organization handled it well.
5. The organization was not ready for a crisis of this magnitude.
6. The risk department and the organization as a whole had to adapt and adjust their plans and strategies in response to the evolving situation, as Covid had significant challenges for the workforce.
7. We had an emergency preparedness plan in place that helped us to respond more effectively to the pandemic.
8. The pandemic created unprecedented disruptions and while we had emergency preparedness plans in place it took us a while to get back on track.
9. Yes

   To summarize, while some organizations were better prepared than others to respond to the COVID-19 pandemic, the crisis highlighted the need for ongoing planning and preparedness for future crises and emergencies.

"How would you describe the organization growth and new business development of your company during COVID19?"

1. One manager replied that the organization growth was extraordinary as between 2020 to 2021 the company saw a change in revenue of 94.68% of total $0.71 B. Moreover, they acquired 4 major companies during this time and they expanded their partnerships which indicates the business growth of the company.
2. Our revenue increased in comparison with the previous year, during Covid and we implemented new technologies during that time.
3. The other manager replied that the organization is growing stately.
4. Due to the nature of operations our organization was thriving during covid.
5. PSP's saw an increase to the volume of transactions and our organization grew significantly.
6. Covid was a challenging period for most companies, but for Fintechs it was a blooming period. We attracted new customers and our revenue was increased.
7. We were well-positioned and we capitalized on the shift to online and remote transactions that occurred during the pandemic.
8. We created a lot of new partnerships and we expanded to another continent during Covid.
9. We thrived during Covid and the organization grew more during Covid rather than before.

10. The organization's growth was not much affected by Covid. We grew slightly during that time.

"Operational efficiency in your organization during COVID19 was efficient?"

1. A manager explained that the operational efficiency was efficient for every department and it can be seen in the annual reports of the organization.
2. Payabl manager replied "Yes"
3. Due to the significant increase of daily processing volume the organization had rapidly adapted to the new scenarios and met expectations.
4. At first the world was in shock but the customers got accustomed to online payments and our operations grew significantly.
5. Yes, as we worked safely from home and our operations were not disrupted.
6. Our operational efficiency was the same as before as we were accustomed to work from home and thus nothing changed.
7. At first no, but after a while we got used to remote work and to communicate via teams efficiently.
8. Our day-to-day operations were not affected.
9. Nothing was greatly affected as we shifted to remote work efficiently and our operations were not disrupted.
10. I would describe it as more than efficient as we kept working as we did with no obstacles.

"How did Covid affected the daily functions of the company?"

For the above question most of the interviewees replied that the daily functions were not greatly or at all affected by Covid.

1. Minimum as the organization equipped and trained employees to work from home.
2. I would say no. Day to day operation was not affected
3. Not at all, as we were working with a hybrid model and we were used to working from home.

"Organization utilized opportunities that have arisen from this crisis situation to enhance its business connections"

1. As a PSP, management has introduced new verticals that helped expand our business.
2. Due to strategic planning, the organization managed to acquire some major companies in different countries mainly in North America and Asia and thus they solidified their global presence.
3. Payabl manager replied that they attracted companies that operated online and helped them to sell online thus, they attracted new customers during the crisis.
4. Of course, we grabbed the opportunity of expanding our market share and we attracted a lot of new customers.

5. The pandemic has accelerated the trend towards digital payments. People avoided cash transactions in order to reduce the risk of virus transmission, thus we had the opportunity to increase the adoption of digital payment platforms. This has allowed our company to expand our business connections.
6. Yes, as Covid allowed us to increase our volume and partnerships.
7. The crisis was handled well by our management, as we saw opportunities and we utilized them to initially rise from the crisis and later on to get out of it more profitable.
8. I believe at some level yes but not at a full extend. Our organization didn't suffer much from the pandemic but did not grew as well.

Overall, from the above replies it is obvious that fintech organizations that were able to adapt and respond to the challenges created by the COVID-19 crisis have been able to enhance their business connections by providing digital payment solutions, remote banking services, alternative lending options and to create new partnerships.

"Organization has successfully mitigated threats that COVID19 created"

All the correspondents replied yes for this question.

"The organization's levels of revenue generation were reduced by COVID19"

Most of the interviewees replied No and that they saw expansion and profitability for their organization. Below are some of the more in-depth replies.

1. As replied above, the manager emphasized that the company acquired other companies and that the company generated a revenue of $0.7 Billion through the pandemic. The stock of the company skyrocketed and the company managed to turn a threat into an opportunity for expansion.
2. The revenue of the organization was not reduced as the company managed to attract new customers and they continued to operate more than before.
3. No. PSP companies were thriving during covid since online purchases were already a thing. Our revenue was increased significantly.
4. No, in the contrary we saw expansion and rapid growth to our volume.

In this question it is noticeable that Fintech companies had a profit during the pandemic and not a loss.

"The organization's risk management helped to overcome COVID19 obstacles."

1. The first obstacle was the health and safety of employees which was handled swiftly. By equipping employees with the necessary tools to work from home it kept them safe and the business was not affected.

2. The risk department corresponded well to the situation and it helped the employees to perform in the same level as before the crisis.
3. Don't know.
4. The main obstacles were our health and safety and to keep our day-to-day procedures unaffected to the minimum and the Risk management was successful in mitigating these risks.
5. Yes, they did as we managed to perform at a wanted level initially and when we got used to remote working and communication, we improved our performance and no one was exposed to any health and safety risk.
6. I believe that the risk department handled the situation well if you take into consideration that Covid was an unexpected crisis and we did not face a crisis like this before as a company.
7. Performance was not disrupted, we were all safe, so yes.
8. The obstacles were mitigated as we had the ability to work from home, keep the organization running, working undisrupted and most importantly we were not exposed to the virus at work.
9. We were given equipment, we had the opportunity to have free rapid tests from the company, we were trained, the company provided digital seminars for our mental health, as working alone in an apartment with no socialization was not the easiest thing to do and they offered training for us to get used to the new norm so yes, I believe we overcame the obstacles of the pandemic.
10. The obstacles were swiftly handled as we were offered the required things so that we could perform as we did before the pandemic.

For the above question, most participants explained that the risk department handled the situation well and kept the employees safe and the operation of the company undisrupted.

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Chapter 6:

Conclusion:

Covid19 created a new norm for people's lives. The pandemic created an uncertainty for organizations and individuals and it challenged the business world. Moreover, organizations are facing a challenge of staff illness, remote work, operational functions. One major challenge for organizations was the staff infection due to Covid were the employee for health and safety reasons should initially stay home for 14 days. This disrupted the smooth operation of the organization and it affected the physical and mental health of the employee. It was up to the organization's management on how to manage the situation and do not let the incidents affect their job. A crisis like Covid19 did not give a warning and therefore organizations were unable to be ready for such an event, or to prepare a comprehensive plan prior the crisis that affected the operation. The mixed methods research has been selected in order to examine how the internal environment of organizations perceived and understood the crisis and how organizations acted in order to mitigate the risks.

The digital ecosystems of the industry are rapidly changing and thus, organizations must keep in mind that they have huge volumes of confidential data and intellectual property moving through their IT ecosystem. Henceforth, the must understand the complexity of the flow of data through a supply chain that at some point can be target by hackers. If the data leak, then they will face a reputation hit and they will lose customer's trust. The ecosystem has been critical to gauging supply chain risk in the past. The rapid advances in technology have also increased the type and number of threats and vulnerabilities to an organization's data, leading to a rise in third-party incidents, such as cyberattacks. All businesses operating in a complex IT ecosystem are likely to experience outages, breaches or another form of failure at some point. Given the growing severity of the related punitive action by regulators and customers, being proactive with your risk approach can help you safely unlock the benefits of operating in this new IT ecosystem.

Covid19 accelerated the "cloudification" as more and more businesses move their data into cloud servers which created new threats both external and internal. Additionally, the shift to cloud infrastructure has put businesses in an unusual position. Even though, they have minimal ability to gain assurance over major cloud providers' extensive security architecture, they remain accountable for any data loss should the architecture be compromised. Thus, organizations must understand that the digital ecosystem must be embraced and analyzed so that they can foresee digital risks and to mitigate them as much as possible. By doing so they ensure their reputation and they can reassure clients that their data are safe.

Henceforth, organizations across all sectors consider and identify risks in the ecosystem and many of them are taking proactive approach and making it their strategic priority. Moreover, they explore how they can refine and expand their existing processes through technology

enablement and innovation. Along with digital transformation, organizations should manage the risks introduced into the environment and its impact on the current ecosystem, by working across the ecosystem community to drive value from its cross-functional synergies and eliminate threats from interdependent processes.

Recommendations and Suggestions:

After examining the above results of this research, it is clear that BCP is a vital tool for every organization no matter the industry. More specifically, this tool must be in the arsenal of every organization in order to allow them to identify all the factors that could impact and disrupt their operations, strategy and profitability. At this research, it has been simply understood that Fintech industry used that tool in order to overcome the obstacles that Covid19 brought in our everyday life and utilize them in order to increase business operation and thus profitability.

Moreover, prevention level and the preparedness level of the industry were the turning point to successfully reduce risks and to turn them into strategic advantage. In addition, the results showed that the industry was ready – at some level- to face this crisis and to create some strategic plans to overcome the risks and gain profitability. Nevertheless, the unexpected crisis and the extremely difficult circumstances that Covid19 brought, organizations managed to mitigate the risks by changing their strategic direction. The support that they gave to their employees both mental and equipment allowed them to increase morale and to increase profitability. Fintech industry is a fast-growing industry, and as it is a technology-based industry it, the competition is fierce and vast as more and more Fintech companies appear, the exposure to risks is infinite but the important point is that the industry's infrastructure is strong and the staff is well trained. As mentioned in the early stages of the Thesis, fintech is a digital industry which exposes them to many risks such as cybersecurity, data leakage, system failures, privacy and unethical automated decision making. Thus, contingency planning is vital for this kind of organizations as it allows them to identify potential risks in early stages and to asses and prioritize them. By doing so they can mitigate the impact of those risks and thus to create the appropriate strategy before it's too late.

In addition, it is vital for organizations to identify the ecosystem risks in order to understand the effects on their organization. The digital risk ecosystem is important because it creates a new approach based on predicting and preventing risk rather than reacting to it as they arise. Henceforth, it is better to proact even if you never act, rather than reacting after an incident. The first step in the risk management process is understanding the environment that the organization is in and where it stands in the ecosystem. Additionally, the organization should understand its internal and external environments and determine its mission-critical information assets, and how they operate in this system. By doing so it allows the organization to take a risk-based approach, focusing on protecting its critical and sensitive information, as Fintech companies deal with a lot of sensitive data.

Henceforth, this research can be used for more thorough research in terms of organizations' response to crisis situations. Coming to the end of this research, a proposal can be made for Fintech industry in regards with how the industry is adopting risk management practices and how they deal with the threats of the digitalized environment and the disruption of their Ecosystem. If Covid19 eventually comes out of our lives then. Organizations globally must understand that it is vital to have a BCP prior to a crisis and not to adopt one after a crisis.

Another proposal could be an investigation of a crisis situation after a cybersecurity infection or data leakage issue that affect sensitive information of clients and thus the reputation and creditability of an organization. It is important for organizations to evaluate their Digital Ecosystem and to evaluate their position in it in order to avoid potential risks. An event of this magnitude can affect greatly organizations that perform digitally and it can affect their reputation and profitability on a high scale. Thus, research can be conducted with comprehensive business continuity planning by analyzing all the factors that affect business. As the digital world is rapidly growing, business sustainability can be examined in order to find if external factors such a pandemic affect the sustainability of an organization. In addition, more companies can be included with the right resources in order to have a wider sample.

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