

THE IMPACT ON THE EMPLOYEE'S PRODUCTIVITY OF INDIAN IT INDUSTRY
SECTOR DUE TO COVID-19 OUTBREAK AND STRATEGY TO RECOVER

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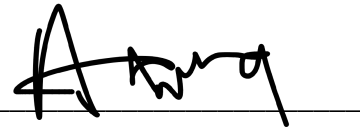
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ABSTRACT

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2024

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Background

It is observed that employee productivity decreases with changes in working patterns and conditions. Similarly, employee productivity has reduced to a significant level in the Indian IT industry during the early days of remote work due to the rapid increase in Covid-19 cases in India in 2020. As stated by Sengupta and Jha, (2020, p. 1-3), due to the lack of suitable digital infrastructure and lack of remote-working experience, Indian IT employees performed below average. However, Indian IT companies have taken necessary steps to improve employee productivity during remote work.

Methods

A mixed data collection strategy has been used in this research where both qualitative and quantitative data have been collected through surveys and interviews. 200 general employees and 30 senior employees of the Indian IT sector have been surveyed while some managerial post holders have been interviewed to collect the responses of working-class people of the Indian IT sector.

Results

It is found that most respondents have cast their votes in favour of remote work, as they believe that they can perform well in this particular style. However, certain factors have been discovered

that have distinct negative and positive effects on the productivity of an employee in the Indian IT sector.

Discussion and conclusion

It is observed from the data analysis that flexible work timing, suitable training programs, and technical assistance from the company are some positive inducers of employee productivity. On the other hand, failure to maintain the work-life cycle and strong cybersecurity system could be detrimental to the productivity of an employee. Moreover, it is noticed that there is a great opportunity to expand this research in the future by taking small and medium-sized enterprises into the count.

Keywords

“Employee productivity”, “Work-life cycle”, “Indian IT Industry”, “Cloud-based platform”, “remote work” and Covid-19 pandemic

LIST OF ABBREVIATIONS

- SSRS**- simple stratified random sampling
- PMF**- Public Finance Management
- ILO**- International Labour organisation
- UNDP**- United Nations Development Program
- WFH**- Work from home
- TES**- Theory of Ecological System
- CISO**- *Chief Information Security Officers*
- CIO**- *Chief Information Officers*
- T&D**- Training and Development
- IT**- Information Technology
- PPS**- Password Protection System
- FO**- Financial Officer
- TCS**- Tata Consultancy Service

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CHAPTER I:

INTRODUCTION

1.1 Introduction

COVID-19 Pandemic has affected several sectors across the world in terms of their productivity, which had a direct impact on their revenue. As per various report, as the Corona virus cases has increased, many companies across the world has asked their employees to work from home in 2020. However, it has been observed that, many employees from different sectors, who have been asked by their companies to work-from-home, had little or almost no experience in this practice, which made them vulnerable and less productive in many times. Apart from the work from culture, after more than 1 year of continuous experience of remote working, many employees have reported to be stressed, as this pandemic has affected their well-being negatively (Abba, Yahaya and Suleiman, 2018).

Some of the employees from different sectors have stated that, COVID-19 pandemic has affected their mental health, and the newly formed work related stress due to COVID-19 has affected their personal lives as well. This type of stress related to work after the long period of COVID-19 effect, has made the employees more vulnerable and led them taking more flawed decisions. This is an indication that, COVID-19 pandemic is affecting employee's productivity and performance.

As per reports, it has been found that many Indian based IT companies have shifted their operation to a virtual platform due to the surge of COVID-19 pandemic. Due to restriction of COVID-19 pandemic on people's movements, the overall capability of Indian IT sector for delivering services on-site has been squeezed. The companies have thought that, this issue of service can be addressed to some extent with the help of work from practices. The Chief Financial Officer of Infosys have stated in 2020 that, in the next year developing the growth of IT industries within India would be a major challenge for the companies. According to him, the situation was exactly like 2008, when all got shut down and then recovered with the help of several strategic initiatives. In this article, it has been found that, like other companies across the world, Indian IT sectors have also asked their employees to work from home from remote locations and the companies have proposed their employees for conducting important meetings through video conferencing and various other collaboration tools. The companies of Indian IT

sectors have started to test their system in that point for ensuring their huge number of employees to stay home and work. According to a survey conducted in India, it has been found that, most of the employees who are working in IT sectors have stated that, they have missed their office environment due to the spread of COVID-19 pandemic (Ramasamy, 2020).

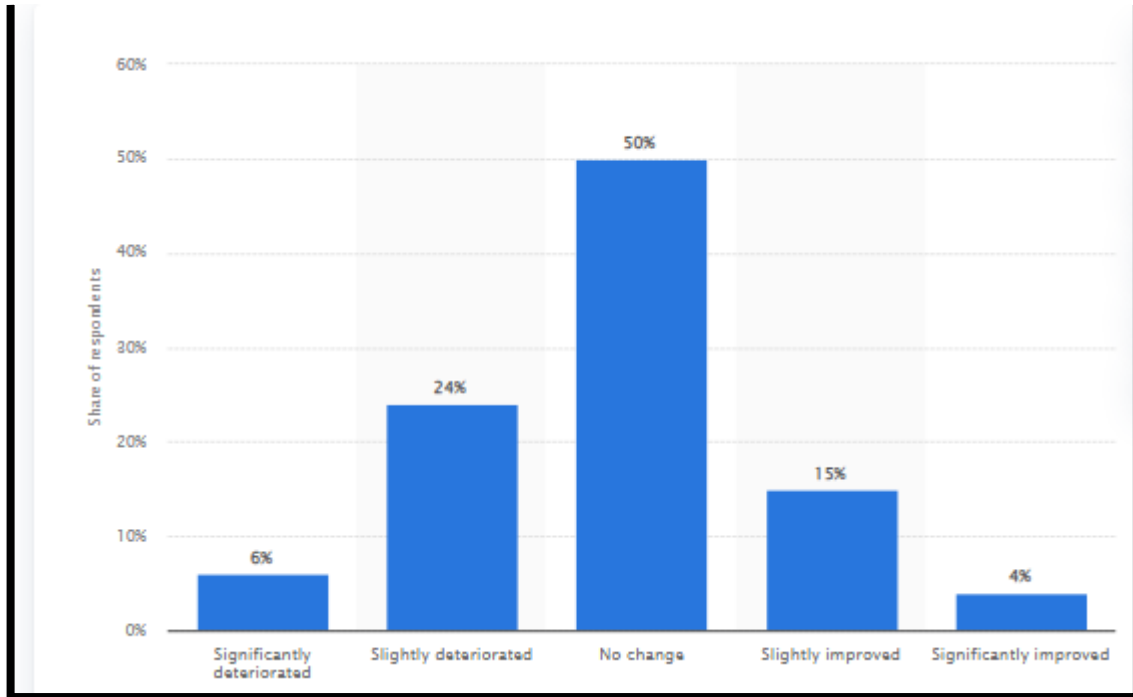


Figure 1.1. Impact of COVID-19 Pandemic and WFH practices on employee's Productivity and Performance in Indian IT sector (Source: Statista, 2020, p.1)

Although, it has been stated that almost 50% of them has stated that, they have experienced no change within their productivity and performance. However, there are some employees of around 24% and 6%, who have reported slight and significant deterioration within their productivity and overall performance due to work from home practices. The main concern of organisations is to focus on these 30% of employees, who have faced or going to face less efficiency due to the surge of COVID-19 pandemic (Most used remote work collaboration tools 2020, 2020). However, some of them felt that they are satisfied with their work from home practices, as it has saved their time of travelling from office to home. This has been beneficial for them to concentrate more on their work and give more times to their work (Cybersecurity Strategies for Adjusting to COVID-19 - Wipro, 2022). However, negative aspects are more significant in terms of infrastructure of Indian IT sectors. As per current result, it can be stated that, almost 53% of employees, who works in IT sectors of India with less than 5 years of experience, lacked proper and effective IT hardware infrastructure at their home (India: impact on employee productivity from COVID-19 WFH 2020 | Statista, 2020). It is important for IT

firms to strengthen their technical infrastructure to extract the positive results of WFH than negative consequences.

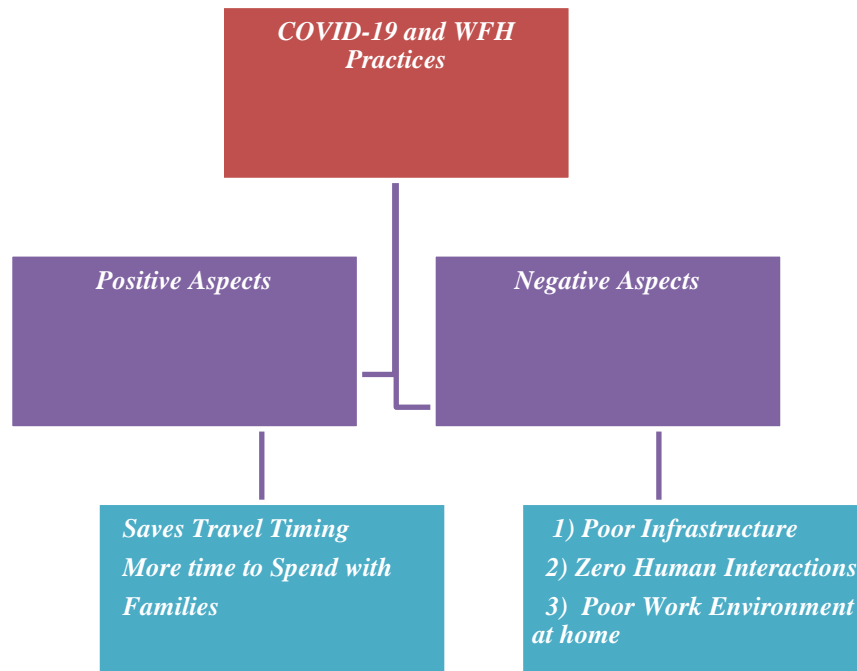


Figure 1.2. Positive and Negative both aspects of COVID-19 on Employee’s Productivity and Job Satisfaction

(Source: Self-developed)

It has been expected by Kotak Institutional Equities that, the overall growth of the Indian IT sector would have been fallen to 3-8% during this period (The Challenges in the Indian IT Industry Due to COVID-19 - An Introspection | Semantic Scholar, 2021). This is mainly because of the less productive performance of their labours, employees during this period due to mental stress, lack of technical infrastructure for doing remote work and health, and safety related issues. For example, an Indian company has stated that, the impact of COVID-19 pandemic has affected the lives of their employees and families by a huge extent, which directly affected their willingness to work and gave their best effort for best production. When comparing the situation of India with other countries, it has been found that, in many cases employees from different field of work, who are more concerned about connecting with their colleagues to maintain their mental health and they were less satisfied with their remote work, as their productivity has decreased due to stress of social isolation. However, the mental stress and psychological factors are also a major issue in India as well for employees, who work from home. As per a current survey report, it has been found that, in India, almost 61% of employees from different fields of work including IT sectors either has experienced decline or no

improvement in their productivity, while working from their homes. Companies are focusing on re-engineer their processes, such as “supervision”, “performance appraisal”, “incentives”, “rewards” for motivating employees to generate their best effort and identify any gap within their productivity or overall performance.

1.2 Research Problem

The main challenges that have been observed within Indian IT sectors are related to their workforce. Work from home practice is mainly depends on high-end technical infrastructure of companies provided to the employees. In order to develop this practice effectively, the companies need to purchase laptops for employees, who might have no laptop at home. Then, the IT companies needed to bear the overall cost of dongle, monthly internet bills for the employees. However, in many cases, there was lack in developing this kind of facilities by the organisations to their employees working from home (Ramasamy, 2020). This has caused them several additional costs of internet, laptop and poor internet connection as well. These are the issues, which have affected their productivity and performance as a whole, while working from remote locations. Employees had to spend money on setting up infrastructure at home for doing work comfortably. These are the reason behind their additional stress due to work. As, most of the employees could not engage an effective and strong internet connect at their home, the possibility of power failure may increase. A power failure might be one of the major barriers to their remote work practice. Employees got frustrated due to often power failure and poor connection, which affected their overall productivity level. Moreover, it has been found that the major challenge in the IT sector is the honesty of their employees, while working at their home. Many employees were not genuine and honest, when they were engaged in remote work, which led to less productivity.

IT companies of India like Tech Mahindra have announced work from home practices for 25% of employees within their workforce. The company have put major efforts for tracking the productivity of their employees, who were asked for working from their home. The company have built an integrated command control system to track their activities, while doing remote work. When comparing the condition of foreign countries with India, it can be found that, in foreign countries, people were more prepared for WFH practice and they have designed their overall home infrastructure according to their needs. However, according to some chief personnel of Indian IT Company, in terms of India, the overall readiness of employees and

organisations are completely different from them. Indian organisations were not prepared for this kind of drastic change at all before the surge of COVID-19 pandemic.

By considering this situation, every IT employees needed to have a laptop, which will not affect their productivity due to location dependency. However, the situation was not the same in every case. Employees needed to have knowledge reading the use of technology and should know how to connect internet to their laptops by using several devices. In fact, it is the responsibility of the companies to provide facilities to their employees for availing the resources and using it properly. However, due to lack of initiatives in these matters, employees could not able to generate their best effort, while working from home.

As per the report, the surge of COVID-19 pandemic has opened the eyes of entire Indian IT sector regarding the challenges; they might face in future as well. Moreover, another issue that has been identified in terms of working from home is conducting meetings through video conferencing tools. It has been found that, many times employees did not find the remote or video conferencing tools feasible enough to deal with new contracts with customers. Moreover, not all employees are confident enough to work individually at their home environment and these are the reasons for which their productivity might go down to some extent. Moreover, as the concept of teamwork or collaborative work has demolished due to WFH practices, the efficiency of an individual worker could not be utilised properly with knowledge sharing process, like in the office environment. As stated by Vajpai (2021), lack of efficient computing, internet connection and communication technology is the main reason behind the challenges that Indian employees need to face. These challenges come across in a larger way for employees, who live in small towns.

It has been found that, many employees, who have been shifted in remote work in a sudden notice, could not generate enough performance due to their social isolation from their colleagues. Social Isolation has increased their mental stress, which correlates with “perceived remote work productivity” and “remote work satisfaction.” This is an indication that, outside India, the reason behind less productivity of employees mainly due to mental health rather than only technical infrastructure. In terms of the current situation, it has been found that, some of the Bangalore based tech firm has go back to their work from home practices in January 2022, after conducting their operation in physical workplace for some days, as the surge of COVID-19 cases has increased suddenly (Bengaluru Tech Firms Go Back To WFH Amid Covid Surge, 2020). The head of these tech firms has stated that, it was only a few days have passed since they and other IT firm like TCS and Tech Mahindra has asked their employees to come down to the office premises for work. However, the repeated surge of COVID-19 cases, has forced

IT firms to rewind their WFH practices in place. However, the companies think that, it is difficult for them to manage their operation by only depending on WFH practices, as it consists of almost zero human interactions.

All the calls and meetings are being conducted through online platforms, and this situation is creating an obstacle for engaging creativeness within the business operation. Botman is a Bangalore based cyber security start-up, which is only working with 4 employees within their office premises. According to them, the hybrid model of working has hit their business operations. They also stated that, collaboration is most required for a small team, as it helps the company to take decisions faster. However, remote working is a major obstacle for collaborative work culture. As per their comments, it is not always productive for the employees to work in a remote working environment. However, some other scenarios also have been observed.

Employees who have little childrens at home, WFH practice has become a boon to them, especially for women, as they can spent time with them. As a result, it can be observed that, a mixed result has been identified from employees working in Indian IT sectors or any other sectors, in terms of the WFH practice. As per the report, it has been found that, due to some varied reports from human psychology and issues related to network security, confidentiality of company's data, quick need for upgradation of company's technology and infrastructures well as related costs, a mixed reaction has been gathered from employee's in terms of remote working culture. Some employees felt that they now get enough time to spend with their family due to WFH. On the other hand, some of them think that, they are lacking emotional and social bonding, which has affected their overall performance

1.3 Purpose of Research

This research work mainly explores the impact of Covid-19 on employee productivity (both personal and organisational levels), especially in India's IT industry. As the employee's productivity is directly related to organisational productivity and performance development, modern-day business organisations pay enough attention to this specific factor. Before understanding the deep-lying interconnection between the two-layered productivity and disaster situation, it is important to know the concept of "productivity" properly. Productivity can be defined easily by the outputs returned by the employees to the organisation. However, productivity is an intangible index that cannot be simply measured by numerical data like profit or loss in business. Therefore, some sorts of methods have been developed by scholars to check

the efficiency quotient of productivity and performance. It is observed that four interesting points can be used as determinants of productivity in business management. These factors are- Objectivity, Comparability, Availability, and Quality control. Companies that usually rely on attaining competitive advantages through the improvement of organisational performance must develop a suitable matrix to monitor and evaluate the performances of every employee in terms of these four factors.

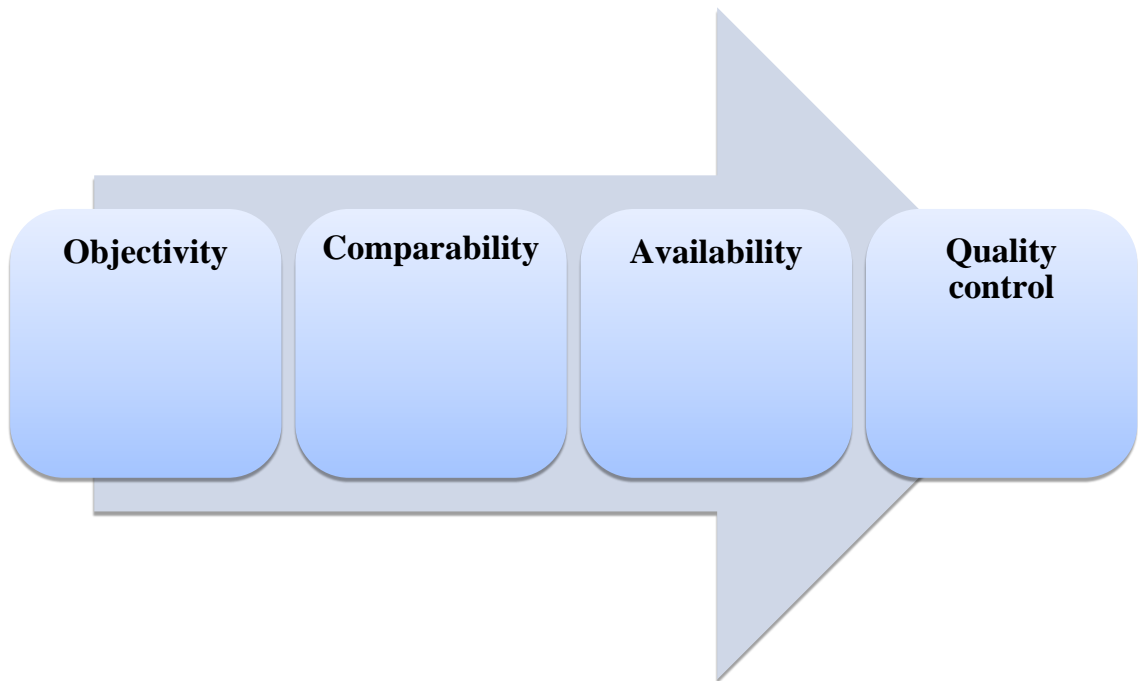


Figure 1.3. Four determinants for the evaluation of productivity

(Source: Self-created)

On the contrary, organisational performance can be determined by measuring the progress of the company in achieving the target set by the company itself for a particular fiscal year. Organisational performance is highly dependent on employee performance but it also contains a performance of the management authority. Therefore, it can be summarised as the summation of the performance of both the employee and the management. the attitude and behaviour of both parties toward the company goal play a vital role in achieving the target. It is found that if both parties give their cent percent effort for the organisation, then organisational productivity, in return organisational performance, increases multiple folds. Therefore, similar kinds of techniques have been used in this research to evaluate the interrelationship between employee productivity and organisational performance during the pandemic period.

The Indian IT sector has been selected as a suitable segment for conducting this research work because this sector has performed well even during the second and third quarters of 2020

when the rest of the Indian sectors had suffered huge financial losses. Therefore, 150 employees working at different Indian IT farms were taken for surveying while 5 senior executive managers from reputed Indian IT giants have been approached for personal interview sessions. surveying and obtaining primary quantitative, real-time data is always advantageous because it reduces the chances of biases in the primary data set. In addition, primary qualitative data is necessary to understand the opinions and personal feelings of selected people on a particular matter. A personal interview has been considered the most suitable style for collecting primary qualitative data as it helps to extract important information from the interview transcripts (Mwita, 2022).

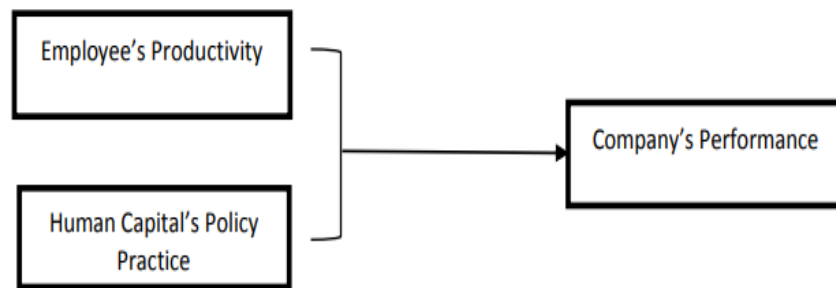


Figure 1.4. Theoretical framework of organisational performance

Source: (Thuda, Sari and Maharani, 2019). Employees Perception of Human Capital Practices, Employee’s Productivity, and Company Performance. *Integr. J. Bus. Econ.*, vol.15, p. 240–250.

The purpose of conducting this research is multi-layered, as many points have been covered here. The primary purpose of this study is to identify the influence of the Covid-19 outbreak on the Indian IT sector in terms of employee productivity. It is observed that work-life balance has been affected heavily due to the outbreak of pandemics and forced switching to a work-from-home module. Therefore, one of the purposes of this research is to find the impact of disruption of work-life balance due to the imposition of a work-from-home module during the Covid-19 era. the majority of employees in the Indian market were previously not used to remote-working and had undergone severe difficulties to cope with this new style of working. Hence, another purpose of this vast research is to detect the issues that cause too much pain to the employees during their initial days of remote working. However, it is also important to determine the strategies taken by the survivors for maintaining work and life simultaneously. It is observed that many people applied many strategies for obtaining balance between work and life during the early days of remote working. Therefore, identification of these strategies and checking their effectiveness are also a part of the purposes of this research.

Another purpose of this study is to find and ensure an ideal working environment that will bring about maximum performance from the employees. It is measured that flexible working conditions have gained vast popularity among the global youths, especially those who work in the IT sector. Simultaneously, remote working has gained popularity over time and the young generation is more comfortable with remote working than the conventional style. Hence, it becomes a part of this study to find which types of the working environment are highly beneficial for stimulating the productivity and performance of an employee. Additionally, while talking about the Indian IT industry from different angles, it is essential to dissect the performance of previous years of this very sector. So, a new purpose for evaluating Indian IT companies has been attached to the overall purpose of this research.

It is found that TCS, Infosys, etc. have adjusted to the remote working in comparatively fewer days as these companies were in slightly advanced stages in incorporating flexible working compared to other companies of India. Therefore, they were able to find working solutions for establishing an effective work-from-home strategy for their employees within very few days of the nationwide lockdown in 2020. As a result, their financial performance and revenue generation has faced a slight halt in 2020 while most of the companies in different sectors have suffered huge financial loss back in 2020 ('IT sector remains least impacted during COVID: Report', 2020). However, a few challenges were observed at both personal and organisational levels that brought down productivity and performance during remote working. Therefore, another purpose of this research is to identify those challenges and recommend strategies to overcome those challenges. It will help future readers to develop rectification solutions for implementing a work-from-home module with the highest effectiveness.

1.4 Significance of the Study

The significance of this research is so broad that it can be divided into two distinct categories called a) academic significance, and b) practical significance. However, a combined form of these two significances helps to develop the findings at the end of this research paper. Both the segments are elaborated separately below-

1.5 Academic significance

The academic significance of this particular research is huge and multidimensional. As mentioned earlier, this study has tried to interlink employees' productivity and the Covid-19 pandemic situation in light of the Indian IT sector. Many scientists have demonstrated that productivity is essential for performance as both are interrelated. It is observed that productivity

influences performances both at organisational and personal levels. Productivity mainly refers to innovation and high-output performance of either the employee or the organisation, which facilitates monetary profit and professional success (Farooq and Sultana, 2021). The greatest academic significance of this paper is that it contains a detailed analysis of employee productivity and employee satisfaction in light of the Covid-19 situation. Moreover, this paper has discussed several aspects of work-life balance to provide enough information about the standpoint of the Indian IT sector concerning maintaining a balance between work and life.

It is observed that maintaining a good balance between these two counterparts is essential for optimum productivity, in turn, optimum performance at both levels. Flexibility in work is a vital factor, at least for millennial and generation Y people, as they prefer freedom and job flexibility to anything. Their concept of job satisfaction highly depends on flexibility in job timings and they prefer freedom in their work. However, there are no such research articles, which have covered multiple angles of the work-life cycle, particularly in the Indian IT context. Therefore, this research is going to be a unique one that has covered the current position of this sector in terms of the work-life cycle along with its implication benefits and limitations.

It has been identified from 34 research articles about various negative impacts of failure in work-life balance. Physical and mental illnesses are very likely to be caught by the employee due to the accumulation of excessive stress and mental agony (Palumbo, 2020) (Chana, Ibrahim and Abdulhamid, 2022). It is observed that the rate of failure in balancing work and life is comparatively higher in the IT sector throughout the world. The scene is not different in India where a large number of people work on various IT farms. It is observed during research that Indian IT farms believe that maintaining a balance between work and life is essential for prolonged service in this sector. However, in reality, they are far behind in setting up a work culture where optimum balance can be maintained between these two factors. Therefore, the academic importance of this research paper increases as it contains accurate information about the Indian IT sector and its practices regarding taking care of employees' physical and mental health.

Moreover, there is very little 76 research articles that has yet covered how the Covid-19 pandemic situation has forced the Indian IT industry to switch to remote working by adopting the work-from-home model. On the other hand, this research has covered elaborately the mechanism adopted by several Indian IT organizations for implementing remote working. It is found that several Indian IT farms were forced to switch to the work-from-home mode due to the sudden imposition of a nationwide lockdown in 2020. Most of these big houses provided laptops and internet expenses to their employees to encourage them in remote working. Hence,

the academic value of this paper increases as it continues to provide information about the exact mechanism in detail of incorporating remote working during the pandemic situation.

1.6 Practical significance

There are a few real-life significances of this study including at the managerial level and policy-making level. Therefore, this research could be vital for the future students of management who need to manage the Indian IT sector with their managerial skills. The most important thing that comes out of this research is the correlation between job satisfaction, productivity, and performance. This particular research has elaborated several challenging factors for implementing the work-from-home model in the IT sector. It is observed that though the Indian IT sector is in quite a good position, it still has no answer for some challenges that create obstacles in the path of remote working. Digital infrastructure and Cybersecurity-these two are two major recent challenges that employees have faced during remote working for Covid-19 outbreak. In addition, communication and supervision are some intermediate issues that cause too many obstacles in the implementation of a suitable work-from-home model (Ten simple rules to improve academic work–life balance | PLOS Computational Biology, 2021). This research is going to provide a lot of information to them about the obstacles and the ways to overcome those issues. Therefore, future managers should be aware of these challenges and their impacts on the Indian IT sector, which has been covered here in detail, to construct an optimum working model for remote working.

Another important area for management students is policy-making, which needs to be accurate in all terms. This research has also covered the impact of sudden lockdown on the employees of the IT sector in India. The research has dedicatedly revealed the consequences of the loss of a job and its impact on the lives of poor people, working-class people, and migrant labourers. It is found that a significant number of people have lost their job in the Indian IT sector, among them; most are physical workers. However, some people who failed to cope with remote work were forced to leave this sector because of their inefficiency. This particular research has shown several government schemes and their impacts on the lives and livelihood of common people so that future policy-makers can understand their role in beneficiary duties. Hence, the practical significance of this research increases many times, as it will act as a manual for policy-making for future management students

1.7 Research Purpose and Questions

1.7.1 Specific Aim

The aim of this research is to analyse the impact of productivity of employees of Indian IT sector due to the COVID-19 outbreak and discuss strategies for recovering from the challenges.

1.7.2 Research Questions

1. What is the impact of COVID-19 outbreak on employee's productivity in Indian IT sector?
2. What are strategies taken for overcoming challenges of pandemic outbreak for enhancing employee productivity in Indian IT sector?

1.7.3 Other purpose and main issues the research addresses

COVID-19 pandemic has become a major disruptor for people and organisations across the world. This research paper is mainly focused on some implications that have been observed within Indian IT sector comparing with other countries, in terms of employee's productivity level (The Impact of COVID-19 on IT Services Industry - Expected Transformations - PMC, 2020). Responses that, several organisations have pursued to maintain their workforce such as engaging WFH practices into their operation and the way employees has reacted to this new and sudden transformation within their working environment. This research paper mainly demonstrates the challenges that employees might face due to lack of infrastructure at their home. It has been observed from the main issue of this report that, most of the IT firms in India have failed to provide their employees with best infrastructure. These facilities could help them to avoid any disruption, while working remotely such as a desktop or a laptop, string internet connection, devices to connect desktop with intent connection and proper training to make those employees capable of handling these kinds of technical aspects. This research paper will focus on the fact and gather detailed information, where employees have faced difficulties due low power supply, as organisations could not provide them power backup sources. The most important purpose for conducting this research is to understand the importance of work environment in the overall productivity and performance of an employee. This research paper will find out, whether employees feel comfortable to work at their home environment or they feel more comfortable in working at office premises. The research paper will focus on theoretical perspectives that can be linked with employee's attitude and behaviour, while working from homes, which is directly associated to their overall performance and their level of productivity. Several aspects will come out as a main purpose of this research paper such as finding out the reason behind the burnout or loss of productivity of remote workers in Indian IT sector. As per the research issue, it has been found that, mixed reaction has been found in terms of Employee's productivity after the surge of COVID-19 pandemic.

The detailed discussion in this matter with proper example is the focus of this paper. This means finding out both positive as well as negative aspects of COVID-19 pandemic on employee's productivity. Another purpose of this research paper will focus on, how employee's well-being through health and safety measures during COVID-19 pandemic can affect their Productivity significantly.

CHAPTER II:

REVIEW OF LITERATURE

2.1 Theoretical Framework

A literature review is a brief, argumentative description of the existing knowledge related to the research topic. The literature review of this particular research has primarily covered the impacts of the pandemic situation on the economy of India while focusing on the Indian IT sector. In addition, a critical evaluation of fluctuating productivity at both personal and organisational levels has been done while emphasizing failure in maintaining a balance between work and life and its consequences. Moreover, the initiatives of the Indian government to ease the pain of the poor workers and their impacts on economic stability have been discussed in this segment.

2.1.1 Contingency management theory

This particular theory states that sociological, technical, and economical considerations play a vital part in the development of a budget/management plan. This particular theory is widely used in management accounting where environmental factors such as competition, accounting standards, and socio-political interferences are counted before making any decision. The fundamental assumption of this particular theory is that “all management is essentially situational in nature”. Therefore, depending upon the external and internal factors, the decisions taken by the managers vary from time to time. It is assumed in this theory that every time situations are different and managers need to check the situations rather than the previous records before any decision-making activities. In addition, this theory is also useful in understanding several social factors like changes in the business climate to improve the survival chance of an organisation. The greatest advantage of this theory is that it gives a realistic insight into any organisation/ or governmental policy against the change in the situation. Hence, the managers mainly use it during any financial crisis period to check whether their current strategies/policies are fit enough (Maletič, Maletič and Gomišček, 2018).

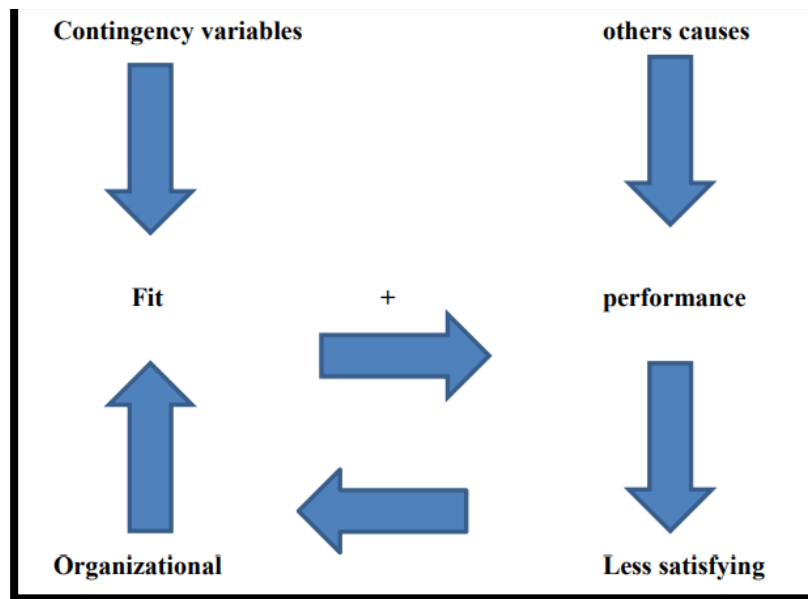


Figure 2.1. Schematic diagram of organisational fit model

(Source: Abba, Yahaya and Suleiman, ISSN, 4(5), 2018).

Covid-19 has brought about massive changes in the business environment, even in the Indian IT sector. Therefore, it becomes necessary for the existing IT organisations in the Indian market to check whether they can cope with change management. Change management analysis with the help of contingency management theory helps the organisations to evaluate how fit they are in the changing business culture and how well they can fit into the new environment. Therefore, this particular theory is going to be helpful for the Indian IT firms to check their standpoints after the Covid-19 pandemic.

2.1.2 Public Finance Management (PMF) Model

The term “Public Finance Management (PMF)” is related to the management of finance of all the “public-sector entities” including sovereign governments and government agencies. It includes the enhancement of financial resources through borrowing and taxation and proper utilization of those financial resources for public welfare. Every PMF aims to aid in the well-being of the public by spending government resources in such a way that is interlinked with the people’s lives (Sustainability | Free Full-Text | Protected Users: A Moodle Plugin To Improve Confidentiality and Privacy Support through User Aliases, 2020). However, management of governmental liabilities, as well as governmental assets, are parts of a common PMF plan. There are several micro domains where individual PMF models are used, especially for auditing, budget preparation, and promoting financial control over markets (Pradhan Mantri Garib Kalyan Package (PMGKP)| National Portal of India, 2021).The goals of a proper PMF model can be divided

into four different dimensions including- “*Fiscal management*”, “*Operational management*”, “*Fiduciary risk management*” and “*Governance*”.

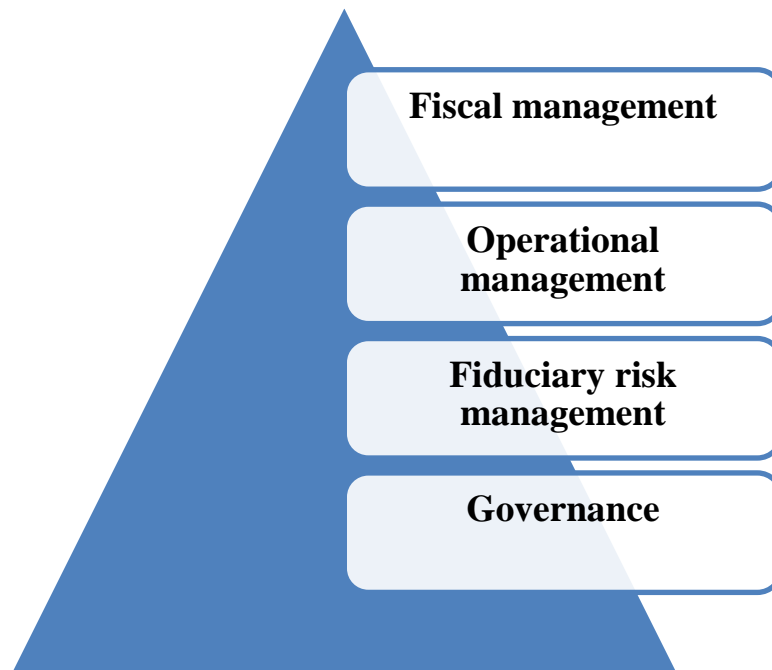


Figure 2.2. Major goals of a common PMF model

(Source: Self-created)

It is observed that governments and their agencies allocate financial resources based on agendas. According to (Della Porta, 2020), governments usually pick up some issues like poverty, unemployment, and disaster management and formulate a monetary fund for dealing with these issues. Similarly, many countries have developed specific PMF models for dealing with migrant worker issues by allocating sufficient amounts of money for them. One such example is the “Pradhan Mantri Garib Kalyan Package” where the Indian government has allocated 68,820 crores for approximately 42 crores people in India, who belongs to informal sectors and has lost their jobs due to sudden lockdown (Andrade, 2021).

2.1.3 The impact of Covid-19 on the migrant labourers in India and the decrease in migrant labour number for a prolonged period

It was reported that International Labour organization (ILO) has estimated that approximately 25 million working-class people have been affected by the pandemic situation while the “United Nations Development Program (UNDP)” has predicted a loss of USD 220 billion for the third-world countries. The picture was very similar in India where the central government had asked 1.3 billion migrant labourers to remain stationary at their working places for an indefinite period. The Government of India had decided to call off national lockdown

suddenly from the 24th of March to the 31st of March of 2020 when a few people in India were reported to carry Corona virus in their bodies. The sudden announcement of the lockdown causes turbulence in the lives of migrant workers working in different parts of the country. It needs to note that 90% of the migrant workers are informal workers who have made India a country with a US\$2.9 trillion economy. A huge number of migrant workers were forced to return to their native state by walking miles and miles after the lockdown was imposed nationally in March 2020 (Union Government has taken unprecedented measures for labour welfare and employment generation across India during Covid-19 pandemic : Shri Gangwar, 2021). It was observed that migrant workers got very less hours for returning to their native places as the central government circulated the declaration of national lockdown on the evening of 23rd March 2020. While the central government was asking for maintaining social distancing for avoiding the transmission of the virus, numerous migrant workers gathered at the different railway stations, public bus terminals, and state borders. Very few of these people managed to return home on their first attempts and the rest of them were forced to remain at government shelters for a brief period. As demanded by (Priya et al., 2021), these migrant workers are responsible for the spread of Corona virus in every part of the country. It is believed that they carried the virus to their native places (villages and small towns) and that is why a rapid spread of infection was recorded during the first wave of Corona virus. However, these migrant workers had to travel on their own to their birthplaces and a huge number of them have died in attempting. It is observed that the overall employment rate in India has gone down multiple times from 2020 whenever the cases of Covid-19 increased from time to time.

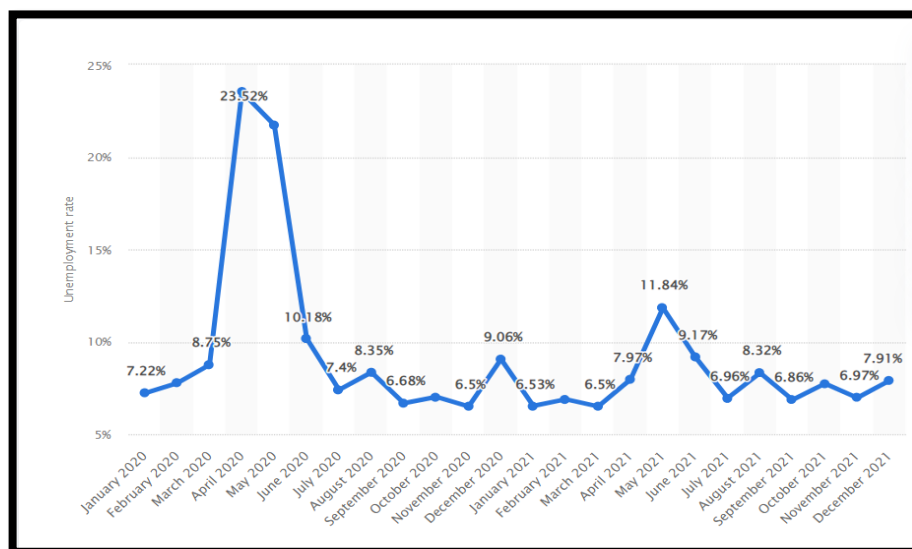


Figure 2.3. Impact of Covid-19 on unemployment rate in India

(Source: Statista, 2022, p.1)

Impact on unemployment rate due to the coronavirus (COVID-19) lockdown in India from January 2020 to December 2021.

Apart from the death during “the great migration” to their birthplaces, some of them have faced several social obstacles in their towns where village-dwellers restricted the returning of migrant workers on suspicion of infection. However, the real bad luck for the migrant labourers started after the first wave of the pandemic washes away. The report published by the Center for Monitoring Indian Economy (CMIE) in the third quarter of 2020 has pointed out that the unemployment rate of migrant labourers has increased up to 26% from April-June in 2020. In addition, another report of the organisation stated that compared to the 7.39 percent unemployment rate in May 2019, a massive score of 23.98 was recorded in May 2020. This complete chaos situation has arisen due to the nationwide imposition of complete lockdown resulting in cease of every type of activity.

Moreover, as the day passes by, it becomes evident that migrant workers or daily-wagers cannot survive the situation while remaining in their homes for too long. According to (COVID-19 pandemic! It’s impact on people, economy, and environment - Debata - 2020 - Journal of Public Affairs - Wiley Online Library, 2020), most of them have very limited savings, which are not sufficient for survival for long. However, these workers felt unsafe returning to their previous workplaces due to the rapid increase in death toll across the country. In addition, the Indian government had asked all the state governments to make plans for these migrant workers and allot them some kinds of work so that they do not need to go back to their places. The central government has advised different state governments of India to include these migrant workers in different workings under the scheme of MGNAREGA, so that they can earn around 180-220 rupees per day depending upon the state. Therefore, a large number of them choose to remain in their native places for working on such government-aided projects until everything becomes normal again. As a result, a huge shortage of labour was recorded in the country between 2020 to 2021.

2.2 Theory of Reasoned Action

2.2.1 Importance of Work-life Balance

Work-life balance has become a significant issue affecting the physical as well as mental health of the organisational employees as organisations are trying to recover the losses through making their employees work overtime. This is having a significant negative impact on their work-life balance and eventually causing them to develop huge dissatisfaction. This can also

enhance the chances of facing significant issues in performing the organisational duties. This also enhances the risks associated with employees' burnout, increased stress and so on. As suggested by (Ataa Fordjour, Chan and Fordjour, 2020), failure in maintaining a work-life balance could be detrimental to the physical and mental health of the employee. It is observed that failure results in continuous depression and very poor job satisfaction. As these things increase over time, the employee becomes very susceptible to cardiovascular diseases. There are some general symptoms such as the heavy chest, palpitation, and some employees, who have failed in maintaining the balance between work and life, manifest trouble breathing that. In addition, these employees exhibit several mental issues including depression and anxiety along with sudden anger outbursts because of failure in maintaining the work and life simultaneously (Chaudhuri, Arora and Roy, 2020).

This can eventually reduce the productivity of the organisations. "Work-life balance" is considered as a crucial part of employee's overall health and the health of their workplace environment. As per reports, it can be stated that, corona virus has shown several effects on employees within an organisation, in terms of maintaining work-life balance between their professional area and personal area. Emerging trend of remote working mode, because of the surge of COVID-19 pandemic are the main reason behind the issues related to work-life balance (Mann and Chitranshi, 2021). Due to the new mode of work, employees most of the time do not get any time for spending with their family members. Before the COVID-19 pandemic, nobody has thought of focusing on maintaining their future as well as work-life balance.

Moreover, before the pandemic they have several doubts and questions regarding their future aspects and their work-life balance. However, after the huge surge of COVID-19 pandemic, all get alert regarding their future life and they understood that, in case they do not plan about their future life as well as family, then it would create a major crisis for them. Employees of organisation have understood the huge importance of work-life balance after this pandemic.

Many companies across the world have adopted the overall practice of work from home to continue their business process during the lockdown and after the lockdown as well. However, not all the organisations have adopted the techniques to engage work from home practice and this has become a major issue for some of the employees that have affected them financially. Employees of organisations, which have not adopted work from home practices, has faced a severe crisis related to lack of money, and many other social factors. This type of several challenges has been faced by employees of several organisations of India, within various fields, especially in the information and technology sector during COVID-19 pandemic. This

has been a major reason behind their “emotional exhaustion” to deal with this “emotional exhaustion” is one of the most crucial challenges for them, while managing their productivity, during remote work and maintain their overall work-life balance (India: lack of proper IT hardware while WFH due to COVID-19 by work experience 2020, 2020).

Work interference within the personal life is a major issue for managing work-life balance, when an employee does “work-from-home”. As a result, an employee has to face in interference of both their personal and professional life on each other during the COVID-19 pandemic. Moreover, it has been mentioned earlier that, proper work environment is a major factor that can act as a booster to the employees to generate best of their efficiency within the work. However, it can be observed that, the environment of a home is not suitable for work in most of the cases, which affects their entire productivity.

The term “productivity” can be defined easily by the outputs returned by the employees to the organisation. In a mathematical sense, it is expressed as “output per unit of input”. the common input factors necessary to calculate productivities are capital and labour (at the organisational level) and effort, honesty, and innovation (at an individual level). Similarly, the output factors for calculating productivity are monetary profit and business inventories (at both levels). It is observed that if both employee and management give their best effort for the organisation then organisational productivity, in return organisational performance increases multiple folds.

The factor “employee well-being” has great importance on employee productivity or performance. It is observed that mental stability and well-beings are very important for attaining an innovative state of mind, which can lead to optimum productive outcomes. However, it is observed that failure to reach that particular state of mind, either at the workplace or at the house, can decline the productiveness of an employee. In this particular aspect, a few factors need to be elaborated on that govern the attainment of the highest productive state of mind. It is measured that engagement of the employee is reciprocally related to the organisational productivity and vice versa. The skill, knowledge, and consciousness of an employee are nothing but an asset for an organisation as these things determine the level of the productiveness of an individual. Therefore, it can be assumed that employee retention rate is highly dependent on job satisfaction which is, in turn, related to productivity and performance. Indian IT sector is a booming industry that gives comparatively higher importance to the well-being of the employee to get optimum performance.

Moreover, job satisfaction plays a crucial role in attaining the highest level of employee performance. the managers to calculate the degree of job satisfaction and this index contains

five important factors including- Work pressure, Pay scale, Promotion, Relation with co-workers, and Degree of supervision, have used “Job Description Index (JDI).

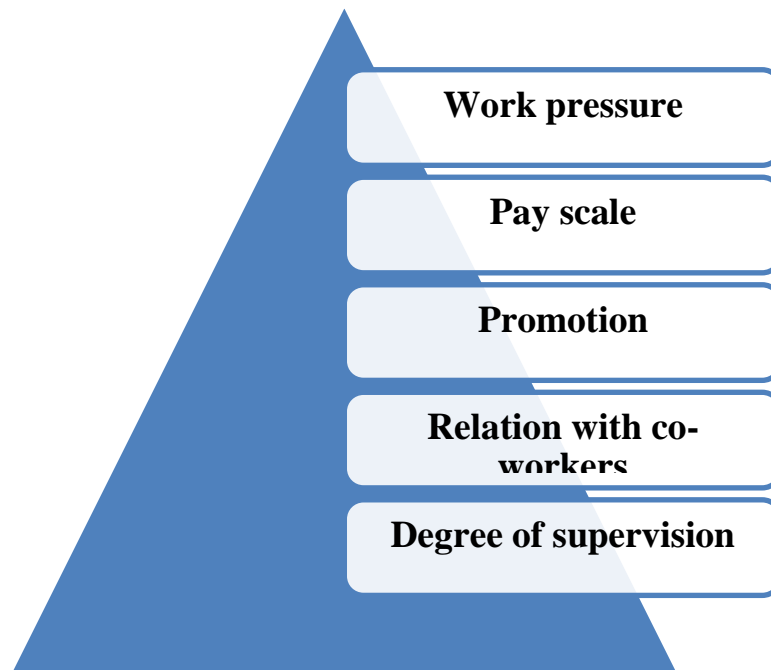


Figure 2.4. Five components of JDI

(Source: Self-created)

Additionally, employee motivation is a vital factor that governs the success of an individual at any particular work. The researchers also suggested that motivation comes from job satisfaction, which in return, influences productivity and performance at an individual level. Greater motivation and satisfaction toward a particular job is found to be associated with an increase in employee’s productivity. Therefore, determination of degree of job satisfaction becomes important for management leaders to calculate productivity of an employee. It is found that several internal factors including relationships among co-workers and top-level seniors are important for determining degree of job satisfaction. The positive or negative impacts of these determining factors govern the degree of job satisfaction of an employee and play a vital role in individual productivity and organisational performance.

Moreover, it has been found that, due to surge of the pandemic, for a long period all the companies within India and other countries of the world were closed. As a result, after the pandemic, when companies have started and used work from home facility for their employees, it is important to generate good work to generate better service to the customers. However, if employees cannot maintain work-life balance, they suffer from mental instability and could not generate a good performance as a whole.

In terms of India, IT sector plays a major role within the overall economy of this country. The overall work-life balance of an IT employee plays an effective role for performing within their respective workplace. Most of the IT organisations in India have accepted the fact that, work-life balance of their employees is a key aspect, which can decrease the attrition rate. In case, Employees within an IT sector or any other sector are failed to maintain their work-life balance is tied with their professional commitment and they often neglect or forced to neglect the time, they must spend with their family to avoid any kind of mental stress. The work-life of IT employees got disturbed significantly due to the COVID-19 pandemic. However, this article has suggested some different prospect and outcome of work from home than the previous one, in terms of maintaining work-life balance. The article has stated that, after the announcement of government regarding the lockdown, many multinational IT companies within India has declared work from home facilities for their employees, which allowed them to spend more time with their family and devote more attention to their friends, apart from their work. According to research, it has been found that employee-productivity within organisations is currently at the infancy stage especially after Covid-19.

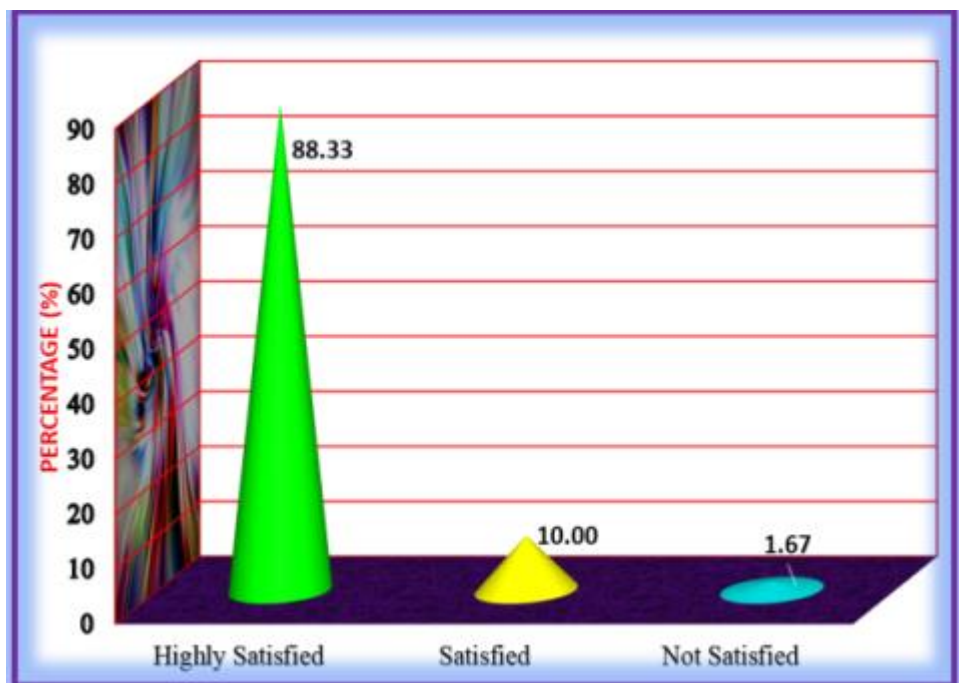


Figure 2.5 Number of IT workers working from homes

(Source: International Journal of Recent Advances in Multidisciplinary Topics', 2022, 3(4), p. 46-49.)

As there is a significant decline in number of cases of complications related to Covid-19, the government of India has focused on recovering the economy and for this, the organisations have also aimed at implementing new-normal approaches for providing employees with the opportunities to work from their homes to ensure reduction in spread of the contagious Corona Virus. The IT organisations immediately considered moving their employees to remote working and this sometimes had a significant negative impact on the employees' mindset as they had to start working in a new environment. Their coping-mechanism has changed significantly. Further, the organisations also started imposing immense pressure on the employees by making them work in two shifts continuously by taking the advantage of work-from home system. This is having a considerable negative impact on the ways of working and on the employees' ability to perform effectively due to huge pressure on them. They have also faced the problems associated with changes in their job responsibilities and sometimes, they were overburdened with maximum responsibilities for triggering organisational work processes.

Further, employees also agreed to pay in different shifts for their fear associated with their attrition in cases of non-compliance with the new strategies and policies of the organisations. This caused them to work under pressure, which hampered their work-life balance to a significant extent. Thus, it can be said that work-from home opportunities during Covid-19 have not only ensured good health of the employees by mitigating threat regarding spread of Covid-19; however, it has also enhanced stress of the employees by affecting their work-life balance.

2.2.2. Strategies to maintain Work-life balance within Organisations

Proper strategies can be involved within organisations to maintain work-life balance of employees. Through proper management of work-from schedules, the organisations can enhance their employees' productivity by reducing the negative impact on employees' health and this can also ensure development of immense trust within the employees of the organisations. This can have a positive influence on enhancing their productivity. The organisation can retain work life balance of their employees through an effective HRM practice. It can be stated that, the strategies for managing work-life balance of an employee's needs to be aligned with the organisation's overall HRM practices such as training, job design, and intergroup communication and potential relation (Al-Aali and Ahmed, 2021). Work-life balance of an employee depends on flexible work arrangements, several health and well-being program and organisational understandings, which can be deployed for a better productivity.

There are many strategies used by the employees to maintain the work and life simultaneously. The primary aim of these strategies is to make a subtle balance between life and work so that pressure is not developed on any of the sides. The two most suited employee-oriented strategies are- Time management and Prioritization. Time management is most important for every employee, especially for the people working in the IT sector, as they may not have a daily 9-to-5 job schedule. Shift rotation is very common in the IT industry; therefore, people need to work during different working hours, even at night. Therefore, the daily routine of the employees is hampered resulting in the rise of health issues. It is observed that employees working in the IT sector need to take care of their health more than any others for these reasons take care. Physical exercises as well as mental exercises including Yoga and meditation are found to be very good for their overall health. It is found that exercise is good because it keeps blood-circulation well in the body and helps in releasing feel-good hormones in the body. It ultimately helps the people to remain less stressed while the health condition develops over time if exercise is continued. Moreover, prioritization is a feeling that should be exercised by the employee who needs to know which work has more priority at the very moment. It is found that many employees fail to give enough priority to the liver due to several factors such as fear of losing their job and many more. As mentioned by (Gigauri, 2020), it gradually develops a helpless feeling in the employees and creates a sphere of unhappiness in them resulting in poor productivity. Therefore, it is very important to give enough priority to the heart while continuing to work in the professional line.

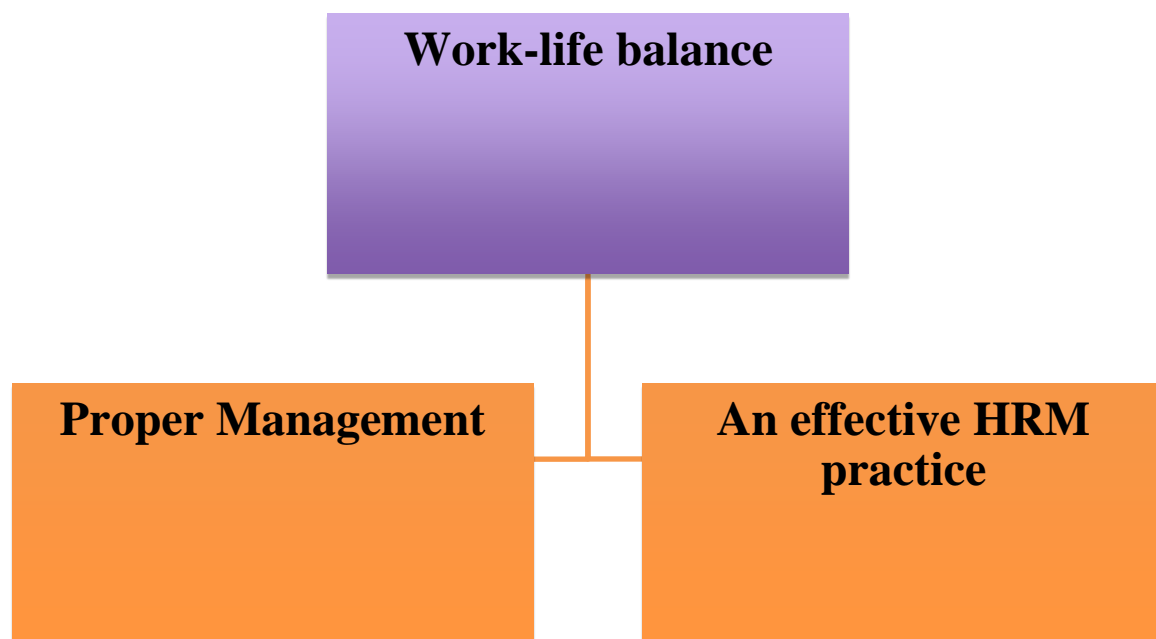


Figure 2.6 Strategies to maintain Work-life balance within Organisations

(Source: Self-developed)

2.3 Human Society Theory

Flexible working hours for ensuring proper working system and employee satisfaction

2.3.1 Flexible Working Arrangements

Covid-19 pandemic has enhanced anxiety amongst the employees of the organisations. Further, it has also enhanced the workers' interests in managing their families during this pandemic time while working effectively. Thus, it has created a change in the existing ways of working in the organisations. Thus, employers could consider providing the employees with the opportunities to work in different flexible shifts for making their employees feel comfortable with their work. This can also have a positive impact on the ways of working and therefore, management of the timelines and employee-stress becomes easier as compared to ever (Post COVID-19 Work Strategies and Implications: Insight on Indian IT Sector, 2021). IT Employees have also started developing an interest in working in flexible shifts for ensuring proper management of their work-life balance as well as enhancing their productivity. It is to be noted that, this can also have a significant positive influence on the ability of the employees to manage their stress in an effective manner while ensuring uninterrupted productivity. Employers' intentions to provide flexible working opportunities to their employees can build a positive brand image in the market.

This can also reduce employee fatigue by encouraging them to complete their personal works in addition to performing the organisational activities. Flexible working opportunities are associated closely with improved well-being of the employees, enhanced capability of attracting and retaining the employees, enhanced organisational productivity and so on. flexible working arrangement can provide employees with the adequate autonomy to choose the time of their working. This can have a noticeable positive impact on their performance of each activity in a desired way. Many organisations in IT industry of this country have considered providing their employees with flexible working opportunities that is likely to have a major positive impact on the employees' ability to work effectively for the organisations. In simple words, it provides the employees with the opportunities to select their login and log-out timings for each working day. This ensures effective work-life balance, efficient time-management and so on that can have a significant positive impact on increasing productivity of the workers.

Employees are facing increased depression during this pandemic and this is hampering their productivity in organisations to a huge extent ('Factors Affecting Work-Life Balance of Women in Bangladesh: A Study during COVID-19 Pandemic', 2021). Therefore, the organisations are required to focus on making the working environment attractive after the closure of work-from home system after implementation of the new-normal system followed by government's approach to recover the economy. For this, the organisations can continue to provide flexible working opportunities to their employees for ensuring their work-life balance after coming out of the distressful situation.

This can help the employers to make their employees develop a feeling of belongingness that can enhance their interests to work in an efficient manner. Thus, their productivity could be increased rapidly causing the profit margin of the organisation to go up. It is essential to ensure that the organisations have adequate control over their employees working in flexible shifts as this can also enhance the risks of unorganised system that can further have a significant negative impact on the productivity and performance of the employees (Azizi et al., 2021). This will also encourage the employees to take responsibility of their work without facing significant issues in working in flexible shifts. Further, flexible working-hours can also enhance risks of facing an unorganised employee attendance system that can also enhance risks of lack of productivity in the organisations. Hence, proper monitoring systems are to be implemented for enhancing organisational productivity while maintaining the work-life balance of the employees in an efficient manner.

In this regard, the "Theory of Ecological System (TES)" could be explained for determining the symptomatic nature of life and work of the employees, Multiple characters of the employees and working environment have a significant negative impact on work-life experiences of the employees (Haider, Jabeen and Ahmad, 2018). The characteristics include increased ability to work under pressure, increased opportunities to manage personal life and many more that can have a positive impact on the experience of employees in relation to flexible working system (Human resource management and the COVID-19 crisis: implications, challenges, opportunities, and future organizational directions | Journal of Management & Organization | Cambridge Core, 2023). Thus, the employers need to be careful enough while determining the flexible working arrangements for the employees to ensure development of a positive working system for the employees to enhance their productivity while providing them with the chances to keep time aside for their families. It is a potential truth that, employees are one of the most effective stakeholders within a company, in terms of its formation and overall development of human as well as social capital. As a result, the main responsibility of the

company always relies on maintain the demand and requirements of their potential employees. Employees are considered as the key source of knowledge and support for the development and the implementation of the sustainable human resource management within this company. Two main characteristics of human resource management are employee development and combination of flexible work time and some new workspaces. It has been found that, organisations across the world are facing several challenges. In this situation, it can be observed that, flexible working arrangement within an organisation is a new term that is more precisely discussed (The impact of human resource management practices and career satisfaction on employee’s turnover intention » Growing Science, 2020). However, as per some studies, it has been found that, in many organisations, flexible work arrangements can be divided into 4 different parts such as “Flexitime”, “compressed workweek”, “telecommuting”, and “Part time Work”.



Figure 2.7. Relation among “flexible working arrangements”, “innovative behaviour of work” and “employee’s overall performance”

Source: (Wahyudi Rahman, Kistyanto and Surjanti, 2020). Flexible work arrangements in Covid-19 pandemic era, influence employee performance: the mediating role of innovative work behavior. *International Journal of Management, Innovation & Entrepreneurial Research*, 6(2), p. 10-22.

As per the above figure and the findings of the study, it can be suggested that, employee’s overall perception regarding flexible working arrangements within their respective organisation, do not significantly influence their overall performance (Wahyudi Rahman, Kistyanto and Surjanti, 2020). Rather, the concept of flexible working arrangements is positively related to their innovative behaviour of work and innovative behaviour of work is positively related to their employee’s overall performance. It has been found from a study, based on IT sectors of Bangalore in India that, most of the employees preferred to take flexible options, whether working from home or office. It has been identified that, the increase rate of remote working during the COVID-19 pandemic, has enabled organisations to move forward towards a new path of working. The companies were

encouraged to hire best talent from anywhere of this world, without concerning about work timing and space both. The organisations should take the responsibility to empower their potential employees to work remotely, according to their convenient timing and flexible working hours (Organizational Climate, Opportunities, Challenges and Psychological Wellbeing of the Remote Working Employees during COVID-19 Pandemic: A General Linear Model Approach with Reference to Information Technology Industry in Hyderabad by Prasad, Mangipudi, Vaidya, Muralidhar :: SSRN, 2020).

The Flexible working arrangement within an organisation has a major effect on employee's psychological and physical well-being. Flexible working hours is considered as a major opportunity for men and women, which they get during working from home. Companies need to give employees some psychological supports, as they spent most of times of their lives in workplace, thus, it is necessary for a person to be happy within their work environment. Psychological health of the employees affects their overall productivity as well. Working life should be gratifying for a person to be able to highlight and utilise all of his or her efficiency within a specific field. It has been found that, work from home has played a major role in a person's overall job satisfaction.

2.3.2 Reliability of 9-5 Jobs in New Generation of Talent

As per report, after the surge of COVID-19 pandemic, the concept of 9-5 job has become somewhat outdated and an organisation cannot pullout new talents by this traditional working hour system. Even before the pandemic, during 2018, global talent trends study has discovered that, almost 51% of employees within a workplace seek to have a more flexible working hour. After the outbreak of COVID-19 pandemic, the demand for flexible working hours has increased drastically across the world, including India (H D and Lakhawat, 2021). Regardless of the industry, flexibility within work and working hours is the most effective area within an organisation for improving their overall performance, that lead to positive effect on their productivity as well. After the surge of COVID-19 pandemic, it has been found that; flexible schedule can encourage employees to maintain their work-life balance in an easier way than ever.

Millennial usually prefer job flexibility rather than the pay structure as it gives them more freedom in their ways. It is observed that 45% of them have this particular tendency, especially those who are working in the IT sector. Another shocking data reveals that around 60% of the current young generation leave their workplaces, which have already cost a loss of approximately \$15,000 to \$25,000 for these companies (Laker, 2021). Meanwhile, it is found

that the surge of freelancing and self-employment is rising rapidly among these Millennial as it gives them more freedom in their work.

Globally, many reputed companies are switching to permanent work-from-home mode as they need young generations in their workforce and the young generation is maximally interested in remote working. An example of a company called Lionbridge is given here where around 10,00 employees of the organisation had made protested their demand for flexible labour. The company has around 53% millennial employees among its total workforce and the loss of this 53% can bring the company down the road (Laker, 2021). Therefore, the company has no other option than to accept the permanent work from the home scheme for their entire workforce.

It is therefore very clear that young people have different psychology from conventional thoughts. Similarly, they prefer comfort and flexibility above anything while putting their best effort into the job. Many scholars have claimed that flexibility and job comfort increase productivity, as a result, many global organisations are providing the same opportunities to their millennial employees.

2.3.3 Expectancy Theory in Engaging Flexible Workplace as measure of high performance

According to expectancy theory, it can be stated that, within an organisation, individual employees are more likely to be motivated to endeavour effort to perform for achieving a valued goal. This particular theory can assume that, people engaged within a flexible workplace or working arrangements can have more potential to exhibit high performance than any other else. This mainly occurs as, within this type of working arrangement they can avail more resources, can work as per their time and will also have plenty of time to done their task with utmost care as well as efficiency (Giovanis, 2018). Focusing on this theory is beneficial for employees to play their role both in workplace and family simultaneously. Some reports have suggested that, within an organisation employees can engage themselves in higher extra-role performance tasks, if flexible working hours under the category of overall flexible working arrangements are there.

2.3.4 Work-from home options for employees to ensure uninterrupted productivity

Covid-19 has created a significant distress amongst the employees all over the world for which a substantial number of companies have extended work-from home for their employees to help them cope with the situation. This can have a significant impact on the employees '

ways of working, as it will lead them to develop immense trust within their minds. In the Indian IT sector as well, a few organisations are still providing work-from home opportunities to motivate the employees to work effectively without facing significant issues in managing their stress or performing their duties properly. The government of India has finally decided to switch back to the conventional work from office mode, as the frequency of the Covid-19 infection is very low in India right now. The government has also decided to impose the earlier 6 days a week mode again as the frequency of the infection decreases over time. However, it is observed that work from the home model has been injected into the veins of Indian IT employees so deep that they demand a hybrid model of operations after the reopening of their offices. The November 2021 survey of NASSCOM has stated that around 70% of the IT companies are trying to develop a hybrid model where an employee can work from both the workplace and the home. In addition, the report also stated that 66% of these IT employees feel more enthusiastic about working from home duty as they feel more comfortable in their homes. For example, the incidence of WhiteHatjr can be given here where a mass resignation of employees was reported after the management has asked all their employees to come to the respective branch offices. However, As per the survey conducted some of the organisations have decided to make their employees come to the offices after the government has decided to lessen restrictions on offices and work.

The organisations across different sectors have extended work-from home for ensuring uninterrupted productivity of the employees working in these sectors. They have also found an average increase in the productivity of employees through this system. Further, people are still stressed about spread of the virus and still there are some cases of Covid-19 in India causing the workers to develop reluctance in reporting to their offices. However, the companies are making them attending their offices for increasing their productivity in the office environment, which might have been affected while working from their homes. This is having a significant negative impact on the employees 'mindset. This is likely to have a significant negative impact on the productivity of the organisations, as they will lack their interest in resuming their work from offices. Low-level of productivity of the employees can reduce organisational profitability that will further cause them to face a significant loss. Hence, there exists a discussion revolving around the importance of continuing work-from for keeping the productivity of the employees unaffected even after Covid-19. Indian IT companies have taken multiple steps to redesign their working culture to accommodate remote working subtly. As shown by (Can Employer Branding Hold? Case of Indian IT Industry During Covid-19 - ProQuest, 2021), some of the recognised Indian IT giants including TCS have developed a hybrid model, which permits both offline and

online working. It is found that TCS has developed a new model called 25/25, which states that by 2025 only 25% of total employees need to come to the office premises. It, therefore, enhances work from a home model of working by gradually developing all the employees so that they can continue their work from their respective houses. Similarly, ITC has allowed its employees who can select two particular days in a week when they can do their work on those stipulated days from their respective homes. Moreover, outsourcing sector giants like Wipro and Cognizant are thinking of permanently switching to work from the home mode for 45% of their employees who needs to come to the office only twice a month.

2.3.5 Effectiveness of WFH Practices

As per some of the reports, it can be observed that, the relevancy of work from home practice was debatable. A lot of debate was circulating within the society that mainly talks about the effectiveness of work from home culture and the extent to which an organisation can improve the process of its implantation within their activity. One of the important questions, that was associated with this concept was, how the work from home facility can affect the productivity of an employee, positively or negatively within an organisational structure(Gibbs, Mengel and Siemroth, 2021). During the initial stages of COVID-19, when companies adopted work from home, the result led to a scope for optimism. However, after some time, many organisations have started to question the overall sustainability of implementing extensive work from home facility within an organisation from any field, including IT.

As per the article findings, it can be stated that the overall prediction of success, in terms of work from home practices after the surge of COVID-19 based on some occupational descriptions, may be optimistic. However, as professionals engage themselves with several kinds of tasks; it can be difficult for them to ‘collaborate’, ‘communicate’, and ‘innovate’, while working from their home. It has been found that, apart from various positive aspects, work from home is an effective measure that creates a declining trend within the intangible assets of the company.

These intangible assets are valuable for employees and the company both. Moreover, switching to work from home option for the employees might be a major reason behind the declined coordination among employees and can increase the overall cost for developing an effective coordination in virtual mode. As per some of the findings, a comparison has been done, with the employees from IT sectors of India, between their behaviour towards work and working hours spent before and after the pandemic. It has been found that, employees have

increased their total hours worked after the pandemic and implementation of work from home practices within their company.

There are several advantages of this particular model depending on the situation. It is observed that remote workers feel more relaxed and focused on their respective jobs when they are not asked to come to the office physically. There is no doubt that better focus is synonymous with more productivity as the employees can put their hearts out for the job if they are highly focused on the job. Therefore, there is a high chance that organisational productivity gets increased if the employees feel free and relaxed in their jobs (Galanti *et al.*, 2021). In addition, remote working usually spares the loads of commuting to the office. In India, most people take public transportation for reaching their offices (mainly situated in the cities or towns) from their native places. A significant amount of time is required to reach the office via public transport, which usually causes physical strain for the employees. Nevertheless, it increases the total number of working hours for the employees. Usually, the employees become exhausted if continue to do so for a prolonged period. In these particular situations, working from home becomes a suitable relief for them to recover from the work-related stresses. Therefore, every company may design a blended model where employees can be permitted to work from their homes for some days in a week.

2.4 Summary

2.4.1 The conceptual framework of the new hybrid model for remote working

The work culture could be an essential enabler as well as a barrier based on situation and ways it is incorporated within the organisations. Work-from home could not be continued forever and therefore, employees need to report to their work and therefore, the employers should focus on evaluating the new work culture properly to make the employees feel comfortable in the working environment and reduce their lethargies.

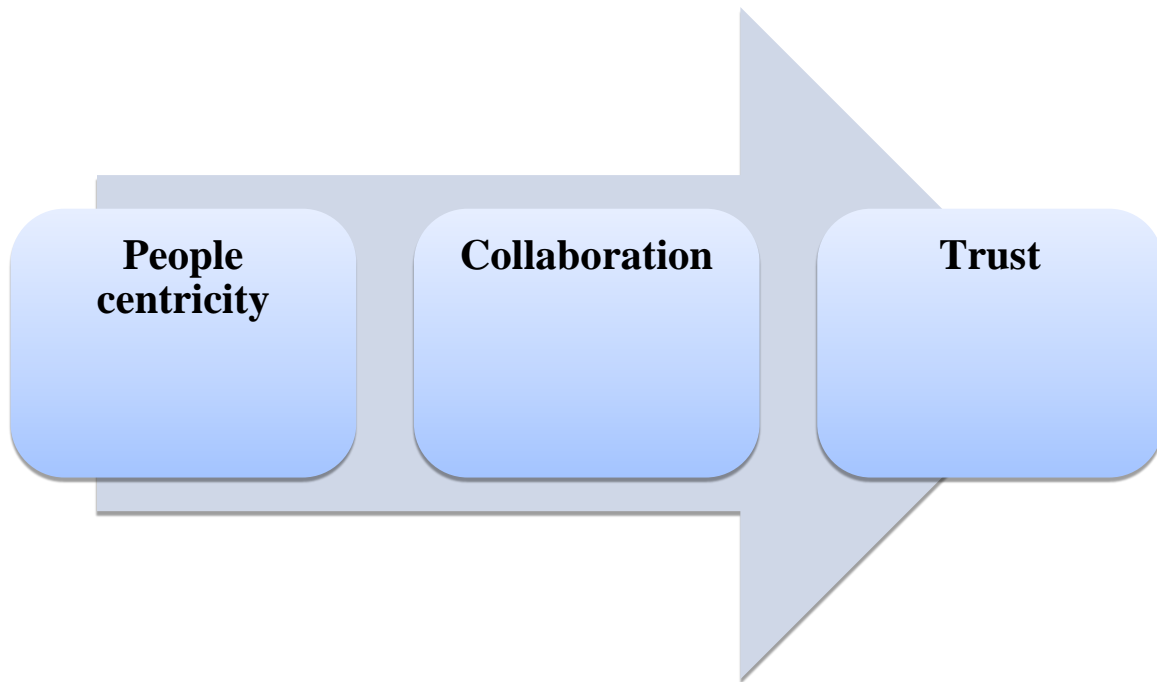


Figure 2.8. Elements to be integrated with culture

The culture should embrace a few elements such as innovation, integrity, collaboration, support, patience, people-centricity and trust. This can have a significant positive impact on reviving employees' support for working from offices instead of homes and thus, there will be an opportunity to enhance the employees' interests in working effectively. On the other hand, a competitive and process-oriented culture in the workplace can have a negative impact on the employees, as this will cause a decline in their trust. Thus, a transformation in the existing culture of the organisations is necessary for enhancing employees' interests towards working efficiently. For this, the organisations should consider providing the employees with adequate mental support by aligning their needs and interests with the organisational strategies and objectives of the organisations.

In this regard, transformational leaders can establish a new-normal organisational culture for reestablishment of the businesses in an effective manner (Gulvady, 2021). This new culture should embrace employees' personal needs and interests for enhancing their intentions to achieve the shared objectives of the organisations. However, some scholars and business analysts have claimed that prolonged remote working can be obstructive to team bonding, collaborative approach, and innovation. A few incidents have been reported across the world where employees have refused to work as a team when they finally come to the respective offices after the decrease in the pandemic situation. Managers have found that people who

continue work-from-home for a prolonged period of time exhibit stiffness towards their colleagues even after they know each other for a while.

This can have a positive impact on the organisational reputation and employees' performance. In most cases, employees used to take a long break while working from homes due to flexible working-patterns. Thus, a transformational leader will be capable of integrating the employees' interests of working in flexible shifts. This can continue to influence the employees for managing their work-life balance while achieving their daily work targets in a flexible manner. Thus, there will be enhanced opportunities for making the employees develop immense trust and belongingness, which will enhance their productivity significantly for enhancing organisational reputation as well as profitability. The employees will also feel the urge to work efficiently for the employee-centric organisation. Employees' well-being should be ensured through enhancement of the quality organisational environment and this could be possible through integration of employees' physical health along with psychological well-being of the employees with the organisational culture.

Reorientation of the extension priorities could be considered for enhancing employees' intentions to bring innovation for enhancing organisational core value (Chander and Rathod, 2020). The employees should be encouraged to work efficiently in the transformed working environment. Thus, the leader should have a clear insight into the needs and interests of the workers by communicating clearly with the employees through bringing structural change in the organisations. This will help the organisations to influence their employee's attitudes positively, which can in turn influence their productivity. Therefore, more research is needed to identify whether remote working truly decreases collaboration between colleagues or not.

2.4.2 Challenges regarding the implementation of work from home model

There are a few challenges that create obstacles for the companies to incorporate remote working permanently in the Indian IT sector. Many scholars have identified various challenges in the Indian IT industry, among which only the remote working-related issues are mentioned here.

Distraction challenges: The concept of remote working was not very popular in the Indian IT industry before the pandemic. The employees were used to the traditional working environment of the workplaces and could perform only in those workplaces where they are comfortable. However, Covid-19 has forced the IT companies to switch to the work from home mode, and employees were forced to work from their respective houses. It is observed that the employees experienced huge distractions in their houses and fails to perform at their level due

to these household distractions. However, as time passes by, most of them have become used to this new working style and currently, a large number of them are working remotely in this particular sector.

Supervision challenges: Every organisation usually has supervisors for keeping an eye on the performance of the employees, particularly the newcomers. Mainly they are called the team leaders or TLs who continuously monitor and evaluate the performance of the others to feed the management about the employee performance. remote working enables candidates to solve any problem with their efforts and it ultimately develops the characters of the employees. However, this does not apply to all as some of them fail to solve the challenge without external help. In the meantime, their wrong attempts cause financial losses to the company along with a slight disturbance in reputation. Therefore, working from home can be very risky for these employees as well as for the organisation because supervision is not so much continuous in this model compared to the traditional work-in-office model.

Communication challenges: It needs to note that effective communication from top to bottom of the organisational hierarchy tree is essential for maximum organisational productivity. Free-flowing communication is really necessary as it helps managers in decision-making and many more. However, during the conventional working style, maintaining effective communication is somehow easier. The onset of the work-from-home model of working has a distinct problem where people cannot interact directly with each other. Therefore, it becomes difficult for the junior employees to take quick help from the seniors. Similarly, managers are facing difficulty to get timely reports about employee performances from the team leaders. Ultimately, it becomes difficult for the executive managers to make a particular decision due to the lack of real-time response from the subordinates. In the IT sector of India, it is more prominent as digital infrastructure is not uniform across the country. Additionally, a lack of sufficient Internet connection plays an obstacle in effectively implementing remote working at every level.

Performance metrics challenge: The biggest challenge of remote working is to set a suitable performance metric. most companies measure the number of hours that an employee remained signed-in in a particular office portal. It is most unwisely to analyse an employee's performance depending on how much time he or she stays active in the official portal as the performance is not directly related to hours. In addition, it becomes very difficult to set appraisals based on the performance of the employee if the work-from-home mode is on. Similarly, employees become unhappy about how the company is measuring their hard work which may lead to a decrease in productivity and performance at both individual and

organisational levels. Hence, it is wiser to draft efficient performance metrics before switching to remote working.

2.4.3 Influence of Covid-19 and Indian government schemes to support working-class people

Several regulatory bodies have stated multiple times that Covid-19 has imparted a severe negative impact on the Indian economy, especially among the working-class people of India. The sudden surge of Covid patients across the country had forced the central government to declare a national lockdown in a hurry causing job loss for many common people. The report published by the Center for Monitoring Indian Economy (CMIE) in the third quarter of 2020 has pointed out that the unemployment rate of migrant labourers has increased up to 26% from April-June in 2020. In addition, the sudden announcement of a nationwide lockdown affects several sectors as these sectors were still not ready for digitalisation. However, such impact was negligible in the Indian IT sector, unlike the other sectors. Though the Indian IT sector suffers financial loss at the very beginning of the pandemic situation, it gradually tightens its grip on the situation and suffers minimum damage. It is found that this particular sector has shown a glimpse of recovery in sales of software and hardware from September 2020 while other Indian sectors were drowned in financial loss during that period.

IT-Hardware & Networking		
Month	M-O-M Growth %	Vs Pre-COVID
April	-47%	-55%
May	0%	-55%
June	37%	-38%
July	9%	-32%
August	-1%	-33%
September	63%	10%
October	-22%	-14%

(a)

IT-Software		
Month	M-O-M Growth %	Vs Pre-COVID
April	-42%	-49%
May	-18%	-58%
June	19%	-50%
July	0%	-50%
August	14%	-44%
September	20%	-33%
October	7%	-28%

(b)

Figure 2.9. Improvement in performance of Indian IT sector during Covid-19 era

(Source: Indian express, 2020) “PM Garib Kalyan Yojana”

On 26th March 2020, the finance minister of India declared the allocation of ₹1.7 lakh crores on the “PM Garib Kalyan Yojana scheme” for the people who have lost their jobs due to the imposition of lockdown in the country. “PM Garib Kalyan Yojana” is known as a supportive initiative by which the central government of India helps poor Indian people by transferring a nominal amount of money directly to their bank accounts. However, during the pandemic situation, the central government amplified the stronghold of this particular scheme. According to (Agrawal *et al.*, 2020), this initiative was very essential for the poor working-class people who suddenly lost their jobs due to the pandemic and had no serious savings to continue for a prolonged period. Apart from the monetary help, the Indian government provides free food aid (rice/wheat and pulses) to these troubled people and other ration consumers. In June 2021, the Indian government has extended the insurance scheme under this initiative for the health workers from doctors to ASHA workers and it costs around 90,000 crores INR for the extension.

However, the Indian government soon realised that financial aid cannot be enough for these poor working-class people who mainly reside in villages and small towns and work in megacities. As a result, the Indian government launched “Garib Kalyan Rojgar Abhiyaan” on 20th June 2020 which emphasises providing uninterrupted work to the workers to have returned to their native places for the upcoming 125 days. It is observed that the idea of the Indian government behind this particular scheme was to restrict these workers in their native places so that they do not move and transmit infection from place to place. It is estimated that

approximately 65 lakh poor people who have just lost their job and are forced to return to their birthplaces get earning opportunities in different ongoing projects under the supervision of respective panchayats. The central government has allocated around 50000 crores for this particular scheme and enlisted 14 national programs under this very scheme for accommodating 65 lakh people (Balamurugan, 2021). Moreover, the central government for the Indian IT industry made several announcements during the pandemic era that encouraged this sector to flourish despite the overall financial crash. It is found that the Indian government has taken serious initiatives to take care of those people via multiple schemes who have suddenly lost their work for the spread of Coronavirus in India.

2.4.4 Online infrastructure development and E-readiness of Indian IT companies to support employees during the Covid-19 pandemic

Indian IT industry is rapidly blooming throughout the past few years and many new investors are investing their money in this sector. It is observed that the Indian IT sector is accounted for 8% GDP of the country in 2020. The total valuation of the Indian IT industry is approximately US\$ 200-250 billion which helps it to secure the 46th rank on the global IT list (Information Technology India, Top IT Companies in India - IBEF, 2022). Therefore, it is expected that the Indian IT sector was in a better position, unlike the other Indian sectors, to adopt E-readiness in their operations. However, infrastructure development was still a question that cannot be answered by industry before the onset of Covid-19. This segment is going to take examples from top Indian IT industries to analyse their operational and strategical methods in dealing with the sudden spread of pandemic situations across the country.

Tata Consultancy Service (TCS) is India's one of the biggest IT farms that took instant steps in March 2020 to facilitate remote working in their branches. TCS took the help of "Secure Borderless Workspaces (SBWS™)", which is a remote working module developed by the company itself, to develop the necessary infrastructure for their employees to continue their work from their respective houses. According to the company website, TCS took only 3 days to implement SBWS™ in their operations so that employees can switch to work-from-home mode very fast. In addition, TCS provided laptops to their employees, who do not have their personal systems, so that the employees do not require to buy computers instantly. This is a very heart-touching and smart decision taken by the company as this kind of assistance during hard situations defines the true valuation of the employees in the eyes of the organisation. As a result, the company did not suffer a huge financial loss in the second quarter of 2020 unlike many reputed brands in other sectors.

Another Indian IT giant Infosys faced similar kinds of difficulties after the sudden declaration of lockdown by the Indian government. Infosys is well-known for its data security and exceptional computation skills which are regulated through its branch offices. Many employees were given laptops for temporary uses along with the Internet expenses to carry out their functions. Initially, the company helped its employees to install necessary systems at their respective houses. However, the biggest challenge that arises for the company is the Cybersecurity concerns, as the employees did not have enough Cybersecurity solutions at their houses, unlike the physical offices of Infosys. As a result, Infosys developed a cloud-monitoring platform within 3 weeks to check and prevent cyber-attacks on the systems of their employees. In addition, Infosys developed terminal access, VPN, multi-factor authentication, and an “endpoint protection control” system for their employees to work safely with the sophisticated data at their houses.

A report published by Delloite in 2021 has suggested that Indian IT companies are much ready to switch to the online mode as they were in an advanced stage of technology compared to the other Indian sectors. It is found that many IT companies (mainly the renowned ones) had offered laptops/desktops to their employees to continue their duties via remote working. Similarly, medium to small IT companies had provided the Internet expenses of their employees so no extra monetary burden was conferred upon them. This section has covered several angles of the Indian IT sector and its condition during the pandemic situation in India. Importance has been given to analysing the interrelationship of productivity in reference to the pandemic situation while taking the Indian IT sector as an example. It is observed that productivity, both personal and organisational, decreases massively during the pandemic situation in India. However, this reduction in productivity is comparatively lesser in the Indian IT sector as this very sector was successful to cope with the changing business environment very soon. In addition, it is found that employees faced several difficulties to cope with the work-from-home mode of employment, as they were not used to it. Many Indian IT companies had provided enough support to their employees during the early phases of the nationwide lockdown. Moreover, the Indian government announced several relief packages for the people who have lost their jobs suddenly due to the spread of Coronavirus in the country in 2020. It is observed that the work-from-home practice was so successful that a huge number of employees from different fields wish to continue their jobs in this style. Therefore, it can be concluded that productivity does increase in this alternative mode and the performance of the Indian IT industry during the pandemic era bears the evidence against this.

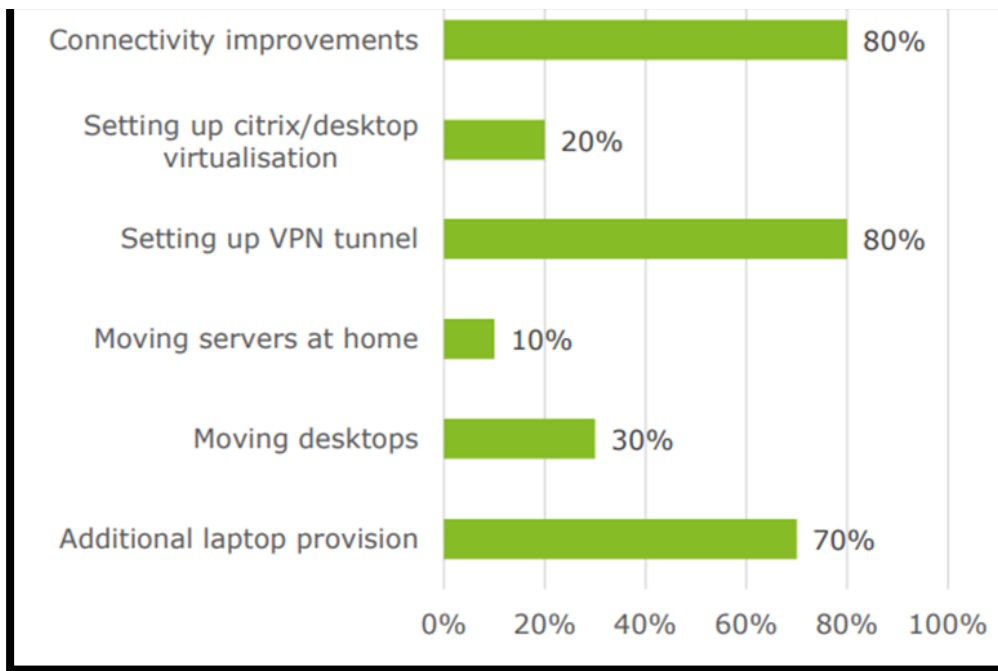


Figure 2.10. Areas where Indian IT companies helped their employees during the work-from-home style

(Source: Deloitte, 2021)

2.5. Literature gap

The one major disadvantage of constructing this literature review part is that it mainly focuses on the secondary data obtained after the first wave of the pandemic in 2020. As it is clear now that the pandemic situation has a fluctuating impact on the Indian economy, it will be wiser to collect the data after every wave of the pandemic. Moreover, this segment does not utilise any real-time data due to the imposition of several restrictions during the pandemic period. Therefore, any future research is heartedly welcomed to fill the gap in existing academic knowledge about the overall impact of the Covid-19 pandemic on repeated cycles.

CHAPTER III:

METHODOLOGY

3.1 Overview of the Research Problem

Covid-19 outbreak has had a major impact on the behaviour of the employees in the IT sector of India. Most of the employees started to develop anxiety and there was a significant behavioural shift towards work-from home. In some cases, the employees' productivity was affected due to changes in working patterns after initiation of work-from home. Further issues that are having a negative impact on the productivity of the employees include connectivity issues, mental stress, mismanagement due to ineffective communication amongst the employees and organisations. The employees are often experiencing various issues in performing their work in a proper way as they are not familiar with this type of working system. On the other hand, the increased usage of technologies has become highly strenuous for productivity (Jung, Jung and Yoon, 2021). However, work-from-home opportunities have also had a positive impact on productivity in most of the cases; it has ensured flexible working hours and work-life balance. Some of the organisations in the IT sector of this country have also extended the work-from home period for ensuring safety and well-being of their employees, which has had a mixed influence on the productivity of the employees in this sector.

To overcome the issues associated with decreased productivity after initiation of work-from-home, the organisations have adopted various strategic initiatives. For instance, the organisations have increasingly focused on utilising a range of different collaboration and communication tools for addressing the communication gaps. Some issues are persisting that are having a significant detrimental impact on the employees' productivity in the IT sector of India. For example, absence of a well-structured IT infrastructure in the homes of the employees caused them to face maximum issues in carrying out their work with a high-level of efficiency and due to this; their productivity has got affected severely.

Thus, it is evident that Covid-19 has had a significant impact on the productivity of workers in the Indian IT sector. Some sort of distrust and traditionalism also affected a few employees' mind-set negatively after initiation of working from home and this has decreased the employees' productivity to a massive extent (Kramer and Kramer, 2020). Employees in this industry reported differing experiences regarding the benefits or challenges of working from

home after the outbreak of Covid-19 and a substantial portion of workers reported that it had a major negative impact on their performance and productivity.

Thus, the outbreak of Covid-19 has led the organisations in the sector to face massive losses due to a significant decrease in their employees' productivity. Especially, the organisations that decided to extend work-from-home have faced maximum losses that are often irrecoverable. This requires them to focus on ensuring strategic planning to address the issues and enhance the performance and productivity of their employees. In some cases, the organisations are facing maximum problems in retaining their workers under this new working pattern and the major problems are regarding management of their stress levels as flexible working hours are often imposing a huge burden on the employees causing them to get overly stressed. It is hampering their productivity to a huge extent and causing the organisations to lose their employees and profitability. Another problem is associated with the organisational issues in communicating with their workers and lack of face-to-face interactions between the organisations and the workers are causing the organisations to lose workers' loyalty significantly.

Thus, it is essential to focus on adopting strategies that enhance employee satisfaction to a huge extent. The study is focused on finding the major reasons behind an increase in stress of the employees and the impact of this on their performance in the organisations of the Indian IT industry. Low-level of power supply, Weak internet connection and so on are other factors that are hindering productivity of the workers by making it impossible for them to continue their work in an un-disruptive manner. Another major issue that the organisations are facing is ensuring a significant increase in security of the employees for cyber-attacks. The poor digital infrastructure in homes is enhancing the vulnerability of the devices that workers use in their homes for carrying out organisational works. In IT industry the workers are required use different types of software and lack of proper security infrastructure often enhances the chances of facing maximum issues in ensuring prevention of cyber attacks. Thus, the study has focused on analysing the existing problems in the current working models of the organisations to gain an understanding of the factors that are enhancing the risks of facing issues such as workers' distrust, lack of workers' loyalty towards the organisations and so on.

3.2 Operationalising theoretical constructs

Different research methodologies are used for ensuring that the studies are conducted based on a systematic approach. Three different methods used in the studies for collection of

information in a proper way include qualitative methods, mixed methods and quantitative methods. In a qualitative method, the researchers aim at collecting information based on the experiences, attitudes, interactions, behaviour and belief of a certain set of people for gaining a proper insight into a specific research problem. This can provide the researchers with a set of detailed and real-time information that can aid in generating proper outcomes based on the real-life experiences of the target population. Open-ended questions are generally used in the qualitative research that aids in gaining a proper understanding of the research problem leading to the generation of a proper research result. Qualitative approach often involves a naturalistic and interpretive solution that enhances the opportunities for establishment of a proper relationship amongst the variables included in a research.

This further enhances flexibility of research and therefore, increases the opportunities for generating positive outcomes within a research (Resilient Research in the Field: Insights and Lessons From Adapting Qualitative Research Projects During the COVID-19 Pandemic - Syahirah Abdul Rahman, Lauren Tuckerman, Tim Vorley, Cristian Gherhes, 2021, 2021). On the other hand, the utilisation of quantitative methodology in a research helps in gaining information through first-hand observations that aids in measuring the objectives of a study in an effective manner. This involves the use and analysis of statistical data that aids in quantification of the results of the studies. This helps in testing the existing theories and concepts regarding a specific study and therefore, helps in developing proper outcomes based on the same. Mixed method is based on the principles and approaches of both qualitative and quantitative methods that strengthen the research outcomes by making it possible for the researchers to develop positive relations amongst the research variables. This study is based on the mixed method through which both statistical significance and in-depth knowledge of the information collected in the study have been emphasised for ensuring proper outcome generation. Participants have been selected for collection of data using both these methods. This has enhanced the opportunities for developing proper assumptions based on the correlations developed amongst different variables of the study. This can enhance the opportunities for achieving the research objectives in an efficient manner in a research.

Utilisation of a mixed methodology in the study has helped the researcher to find the best possible solutions for ensuring achievement of the objective of gaining an understanding regarding the ways the sudden outbreak of Covid-19 has influenced employee productivity in the IT sector of this country. All the information gathered in the study has been triangulated in the study for enhancing the credibility within the study that has aided in elimination of different forms of biases from the study. Thus, the validity and reliability of the study have been ensured

through the utilisation of mixed methodology in the study as utilisation of a single research method could have involved chances of inclusion of maximum biases.

Thus, providing proper answer to the research questions has become possible through the utilisation of this methodology in this study. Further, mixed methodology has provided broad spectrums of the ways of understanding the complex research problem in an effective and detailed manner. This methodology is known for cancelling out the limitations of the qualitative and quantitative methodologies of research. Thus, in present study as well, use of mixed methodology has helped in overcoming the disadvantages such as biasness and so on that has helped in gaining a proper understanding of the research problems and generating proper research solutions. As cited by (What do family caregivers of people with dementia need? A mixed-method systematic review - Bressan - 2020 - Health & Social Care in the Community - Wiley Online Library, 2020), mixed method in a research can ensure systematic analysis of the information collected in a study and it helps in developing causal inferences between the research questions and the variables. This has enhanced the value of this study by enabling proper analysis of the collected information using proper qualitative and quantitative method.

3.3 Research Questions and purpose

In this study, the researcher has considered analysing the impact of Covid-19 and work-from-home arrangements on the productivity of the workers in the IT sector of India. The research has involved a set of defined research questions that have been formulated based upon the pre-defined research objectives. The major research questions set in the study included variables such as productivity of employees, Covid-19 impact, challenges faced by the employees and so on. The objectives of the research based on which the research questions were set include:

- To analyse the impact of sudden outbreak of Covid-19 on productivity of the employees in the IT industry of India
- To explore the different strategies that the IT organisations of this country have adopted for addressing the challenges felt after the outbreak of CoronaVirus and ways these have helped in enhancing the productivity of the employees in this sector

The major purpose of this study includes a proper analysis of the impact of Covid-19 on employee productivity and providing a proper insight into the ways it has become one of the major disruptors in the IT industry of India. Covid-19 has enhanced the need for digitisation of work that has often had a significant impact on the productivity of the employees in the sector.

The research has focused on analysing the ways organising this industry are trying to find the potential ways of addressing the problems raised after the outspread of the Corona Virus. Another fundamental purpose of the study has been to determine the major impact of the new arrangements such as work-from home opportunities on the employees of IT sector in India and the ways organisations are coping with this issue to enhance their productivity and performance. It has been found in several studies that Covid-19 has enhanced mental stress amongst the workers they have started worrying about their job security that has had a significant impact on their performance and productivity within the organisations (Sharma, 2020). Further work-from-home facilities had some influences on the productivity and well-being of the workers in the organisations of the Indian IT industry. In some of the studies it has been found that work-from home opportunities have had a major positive impact on their productivity due to a high level of flexibility. However, in some of the cases, it has also been found that the employees ' productivity has been affected after the outbreak of Covid-19 and initiation of working from home.

It has been found that approximately 80% of the workers in the IT industry of India experienced immense stress and burnout that caused them to find it extremely difficult to carry out their work properly. Thus, their mental trauma has had a noticeable impact on their productivity. Some of the organisations have considered adoption of a hybrid-remote working model for facilitation of social connection and collaboration amongst the employees of organisations at different levels. The remote working culture has sometimes had a positive influence on employees 'productivity in an organisation as it ensured a high-level of work-life balance. However, an informal working environment often enhanced the stress of the workers to a significant extent. This decreased the workers 'productivity. The study has also focused on analysing the ways the well-being of the employees could be ensured through implementation of proper safety measures.

As discussed previously, organisations are often lacking to ensure proper cyber security of the workers under this new working pattern after the outbreak of Covid-19. The vulnerability of workers 'systems has enhanced significantly due to weak digital infrastructure at homes and this is having a significant negative impact on employee loyalty. This study has provided a clear insight into the ways the organisations of Indian IT industry can strengthen the cyber security framework for providing the workers with the assurance to be secured in all circumstances irrespective of the working environments. Further, the measures that the organisations such as Infosys, TCS and so on have already adopted for enhancing the security of the workers have also been explored in this study to gain a proper understanding of the ways the workers 'security

could be ensured for enhancing workers 'loyalty and satisfaction towards work. This study has explored the best possible ways of managing workers 'stress while working from their homes for ensuring a high level of satisfaction of the workers for enhancing the opportunities for uninterrupted profitability and performance of the organisations. Increased stress within the employees is not only affecting their physical health; however, it is also having a significant detrimental impact on the employees 'physical health as well.

This is in turn affecting the workers 'productivity due to increased rates of absence and fatigue while working under pressure. Thus, the organisations are required to focus on managing the stress levels of their workers through proper management of their working hours while adopting proper strategies for breaking down their work for decreasing the stress levels while working from homes. In this regard, the study has considered the examples of other organisations such as Infosys, TCS and so on that are adopting proper strategies for managing their workers 'productivity. The study has also considered providing a proper understanding of the influence of the ways different government schemes are having proper influence on enhancing opportunities for the workers to enhance their livelihood for enhancing understanding of future policy-developers in understanding their responsibilities in the beneficiary duties.

The study has also analysed the ways organisations can manage employee satisfaction by providing the employees in the IT industry of this country with ample opportunities for developing their skills and competence through continuous online training and workshops. In some cases, it has been found that the organisations have ended up enhancing their attrition rate as they have found it quite challenging to manage their profitability. It has become a significant constraint for them to provide wages and salaries to their workers causing them to rethink their workforce management and eventually decreasing the number of workers. It has had an additional burden on the employees of the IT organisations causing them to develop fear of losing their jobs. This has had a major influence on their performance as their psychological trauma has increased significantly. This research has explored the ways the organisations in this industry can enhance the effectiveness of stress management for their workers by enhancing their motivation. This can increase the productivity of the workers by managing their stress and psychological trauma.

The organisation needs to enhance the workers 'performance by determining the exact problems that they are facing through proper communication and this will require the organisations to implement proper communication solutions through improvement of their digital infrastructure. The study has provided a proper insight into the need for adopting a result-

oriented approach by the organisations in the Indian IT industry for enhancing their productivity while increasing the satisfaction of the workers (Perspectives, 2022a). The study has explored different theoretical perspectives in relation to the behavioural changes and management of the changes through adoption of proper strategies by the organisations in IT industry (Perspectives, 2022b). The changes in their attitudes have had a major influence on their productivity and the research has aimed at exploring the major reasons behind the changes in their behaviours.

Based on these changes, proper strategies for effective management of these changes have also been identified in the research through conducting interviews and surveys on the professionals of the organisations in IT industry of this country. This study has also found positive changes in the attitudes of the organisational workers after initiation of work-from-home facilities and this has influenced the employees' performance in the organisations in a positive manner. In most of the cases, the skills and competence of the workers vary and in many cases, the working environment has a significant impact on employees' willingness to utilise their skills for enhancing organisational performance. In this regard, the study has provided a comparative analysis of the impact of office and home environment on the work performance of the employees in Indian IT sector before and after the outbreak of Corona virus.

Other purposes of the study include analysis of the major issues faced by the organisations in the IT sector in relation to enhancement of productivity of the workers after outspread of Covid-19. One of the major purposes of this research is to analyse the positive and negative influences of work-life balances the performance and productivity of the workers in the IT organisations of India. work-life balance has a direct positive influence on the employees' productivity in IT organisations. As employees get to carry out their work at home along with their office work due to a high-level of flexibility, their performance improves. This can lead them to develop immense satisfaction that can influence their performance to a huge extent. Further, the organisations can also find it possible to manage employee motivation towards their work in an effective manner. Therefore, the profitability of the organisations is enhanced significantly through enhanced employee satisfaction and motivation. On the contrary to this, lack of connection with the office, has often resulted in a significant decrease in loyalty of the workers, that has often resulted in a considerable increase in rate of employee turnover. This caused the organisations in IT industry of this country to face maximum issues in maintaining their workflow leading them to lose their profitability and competitive edge. This research has provided a proper understanding of the strategies the organisations in the IT industry of this country are adopting for enhancing their employee retention by ensuring proper connection with them under this new working pattern to enhance their motivation.

The study has also explored potential ways of enhancing the workers' productivity by the IT organisations of India through adoption of effective strategies by enhancing workers' satisfaction towards their work. Flexible working hours often decrease employee productivity by enhancing their satisfaction and motivation. Thus, the research has emphasised proposing the proper ways of developing the remote working model that can help the organisations in enhancing their workers' satisfaction towards their work while ensuring their security to a significant extent. This can help in eliminating the risks of facing cyber-security issues and other infrastructural issues that employees are currently facing when working from their homes.

In this regard, the researcher has set some survey and interview questionnaires for collecting proper information regarding the effect of Covid-19 on the productivity of the workers in the IT sector of India. The survey-questionnaire that has been used in the study for collection of information include:

- To what extent do you think that work-from-home facility has increased your productivity?
- Do you agree that changes in working patterns after the spread of Corona Virus have caused organisations to face major challenges in maintaining their employees' productivity?
- To what extent do you think that the utilisation of digital-media collaboration and communication tools have been beneficial for enhancing employee productivity in the IT sector?
- How much do you think that flexible working arrangements have aided in enhancing employee productivity?
- How much do you think the poor digital infrastructure of your home can enhance your system vulnerability?
- To what extent do you think that the work-from-home has enhanced your work-life balance?

On the other hand, the qualitative information has been collected based on the interview questionnaire set by the researcher and some of these questions include:

- What challenges the management in your organisation is facing in managing the productivity of remote working teams?
- How is your organisation managing the changes in employee behaviours after the outbreak of Covid-19 for managing their productivity?
- What strategies have your organisation adopted for enhancing employee loyalty by ensuring their security from cyber threats?

- What according to you are the potential ways of managing the employees' issues in enhancing their performance under the changed working pattern and environment?

These questions have been set taking into consideration the specific objectives set in the research to fulfil the major purpose of this research. The information collected in the research through the interview, survey processes ensured gaining real-time information based on a large sample of participants, and this has enhanced the opportunities for satisfying the purpose of determining the positive and negative influence of Covid-19 on the productivity of IT employees in India. The research questionnaire set in the beginning of the research has helped in setting the interview and survey questionnaires for gaining a proper understanding of the factors influencing productivity of the workers after the outbreak of Covid-19 that has led to formulation of proper research outcomes. The questionnaire involved in the research has helped in gaining proper information in relation to the problems faced by the workers while working from their homes during this pandemic. Based on the information collected using the questionnaire, it has been possible to generate proper solutions that can aid in addressing the existing gaps in enhancing employee satisfaction.

The study has considered the analysis of current gaps in organisational strategy of enhancing employee satisfaction and based on this, the interview questionnaire has been set for collection of proper data. Data has been collected on the ways of addressing the issues associated with increased stress, lack of motivation, lack of trust and so on for enhancing employee productivity in the IT organisations of India. Open-ended interview questionnaire has provided the participants with the opportunities for providing detailed information related to the organisational issues in enhancing workers' motivation and managing the changes occurred after the outbreak of Covid-19. This information has been considered while gaining a proper understanding of the management of workers' stress and other problems in an effective manner.

The close-ended survey questionnaire has aided in ensuring the elimination of irrelevant responses that could be used for enhancing understanding of the problems experienced by the workers in the IT industry of India in relation to managing their productivity. This has also aided in getting proper information regarding the ways IT organisations in India are implementing proper strategies to manage workforce productivity during the changes initiated by the Covid-19 pandemic.

3.4 Research Design

Research design comprises proper frameworks for providing the researcher with a proper understanding of the market research methods and techniques that can ensure proper foundation for conducting a study by the researcher. Different types of research designs include descriptive design, exploratory design and explanatory design. Explanatory design enables the researchers to develop causal relations amongst different variables and research questions based on which the causes and impact of specific research problems on some factors could be determined (Lin and Ikram, 2020). Thus, the research outcome reliability could be ensured through the utilisation of this design in a study. Further, it aids in understanding complex research problems in an effective manner especially when there has been limited research on a specific problem. This also enables the researchers to make proper predictions regarding the possibility of occurrence of specific kinds of events repeatedly and the probable impact of those events on society and community.

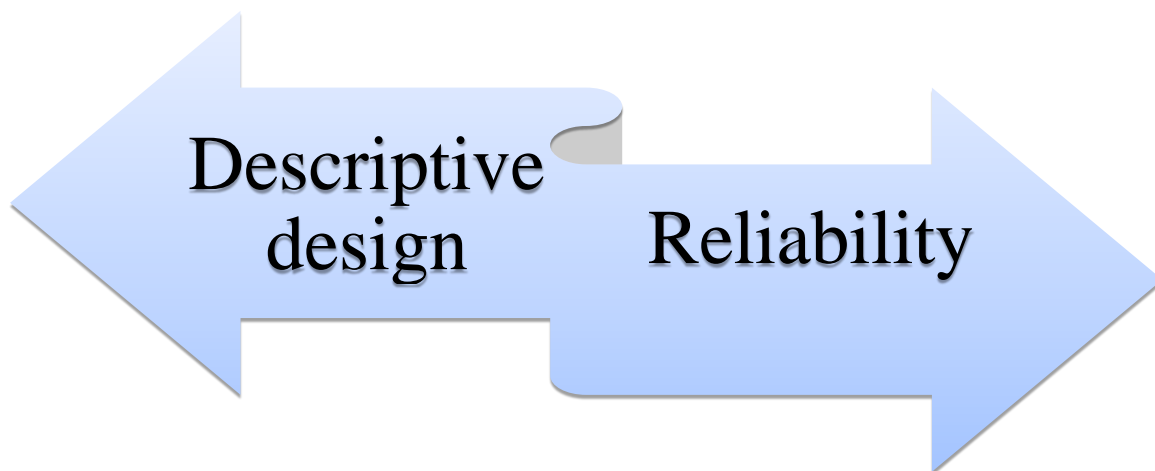


Figure 3.1. Selected research design

This can ensure generation of positive research outcomes based on the specific research problems. On the other hand, exploratory design is selected if there exist a few previous studies regarding a specific research problem and the problem is at preliminary investigation stage. The design enables the researcher to gain an in-depth insight into the nature of a specific research problem that can enhance the opportunities for finding the best possible solutions for providing proper answers to the research questions set at the previous stage of the research. On the contrary to this, descriptive design is selected when the researchers aim at obtaining information in a systematic manner for describing a specific phenomenon or situation in an effective manner. This enables the researchers to utilise more than one data collection and analysis methods for gaining a proper insight into a specific research problem. Descriptive quantitative

study attempts to gather quantifiable information from a sample population for gaining a proper understanding of a specific research problem through an effective statistical analysis in a research. In simple words, as this design enables utilisation of different research methods altogether in a study, it helps in describing a specific situation and population in an accurate manner. As cited by (Doyle et al., 2020), descriptive design aids in exploring the research questions properly. This helps in gaining a proper understanding of the research problems that have not been studied properly in the earlier days. This enables proper examination of the relationships amongst the different variables of the research through quantitative or qualitative methods such as interviews and surveys. This aids in exploring different variables of the studies in an effective manner. This design is highly appropriate for the studies that involve experiences of a specific population under certain circumstances. In present study as well, this design has been selected for gaining a proper insight into the ways certain outbreak of Covid-19 has influenced the productivity of the employees in the Indian IT industry both in a positive and negative way. Through utilisation of this research design it has become possible for the researcher in this study to conduct both interview and survey for proper collection of information from relevant participants regarding the ways work-from-home arrangements and flexible working hours have had mixed impact on the working patterns and performance of the workers in the IT sector of India (Madurai Elavarasan et al., 2020).

This design has been used in this study for providing proper description of distribution of more than one variable involved in this study. This has ensured proper observation of the behaviours of the workers involved in a specific study. This has aided in describing the characteristics and behaviour of the people within a specific population regarding the ways their performance has been affected after the outspread of the virus and the major setbacks of the new working patterns after the spread of the virus. The descriptive design has also helped in studying the phenomenon under a natural environment that has helped in studying the topic in an unchanged manner. The major benefit that has been derived while using the descriptive design in the study is associated with the opportunities for integration of the information collected through qualitative and quantitative methods for proper analysis of the problems faced by the employees during work-from-home and the probable solutions for addressing the problems.

As interview process has also been selected in the study, it has been essential to analyse non-quantifiable data and in this regard, the application of descriptive design has helped in analysing the non-quantifiable issues. The use of qualitative and quantitative methods have aided in understanding the phenomenon in a proper manner for generating a proper research

outcome based on the specific research objectives and questions set in the study at the beginning of this research. It has also been found in the study that utilisation of descriptive research-design has been highly appropriate for carrying out the research in a systematic manner. The design has aided in answering when, where, how and what questions regarding selected research problem. For example, the reasons behind the problems faced by the organisations in managing workers ' productivity after the outspread of Coronavirus have been explored in the study. This has aided in the development of proper solutions based on the best ways of enhancing organisational overall performance during this situation through enhancement of workers ' motivation. The design has therefore, enhanced the validity and reliability of the study by enhancing understanding of the research problem through collection of qualitative and quantitative data based on the complications faced by the employees in working from homes and the ways they are managing their stress while working in the home environment.

Descriptive survey has been conducted for gathering information on varying matters in relation to the impact of Covid-19 pandemic on the performance and productivity of the workers (Asenahabi, 2019). This design has also ensured a fast and cost-efficient process of collecting data that has enhanced the value of the study. However, choices and wordings of the questionnaire have often had some impact on descriptive findings that has often raised some questions regarding validity of the information used in the study. In this regard, the use of explanatory design could have ensured formulation of proper causal relationships amongst the variables of the study while enhancing reliability of the study.

As the design in this study allowed for conducting statistical tests, it could have involved the provision of inclusion of biases in the study. However, utilisation of positivism has aided in ensuring the elimination of the risks associated with the inclusion of researchers ' personal interests. Thus, ensuring development of proper research outcome has become possible through the use of this research design. The design has assisted the researcher of the study in making proper decisions through proper data analysis specifically during the analysis of survey information (Bhuvanewari, 2022). It has aided in analyzing the quantifiable information collected through the survey in a proper way and therefore, it has helped in developing definite research outcomes in relation to the existing gaps in organisational strategies to enhance employee retention and motivation. The outcomes have also included the best possible ways of managing the issues faced by the workers as well as the organisations in reducing the issues associated with reduction in employee productivity and performance in a proper manner (Pimentel, 2018).

3.5 Population and sample

Descriptive survey has been conducted in the study for collection of quantitative information regarding the impact of Covid-19 on the productivity of IT professionals in the IT sector of India. In this regard, the researcher of this study has considered a collection of information from the full-time professionals of the reputed IT organisations of India to gain a proper insight into their experience in working from their homes after the spread of Corona Virus. Close-ended survey questionnaires have been set for collection of proper information from the IT professionals of India.

The researcher has considered selection of a big population of experienced IT professionals for collecting quantifiable information on the percentage of workers, who are experiencing incline and decline in their productivity after initiation of work-from-home. This has helped in analyzing the information properly for generating a proper outcome in relation to the impact of Covid-19 induced transformations on the productivity and performance of the employees in IT sector of this country.

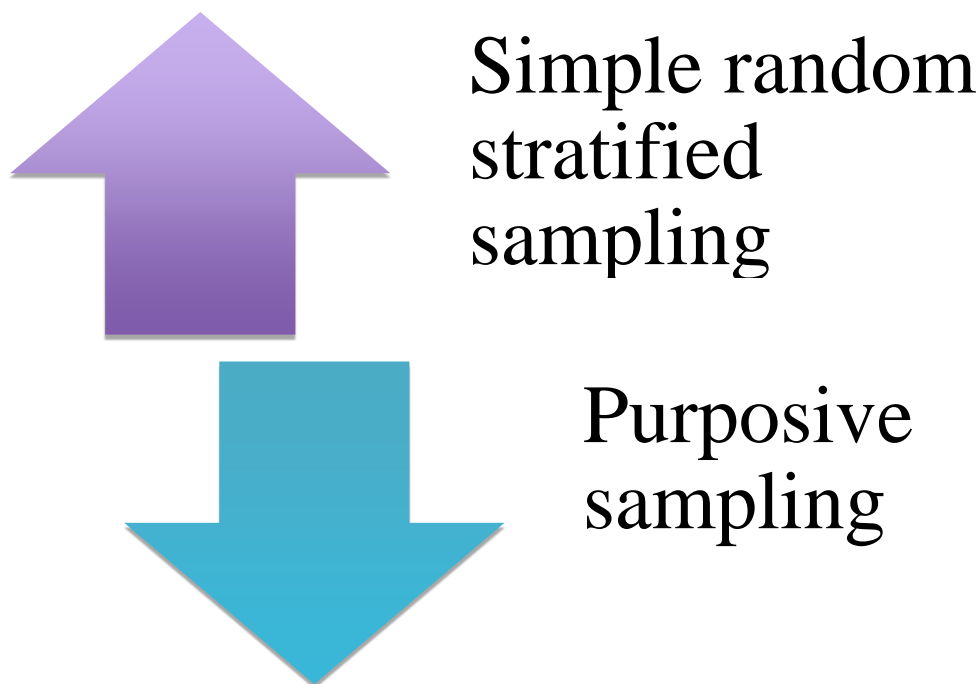


Figure 3.2. Sampling methods

The researcher has selected 200 IT professionals from reputed IT organisations of India and a proper sampling method the research has selected 30 senior professionals of the industry for gaining in-depth data on the problems in managing workers 'performance after the initiation of work-from-home facilities. The research has considered selection of "simple stratified random sampling (SSRS)" for finding the best participants for ensuring collection of proper

information related to the ways Covid-19 has influenced employee productivity to a significant extent without including any biases in selection of participants (Iliyasu and Etikan, 2021). Through the utilization of this sampling methodology, the researcher has considered breaking the entire survey population in small strata and each strata has had a group representative.

This has ensured collection of real-time information from a broad group of IT professionals regarding the problems and beneficial aspects of work-from-home arrangements, flexible working hours and so on for generation of proper research outcomes. Apart from this, this sampling method has also ensured fast selection of participants, which has in turn reduced the time required for data collection. This has ensured proper coverage of survey population, which might not have been possible if another sampling method was selected for selection of the participants. The collection of information in an unbiased manner has helped in generation of proper and reliable research results with valid information. Based on the specific aspects such as shared characteristics and experiences of the group participants, the population has been divided into strata in the study for enhancing validity of the research outcomes. This has helped in gaining proper understanding of the experiences of the population quickly and generating fast solutions in the research. This process has also enhanced the effectiveness of estimates of the survey in an effective manner.

On the other hand, the research has also considered conducting an interview for collection of a wide range of qualitative data for ensuring a proper analysis of the information for developing effective outcomes in relation to the challenges organisations in Indian IT sector are facing in managing the productivity of workers and retaining their workers during this period. In this context, the researcher of the study has considered selecting 10 senior IT professionals for gaining a proper understanding of the positive as well as negative aspects of the new arrangements resulting from Covid-19 in managing workers' performance in the sector. A proper interview questionnaire has been set in this study for collection of qualitative information regarding the topic.

The open-ended questionnaire has been set by considering the problems and benefits of the arrangements in the IT industry. The questionnaire has been set based on the objectives and questions set in the study. In this regard, an effective sampling methodology has been considered for selection of the interview participants. In this context, the researcher has selected purposive sampling for selecting the participants based on proper judgements and objectives. This has aided in arriving at a proper conclusion at the end of this study by allowing the researcher to gain qualitative responses leading to proper insights as well as effective research results. This has also ensured accurate results as it has provided the researcher with the

opportunity to select participants according to the purpose of the study. Thus, it has been possible to achieve the research objectives by finding the proper answers to each research question based on real-life experience of the participants. However, it could have included provisions of personal biases that could have had negative impacts on the reliability and validity of the research results. However, positivism philosophy has aided in eliminating provision of personal biases of the researcher by enabling collection of information in a purpose-oriented manner. This sampling method has assisted the researcher in selecting participants based on the specific phenomenon, concept and theme. This has in turn ensured generation of proper solutions for addressing the existing problems in the new arrangements. Initially, the researcher selected a broad group of participants for gaining relevant information regarding the problems faced by the organisations in ensuring uninterrupted productivity of the workers due to several issues in managing workers 'stress and infrastructural issues. This has aided in gaining a proper insight into the ways the organisations in the Indian IT sector are managing their employees ' productivity by identifying their problems in carrying out their work under the new working environment.

3.6 Participant selection

The study has considered selection of interview and survey participants from the IT sector of this country based on their experience, department and designation in the IT organisations for gaining a proper insight into the ways Covid-19 and the new working system have influenced their attitudes. The survey participants have been selected based on their experience in the IT industry. In this regard, 8 close-ended survey questions have been set for gaining an insight into the workers 'experience while working in their home environment after the outbreak of Covid-19. On the other hand, a semi-structured interview has been conducted for collection of qualitative and detailed information regarding the ways organisations are managing workers 'productivity.

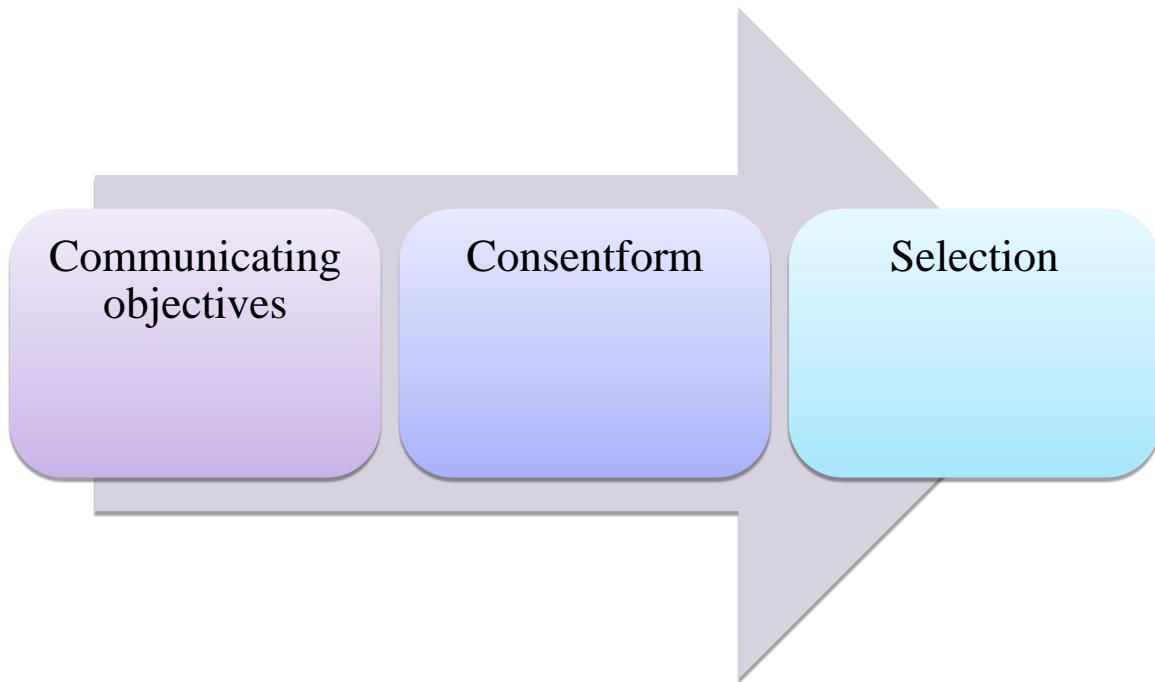


Figure 3.3. Selecting participants

The researcher has considered setting four interview questionnaires based on the research objectives and these questions have aided in generating proper research outcome through collection of detailed information. Through the interview, the researcher has considered selection of participants based on their ability to provide proper information for achievement of the research objectives. Through purposive sampling, it has been possible to select the interviewees in a proper way for gaining proper responses. This has enhanced the validity and reliability of the outcome of the research.

3.7 Instrumentation

Data-collection does not only involve collecting information from a certain set of participants; however, it also involves observation of the emotions, thoughts and feelings of the interview and survey participants for gaining a proper understanding of the problems faced by the participants in working from their homes in Covid-19 situation. The semi-structured interview conducted in the study has been one of the primary sources of information for ensuring the problems faced by the interview participants in managing their stress and productivity during Covid-19 situation. The major instruments used in this study for collecting relevant information based on the research objectives include documentation, physical artefacts, archival records and so on.

The document gathered in the study has aided in explaining the importance of managing workers' stress by the IT organisations to enhance their job satisfaction and motivation (Wood, Sebar and Vecchio, 2020). Data triangulation has been considered in this regard, for ensuring generation of proper research outcomes. It has aided in enhancing the reliability as well as validity of the data utilised in their study. To ensure data confidentiality during the interview and survey, the researcher has considered recording all the information in password protected folders as it can prevent the access of unintended users to the digitally recorded information. To eliminate biases, the researcher has considered providing the interviewees and survey participants with a detailed consent form. This has further ensured confidentiality and anonymity of the information collected through the interview and survey. Direct observation has helped in gaining proper insight into the feelings of the workers while working from their homes and the ways flexible working patterns have influenced their way of working and attitudes (Putra et al., 2020). This has in turn aided in generating proper research outcomes based on real-time experience of the workers.

The document analysis has been sent to the participants for gaining their inputs for ensuring reliability and the literature review has been considered for ensuring the validity of the analysis. Therefore, the researcher got the opportunity to ensure the appropriateness of the research results by comparing the survey and interview inputs with the existing concepts found in the literature review section. It has further enabled the researcher to recheck the validity of each analysis and therefore, providing proper answers to each of the research questions has become possible.

3.8 Data Collection processes

The study has considered mixed data-collection for strengthening the validity of the research outcomes. This has enabled the researcher to use both qualitative as well as quantitative methodologies for collection of information in relation to the impact of outbreak of Covid-19 in enhancing or reducing productivity and performance of the workers in IT industry of India. The utilisation of quantitative methodology in collection of data has aided in quantifying the research outcomes for enhancing value of the study. A semi-structured survey has been considered for collecting proper information from the IT professionals based on their experience in working within their home environment during this pandemic. The survey participants had been communicated the major research objectives and purposes for enhancing their trust over the survey procedure.

The participants have also been provided with a consent form for obtaining their consents prior to involving them in the survey procedures for ensuring prevention of the risks associated with facing legal obligations. Apart from this, the researcher has also considered conducting a semi-structured interview for collecting real-time detailed information based on the insights of the senior professionals in Indian IT industry for understanding the strategies they are aiming to implement for managing employees' productivity and problems they are facing in enhancing their performance of the employees under the new working environment. Standardization of the size of sample has been considered through selection of participants in a strategic manner based on their capability of providing proper information based on the research purposes and objectives.

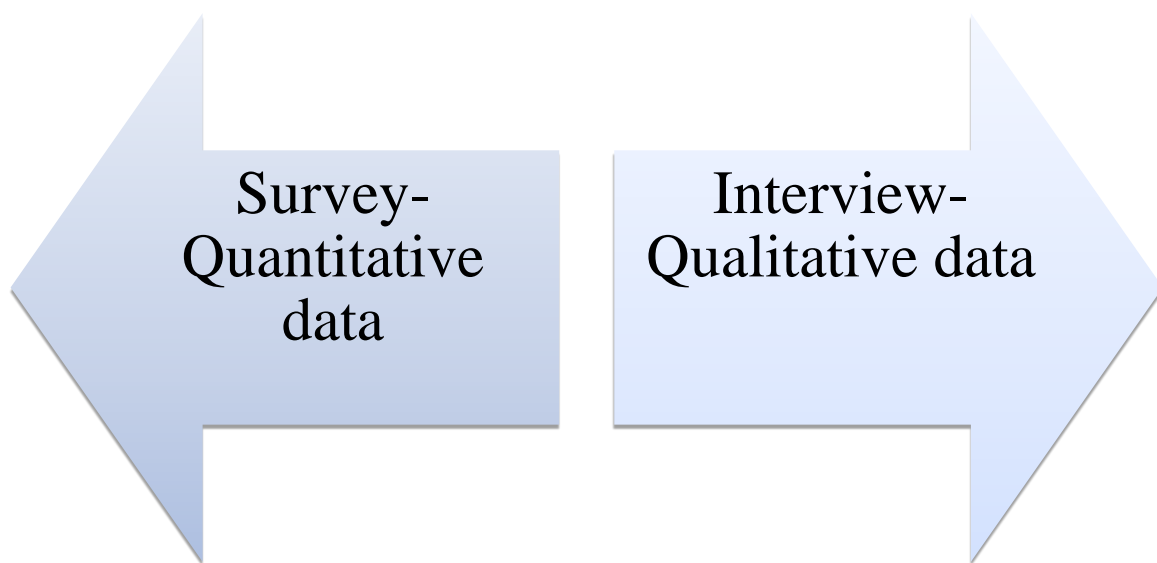


Figure 3.4. Data Collection

The confidentiality of the interview data has been emphasised in this study for ensuring mitigation of threats associated with ethical obligations. The researcher has considered recording all the qualitative information collected through interview in a digital format for preventing access of unintended parties to the information. The interview participants had also been provided with a proper consent form for providing them with the assurance that no question would be asked to them against their wishes. This has ensured reliability of the study and adherence to the ethical principles of the research. The researcher communicated the goal and objectives of the study with each of the interview participants for providing them with a clear view of the reasons behind their selection in the data-collection processes for ensuring their involvement in the data-collection process. This has enhanced the chances of gaining a maximum number of responses, which has helped in adding a new dimension to this research.

The participants were also provided with the opportunity to remove their consents anytime that further helped in gaining their trust over this study and it in turn helped the researcher in involving maximum participants in both survey and interview procedures.

3.9 Data Analysis

The researcher has considered utilisation of two different data-analysis methodologies for analysing the information collected through interview and survey. To analyse the quantitative information collected through survey, the researcher has considered application of frequency analysis for ensuring proper analysis of the information. This analysis method has aided in analysis of the descriptive statistical data in an effective manner for ensuring generation of valid research results regarding the ways Covid-19 and the new working system has influenced the workers; productivity in the IT organisations of India. This has helped in analysing the occurrence numbers in an effective manner for achieving the objectives of the study. On the other hand, as the study has involved the collection of qualitative data as well, the researcher has considered implementation of thematic analysis. Through the use of this analysis method, it has been possible to ensure development of proper relationships amongst the variables such as Covid-19, work-from-home facilities, workers' stress, productivity and so on. As thematic analysis method has ensured development of proper themes based on the research objectives and the variables involved in the study. The study has also considered designing the themes based on the proper objectives. The thematic analysis has helped in generating proper solutions in the study. This has aided in cross validation of the research outcomes for strengthening the validity of the research results. In this regard, a coding process has been implemented for coding the phrases in interview transcripts and developing the themes based on the codes. This has ensured a high-level of reliability of the research results. Triangulation approach has been considered for strengthening validity and reliability of the study.

3.10 Limitation of research design

The descriptive study design has helped in utilisation of both qualitative and quantitative methods for ensuring reliable outcome generation. This has helped in proper triangulation of the information collected through qualitative and quantitative data collection methods. However, some drawbacks are also associated with the use of Descriptive design. For instance, the design has enhanced chances of inclusion of personal biases as it does not include the provision of testing or verifying the questions involved in the research. Further, it also enhances

the risks associated with lack of outcome reliability in the study as the data collected in the study could include some untrue or unreliable responses that can have a significant negative impact on ensuring the validity of the outcome of the research. Further, as it generally involves the use of random sampling, it often enhances the risks of errors in sampling process causing the generation of improper research results.

Further, the information collected in the study might also fail in explaining causes of the phenomenon being studied. However, the use of a different design of research such as explanatory design could have helped in designing causal relations amongst the variables and causes of the phenomenon. This could also have eliminated the biases while collecting or analysing the information in the study.

3.11 Conclusion

This section of the study on impact of Covid-19 on performance and productivity of the workers has analysed the design and data-collection methods that have been considered in the study. The section has provided a proper insight into the ways the researcher has ensured the reliability of this study through selection of effective research design, data analysis and data collection methods. This has further provided an understanding of the ways the researcher has ensured elimination of ethical risks through adoption of proper measures such as providing the participants with consent forms, ensuring confidentiality of data and so on.

CHAPTER IV:

RESULTS

This section has included all the results gathered from the survey and interview process. The survey has been conducted by asking the respondents some close-ended questions, as mentioned in the earlier section. Apart from the questions, which are mentioned in the previous section for this survey, some demographic questions based on their age and work experience have been asked. The survey has been separately done with 200 workers and the 30 senior employees. On the other hand, the interview responses have also been reflected in this section with some open-ended semi-structured questions, asked to 10 senior IT professionals. Some of the questions have been mentioned already in the methodology section. The interview responses and survey responses, both have been shown based on the two research questions of this study. Summary of each of the results has been analyzed within this section with themes and frequency analysis techniques for generating a better scope to discuss the result and findings later.

4.1 Survey Result

(Sample = 200 full-time working professionals)

4.1.1 Research Question 1: (What is the impact of COVID-19 outbreak on employee's productivity in the Indian IT sector?)

Question 1

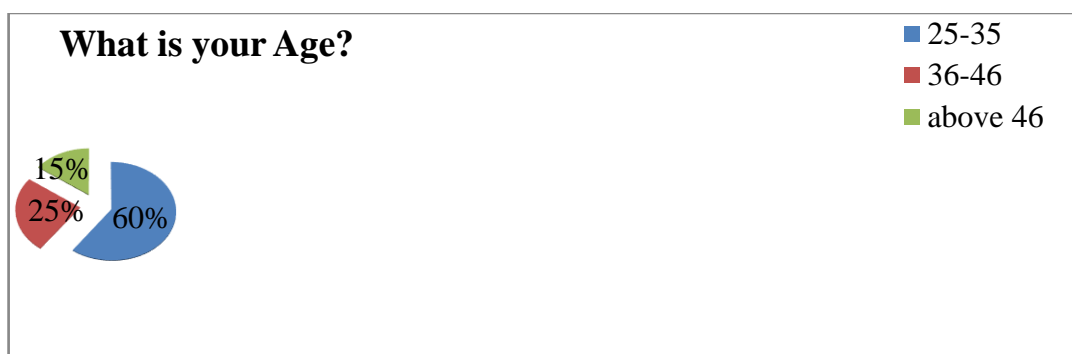


Figure 4.1. Most of the full-time working professionals belong to the age group of 25-35 years

According to the above figure, it can be stated that most working professionals belong to the age group of 25-35. This means, most of them are young and have a different and fresh

perspective towards the modern working environment due to COVID-19 pandemic. However, the survey respondents also included participants, who belong to the age group of 36-46 and above 46, as it would show diversity within the overall opinion of employees about the changes in productivity due to COVID-19 pandemic.

Question 2

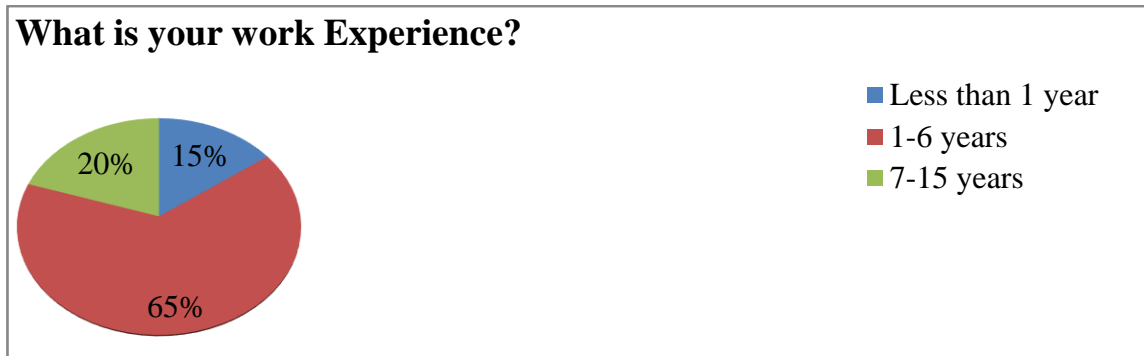


Figure 4.2. Majority of the Respondents has work experience of 1-6 years

According to the above figure, it can be observed that almost 65% of the full-time working professionals participating within this survey process have working experience of 1-6 years. However, some of the participants are there with 20%, who have working experience of more than 7-15 years. Remaining 15% of participants have working experience of less than 1 year. As most of them have 1-6 years of experience, it can be expected that they have gained enough knowledge regarding the organisational culture, their productivity, during post and pre COVID situations. The experience and knowledge would have been effective for them to explain their views on this research topic and outcome of COVID-19.

Question 3

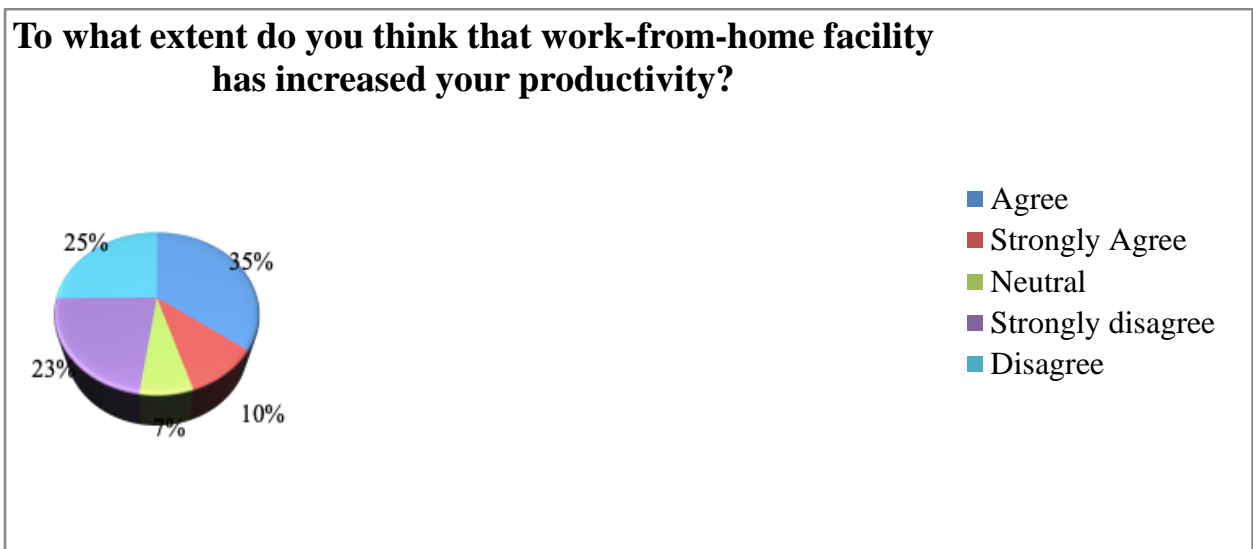


Figure 4.3. More people thinks, WFH to be a negative aspect for their productivity

According to the above figure, it can be observed that almost a similar number of people think that they might have increased their productivity due to WFH practice. Almost a similar number of people think that their overall productivity has decreased due to this WHF culture after the COVID-19 pandemic. However, a slight difference is seen here, where an additional 3% of people have voted for the decrease in their overall productivity due to the new remote working structure. The other 7% of participants remained neutral, as they did not understand whether they have gained ability to work better or they have lost something, in terms of productivity.

Question 4

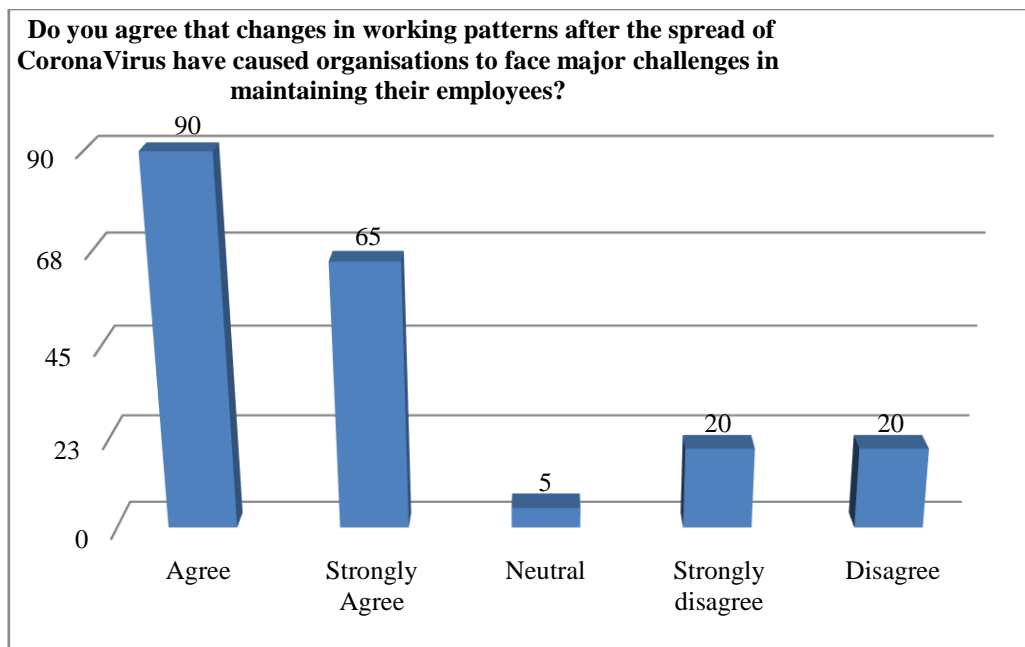


Figure 4.4. Majority of full-time working professional thinks that COVID-19 has a major effect on organisational challenge to maintain employee's productivity

As per the above figure, it can be stated that, total 155 people out of total 200 full-time working professionals have agreed to the fact that, the changing working pattern lead by the sudden outrage of COVID-19 pandemic has been a major challenge for their organisation to manage their productivity. It might be measured from the vulnerability of organisation and issues within the internal process, right after the starting of WFH practice. However, only 40 people out of this 200 have identified that their organisation did not face any such challenges

to maintain the productivity of their employees after the COVID-19 pandemic. Remaining 5 people were neutral about this fact.

Question 5

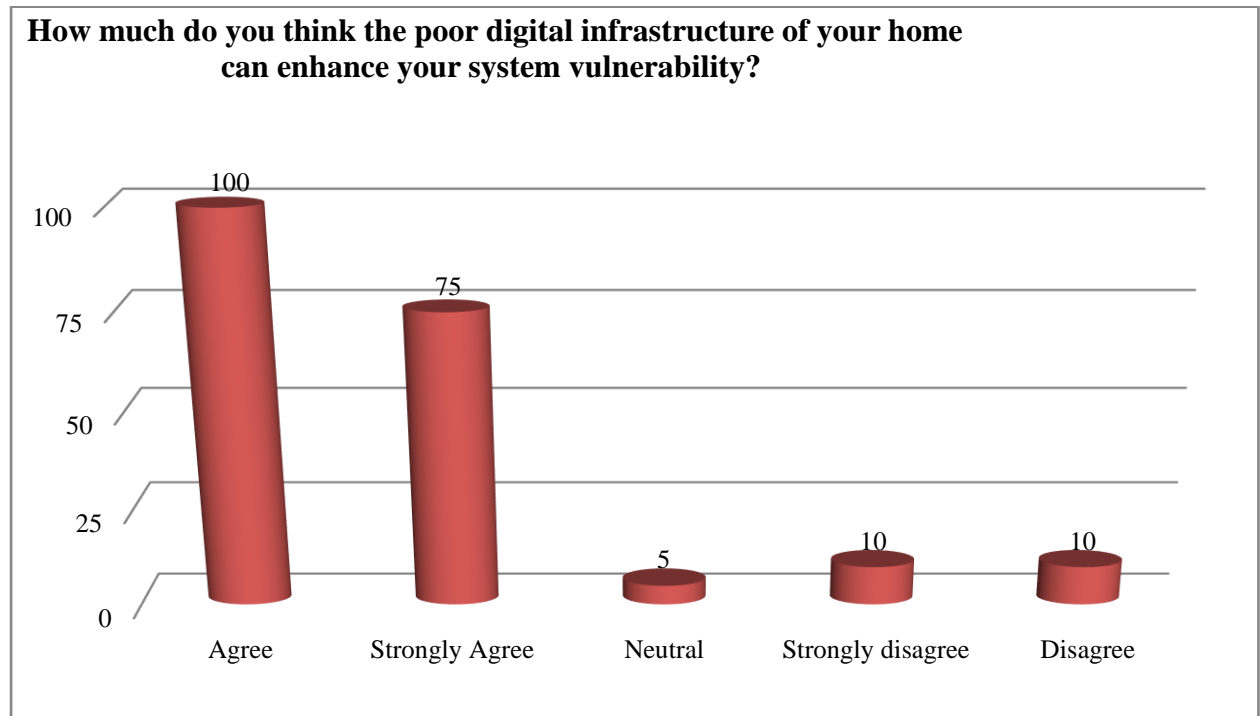


Figure 4.5. Poor Digital Infrastructure within the home of Employees is a major factor to increase system vulnerability

The above figure has illustrated that, majority of the participants have agreed to this fact that poor infrastructure within their homes has created major difficulties within their productivity. According to the result, almost 175 people out of a total 200 people within this survey process have identified that poor digital infrastructure such as network connection has been a major aspect that can easily enhance the overall system vulnerability and then reduce their overall productivity.

4.1.2 Research Question 2: (What are strategies taken for overcoming challenges of pandemic outbreak for enhancing employee productivity in the Indian IT sector?)

Question 6

To what extent do you think that the utilisation of digital-media collaboration and communication tools have been beneficial for enhancing employee productivity in the IT

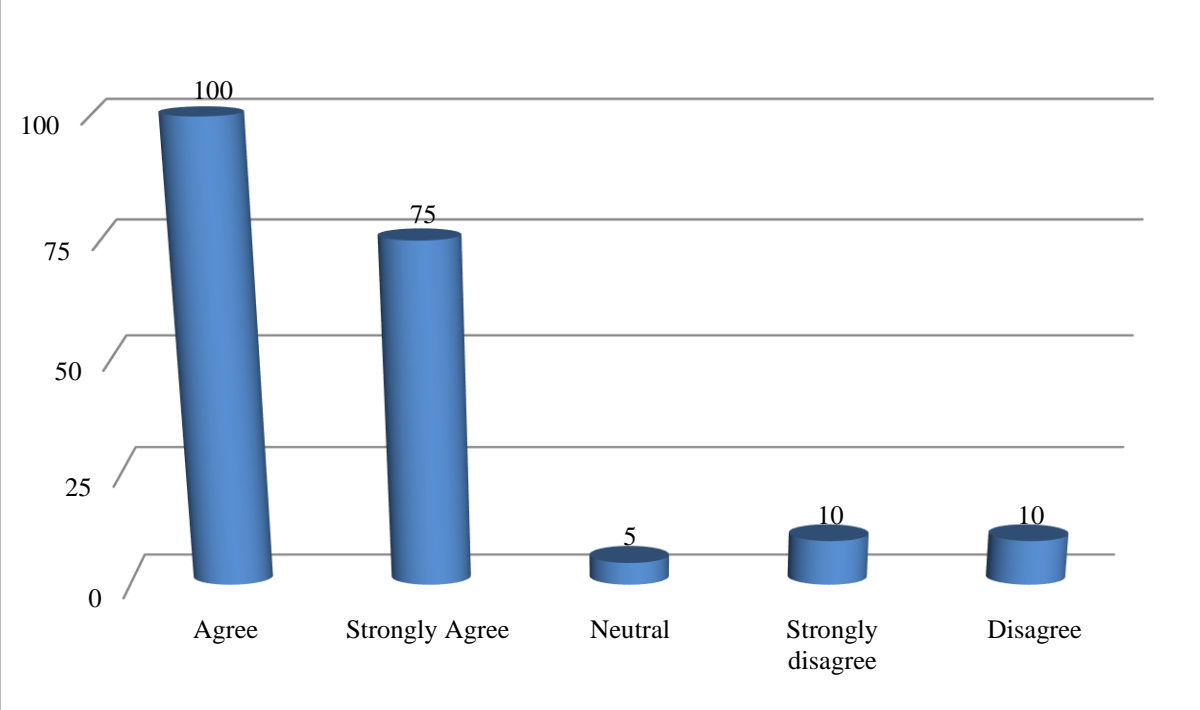


Figure 4.6. Utilisation of Digital Collaboration and Communication Tools has been effective to improve employee’s Productivity

The above figure has illustrated that, almost 175 full-time working professionals have agreed to the fact that engaging digital collaboration and different community tools has been effective for enhancing overall productivity of the employees in the IT sector. Only 20 people out of a total 200 have disagreed with this fact and the remaining 5 people have been neutral. Digital collaboration and effective communication tools has been a major factor for them to be able to access the guidance of the senior professionals, while doing their work.

Question 7

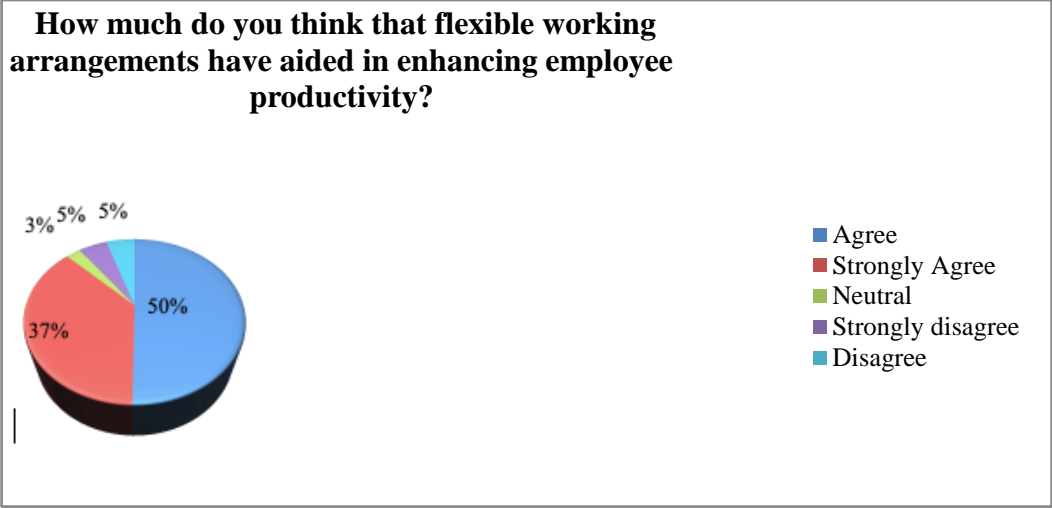


Figure 4.7. Flexible Working Arrangements has been an effective factor to recover the overall productivity of the employees

The above figure has illustrated that, total 87% of the full-time working professionals have agreed to the fact that flexible working arrangements has been a major aspect for recovering the challenges that the organisations might have faced, in terms of employee’s productivity. Only 10% of people out of a total 200 have disagreed with this fact, that flexible working arrangement can enhance productivity of the employees. On the other hand, the remaining 5 people have been neutral. Flexible working arrangements have been a major factor for them to be able to put their opinion in terms of work and manage time scheduling according to their convenience.

Question 8

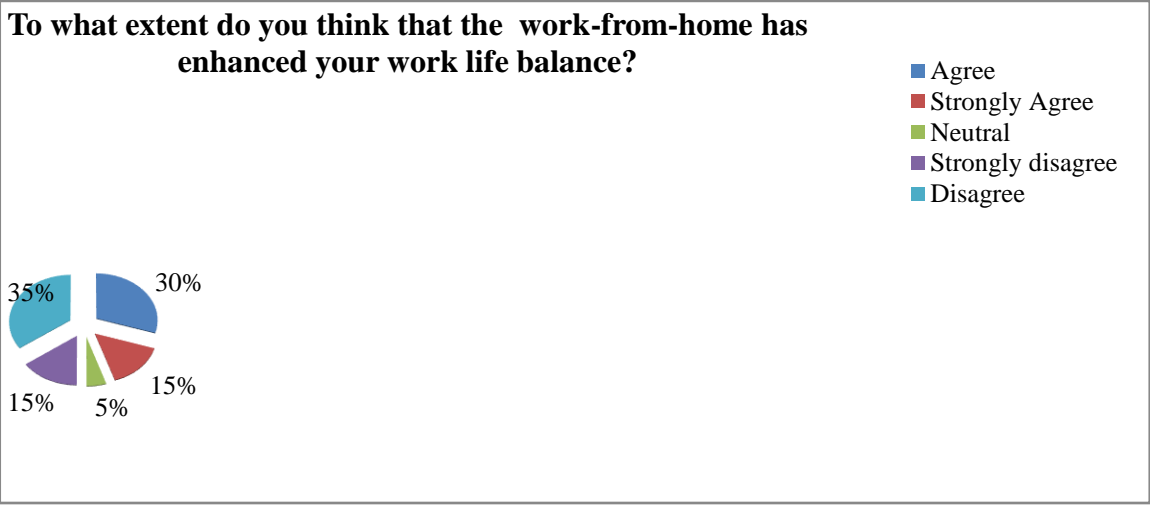


Figure 4.8. The WFH not always been effective to maintain work-life balance, which can lead to increase in productivity

According to the above figure, almost a similar percentage of votes have been placed for or against the statement that work-life balance, led by WFH, has a positive effect on employee’s productivity. Almost 45% of total respondents think that work-life balance, led by the WFH, has been a major advantage for them to increase overall productivity. Another 50% of people have stated that they do not think WFH really has been effective to maintain work-life balance, as they have to face several other challenges due to this new working environment, which have decreased the effectiveness of WFH. Moreover, the recovery process of this situation by putting extra burden on employees does not even improve their work-life balance. (Sample = 30 senior professionals)

Research Question 1

Question 1

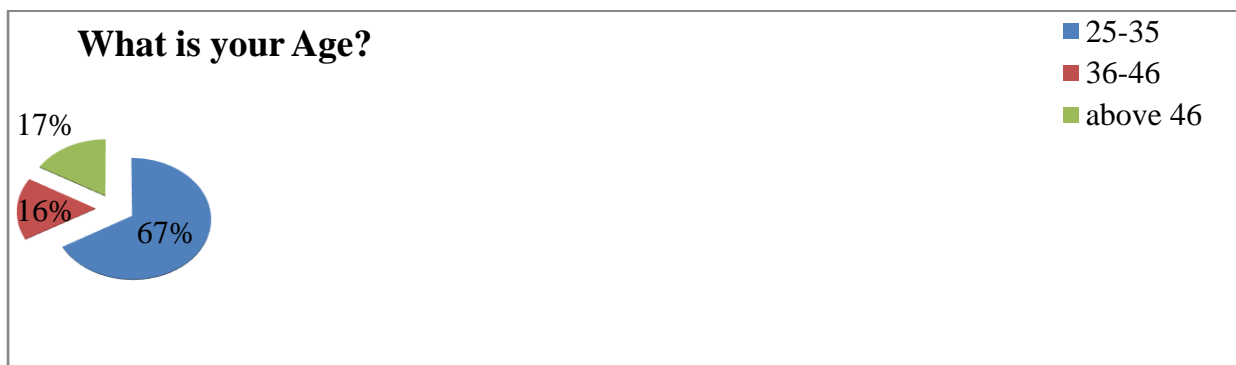


Figure 4.9. Most of the Senior Professionals engaged within this Survey belong to the age group of 25-35 years

As per the above figure, it can be stated that, almost 67% of total 30 senior professionals, participated within this survey process belongs to the age group of 25-35, just like the survey of full-time working professionals. However, 16% and 17% participants out of the total 30 belong to the age group of 36-46 and above 46, respectively. This has included diversity within the result, as people from different age groups have put their viewpoint.

Question 2



Figure 4.10. Most of the Senior Professionals participated within this survey have 1-6 years of working experience

According to the above figure, it can be seen that, almost 80% of total 30 senior professionals from the IT sector have a working experience of 1-6 years. This is a major factor to identify whether they have proper knowledge reading the field and the way of working within this field, before and after the COVID-19 situation. However, some participants have more than 7 years of working experience within this field, though the percentage is less. Only 7% of the senior professionals with less than 1 year of working experience within this field have participated in this survey, as an employee needs at least few years of experience to become a senior professional. Moreover, senior professionals in terms of designation, who have less than 1 years of working knowledge, would not have any experience and potential view over this entire scenario of employee’s productivity before and after the COVID.

Question 3

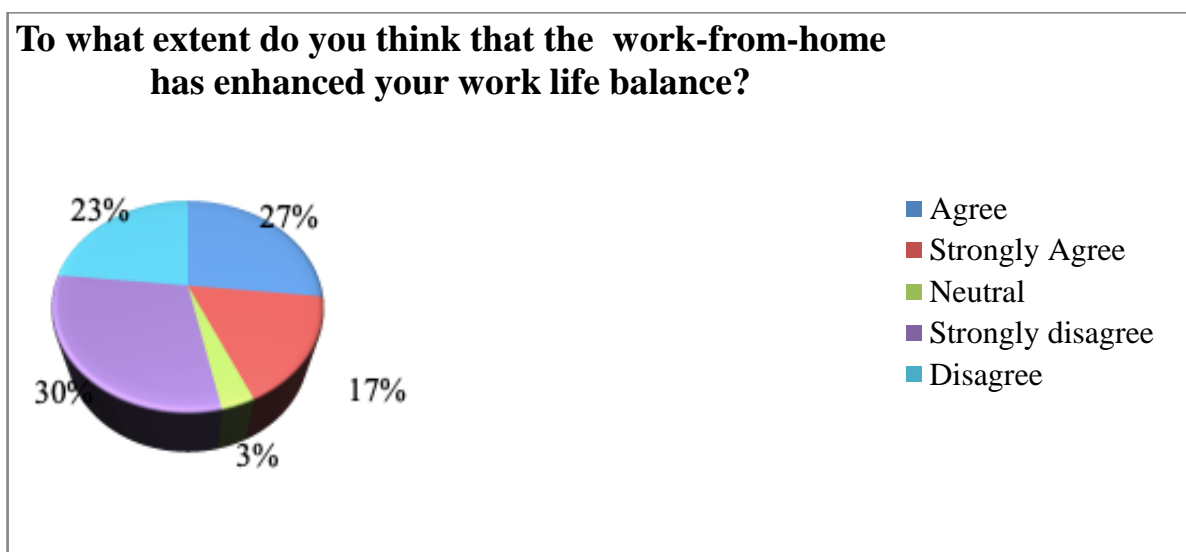


Figure 4.11. Work-From-Home Facility does not affect the Productivity of Employees

According to the above figure, it can be seen that almost 44% of 30 senior professionals from the IT sector have agreed with the fact that WFH facilities have increased their productivity. Although, almost 53% of total respondents have opposed this statement, as they do not think that work from home facilities has increased their overall productivity. More than that, they feel that their productivity has decreased due to this emerging working structure. Only 3% of the senior professionals have remained neutral in this question. It can be stated that, the participants, who have opposed the statement, might face several difficulties, while doing work from home, which has decreased their productivity.

Question 4

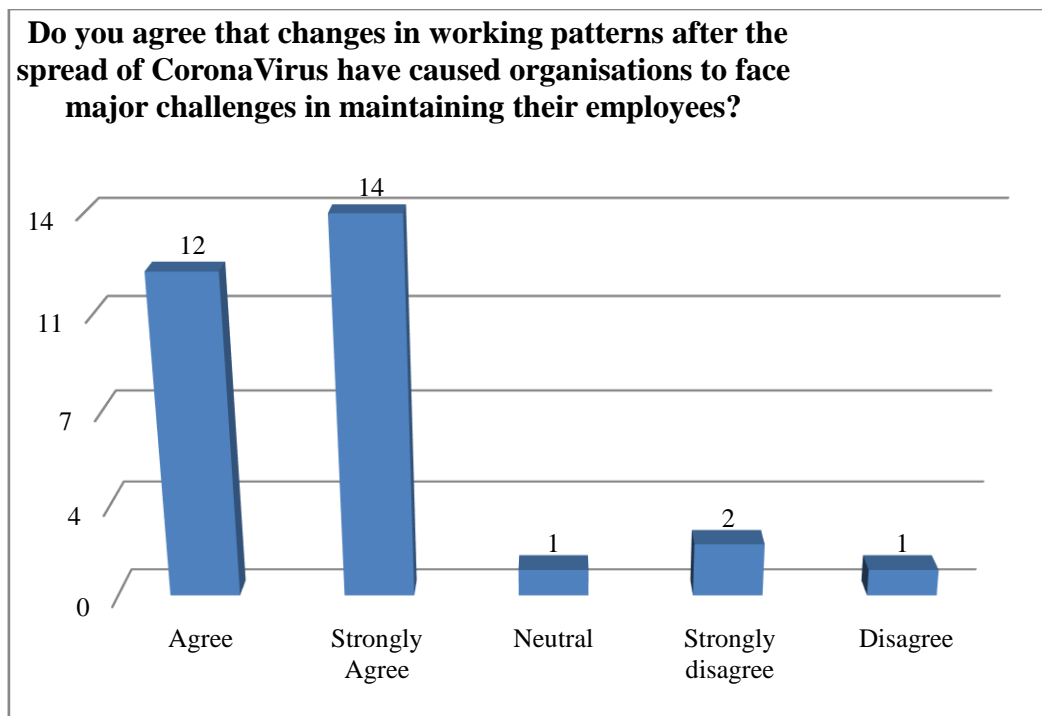


Figure 4.12. Changes in Working Patterns due to COVID-19 pandemic has caused several challenges for organisations to maintain productivity

According to the above figure, it can be stated that, almost 26 senior professionals out of 30 have agreed to the fact, that their organisations have faced several challenges to maintain the productivity of all the employees including them, due to the changes led by the COVID-19 pandemic.

Question 5

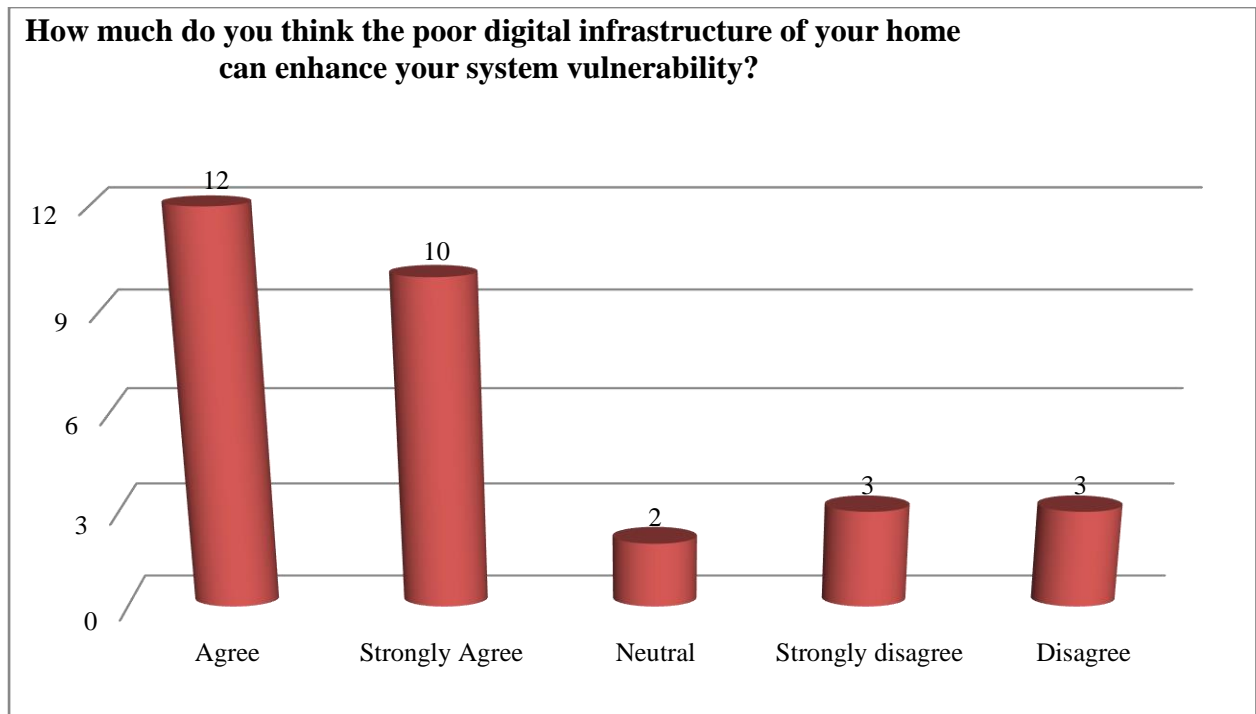


Figure 4.13. Poor Digital Infrastructure does have a negative impact on employees overall productivity

As shown in the above figure, it can be stated that, almost 22 of total 30 respondents have agreed with the fact that in case, the employee has a poor digital infrastructure at his or her home, then it become way more difficult for them to cope up with this situation and the overall productivity of that employee decreases. According to this result, it can be assumed that the senior professional, who has agreed to this, has faced several difficulties and came across complaints from other working professionals, regarding the poor infrastructure at their home, which led to decrease in their confidence and overall level of productivity. Only 6 people out of 30 have disagreed with the above fact.

Research Question 2

Question 6

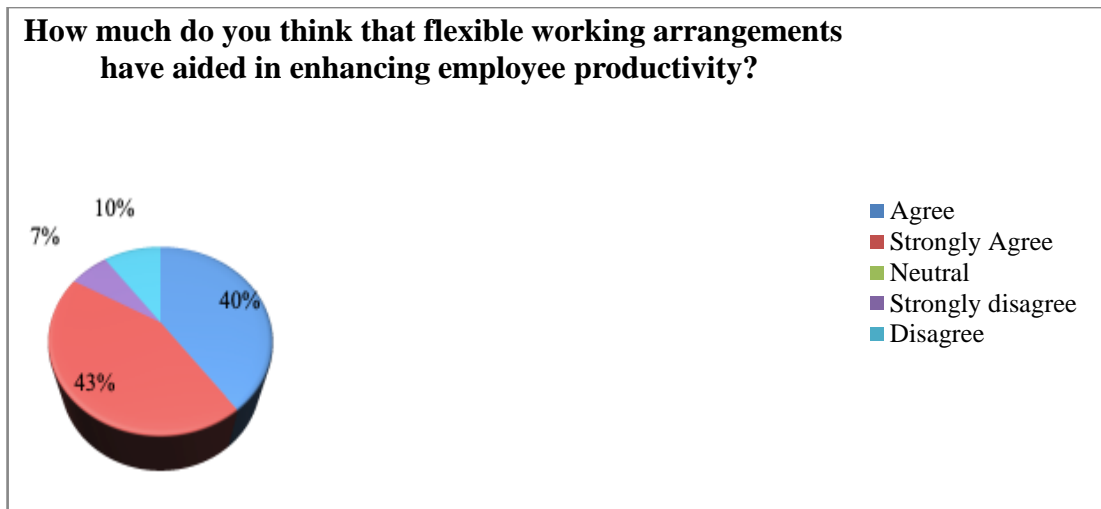


Figure 4.14. Flexible Working Arrangement has a positive impact on enhancing overall Productivity of an Employee

As illustrated by the above figure, it can be stated that, almost 83% of total 30 respondents have agreed with the fact that a flexible working environment can help an employee to be more productive. It might be an indication that all the senior professionals prefer to have a flexible workplace, where they can make their own decisions and express their thoughts without any hesitation. This is the best approach for work, which can improve the overall productivity of these senior professionals. Only 17% of people disagreed with the above result.

Question 7

To what extent do you think that the utilisation of digital-media collaboration and communication tools have been beneficial for enhancing employee productivity in the IT

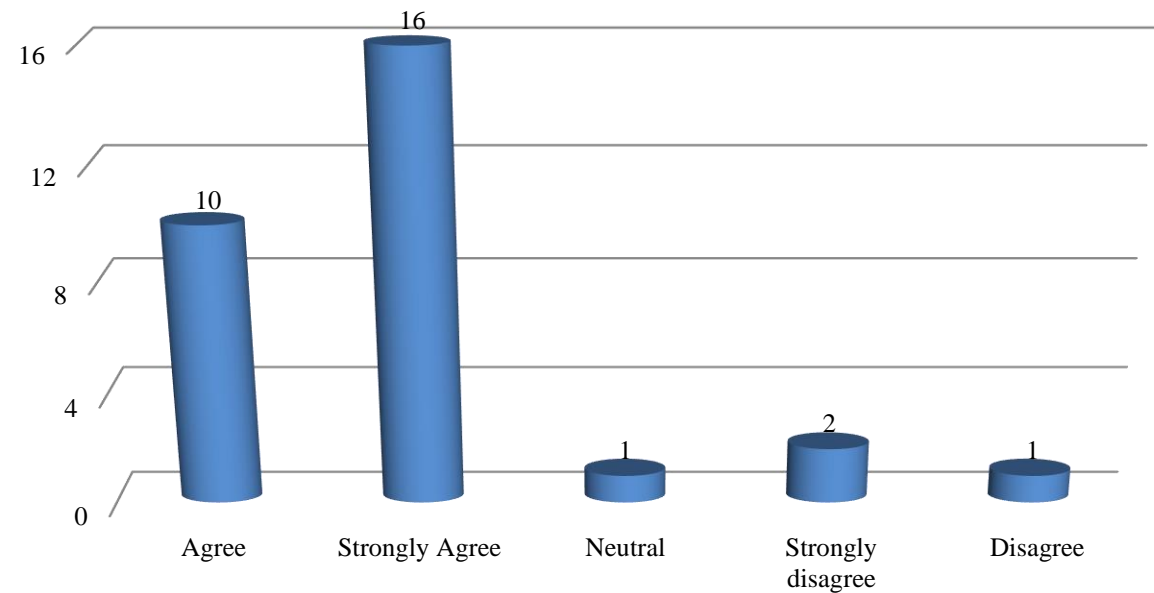


Figure 4.15. Digital Media Collaboration and Communication both have a positive effect on enhancing employee’s productivity

As illustrated by the above figure, it can be stated that, almost 16 respondents out of total 30 have agreed with the fact that digital-media collaboration and communication tools are the major aspect for the company to interact, in terms of knowledge sharing process, which is required enhancing productivity of the employees. Only 3 people disagreed with this above statement and the remaining 1 person was neutral. This is an indication that using the digital-media collaboration and communication tools are effective for senior professionals to connect at a ground level, as it is necessary for the increasing rate of organisational productivity as a whole.

Question 8

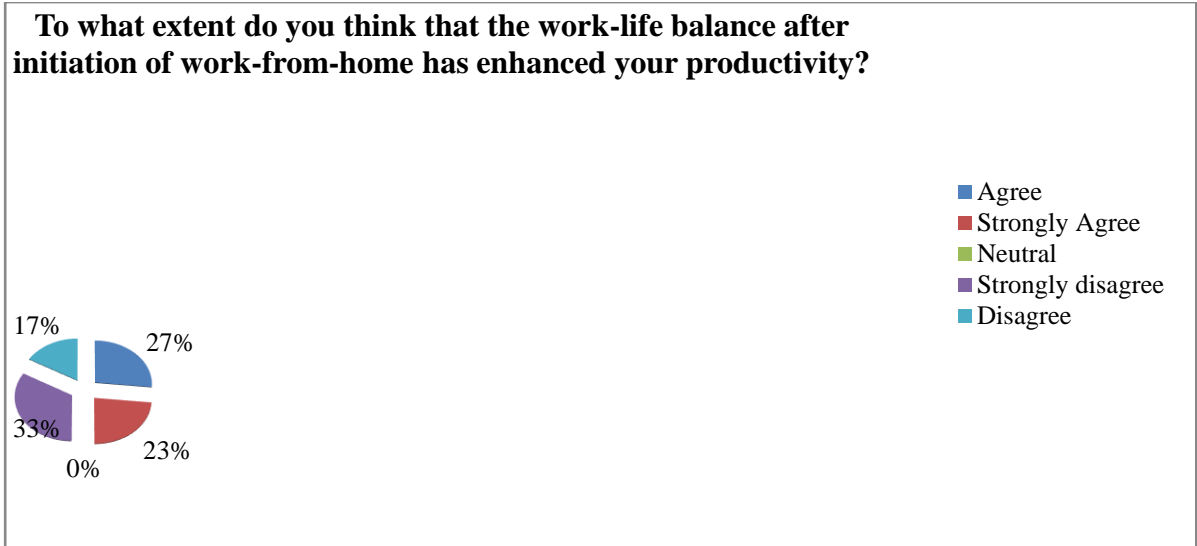


Figure 4.16. A debate has emerged regarding the relation between work-life balance and Employee’s Productivity due to COVID-19 and remote work

According to the above figure, it can be stated that, almost 50% senior professionals out of 30 have agreed to the fact that the remote work culture, led by the COVID-19 pandemic has been effective for them to maintain work life balance and increase their overall productivity due to this. However, another 50% of the people stated something else in this regard. According to them, the WFH does not really help to maintain their work-life balance to affect their productivity. This might be a result of their other major issues, such as lack of digital infrastructure or mental health, which they had to face due to this sudden change in work culture and digital challenges.

4.2 Interview Result

Research Question 1

<p>1) What challenges the management in your organisation is facing in managing the productivity of remote working teams?</p>	<p>CIO 1: I have been working within this field for more than 5 years now. I have experienced several external and internal events that have created challenges for the entire management team. However, after the surge of COVID-19 pandemic, the new remote working culture has been a major area of concern for the organisation, as the infrastructure was not fully prepared and the change was sudden. Due to this, maintaining the productivity of the employee's has become too difficult.</p> <p>CIO 2: According to me, the management team, especially the HR team, did not have any scope to make the employees aware of the new technologies and required knowledge to manage the entire work from their home. This was mainly because of the sudden announcement of lockdown and the unexpected outrage of COVID-19 pandemic. As a result, the management team has faced several obstacles to maintain the productivity of the employees, during the period of remote working.</p> <p>CIO 3: I have experience in the IT field for more than 7 years and according to my knowledge, I can say that, the management team has faced difficulties to manage the productivity of the employees, who have been asked to start WFH during the COVID-19 period, during the initial phase. After the initial phase, the management team has coped up within this situation and found new ways to manage employee's productivity. The initial stage was difficult, as they did not have enough time to train their employees and set the entire infrastructure, which is required to manage a remote working culture. However, as time passed, they identified ways to deal with these challenges and handled the situation significantly.</p> <p>CISO 1:</p>
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I have been working as a CISO within this IT field for the last 4 years and before that, I have experience of working as a full-time worker for more than 2 years. From my experience, I can say that, the amount of challenges the management team of the organisations had to face during the COVID-19 was the highest among all other crises that they might have faced earlier. The management team was not prepared for this sudden change within the work culture just like the employees. Due to this, the entire process of maintaining the productivity level of employees within the operational field has become difficult for the organisation.

CISO 2:

The management team of the organisation did not get enough opportunity initially to train the employees properly regarding the skills required for remote working. The major challenge, which has been faced by the management team of the organisation due to COVID-19 pandemic, was to generate proper guidelines to the employees regarding the security and privacy norms of the company data, as they are not in their office premises. Apart from this, the management team was not able to communicate with employees initially, which was a major gap for enhancing the confidence level of employees to understand their job role and generate efficient work.

CISO 3:

According to me, I have seen that the overall management team of my organisation has become quite disturbed due to the issues raised within the employee's performance for lack in their technical knowledge. The managers were not able to train them properly through visual meetings regarding the technical skills. This was one of the biggest issues faced by our managers during the COVID-19 period.

IT Manager:

I have been working as an IT manager within this organisation for a long time now. As per my concern, during the surge of COVID-19 pandemic and sudden change in workforce and the overall way of working has put the entire management team in a complex situation. Our entire technical department was a little confused about choosing the best way to train the employees with some core aspect of digital infrastructure that they need while working from home. However, this challenge mainly occurred during the initial stage of the change, as later the team has found a way to deal with these challenges effectively.

Financial Officer:

As I am part of the organisation's financial team, I can assess the overall impact of this sudden change on the financial prospect of this company. I could see that the managers of these organisations, who mainly focus on the operational slides and the human resource side, were unable to cope up with the sudden change. The employee's motivation level was down, as they were away from the office environment and not even getting proper guidance to generate better efficiency within the workforce. This has become a major aspect for the overall revenue of this organisation as well.

Human Resource Manager 1:

As a part of the Human Resource team of this organisation, I can say that, during the COVID-19 period, when the remote working was taken as a main measure to continue the workforce activity, managing the productivity of the organisation was difficult, as the productivity of the employees was decreasing in many cases. The mental health of the employees was not good in many cases, and the HR team was unable to connect with them properly through virtual assistance only, in order to mitigate this issue. This situation has become the most challenging aspect for the HR managers during the remote working structure.

Human Resource Manager 2:

	<p>The main challenge that the HR managers needed to face in order to manage the productivity level of the employees was the technical issues. My team members and I were facing complaints from the employees on a regular basis, who were working from their homes, regarding several technical issues. These technical issues are the main reason behind the decreasing productivity of the employees. Apart from this, I have also faced difficulties during the initial days to cope up with the new pattern of work and the work environment, which is completely different from the office environment. The main challenge was lack of concentration, which also has affected my overall productivity level.</p>
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Research Question 2

<p>2) How is your organisation managing the changes in employee behaviours after the outbreak of Covid-19 for managing their productivity?</p>	<p>CIO 1: The management team of the organisation is working hard to manage the behaviours of the employees within the organisation, including the senior professional like us to the ground level employees. The management team of my organisation has designed a set of techniques and strategies to connect with the employees and understand their needs and issues to improve their productivity during this changing work environment.</p> <p>CIO 2: My organisation has developed a team for cooperating with daily issues that the employees were facing, while working remotely. As a higher authority of an IT firm, I can state that I have received enough managerial help from the organisation and the HR team to conduct my job efficiently and design the entire technical process by connecting with the employees, who are working remotely.</p> <p>CIO 3: As per my organisation, I have seen that the managers have designed a clear and concise plan to listen to all the problems of the employees and solve those problems with proper strategies. In this regard, a support team has been developed to handle these issues.</p> <p>CISO 1: I was responsible for developing a team to manage the entire security services of the system infrastructure, required for the remote working process. I have gained a lot of help from the managers in setting up the team and making the employees understand the policies and regulations of the company, which has been effective for me to perform my responsibility more easily. This was effective for my behaviour towards my work and the behaviour of other employees too.</p>
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	<p>CISO 2:</p> <p>The management team of my organisation was active and was extremely helpful to me for checking the progress of the employee and ensuring a better security measure within the entire system. The managers have been extremely helpful to organize regular meetings with the employees and these meetings were not only effective for them, it was similarly effective for me to understand my responsibilities better, as I can interact with real world issues more significantly through these one-to-one meetings.</p> <p>CISO 3:</p> <p>According to my experience, I have gained a lot of support from the managers regarding the problems related to security and privacy of company data, which was at risk for the employees, who were not capable enough to understand the core concepts of these issues. The managers have focused on an adequate and rigorous selection process for employees in order to prevent such problems related to employee's behaviour.</p> <p>Behavioural interview has been a major aspect for the organisation, as it will be effective to the interviewer for spotting the area of concern that can further lead to any kind of employee behaviour related issues down the line.</p> <p>IT Manager:</p> <p>According to me, the communication and connectivity has always been the most effective approach for the management team of the organisation to motivate employees for generating efficiency to their work. An effective communication tool has been a great measure for the organisation to provide all of us the opportunity to connect with colleagues during social isolation by maintaining the security of the system. This has been an effective tool for the organisation to be able to focus on the</p>
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	<p>overall mental health of the employees, which can also be effective for enhancing their productivity.</p> <p>Financial Officer:</p> <p>As per my understanding, the main aspect that the managerial team of the organisation has focused on was developing a flexible workforce and work culture, which would be effective for each of the employees to share their knowledge before making any specific decision. In this aspect, theory of reasoned behaviour plays a major role according to me. In case the employee gets a flexible work culture, it helps them to respond positively for any further decision made by the leaders and cooperate with them in difficult situations.</p> <p>HR manager 1:</p> <p>As I am part of the organisations team, I was able to see the strategies driven by the managers more effectively. For me, the most significant way of handling the employee's behaviour was to develop training and development programs to make them aware of several digital skills. Apart from this, developing a proper communication channel was another effective way to face the issues of the employees, which can also be a positive measure for improving the overall behaviour of them towards their responsibilities.</p> <p>HR Manager 2:</p> <p>I think focusing on developing the digital infrastructure for their employees, while they are working from home is one of the main aspects to manage the behaviour of employees, within this changing work culture. Several high-level leaders as well as ground level employees, who were associated with remote working, have experienced lack of productivity within them, due to the issue they face daily at their home because of poor digital infrastructure. As a</p>
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	<p>result, this can be considered as a major aspect for the entire organisation and its growth.</p>
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3) What strategies have your organisation adopted for enhancing employee loyalty by ensuring their security from cyber threats?

CIO 1:

As I am responsible for managing all the effective information related to the firm and computer technologies, it is important for me to be able to have a secure system, free from cyber threats. The organisation has focused on developing strategies such as a password protection system to ensure that employees within this organisation have a reliable system that can prevent cyber threats.

CIO 2:

According to my experience, the adoption of a strong password protection system has been the most effective initiative taken by the organisation for enhancing the loyalty of their employees toward their internal process, as it can ensure cyber-threat free system architecture. The strong password protection system within the organisation has been a first line of control that can prevent many security breaches and make the employees secure from any kind of cyber threat. This high quality security service can improve their loyalty.

CIO 3:

In my organisation, the main measure to enhance the cyber security aspect that can improve the employee's loyalty was to develop a response plan for the members of the organisation and train them on the way they should behave, in case any kind of breach occurs. This process has been effective for all the employees, who are doing remote work, to respond positively and empower them by ensuring that there is a back-up plan to recover this situation.

CISO 1:

Preparing proper planning to cope with any kind of cyber breach is one of the major aspects for the organisation that can enhance the loyalty of their employees towards their security and management system. A proper plan to respond

to any kind of cyber attack with efficiency is a must for the employees to feel relieved while working from their homes. As my experience, once a small security issue occurred, while we all were doing work from our home. However, the pre-existing response plan was a savior for us to cope up with this situation and we were able to handle the breach effectively without losing any important data of our organisation.

CISO 2:

Developing a proper team with expertise in cyber security was the main aspect for our organisation, which can be effective for regular tracking. The team member of the security team has been responsible for securing the Wi-Fi network of the employees and regular monitoring of their traffic. Moreover, developing a training program for the employees virtually, in regard, to the importance of maintaining the password protection system was another major aspect for the organisation and the team, which we have developed in improving the loyalty of the employees towards the organisation's internal aspects.

CISO 3:

Our team, which consists of expert people, who can manage the cyber security system of this organisation, utilises encryption for the storage and transmission of all the important business related data, which is available to the employees. All the sensitive data of the organisation are being protected through encryption and this has been a major aspect for the organisation's security development team to ensure a cyber threat free system that can enhance their loyalty towards the organisational service.

IT Manager:

According to me, the cyber security of our organisation has been the main area of concern to enhance overall

	<p>productivity of the employees. Training and development programs for employees, in order to explain the cyber security system of this organisation was one of the major ways for ensuring them an effective security measure.</p> <p>This training program has been the most effective strategy to make the employees identify the importance of password protection, encryption and other tools that can be used by them to manage the security of sensitive data, while working from their homes.</p> <p>Financial Officer:</p> <p>According to my experience, I can say that cyber attack can be a major damage for an organisation, as it decreases the internal as well as external reputation of that business launch with the revenue margin. Along with the customers, the employees of the business organisation also lose trust from the organisational system.</p> <p>HR manager 1:</p> <p>As a part of the HR department, I was responsible for ensuring effective security measures to the employees of the organisation. Developing new policies and regulations within the organisational culture, with respect to the legal standard of cyber security, was the main focus to establish an effective security system. These new policy regulations developed by the HR department were denied for the sake of the employees to feel secure from cyber threats.</p> <p>HR Manager 2:</p> <p>Proper training and development program has been the main aspect for the HR team in order to make the employees aware of several uses of cyber protection tools that can enhance their security measures as well as trust towards the internal service of the organisation.</p>
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4) What according to you are the potential ways of managing the employees' issues in enhancing their performance under the changed working pattern and environment?

CIO 1:

According to my experience, the flexible structure of the organisation has helped me and other employees to be able to feel valued within the organisational structure; The organisation has been effective in offering flexible timing for meetings, and working hours.

CIO 2:

Our organisation has focused on virtual meetings for all the employees in a regular interval to establish a collaborative work culture that can help the employees to enhance their overall performance. The employees like me were able to acquire solutions for our issues through these meetings.

CIO 3:

In order to mitigate the issues faced by the employees, communication tools have been the most effective way for the organisation. As a senior employee of this organisation, I have faced several issues, while doing remote work. However, I have been able to recover that issue through the meetings that I have done with my fellow members through various virtual platforms such as Zoom meetings, Google meet and many others.

CISO 1:

As per my experience, by keeping everyone's schedule in mind, the organisation has helped the employees to be motivated and improve their self-esteem. This has a major effect on my and other employee's overall performance during the work from home tenure. As I am the part of the security management team of my organisation,

CISO 2:

As per my views, I can say that, our organisation was clear about the plan and the expectations they have from employees. It has been highly effective for remote workers

	<p>to be able to understand the way they need to work to reach a specific goal.</p> <p>Developing a collaborative work structure seemed to be difficult within this situation for the organisation. The collaboration work structure was effective to generate solutions for issues by sharing knowledge that was mainly built through the digital platforms.</p> <p>CISO 3:</p> <p>According to my experience in my team, I can say that the work distribution process was a major factor for the organisation to be able to manage their performance whether they are working from office premises or from their homes. Our organisation has divided the responsibility and roles of each employee within a systematic manner that has been beneficial for them to understand their task well and improve their self-actualisation.</p> <p>IT Managers:</p> <p>Establishing clear performance metrics was extremely beneficial for the team members of the IT team within our organization during this changing work structure. It has been a major factor for the organization to consider the overall contribution of the remote workers as effective as the offline workers, when expecting the outcome. Keeping regular track of the employee's performance based on the performance metrics is considered as the major strategy for the organization to enhance their performance by mitigating their issues.</p> <p>Financial Officer:</p> <p>The organization has developed proper training to the employees for utilizing cloud service as a major tool to access their work from any device. This is basically an example of a flexible process of work through digital infrastructure available for the employees that can be</p>
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	<p>effective to mitigate the issues related to limited access to their work from different devices. Being, a financial manager, my task was to manage all the financial documents has become easier after the use of cloud services within my organisation.</p> <p>HR Manager 1:</p> <p>Proper training and development process is a major strategy for the organisation, as it can help the employees to improve their performance, which has a major effect on the company's market reputation as well. The training and development process has affected employees to understand various ways that they can use to overcome their issues.</p> <p>HR Manager 2:</p> <p>As a major part of the HR department, it was my responsibility to focus on employee's behaviour and several issues, which might have created obstacles within the path of their performance. As a result, the main strategy was to make the overall organisational culture Open and transparent to the employees, which can help them to solve their issues more effectively.</p> <p>We have tried to make all the policies and regulations of the organisation transparent, so that they can easily utilise them to be responsive to any operational or ethical issues, while working from home. This is a major factor to enhance their performance within the organisational structure.</p>
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Table 4.1: Interview Responses

Theme 1: Employees working from home showed lower Productivity and Employees working from office showed higher Productivity

As per the findings from the interview result, the management of most of the IT firms have faced several issues, while maintaining the productivity of the employees. As per the article, findings have been shown that, in most of the cases, immediately after the lockdown, the productivity of the employees has reduced, due to the sudden change within their work process (Work from Home During the Pandemic: The Impact of Organizational Factors on the Productivity of Employees in the IT Industry - Systla Patanjali, N. M. K. Bhatta, 2022, 2022). The main challenge that the organizations and the management teams of IT firms were facing was the issues experienced by their employees, in terms of technology and connectivity reasons. However, according to the literature findings, it can be observed that the effect of WFH on the overall productivity of Employees was not similar for all (Work from Home During the Pandemic: The Impact of Organizational Factors on the Productivity of Employees in the IT Industry - Systla Patanjali, N. M. K. Bhatta, 2022, 2022). According to the article, a scope of insecurity has increased among the employees; due to lack of communication and this has been a major challenge for the management team of the organisations to make their employees feel secure, while doing remote work.

A significant number of employees within the IT sector have felt that their overall appraisal would have been affected negatively due to this WFH culture. A study from IT employees has suggested that regular communication and collaborative work structure with colleagues is a major factor that is directly linked with the productivity level of the employees. According to another article, it can be observed that several challenges are there, that are associated with the work-from-home model in terms of IT firms in India for both the employees and the employers (Kaushik and Guleria, 2020). The major challenge that the managers had to face while managing the productivity of employees is the lack of equipment required to provide the best infrastructure to the employees.

The managers were ill-equipped to manage staffs, who were working remotely for the organisation. This was a major challenge for them to encourage the employees to maintain their

productivity, while doing remote work (Kaushik and Guleria, 2020) . As a result, it can be stated that several challenges are there that the employees and employer both need to face from the emerging “work from home” model, after the surge of COVID-19 pandemic within these IT sectors. Apart from this, the article suggested that, as WFH does not always foster communication and kinship with the company for the employees (Kaushik and Guleria, 2020). Moreover, it has become difficult for the management team of the IT firms to manage accountability of the remote workers, which is a main reason behind the decrease in their productivity and motivation as well.

Another aspect is that working from home sometimes creates many interruptions and this may be a challenge for the management team to make the employees concentrate on their work, rather than in those obstacles (Kaushik and Guleria, 2020). Due to the unexpected interruption within the work process, the employees were not confident enough about their capability and the motivation level was down. In this scenario, it has become difficult for the management team to motivate them and make them ready for their work. Apart from this, it can be seen that, another major challenge for the employers is to generate their employees with the best equipment and technical infrastructure that would be important for their work at home (Kaushik and Guleria, 2020). The organisation did not have the ability to ensure that their employees are well equipped, in order to deal with the remote working practice. It has been difficult for the management team to manage those employees, who do not have sufficient technical knowledge and technical infrastructure at home that can increase their level of productivity. Most of the employees have faced several issues during their remote working period such as issues related to proper furniture, technical glitches including connectivity issues, internet speed, improper IT setup by companies that often leads to server issues, software related issues and many more. As a result, it was extremely difficult for the overall management team to cope up with this sudden change and increase the productivity of the employees, who are suffering from these kinds of issues, while working from their homes.

Sub theme 1.1: Lack of training program was a major challenge for the management team in managing employees Productivity

The IT industry within India has been keenly waiting for experts to be engaged within their business operation, in order to complete their several work orders, as the COVID-19 pandemic has almost crippled the entire IT industry in the last 2 years. This situation of vulnerability has been observed within the Indian IT industry, as all the necessary training programs have been almost stopped during the pandemic session (The Times of India, 2022). Due to this, the management team could not train the employees effectively to deal with all the

necessary requirements of their work orders, especially when they are working at their homes. As a result, the entire industry is now bouncing back, as most of the employees are still working from home. The entire scenario within the Indian IT sector is not so favourable. The IT sector located in Vizag has almost 150 institutions, even though they need experts in mobile applications that are in high demand in today's environment (The Times of India, 2022). Moreover, as per the news, the lack of training program has restricted the IT employees within this sector to use their efficiency in mobile application. As a result, the management team could not understand how they were going to manage these employees, who did not get enough training to gain knowledge regarding the mobile application.

Sub theme 1.2: Mental health issues faced by the employees was another major challenge for the management team to manage their productivity.

As per article findings, which were based on primary research as well, a majority of respondents have stated that, the work from home practice was not a measure for increasing their productivity. It was rather a measure that has affected their mental as well as physical health from different perspectives. Due to Work from home practices, most of them have developed several physical diseases such as spondylitis, frequent headaches, issues related to overweight and acidity issues. These are some examples of physical health issues that have been faced by the employees of IT sectors of India due to work from home practices. On the other hand, some mental health issues were also there such as depression, anxiety and some other mental health related disorders, which have been experienced by the employees, due to constant detachment from their colleagues and the social interactions. The physical and the mental isolation that has been raised among employees due to long-term WFH, used to make them feel extremely irritated, frustrated, and a sense of lack belongingness and the social interactions has been developed within these employees, which they used to get before the COVID-19 pandemic in their office with all of their colleagues.

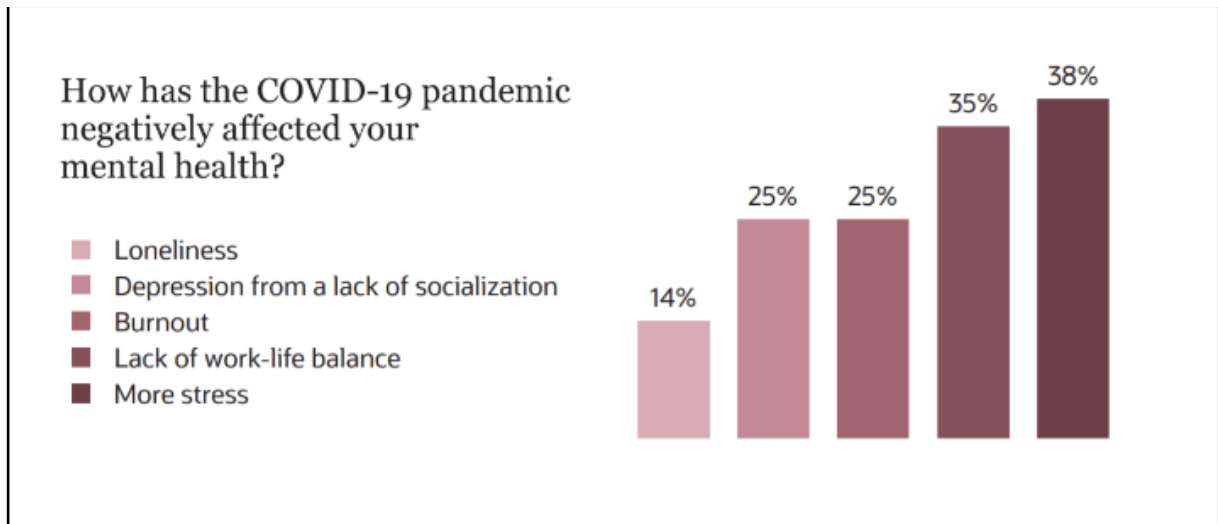


Figure 4.17. Effect of COVID-19 on the mental health of Employees

(Source: Pearsonclinical.in, 2020)

According to the above figure, it can be observed that, COVID-19 pandemic has affected the mental health of almost 78% of employees in various sectors, including the IT sectors of India. Most of the employees have reported a lot of stress, and a lack in work life balance during the COVID-19 period. Moreover, according to the article findings, no fixed timing of work has been another major issue that has affected the mental and physical health of the employees. After the pandemic, the time of work has extended beyond the routine of office hours. This has left no time for the employee for break, times for breakfast, lunch and many others. These are one of the major aspects, which have affected the mental condition of the employees along with their physical condition due to change in eating hours. In this situation, the overall productivity level of employees has reduced by a huge extent and the management of the IT firm, faced many obstacles to improve the productivity level of these types of employees, who have been suffering from mental and physical health issues due to these WFH practices.

Theme 2: IT Firms of India has focused on developing a structured plans to manage the behavioural changes of employees due to COVID-19 pandemic

TCS is the largest IT firm of India and it has operations in several other countries as well. According to the report from TCS, it can be observed that the large organisation has focused on implementing several different measures with the help of “innovative employee engagement programs” and guidance from “behavioural scientists” (Employee Health Wellness TCS Wellbeing, 2022). This has been mainly developed for ensuring that the employees of their organisations are capable enough to handle stress. These programs are the strategy of the

organisation, in order to focus on the mental well-being of the employees, for a short-term as well as long-term basis. TCS has focused on the strategy by developing a well-designed as well as transparent communications plan, which can be used for critical messaging and sharing accurate information from the remote workers or employees to the top level of the organisation.

Apart from that, a real-time collaboration strategy can be implemented as an additional plan for the organisation to collaborate with the employees through some online communication tool, and it has been also effective to manage their needs and be able to track their behavioural changes (Future of Work: Creating a Secure, Agile, and Remote Workplace, 2022). Another major aspect that has been addressed by TCS was to use some effective digital technologies such as AI chatbots, which are mainly designed to help employees in work and motivate them through this. The digital chatbots provide digital support to those employees, who might not be able to understand the way they need to take to complete their task, within the new remote working practice (COVID-19 Impact: How Ascential Moved to Remote Working Environment, 2022). Apart from this, according to TCS, a planning program is essential for engaging, empowering and encouraging employees to be flexible and this is a major strategy, which has been taken over by TCS to manage the overall productivity of their employees.

According to the reports presented by Deloitte, a global IT consulting firm, which also have a subsidiary in India, the first and foremost priority of this organisation during the pandemic was to respond to the crisis and emphasizing on the health and safety, essential services, and the virtualisation of work and education within Deloitte for their potential employees. The company has focused on a strategy that consists of three phases and this strategy has been extremely effective for the company to cope up with the behavioural changes within their employees during this COVID-19 crisis. The three phases are “Respond”, “Recover” and “Thrive” (Deloitte, 2022). The first phase mainly talks about responding to the current situation and managing the continuity. Then the second phase refers to learning and emerging as stronger. The third and final phases focus on the overall preparation to shape the “New Normal”. In terms of workforce management, workforce experience plays a major role in developing the productivity level of employees.

their productivity after the emergence of Work from home practice. The IT major Infosys had announced that they would focus on a “flexible hybrid work model” for meeting employee’s needs and let them work in a flexible work culture (Businessstoday.in, 2020). This model would mainly allow their employees to work from different locations at different times. The model will allow employees to work from their homes, according to the external situation related to the pandemic (Businessstoday.in, 2020). The flexible model of this company has been a major aspect for Infosys to allow their women employees, especially to be able to choose their working hours by managing all their work related to care giving at home. This is also a major aspect of their corporate social responsibility.

Apart from this, the organisation has been successful in re-inventing the HR strategies that can be effective for them to align with the change within employee’s behaviour. This was mainly developed for ensuring that the productivity of all the employees remains unchanged and the service quality remains effective through this. In terms of Infosys India, the organisation has been extremely successful to implement several training and packages within their organisation remotely for the employees to address their needs and improve their productivity. Theme 3: Cyber Security related assurance has been given to remote employees within Indian IT sectors

As per the report from TCS, a leading IT firm based on India, the company has focused on a implementing a “cloud-based secure virtual desktop” services, that can be utilised for giving several IT professional a direct access to employee’s overall system, whether it is their files or the network, that the remote workers uses. This cloud system used by the organisation is also considered as the key drivers of the security system of TCS. Some of the major features of this cloud system are “Secure-edge”, “cloud-based data leakage prevention process” and “threat-protection” and these are extremely effective for safeguarding and controlling the assets of the company, even during remote work as well. These cloud-based services can be extended to remote workplaces as well. These security measures taken by TCS, has been an effective aspect for the employees, who are working from home, as it will help them to feel secure related to their network services from any kind of cyber threats. According to TCS, the “secure remote access technology” used by the company is effective to give the remote workers or employees a “private access (without a VPN) to enterprise applications and systems”, that can secure their data. Apart from this, “Multi-factor authentication” services, which includes biometric and text based methods, and these all are effective to enhance the security of remote workers and their data, which they use while working. These useful tools as well as technical strategies have been a major factor for this organisation to improve the loyalty of the employees to the company.

According to another report from TCS, it can be observed that TCS has moved their staff to work from home practices during the COVID-19 situation after consulting almost 1000 clients regarding their overall plans and security arrangements. After the approval of all the clients, the company has sent their staff for work from home. The company has explained their “Secured Borderless Workspace options” to the clients, these options have been effective for the company to engage their employees more within their work arrangements with trust and reliability for employees, and these are important measures to improve their loyalty towards this organisation. Sub theme 3.1: Security measures taken by Wipro is extremely beneficial for remote workers

According to Wipro and its advisory reports regarding the privacy and security of IT firms and their employees, who are working from home, “Remote Access” is a major category, under which the organisation has enabled a secured private access of the remote workers, to the corporate network of the company along with the end-point security checks. This has been effective for the company to help their remote workers to protect several “managed as well as unmanaged (BYOD)” devices from several modern threats. “Internet Access” is another category, under which the company ensures that the employees, who are working from their homes, must get secured internet access with an advanced threat protection system. Other technical tools that are used within Wipro and several other large organisations are deploying “SSL inspection” and a “cloud-based firewall-as-a-service solution”, in order to maintain system security for their remote workforce (Cybersecurity Strategies for Adjusting to COVID-19 - Wipro, 2020).



Figure 4.19. Factors used by Organisations like Wipro to Fortify their Perimeter for Remote Employees

(Source: Wipro, 2020)

Endpoint security is another effective security tool, used for the protection of remote devices such as virtual laptops. Data security is one of the main categories for the security and privacy protection princess of Wipro and any other companies. Several SaaS based corporate applications like Office 365, SAP are used to fortify overall data security that is controlled by remote employees. In order to develop an Identity Protection, a two-factor password authentication can be designed for the remote workers of employees within this organisation. “Cloud visibility” is deployed by organisations like Wipro for restructuring unlimited data sharing between users, especially outside the organisation.

Theme 4: Changed working patterns and environment influence the productivity of the employees

As per the results obtained from the interview transcript, most Chief Information Security Officers (CISOs), Chief Information Officers (CIOs), IT managers, Financial officers, and HR managers are satisfied with the company and its approach to helping employees for coping up with the changed working pattern and environment after Covid-19 situation. According to (Crafting the Change: The Role of Employee Job Crafting Behaviors for Successful Organizational Change - Paraskevas Petrou, Evangelia Demerouti, Wilmar B. Schaufeli, 2018, 2018), the management of the company must take every necessary action for its employees so that the employees get used to the new working environment. Covid-19 has forced many business organisations to switch to remote working or the work-from-home module when everything was closed due to the rapid infection of Corona Virus. It became very difficult for the worldwide employees to get acquainted with the new working pattern in a very short period.

Many scholars have suggested that the role of the organisation in helping these employees matters most to maintain productivity. The same thing is reflected in this interview transcript where all employees stated that the management has taken enough care of their issues during the early days of remote working. The three Chief Information Officers (CIOs) of the company have stated that a flexible working structure including a flexible period for meetings has helped them to feel valued within the organisation. In addition, the second CIO has stated that the collaborative approach of every department has helped him to resolve his technical and work-related issues through repeated meetings in virtual mode. Moreover, another CIO who is a veteran employee of the company has admitted that repeated virtual meetings have helped him to learn so many technical things for continuing work in the work-from-home style.

Similarly, all three Chief Information Security Officers (CISOs) have admitted that their company has taken a very good role in motivating them during remote working so that their performance does not fall in the changing environment (Sustainability Standards: Interactions Between Private Actors, Civil Society, and Governments | Annual Reviews, 2018). As per them, their company has always maintained flexibility in work timing and provided the necessary setup in their respective houses so that they can carry out their jobs effectively from the home setup. It needs to state that evaluating remote workers with offline workers is still a matter of controversy and every organisation is working to establish equal performance evaluation metrics for both parties. However, the IT manager has pointed out that the company has made

clear performance metrics for all the employees, which have helped both parties to continuously monitor individual performances in the new working, pattern.

The financial manager has informed that the company has taken enough responsibility to help the remote workers by providing access to a cloud platform for instant share and storage of data. Thus, the company encourages the financial department's employees by providing suitable digital solutions to make their work easier. Moreover, the two Human Resource (HR) managers have stated that the company has arranged several training programs for its all employees who are working in the work-from-home model. All of them had given enough lessons to tackle issues during remote working so that their productivity and performance remains the same. As per the statement of the second HR manager, they were given the task of monitoring every employee if anyone is facing any difficulty in remote working. In addition, HR managers were advised by the top management to establish an open and transparent working environment so that everyone feels comfortable during the early days of remote working. Maintaining ethical standards and practices during remote working- are two things that have been prioritised by the company for its all workers.

From the above discussion, it is reflected that flexible timing, training programs, virtual meetings, collaboration, and technical assistance are some keywords that are appearing constantly while interviewing different people of the company. As suggested by (De Lucas Ancillo, Del Val Núñez and Gavrila, 2021), work flexibility is a pivotal part of the successful implication of remote working. It ought to keep in mind that working at home is a completely different experience from working on office premises. In the case of remote working, flexibility is much needed so that an employee can manage both work and life. It is found that this company understands this basic thing and encourages its employees for a good work-life balance. In addition, it is suggested by (Carnevale and Hatak, 2020), that technical assistance must be provided to every employee as everyone may not be technically sound. Besides, not everyone may possess enough technical equipment like personal computers, and broadband connections at their houses. Therefore, the respective business organisation must provide necessary training on technical aspects and equipment to its employees.

Moreover, a collaborative approach must be present among all the remote workers as they are separated by many miles. It is observed that the collaborative approach makes a function less time taking too. As advised by (Is Maslow's Hierarchy of Needs Applicable During the COVID-19 Pandemic? - Sheikh Shoib, Tan Weiling Amanda, Vikas Menon, Ramdas Ransing, Sujita Kumar Kar, Margaret Isioma Ojeahere, Sarah El Halabi, Sheikh Mohd. Saleem, 2022, 2022), a collaborative approach is beneficial for team building and performance

enhancement. The same thing is reflected in this interview where respondents state that the company has provided them the access to cloud platforms to store, share, and communicate with others at a minimum of time. Moreover, collaboration is effective to maintain the quality of performance of the employee particularly if the working condition and pattern change due to any particular reason. A part of such collaboration is virtual meetings through Google Meet and Zoom Calling app. The purpose of these virtual meetings is to keep the employees alert about project deadlines so that any failure does not appear in the changed mode.

Another interesting fact that arises from the interview transcript is the training and development of employees during remote work. As per the view of Aburummanet al. (2020), providing suitable training for the development of employees' overall technical knowledge and online troubleshooting experience is very important to boost the morale of the employees. Due to the change in conventional working patterns, the self-esteem and confidence of an individual usually go down. In such cases, confidence must be boosted by aiding some help in form of technical assistance, equipment, or even a small incentive/appraisal. The same thing is observed from the interview transcript that the organisation has asked its HR department to continuously help its employees if any issue arises. It will boost their confidence and help them to achieve the company's goal.

4.3 Summary of Findings

As per the above result from the survey with both the samples, it can be observed that, most of the respondents have more 1-6 years of working experience within the IT firm. This has been a major factor for this research, as all the employees, who have been participating in this data collection process would have been able to share their views on the effectiveness of COVID-19 on employee's productivity with feasible experience. In terms of the first survey result, it can be stated that, a major portion of people thinks that the WFH culture, due to the sudden outrage of COVID-19 pandemic. The survey result is based on full-time employees and senior professionals have stated that there is a conflict of opinion among the respondents, as some of them stated that work from home due to COVID-19 pandemic has experienced a growth in their productivity. However, the majority stated that their overall productivity level has decreased. Most of the full-time employees as well as senior professionals have stated that they feel their organisation has faced many challenges after COVID-19 pandemic to maintain the productivity level of employees due to several behavioural changes and many other aspects.

Full time employees and senior professionals both think that poor digital infrastructure at home is one of the major reasons behind their declining productivity. From the survey of different sample size, and designations, it can be observed that all of them found a flexible workplace culture and communication tool to be most effective for the increase in employee's productivity during the WFH practice. However, confusion has been raised regarding the fact that WFH helps employees to maintain work life balance. As a result, it can be observed that communication tools for digital collaboration, flexible work structure, are the main drivers to recover the declining productivity of several employees during the sudden outrage of COVID-19.

Apart from the survey, the interview responses have also focused on some effective insights. According to the interview responses, it has been found that, lack of training program was the major challenge for the management team of the organisations, due to lack of training program during the COVID-19 pandemic, the management team could not manage the productivity of those employees, who had little knowledge regarding the technical requirements. According to the secondary study, thus many IT firms in India are now seeking experts for completing their work orders. Flexible work culture does have a major effect on employee's well-being, motivation as well as work life balance. Apart from this, it has been found that. Several technical solutions like cloud-based security, multi-factor authenticity are important for organisation to provide security to remote workers and increase their trust level in the organisation. In addition, effective performance evaluation metrics have been established for the online workers so that their performances are evaluated just like the offline workers. Many Indian IT companies have introduced HR management tools in their operations to continuously assess and monitor their respective employees' performances. Apart from that, respective team leaders have been asked to take care of every professional need of these employees who have started to work in a different work pattern.

4.4 Conclusion

In conclusion, it can be stated that, employee's productivity within Indian IT firms has decreased after the surge of COVID-19 pandemic. The sudden outrage of COVID-19 pandemic has led the organisations to engage WFH practices and allow their employees to work from their homes. It has been found from the above discussion that most of the employee's feel that they have lost their work life balance due to WFH practices. However, it is observed that the Indian IT companies have taken some needful actions to help their employees for coping up

with the new working pattern and environment. The main strategy that can be implemented by the IT firm to recover these gaps are developing a flexible work process, proper security system, effective training program and a proper planning to address employee's needs and requirements to make them more engaged with the company and enhance their trust towards the organisation during this difficult period.

CHAPTER V:

DISCUSSION

This section will define a thorough discussion of the above findings from the survey process, interview responses and the supporting evidence used for the interview responses from secondary sources. The discussion will be made by aligning them with the literature findings and identifying whether the result and findings are supporting the findings from the literature review section or not. Justification for all the statements made within this section based on the findings will be given with proper details.

5.1 Discussion on Findings

As mentioned in the earlier section, two survey processes have been conducted in different sample sizes. One survey has been done with 200 of full-time employees of IT firms and another survey has been done based on a sample size of 30 senior professionals of IT firms. An interview process also has been developed with almost 10 respondents, who are associated in different designations of IT firms. Several responses have been gathered within the previous section from the survey and interview process. The discussion on the result gathered has been developed within this section, by identifying whether the result aligns with the literature review findings or not.

The first question of the survey process stated that, there is a debate between almost a similar numbers of respondents regarding the fact that the work from home practice has increased the productivity level of the employees. Some people stated that the emerging work from practice has been a major aspect for accelerating his or her overall productivity level. However, more people, who are full-time employees in IT firms, are facing issues regarding the emerging work from home structure. This conflict has mainly developed due to the job satisfaction level of employees and their skills. Some of the senior employees or full time employees, who have more work experience have no issue with this new work from home culture. These employees to some extent think that working from home is easier for them, as they can save their time of travelling from home to office and office to home and put that time into their work, for implementing new innovative ideas for developing a better workforce. On the other hand, it has been found that, most of the people oppose this statement and said that they do feel that this new work from home culture has reduced their concentration, efficiency and overall productivity. As per the article findings, it can be stated that, the employees from

various IT organisations are less satisfied with the job role within remote working culture, due to a dwindling relationships with co-workers and a sense of social isolation has affected them negatively. The fear of being replaced by someone else, which has better technical or work related skills, is another reason for the decline in their overall mental health. The reason for the huge volume of unemployed people in India is the organisational policy to reduce employees from their workforce, who were not capable enough to cope up with the emerging work from home practice and did not have skills to manage all the technical aspects. That is why; the full-time employees and the senior professionals get scared regarding their job and indulge in extreme levels of insecurity, mental stress and job satisfaction, which finally resulted in the reduction in their overall productivity level.

As per another report, it can be observed that there is a major challenge observed within the global workforce before 2020 that requires the existing labours or workers in different fields of work to switch their occupations or to acquire sufficient technical knowledge that would be mandatory to utilise workforce automation by 2030. Most of the industry experts have stated that a huge skill gap has been observed within the global workforce due to changing work processes and this is a major challenge for the industry (Mckinsey, 2020). However, the COVID-19 pandemic in 2020 has pushed this challenge and made the question more significant. Workers or employees across various industries, including the IT industry, need to figure out the way, under which they can adapt their work process to changing work culture. Moreover, the companies need to also learn the way to match their workers with new roles and several new activities (Mckinsey, 2020). However, most of the companies have failed to develop a proper strategy to match their employees with new roles and skills, required for performing their best from WFH practice. This is the main reason behind the sharp decline in their overall level of productivity.

Another response of the survey question has stated that the organisation from various sectors has faced several challenges to maintain the productivity of their full-time employees and senior professionals as well. The above discussion from the report, where there is a mention of a huge challenge faced by the global workforce due to rising demand of skilled labour within the industry, required for the automation of work. This was a major challenge for the organisations as well, as they sometimes do not find the right way to train their employees and match their employees with their new roles and activities within the remote work structure. Moreover, the insecurity level of employees regarding their employment has been a major aspect for mental stress, which results in decrease in productivity. According to the Interview process as well, the respondents has stated that, the management team of their respective

organisations has faced several challenges to maintain the productivity level of their employees, as they did not get scope to develop proper training program, which can help their employees to increase their technical skills, required for work from home purposes. It has been found from secondary sources that, most of the time, in various IT firms, the management team used to be ill-equipped, and they did not have sufficient technical infrastructures, which are essential to start work from home practices (Kaushik &Guleria, 2020). Therefore, this was another major challenging aspect for the management team to manage the productivity of the remote workers for better service and organisational growth. Moreover, the secondary sources have focused on the level of concentration of employees, which mostly disrupted due to the interruption at their home environment.

According to the survey result, most of the employees felt that they could not manage their work life balance and this was mainly because of the disrupting work environment and interception between personal and professional life. According to the literature findings as well, it can be observed that, proper work environment is a major factor for the employees to maintain a work life balance and put their best into their work (Mann and Chitranshi, 2021, p. 5507). The secondary data sources have revealed that Infosys has been a major IT firm of India that has focused on the description faced by women workers in their work, due to work from their homes. In this regard, it can be discussed that, the flexible work environment is highly effective to manage the worker's overall productivity and the flexible working model of Infosys has been a major factor, especially for the women employees, as they had to handle several home care related activities such as cooking, or baby care and many more.

The flexible working model of Infosys has been effective for the employees to set their working time as per their convenience, regardless of location. Infosys has followed a "flexible hybrid model", within their business organisations to meet their employee's needs and increase their productivity through it. As per the interview, the IT firms have focused on developing some major strategies to manage the behavioural changes within their employees after the pandemic, as it would have been better for them to maintain their overall productivity level. TCS has focused on developing "innovative employee engagement programs", with guidance from "behavioural scientists", and this program has been a major factor for them to ensure that the employees of their organisations are capable enough to handle stress.

Moreover, it has also been developed for maintaining the well-being of the employees that can affect their productivity level, by responding to their mental health and job satisfaction level. As per the survey result, digital media collaboration as well as effective communication tools has been considered a major tool for employees of IT firm to improve their productivity

level. The interview respondents also mentioned a need for an effective communication tool within their IT firm to collaborate with remote workers and develop a potential relation with them that can improve their motivation level and help them to complete their work with efficiency. The result from the secondary sources, has also supported this fact and stated that, TCS, a leading IT firm, based in India has developed a well-designed as well as transparent communications plan, that has been used for accurate information sugaring from the power level of employees to the top level employees. As a result, it can be stated that communication has always been the most impact factor to boost remote workers and engage them with the changing workforce with motivation. According to the literature review section, it can be observed that some major challenges that have been found effectively related to the emergence of work from home practices within an organisation are communication challenges. Lack of communication creates confusion within the work process and executive managers had to face several difficulties in making effective business decisions, due to lack of real-time response from their subordinates (All of work? All of life? Reconceptualising work-life balance for the 21st century - Kelliher - 2019 - Human Resource Management Journal - Wiley Online Library, 2018). As a result, the transparent communication tool used by TCS is a measure for the IT firms to recover this challenge and bridge the gap between the remote workers and the high-level leaders of their respective organisations.

Another IT consulting firm Deloitte has focused on developing a strategy planning, which contains three distinguished phases. This particular strategy planning of Deloitte has been extremely effective for the organisation to manage the sudden behavioural change of their employees. As per the literature findings, this can be observed that another challenge, which most of the organisations might face due to the WFH practice is the “Supervision Challenge”. As per the findings, it might become difficult for the organisations to be able to supervise the work progress or work status of the employee’s thoroughly, and this might be a reason for any loss the organisation might experience due to the inaccuracy within the work of remote workers. In this context, Deloitte has focused on developing a plan that identifies behavioural change of the employees, which will also affect their work progress as well. The “Respond”, “Recover” and “Thrive”, these three phases has been effective to manage the behaviour of employees with a proper two-way communication system and then evaluate the result for encouraging them to give their best effort. This two-way communication system has been effective for Deloitte to maintain a regular track of the needs of their remote workers as well as track their work process. These types of planning and strategy implications can be beneficial for the IT organisations to cope with the sudden change and maintain the overall productivity of their organisations.

It is observed from the survey and interview analysis that several strategies have been taken by the Indian IT firms to maintain the productivity of their employees in the work-from-home module. The rapid outbreak of Covid-19 has forced different Indian IT companies to suddenly switch to remote working within a very short period. Initially, the employees suffered several challenges as the conventional working pattern and conditions changed. However, experienced managers of these firms incorporated some of the strategies in their operations to make work easier for their employees. They introduced flexible work timing as a tool for maintaining the work-life cycle of their employees. The flexible working hour has reduced the stress on the employees and encouraged them to do more productive work. Similarly, the incorporation of collaboration and communication software was a masterstroke to eradicate the barrier of distance among the employees.

In addition, different cloud-based digital solutions have been introduced in the operations to help the employees in the fast sharing of data and knowledge. Different Cybersecurity solutions have been provided to the remote workers for installation at their houses so that they can have a secured workplace just like the office. Moreover, managers of different Indian IT firms have organised many Training and Development (T&D) programs for their employees so that the employees can learn technical aspects from the experts. It was another very good decision as most of the employees do not possess modern systems in their houses and faces different issues frequently in their systems. Besides, managers have tried to develop equally effective performance evaluation metrics for digital workers so that their work is acknowledged in the same way as offline workers.

In terms of the cyber security aspect, it is noticed that Indian IT companies have already taken some necessary measures to control the cyber attacks on employees 'systems during remote work. Cybersecurity has become a major threat in remote work and it causes many unwanted situations throughout the world. It is necessary to develop a well-protected system for the employees so that they can work with a tension-free mind and deliver the best performance from their sides. Due to the lack of advanced technical skills and knowledge and less secured WiFi systems, remote workers are very susceptible to cyber attacks. In most cases, these employees do not possess sophisticated personal systems and firewall protection required for preventing unwanted cyber attacks on their systems. As a result, the number of phishing and data exfiltration activities increases over time. However, it is also noticed that TCS and Wipro, two IT tycoons in the Indian IT industry, have modified and upgraded their existing cybersecurity protocols to help their employees and maintain their brand images in front of

foreign clients. Therefore, it can be concluded that the Indian IT industry is going in the right direction till now.

5.2 Discussion on Research Question 1

The first research question was mainly developed to identify the overall effect of COVID-19 pandemic on the overall productivity level of employees from Indian IT sectors. The above findings have focused on some major factors that have been a major driver for the productivity level of remote workers during this pandemic (Sustainability | Free Full-Text | Social Isolation and Stress as Predictors of Productivity Perception and Remote Work Satisfaction during the COVID-19 Pandemic: The Role of Concern about the Virus in a Moderated Double Mediation, 2020). The above discussion mainly developed a fact that, the effect of pandemic and work from home practice mainly has a negative influence over the productivity level of remote workers in various IT firms in India. The mental stress, lower level of motivation, lack of skills and lack of training and development programs were the main drivers, which has been identified as the reason behind the declining productivity level of employees, who were not able to cope up with this sudden change within their work culture. As per the literature review section, “Theory of Reasoned Action” has been a major part of employee’s behaviour related to this situation.

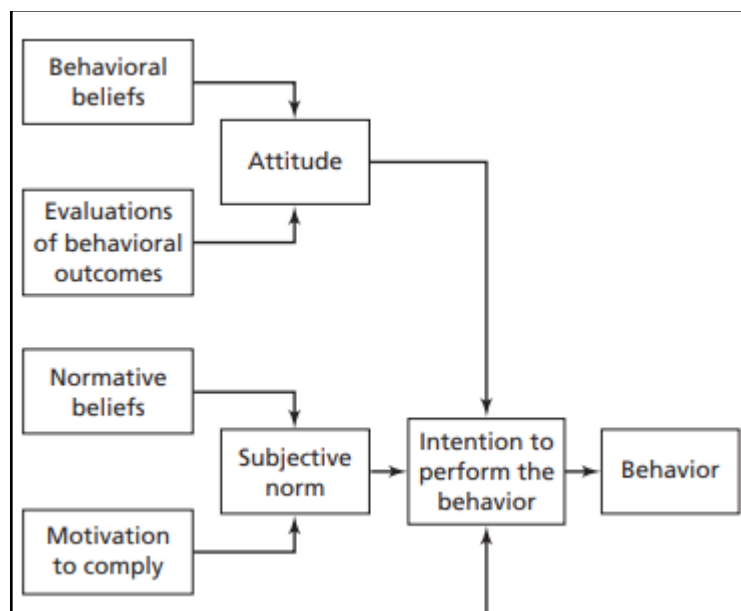


Figure 5.1. The Framework for Theory of Reasoned Action

(Source: Montano, (Glanz, Rimer and Viswanath, 2015), Theory of reasoned action, theory of planned behavior, and the integrated behavioral model. Health behavior: Theory, research and practice, 70(4), p.231.)

The above figure focuses on the elements related to “Theory of Reasoned Action”. According to this theory, the employees would behave within their work process, as per their previous attitude gained from the previous experience and behavioural intention acquired from that experience. As a result, in case the IT firm needs to maintain the productivity level of the employees, it is important to focus on their well-being, motivation level, which can lead them to have a positive behavioural intention towards their work. As per the findings, we found that poor mental health, the sense of insecurity, and less career satisfaction are the major aspects, which reflects the state of mind of the employees, who have been allocated for working from their homes by their respective organisations. These factors have come across as the main factor for the increase or decrease of an employee's overall productivity level.

The employees, sometimes worries about the increasing possibility of losing their jobs, due to the increased digitisation of work, which they might not pursue due to lack of skills or knowledge. In terms of IT firms, the employees, who did not get enough training for gaining knowledge regarding several technical aspects of their work in offline platform, feel insecure regarding their job. They used to think that they might be replaced by the company during the work from practice as they could not generate efficient work to the organisation due to lack of training and the organisation might hire someone else, who has enough skills and more experience within this field.

The sense of insecurity leads to an increasing level of stress and a lower rate of career satisfaction. All these aspects are related to the productivity level of those employees and they can not perform with their best effort to generate a better service to the organisation. Even the responses from senior professionals of IT firms have also defined the emerging WFH culture as a main reason for the decrease in the productivity level of their own and the employees, who work under them.

As a result, it can be stated that, the findings from the literature review section, where there is a mention of the increasing unemployment rate during 2020, due to sudden and prolonged lockdown. Moreover, many organisations have cut their workforce volume by removing employees. This is the main reason behind the employee’s fear regarding the loss of their jobs during the pandemic. It has been found within the literature review section, that when

compared to the unemployment rate of 7.39 percent in 2019, there was a huge increase of unemployment rate in India in the year 2020, especially in the month of April, when the spread of corona virus was at its peak. As a result, it is clear from the findings section that, pandemic has affected the mental health of workers or employees, who have been asked to work from their home and this was a major reason for the decline in their productivity level (Ueda et al., 2020).

The willingness of work has been reduced among them, and this has led to less concentration on their work and the workforce of these organisations was disrupted. However, it has been found that some of the organisation has struggled within this emerging work culture only during the initial stage. Moreover, the pandemic has affected the work-life balance of employees, whether they work at a higher level at the IT firm or lower level. Interference of personal life to professional life and vice versa has been a major factor for the employees to concentrate on their work, while doing WFH. According to the literature review, most of the time, the home environment of the employees was not suitable for work, especially for the women employees. In this regard, the result from the employees in the survey, regarding the work life balance might be a result of their declining concentration on work, due to interruption of home environment and this has lowered their overall productivity as well as confidence. As a result, the organisations had to face challenges in diverting the concentration of their remote workers to the work and training them to bridge the gap between their personal life and professional life. However, it was almost impossible for organisations to help those employees, who do not have any suitable environment at their home to work, to recover their productivity level. As a result, this is a major effect of COVID-19 pandemic that has influenced the productivity level of employees and organisations both, in a negative aspect. Along with the home environment, another factor that has risen due to COVID-19 pandemic and affected the overall productivity of the IT employees is the poor digital infrastructure at home.

As per the survey responses from question 5, it has been observed that, due to COVID-19 pandemic, the organisations were almost forced to send their employees to work from home practice urgently, in order to continue their business activities. However, in most cases they did not check whether the employers had proper digital infrastructure at their homes or not. According to the literature review section, it has been found that, overall, mental vulnerability of the remote workers has increased due to COVID-19 pandemic and WFH culture, as they had weak digital infrastructure at their homes and this is a major driver to reduce their confidence level as well as their loyalty towards the organisation. It has been seen that the productivity level of employee's has been affected significantly due to emerging work from home practice.

Smaller companies have reported that they had to make quick decisions, for sending their employees for work from home, which have “age-old laptops”, “poor network” and “connectivity with no UPS backups”.



Figure 5.2. Main Issues related to Poor Digital Infrastructure at homes

(Source: Economic times, 2020)

Some of them have little knowledge regarding the technical requirements they need to have for completing certain work orders within the IT firms. The employees also did not have the latest software at their home to conduct the services effectively and this has been a major drawback for them to be able to handle these situations. It can be stated that the sudden outrage of COVID-19 pandemic has not left any scope for the organisations to train the employee and evaluate whether they have proper digital infrastructure at their home, to deal with all the technical requirements of the work orders. However, this effect is less in terms of IT employees, as they have the basic knowledge of IT. Though, the employees, who work at the non-technical department of these IT firms such as any junior representative of the HR team or any of the operational team, have faced several issues, due to the poor digital infrastructure at their homes.

5.3 Discussion on Research Question 2

The research question 2 of this research paper mainly focused on developing a thorough idea regarding the strategies, which can be used to recover the challenges faced by employees, in terms of their productivity level. The research finding has found effective communication tool as the most important strategy that can be used by the IT firms in India to overcome these challenges. An effective and transparent communication tool within an IT firm, like TCS, is extremely helpful to create a direct connection with the remote workers. This is also effective to and share accurate information from the workers to the team leader or from the team leaders to the remote workers. In terms of TCS, which is one of the leading IT firms, based in India, they prefer to maintain employee engagement in business, while doing WFH practice through an increased level of communication process. The leaders in TCS generate regular updates to their remote workers through a proper communication channel such as “email”, “intranet”, “employee apps” or “virtual town halls”. These effective communication plans give confidence

to the employees, in order to think positively and it helps them to understand that their leaders have plans in place to make the entire system easier, without any hassle. Along with the confidence level, the productivity level of these employees also increases through this type of effective as well as transparent communication system from higher-level employees to lower level employees, within this organisation and in any other IT firms. These communication tools are effective for the organisation, to share regular updates to the remote workers, regarding any smaller changes within the working process. Apart from the communication tools, another major strategy that has been adopted by the organisations within the IT industry is Automated AI services. As per the above findings from the thematic analysis, it can be observed that, TCS has focused on developing digital chat-boats for their enterprise that can be effective to connect with the potential employees and solve their issues. The digital chatbots were used to maintain a collaborative work process within the business. In this regard, according to the interview responses, the strategy and collaboration planning designed by the IT firm has been a major driver for the employer as well as employees to recover the challenges that they were facing due to the sudden outrage of COVID-19 pandemic. The challenges are mental isolation from the colleagues, and depression or increasing stress level, which they have been facing, since they could not have a proper one-to-one conversation with their senior to solve the issues within their work.

Focusing on the behavioural change of the employees and providing them a flexible work structure has also been effective for these IT firms and its management team to solve their queries and improve their job satisfaction. The company has developed a Hybrid Flexible Model, where the remote workers can work according to the preferred time. This has been an effective measure to increase the overall level of job satisfaction of the potential employees. These aspects are important for the increasing motivation level of these employees and this will further boost their overall productivity level. In this regard, the Maslow's hierarchy of needs can be aligned with the context of employee's motivation level. As per the above discussion, it has been found that, there is an urgent requirement for enhancing the motivation level of employers, who were working from their home and feel that the several issues were there, which had not been addressed by their organisation.

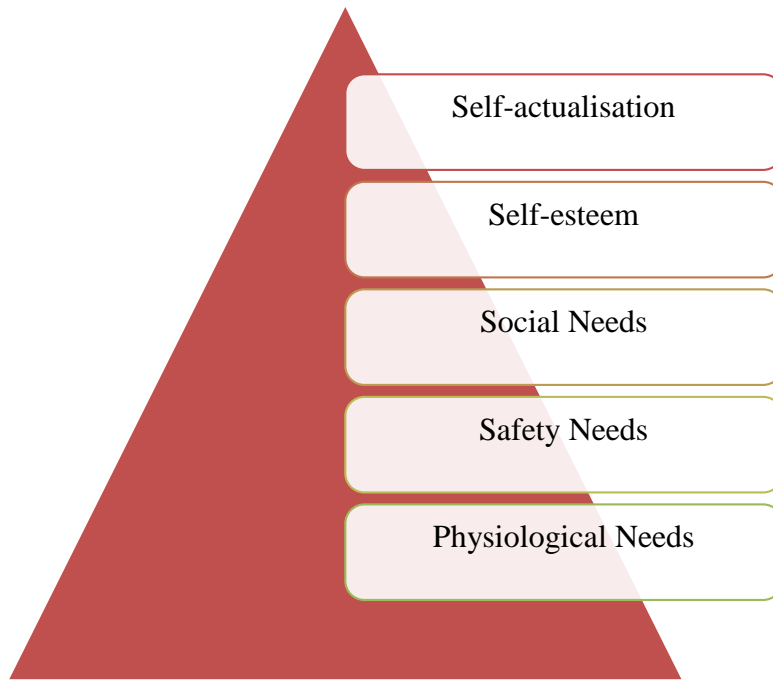


Figure 5.3. Maslow's Hierarchical Theory of Motivation

(Source: <https://www.simplypsychology.org/maslow.html>. 2022)

This theory refers to a well known theory of motivation that includes “Physiological Needs”, “Safety Needs”, “Social Needs”, “Self-esteem” and “Self actualisation”. In terms of these elements, the self-esteem of the employees can be improved, as the leaders would try to connect them personally for answering their questions or giving their appreciation for their work. On the other hand, another aspect of this theory is “Safety needs”. The leaders can connect to the remote workers through AI chatbots and interact with them to be able to understand their issues and help them to get over these issues. The issues can be related to the system security, cyber threats, or any health issues. This approach taken by the leaders of IT firms can be beneficial for meeting the safety needs of the employees, which can further increase their productivity level.

The third question of the interview that comes under research question 2 exhibits the standpoint of the Indian IT sector in terms of Cybersecurity. The particular interview question mainly revolves around the strategies taken by the companies to enhance Cybersecurity within the organisation. It needs to note that remote work has made the employees and their credentials very vulnerable to cyberattacks as most employees do not possess the necessary strong defensive cyber security setup at their residences. Moreover, the majority of employees also lack a secure WiFi system and cyber security knowledge, which makes them easy prey to data hackers. It is noticed that the number of Cybersecurity incidents has increased rapidly

throughout the world after the spread of remote work in 2020. As the working conditions and patterns get distributed in many segments, it becomes easier for the data hackers to breach the security level of these distributed segments.

It is observed that IT professionals throughout the world have noted a significant increase in cyber attacks after the Covid-19 days. As the pandemic situation enhances remote working, the prevalence of cyber attacks increased after this time. Many IT professionals have encountered various cyber challenges during this period among which Data exfiltration and leakage are predominant (55%). Subsequently, phishing emails (51%), account takeover (44%), malware downloads (36%), ransomware (35%), and “application-targeted attacks” (20%) are predominant. In addition, it is found that in most cases, data is stolen without the authorisation of the users along with the transfer of data using malware to any particular device without the authorisation of the users. However, the occurrence of such activities was highest during the second to fourth quarters of 2020 and further gradually diminishes to a stationary range.

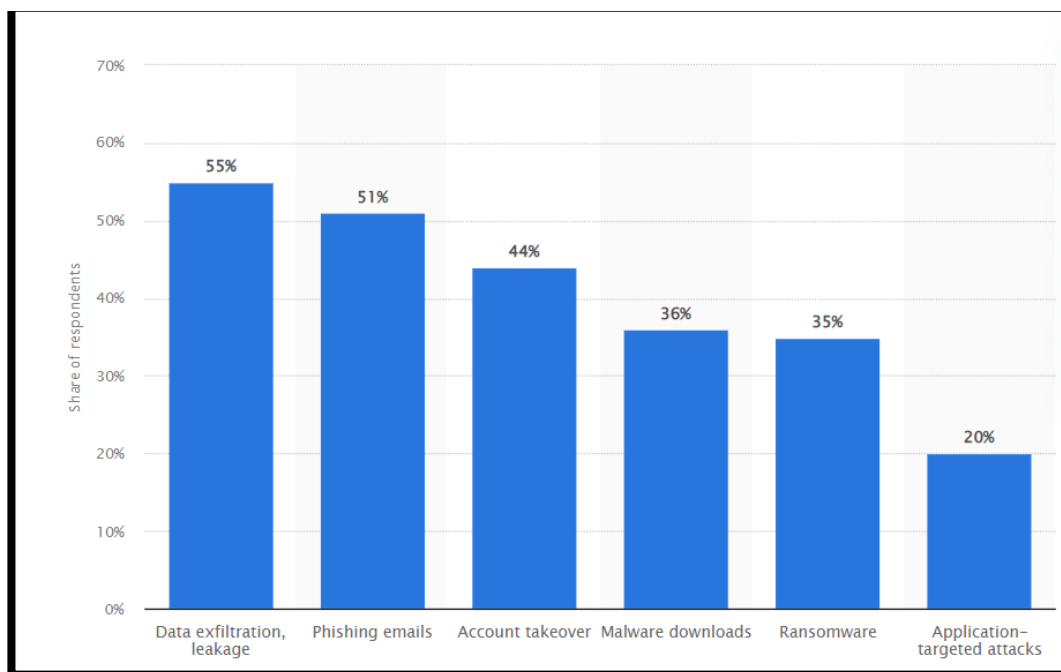


Figure 5.4. Increase in cyberattacks after Covid-19

(Source: Statista, 2023. Changes in cyber attack frequency following COVID-19 as of 2021.)

There are several reasons why digital remote workers are more susceptible to cyber attackers. Employees engaged in the work-from-home module are highly vulnerable to hackers because most employees do not have stronger cyber security systems in their residences (Laker, 2021). In addition, they need to access various software and websites for official purposes but the default settings remain less secured on personal computers (Taylor, 2022). In the office, some

IT professionals take care of official computers and server systems from any external threats. However, non-IT people are usually less cautious about security systems in their personal computers. Moreover, many third-party vendors send updates (software or system) to the users frequently. People used to install the updates in their systems without checking much and this is how malware comes into their personal systems (Laker, 2021). Moreover, phishing activities become very easy if an employee is undergoing remote work and have no one to contact immediately regarding a particular E-mail (Valet, 2021). As the workplaces get more virtualised and a large amount of information becomes digitalised, it becomes easier for data hackers to breach the security firewall of the company to steal sensitive data. The same thing is noted in the Indian IT sector too (Krishnamoorthy, Haridas and R, 2021).

The interview transcript of interview question 3 of the segment- Research Question 2 has exhibited that senior employees acknowledge the importance of cybersecurity in remote work to get maximum productivity from the employees. The “Chief Information Officers (CIOs)” of reputed Indian IT firms state that they mainly focus on establishing a secure system in their offices and residences of employees. Being the Head of managing information transmission, all of them rely on a sophisticated hassle-free cyber security network where no one can penetrate easily to steal information (Valet, 2021).

It is observed that CIOs believe that every employee engaged in remote work must have a suitable “Password Protection System” in their personal computers which can be linked to the main server of the company. According to (Krishna, Mahalakshmi and Jose, 2019), this “Password Protection System (PPS)” will be beneficial for an enterprise in two ways. Initially, it will be connected to the main server of the organisation (the IT personnel usually have access to the main server) (Taylor, 2022). Therefore, if any cyberattacks occur even when the employee is working from his or her home, the IT professionals can help that employee via online mode. It will take a minimum of time to counter the cyberattack; otherwise, the employee needs to take the system physically to the IT professionals in the office. Another advantage of the “Password Protection System” is that it enables the organisation to look into the internal activities of the employee while using official credentials. It is known as a common way of surveillance offered by reputed companies so that the image of the organisation remains safe from any kind of unwanted issues (Krishna et al 2019). However, there must be some ethical guidelines for surveillance so that the personal life of the employee does not get hampered (New Dangers Of Working From Home: Cybersecurity Risks, 2021).

Moreover, the Chief Information Security Officers (CISOs) of different Indian IT firms give some important information. It is noticed from the interview transcript that Indian IT

companies prefer to develop a manual for all remote workers regarding the prevention of any attempts of cyber breaching. These employees are given the training to learn how to prevent cyberattacks within a minimum timeframe without any help from the IT persons of the company. It is noted that a manual guideline is given to all employees in a certain Indian IT company so that all employees get a fair idea about dos and don'ts while working remotely. On the contrary, one particular CISO has stated that his company has formed several fragmented groups for remote workers and allotted a professional IT person for a couple of groups. Another CISO has stated that his company has developed a way to encrypt all sensitive information (Business News Today: Read Latest Business news, India Business News Live, Share Market & Economy News, 2022).

As a result, this individual needs to decrypt and encrypt each time he gets or sends any message to his colleagues through the help of particular software during remote working. The Indian IT sector has taken cybersecurity as a vital threat to its growth and profit. According to (Huang et al., 2021), encryption and decryption of messages are strong weapons against the theft of data as they cannot be opened so easily. Therefore, it is difficult for anyone outside the organisation to decrypt the hidden message easily. As a result, the “Encryption-Decryption System” has been incorporated into several Indian IT giants. The various IT managers asked for the interview have supported the use of new advanced technologies including the “Encryption-Decryption System” and the “Password Protection System” in personal systems of remote workers. However, they have strongly emphasized on organising continuous Training and Development (T&D) programs for these employees.

The Financial Officer (FO) asked for this interview points out one interesting point. It is observed from the interview transcript that data loss or data breach harms the brand reputation of a company. It eventually negatively impacts the market share value and revenue margin of that company. As shown by (Chen and Jai, 2019), the brand reputation of any company depends on how well the company executes its workings constantly. Any data breaching activity shatters the reputation of the company resulting in a loss in business. As a result, every company asks their Human Resource (HR) managers to look into this matter with utmost importance. The interview with these HR managers exhibits that Indian IT companies have redesigned their data protection policies in the last few years after Covid-19 (Como, Hambley and Domene, 2021)

. In addition, the primary aim of such a reformation in company policy is to establish more secure cyber protocols so that clients get assured about their personal data. Moreover, HR managers organised many T&D programs for their respective employees so that they can get the necessary training to fight against cybersecurity issues in their remote setup. Hence,

interview transcript analysis shows that Indian IT companies are on the right track to fight against cybersecurity issues that persist in remote works (Workforce strategies for post COVID-19 recovery | Deloitte Global, 2021).

The thematic analysis shows that Indian IT companies have given assurance to their employees about providing maximum security against cyber attacks. It is observed that Tata Consultancy Service (TCS), a well-reputed Indian IT company that operates pan-India level, has already introduced a special system in its operation called the “cloud-based secure virtual desktop” services. This service provides necessary access to IT professionals of the TCS to the personal computers of the employees (COVID-19 impact: Infosys to prefer flexible ‘hybrid’ work model for employees, 2020). The authorised IT team of the TCS can access all the files or applications that are present on the desktop/laptop of the TCS employees. If anything wrong is detected by the system, which is beyond the capacity of a normal employee, the IT team can react immediately to resolve the problem. This particular system has many special features including a “cloud-based data leakage prevention process”, “Secure-edge”, and “threat-protection” which are extremely useful against cyber attacks.

As a result, TCS has suffered a negligible amount of data loss during the early period of remote working just after the completion of the first wave of Corona Virus back in 2020. In addition, another interesting technology was added by TCS in a later period which is highly effective for detecting cyber crimes. This particular feature is called “secure remote access technology” and it is coupled with a “Multi-factor authentication” process so that a TCS employee can access all the TCS applications without the use of any common VPN. Moreover, the company has installed new software called “Secured Borderless Workspace options” for its global clients so that the security in TCS gets doubled. As a result, foreign clients have chosen TCS over other Indian IT firms and TCS has generated a good amount of revenue even in 2020 when most businesses suffer a huge financial loss (Standard, 2022).

Another Indian IT giant Wipro has also taken necessary steps to incorporate stringent cyber security applications for its employees who are engaged in remote working. It is noticed that Wipro has provided a “Secured Remote Access” to all of its remote workers during the early days of remote working after the outbreak of Covid-19. Endpoints security checks along with secured corporate networks have been given to these remote workers so that they can work securely from their personal systems during working remotely. In addition, Wipro has installed some special features including a “cloud-based firewall-as-a-service solution” and a sophisticated “SSL inspection protocol” in its operation to minimise the risk of data theft from external sources. As a result, Wipro has performed very well in terms of revenue generation

during the early days of remote work in 2020. One thing that needs to be addressed here is that the measures taken by both these Indian IT giants have delivered some sort of relief to their employees who were confused about cybersecurity during remote working. The performance of these two companies suggests that if enough security is provided to the employees, productivity and performance definitely increase even in the work-from-home module.

The fourth question of the interview which comes under research question 2 exhibits great details about flexibility in the job for adapting to the changing business environment. The context of this research is Covid-19, which has changed the traditional concept of business in many ways. One of the main changes that appeared in the field of business and management during the pandemic situation is remote working, more precisely the famous work-from-home concept. According to (Islam, 2022), it is not that the concept of work-from-home does not exist before the pandemic situation. This mode of work was even used in a few organisations, freelancers, and self-employed persons. However, Covid-19 has forced most business organisations to switch to this very mode to continue their workings and business. Indian IT sector was predominant to accept this new model of working back in 2020. Unfortunately, some issues are noticed by many organisations when employees are forced to do work from their respective houses and initially, the performance of most companies falls due to the inability and inexperience of employees with this new working pattern.

The fourth question sheds light on the concept of the changing business environment and its deep impact on the performance of the employees who have been dealing with the new working pattern and condition. It is important to highlight the concept of change in the business environment before explaining the result obtained from the interview transcript. Change in business climate can be defined as a phenomenon that causes any business organisation to redesign its operational, strategic, policy-related, and financial standpoints to accept the changes. As described by (Hechanova, Caringal-Go and Magsaysay, 2018), change management is a branch of management that focused on making the business ready to accept the changes more smoothly. This systematic approach helps the employees to nullify the issues they are facing during the implementation of the change management plan. In this case, the managers of the chosen company/sector need to manage all the issues faced by their employees during their remote-working days.

One important issue faced by the employees during the early days of remote working is a disruption in work-life balance. If a person fails to maintain the balance between work and life, it could lead to physical and mental stress resulting in a decrease in productivity and performance of that individual. It is observed that employees feel stressed and burnt out at the

beginning of remote working in the Indian IT sector because of the inexperienced and technical glitches. The interview transcript of the fourth question reflects that the Indian IT companies have given importance to the concept of work-life balance. It is noted from a few respondents of the interview that their companies give them flexible timings during remote working. As stated by (Davidescu et al., 2020), employees are vital stakeholders of an enterprise. In addition, they contain the pool of knowledge and take part in the growth and expansion of an organisation by providing skill, knowledge, and labour to that company. Hence, employees must remain physically and mentally fit in their lives so that they can give service to the company for a longer period.

However, the survey data analysis of the full-time working professionals exhibits a mixed reaction regarding the work-life balance. While approximately 45% of respondents believe that work-life balance, led by the WFH, has been a major advantage for them to increase overall productivity, a large portion of these employees (near about 50%) claimed that WFH mode has not helped them to maintain their work-life cycle necessarily. Moreover, the same confusing result is obtained in the survey data analysis of 30 senior professionals. 50% of total respondents have accepted that the WFH mode is best suitable for maintaining the balance between work and life. However, another 50% of total respondents have made disagreement with this statement, and they stated that the WFH does not help to maintain their work-life balance to affect their productivity in reality. Therefore, it can be assumed that employees of major Indian IT companies may get some benefit for maintaining their work-life cycle but employees from medium to small IT companies do not get the same fortune.

Flexible timing is considered to be a very important factor by many scholars in remote work. It is the key component for maintaining the work-life cycle. According to (Gartner, Maresch and Tierney, 2024), flexible work timing is the key to enhancing the productivity of digital workers including IT employees. It is noticed during multiple surveys after the pandemic situation that the majority of digital workers have stated that flexible timing gives them confidence and peace of mind-both of which are essential for productivity and performance. There are several benefits of flexible work hours including an increase in employee retention, better productivity from the side of the employee, and improvement in diversity among the employees. As a result, most Indian IT companies have adopted flexible timings for their remote workers by the end of 2020.

It is noticed that employees start to like flexible working arrangements as it provides a better opportunity to give time to their lives. It also acts as a cushioning mechanism to reduce the work-related stress of the employees. As the physical and mental stress due to rigid but

monotonous work decreases in flexible work timing, naturally the employees become a little bit of more productive in their work. Subsequently, work-related fatigue of the employees is lowered in flexible work arrangements and performance increases gradually. Even, it is found that employee loyalty towards the organisation increases multiple folds, which is reflected in the employee retention rate of the company.



Figure 5.5. List of reasons for enhancement in productivity of digital workers

(Source: Gartner, J., Maresch, D. and Tierney, R., (2022). The key to scaling in the digital era: Simultaneous automation, individualization and interdisciplinarity. *Journal of Small Business Management*, p.1-28.)

The same idea has been supported in the survey data analysis of different working personnel in the Indian IT industry. The survey data analysis has shown that around 87% of total respondents who are working as full-time professionals agreed that flexible work timing is associated with enhanced employee productivity. Hence, flexible work structure and timing have indeed helped these employees to be more productive in the work-from-home module. Moreover, even the 30 senior professionals of different Indian IT organisations have responded in favour of flexible timing. According to 80% of them, the flexible working arrangement is a positive inducer of employee productivity. As a result, they are open to introduce flexible work arrangements in their respective IT companies.

From question four, it is also observed that companies in the Indian IT sector prefer to conduct multiple Training and Development (T&D) programs for their employees. The main

objective of organising several T&D programs in their companies is to train the employees to handle the difficult situation during remote work. In addition, another aim of such a program is to boost their technical knowledge, which is very important along with handling different troubleshooting during remote work. As per the views of Wiradendi (Wolor et al., 2020), training is very essential in implicating a change management plan. Desired results will be obtained only if the employees are high in esteem and possesses enough technical knowledge about their work.

One thing that needs to be stated in this discussion is that the probability of facing troubles is comparatively higher in remote work as many people do not possess sophisticated working systems in their houses, unlike in the office. In addition, no IT expert or software specialist is present for the employees while they are engaged in remote work, unlike the traditional office-based work culture. As a result, they need to handle the situation by themselves during remote work. Similarly, the risk of data loss and data breaching is very high in remote work as most employees do not possess strong security software in their houses. However, Indian IT companies have asked their managers to conduct several training programs for their employees so that they can be technically strong enough to mitigate these issues by themselves. The below-mentioned image has given statistical evidence that companies all over the world have increased their T&D budget, especially after the pandemic situation to develop their employees as more powerful resources.

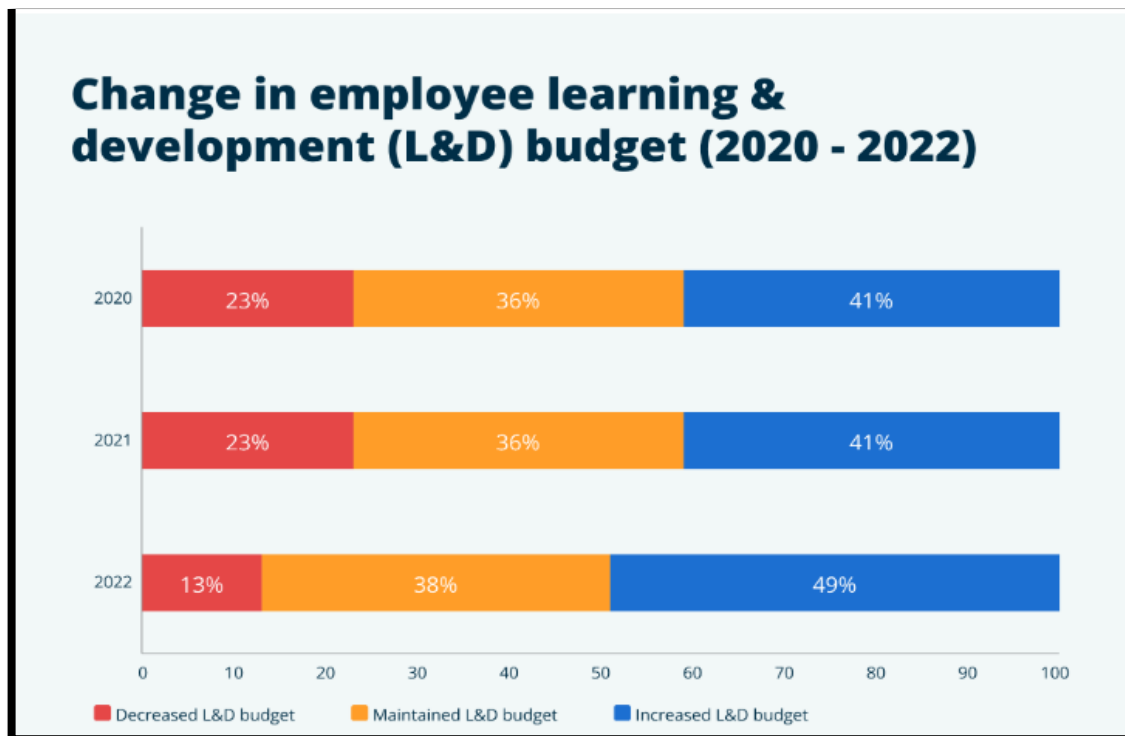


Figure 5.6. Overview of increase in T&D budget worldwide

(Source: Statista, 2023. Change in the training budget compared to previous year U.S. 2023.)

Another important observation that arose from the interview transcript of question four of the interview section is that Indian IT companies have lent toward collaboration for a firm implication of remote work. In most cases, different departments of these Indian IT companies make collaboration to resolve the problems of the employees who are engaged in remote work. collaboration is very useful in implicating remote work successfully in a particular setup as it increases the strength of the company in terms of knowledge and manpower. Different departments of a company or different companies can make collaboration to share knowledge, skill, technology, and manpower so that a mutually beneficial relationship is established among them. The survey data analysis of different working personnel of the Indian IT industry gives a clear insight regarding the importance of communication and collaboration in remote work. In the sixth question of the first set, 175 full-time working people agreed with this statement while only 20 employees disagree with the survey statement. Therefore, it is observed that the majority of the people have agreed that collaboration and communication are two very important factors to maintain organisational productivity, especially in remote work. Similarly, the 30 senior professionals of different Indian IT organisations have agreed with the fact that collaboration and communication both have a positive impact on enhancing the productivity of an employee. As per figure 4.16, 26 out of 30 senior managers believe that these two factors are essential to increase the performance level of both the employee and the organisation.

It is observed that many Indian IT companies have set up cloud-based applications for their employees where these employees can store, share, and retrieve necessary data if required. Sharing of necessary information among the employee is beneficial to reduce the time for a particular work and increases organisational productivity. Moreover, such an approach is also beneficial to increase organisational effective communication among the employees who are working on the same project. As demonstrated by Raghavan et al. (2021), lack of communication is the biggest challenge of remote work and every organisation must find a way to establish effective communication among its employee, otherwise, the organisational performance will be decreased significantly. However, it has found that Indian IT companies are using several HR software, like Zoom, Microsoft Teams, and Zoho People to establish effective communication between the management and the employees.

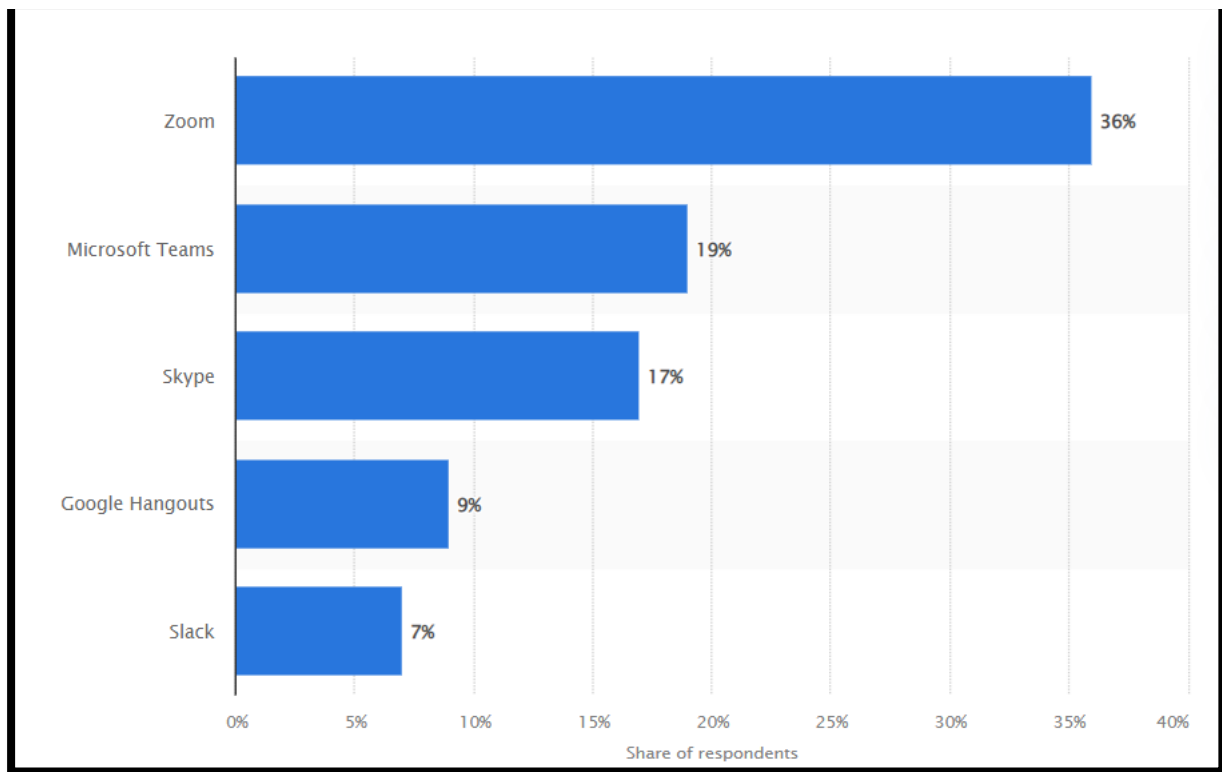


Figure 5.7. List of communication tools used for remote work

(Source: Statista, 2022. Turning Teamwork into Profit)

Moreover, some additional information has been noticed from the interview transcript of the fourth question of the interview. Virtual meetings are held frequently by the managers with their respective employees to monitor the work progress. Virtual meetings are very good for establishing clarity of work among the employees who are engaged in remote work. As these people are not present in the workplace, managers have little access to their workings on a daily basis. Therefore, virtual meetings can be arranged periodically to monitor and evaluate the work progress. In addition, one interesting point has come out of the interview transcript that Indian IT companies are trying to develop effective unbiased performance evaluation metrics for all digital remote workers (COVID-19: Triggers fear psychosis among private sector employees - Maity - 2020 - Journal of Labor and Society - Wiley Online Library, 2019).

It is very important to establish equally effective performance evaluation metrics for remote workers so that their performances get properly evaluated by the management like the offline workers. According to (Narayanamurthy and Tortorella, 2021), employees get motivated to put their best efforts into the company when their contributions get properly evaluated by the management. However, it is difficult to draft performance evaluation metrics where both offline and remote workers are evenly evaluated due to many reasons.

On the other hand, financial appraisals, promotions, and incentives are highly dependent on the performance evaluation of an employee. Thus, every institution needs to make its own performance evaluation scheme to analyse the efforts put by an employee for the company. The transcript exhibits that Indian IT companies are trying to develop effective unbiased performance evaluation metrics for all digital remote workers.

CHAPTER VI:

SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

6.1 Summary

This research paper has been conducted to identify the overall effect of COVID-19 pandemic on the productivity level of employers from IT sectors. Several stages have been developed to go inside the core concept of the employee's productivity and the drivers that can influence the decrease or increase in the overall productivity level of employees. The emergence of COVID-19 pandemic and the effectiveness of the sudden and fast spread of corona virus within the IT industry has been explained within this thesis to get knowledge regarding the adverse effect of this pandemic in the business world. It has been found that, due to the sudden and huge outrage of COVID-19 pandemic, the companies from all the industries have been forced to shift their work process from offline platform to online platform. The companies have to ask their employees to work from their homes. However, the organisations as well as the employees to be able to cope up with this new work culture have faced many challenges.

The employees have been asked by their respective organisations to start working from their homes, irrespective of their skills and infrastructure at their homes, in many cases. The consequences of a sudden shift in work culture have affected the employees both physically and mentally. The overall effect of employee's physical as well as mental health caused by the work from home cultures has been addressed within the research paper that is directly linked to the overall productivity level of those employees. According to the research paper, two effects of the WFH practice are there, related to COVID-19 pandemic on the workforce in India and other country's business structure as well. One is a positive effect and another is a negative effect.

As mentioned within the research paper, the positive effect focuses on the saving of travel timings, and more time for spending with the family members. The negative aspects of this WFH practice are poor infrastructure, lack of human interaction and poor work environment at home. The research paper has mentioned that, according to some reports, the growth rate of Indian IT firms has fallen by a significant margin during this period. In this regard, this can be summarised that the negative aspect of WFH culture might be a major reason behind the fallen growth of Indian IT firms. The research paper has also developed a proper research problem, and according to this, the main issue that has been faced within the IT sector was to track the

work progress of the employees during this period, when the work princess has shifted to an online platform.

Apart from this, security measures have been considered as another important aspect that is associated with work from home practices, whether from the perspective of the employer or the employee both. It has also been found that, in first world countries the employees as well as the employer both were more prepared in terms of technicality to adopt the work from home culture. However, in India it was difficult to prepare the entire digital structure and train the employees to be able to cope up with this new emerging work process.

The knowledge and skills of employees has been considered as a major factor within this topic of study, as both are essential for the overall growth of remote workers and growth of the companies as well. In order to address these issues related to COVID-19 and WFH culture needs to be investigated to identify the key factors that effect's employee's productivity and understand the area, where several strategies can be implemented to recover this situation. In the literature review section, a theoretical framework has been developed that has focused on different theoretical backgrounds such as "Contingency Management Theory", "expectancy theory" and "Theory of Reasoned Action". All these theories are addressed to define the situation or the strategies that can be beneficial for the organisations to overcome all the challenges related to their remote work process.

According to the contingency theory, it needs to be mentioned that the management team needs to design their action related to the business according to the external as well as internal situation. As the sudden crisis, which is an external socio-economic crisis of the world, which also has a major effect on the entire internal process of the business, the management team needs to develop alternative plans to manage the consequences of this situation. On the other hand, "The Theory of Reasoned Action", the focus is to consider the behaviour of an employee towards the organisation, who is working from home as a consequence of their previous attitude and experience. This means, the behaviour of an employee is a major part of their productivity level and both negative and positive aspects can influence this. According to the "expectancy theory", a flexible work culture is an effective method to push an individual to endeavour effort to achieve their targeted goal. As per this particular theory, in case, a person is engaged within a flexible workplace, where he or she can put the opinion or any requirements, without being judged or answered to other people, then the place become more suitable for them to show better efficiency. In this case, the person would have a better potential to exhibit high performance for generating effective service.

Another important aspect, which has been addressed within the literature review section of this research paper, was the unemployment rate in India, which might affect the mental well-being of an employee. The unemployment rate affects the employee's sense of insecurity and they might get stressed due to this. The research has investigated the way these kinds of increasing stress levels can have an impact on the overall productivity of the entire workforce.

The work-life balance has been addressed within this research paper as a major aspect, which is directly related to the WFH practice within the IT firms, who have asked their employees for remote work during the pandemic. Some people think that the work life balance has a major effect on them, and due to the WFH practice that has, created scope for them to spend more time with their families and some thinks that, it has been a negative aspect to their work life balance. The research paper has collected data related to this topic through the primary survey, Interview and some secondary supporting evidence for the interview responses. A conflict is there regarding the work-life balance of employees, who have been asked for remote work by their respective companies and this conflict has been drawn to conclusion, based on the research findings. More number of employees, who have been working within an IT firm found the WFH culture a difficult situation for them, as they often face severe; issues related to their skills, knowledge and infrastructure.

According to the research paper, these are a major driver to the growth in productivity level. Several strategies like Flexible work process, employee engagement through communication tools and security measures are also addressed as the key driver for this crisis. Security measures taken by organisations like TCS have been a major aspect for the employees to enhance their loyalty towards the organisation, as they have been secured about their data and secured from any kind of cyber attacks. The flexible work process also increases the productivity of employees, and it is effective to motivate employees, as they are being allowed to choose their work timing and way of working as their preferences. These are the drivers and main areas of this research paper that directly focuses on the effect of COVID-19 on employee's productivity and growth as well. The strategies such as flexible working environment, digital infrastructure, security measures has been found as the most effective aspects to drive the growth in employee's productivity.

6.2 Implications

Implication from the Primary and Secondary Result

The practical implications of the finding from the primary data are mentioned below:

1) The result implies that, COVID-19 practice has a major effect on the employee's productivity, mostly in terms of their mental health and stress level, and personal skills. The most important aspect that has come across from the result is that organisations, which operate under the IT sector or any other sectors, need to redefine their internal business policies, affected by the huge consequences of COVID-19 practice. These new policy measures would have been a major aspect for them to ensure that the health and mental well-being of the employees are put into the first priority, as this has a direct link with their overall work efficiency.

As found from the primary survey and interview process, the management of the organisations was struggling to maintain their employee's overall productivity, as the mental health was affected due to social isolation and extreme pressures and stress. The findings can be a learning lesson for all the IT and other operations firms across the world, regarding the importance of employee engagement and employee motivation to accelerate the overall growth of the business.

2) According to the "Public Finance Management (PMF) Model", mentioned within the literature review section, the private as well as public enterprises, within or beyond the IT sector can enhance financial resources and deal with the workers, to generate financial safety, which is a major part of their psychological needs.

3) Apart from this, employee's skills and knowledge have been considered as one of the major aspects of their productivity growth. It has been identified that the work from home has affected the productivity of employees, as they did not have enough knowledge and skills, which was required for them to complete several work orders within their respective IT firms. As a result, these findings will be beneficial for other IT firms, in terms of their policy reforms regarding internal training process and allocation of financial resources, as required for the effective technical training through virtual platforms for increasing the productivity level of the employees. The other IT firms can initiate this aspect and the "Public Finance Management (PMF) Model" can support the practical policy implication process by these companies, as it will be beneficial to them to allocate required resources.

4) As per the primary data, the major challenge faced by the organisation for maintaining the productivity of their organisations is the required technical advancement, which was not always available to the organisation for remote workers. The HR department of several organisations needs to focus on "Skilling/ Reskilling/ Up-skilling" for mitigating several issues related to the productivity level and WFH culture within their organisations. Moreover, the study will have a greater impact on other firms, whether it is an IT firm or any other firms, can help in getting a

better insight towards the strategies for enhancing employee productivity. According to the responses from the survey and the interview, it can be observed that, Flexibility has been a major feature to enhance employee's productivity. Several organisations, which might be facing WFH related issues, can engage Hybrid Flexible Model like leading companies and reform their business regulations, in favour of their employee's needs and well-being for a faster growth, even within the changing situation.

5) Apart from the above implications, this particular study will be effective to the organisations, as it will be learning for them to understand the importance of security measures, while doing work from home practices. The organisation will understand that they need to focus on advancing their system security and different multi-dimensional authentication system to protect the data of remote workers and secure their access to company's personal software applications. The organisation will focus on their internal cyber security policy to protect their employees, who were working from their homes from any kind of cyber threats. These will be extremely beneficial for them to enhance their employee's job satisfaction level and they will become loyal to the organisation, because of the safety and security measures, which is given by the organisation to them. This collaborative work by focusing on each other's interest will accelerate the productivity of the organisation as well as the employees.

6.3 Recommendations for Future Research

This research is majorly based on the proceedings of a few well-known Indian IT companies to maintain the productivity of their employees even in remote work due to the outbreak of Covid-19. Therefore, the research has mainly covered the strategies of these big Indian IT companies to bring about the best productivity from their remote workers while maintaining cybersecurity aspects and high-level performance. However, it is necessary to determine the impact of remote work on employee productivity in small to medium-sized Indian IT companies. In addition, the survival strategies of these comparatively smaller companies to ensure employee productivity needs to be addressed. Hence, the researcher of this research proposes another research work related to the research topic where small to medium-sized Indian IT enterprises will be evaluated similarly to this research. It will help future researchers to get a diverse range of knowledge about big to small Indian IT companies regarding their survival mechanism in the Covid-19 era.

6.3.1 Recommendation for Action

The first suggestion for future research is to include a diverse range of IT companies, which operates a business on Indian soil. Furthermore, there are several IT hubs in different states of India, which are unique in characteristics. As suggested by (Identities and Intersectionality: A Case for Purposive Sampling in Survey-Experimental Research - Experimental Methods in Survey Research - Wiley Online Library, 2019), the cluster sampling method is a very suitable way to sort out some selective entities from a cluster of populations that shares some similarities as well as some dissimilarity in characters. Hence, future researchers to select different small should follow a purposive cluster sampling method and medium-sized IT companies from each of these hubs. The analysis of employee productivity strategies of these IT companies may differ from that of the big organisations, thereby, may add new academic knowledge to the memory of existing knowledge.

The second suggestion for future research is to include more quantitative data from respected Indian IT organisations. The data should comprise the salary structure of the offline and digital workers, non-monetary incentives given to offline and remote workers, along with the schemes of performance evaluation of both of these two types of workers. In this current study, the majority of the focus is given on the employees and senior employees to get a general idea of the employee productivity strategies of the Indian IT companies. However, the research is incomplete until evident secondary data of Indian IT companies, are analyzed to evaluate the impact of the strategies taken by these companies to induce productivity of their employees who are engaged in remote work.

The secondary statistical data of these companies, ranging from IT giants to small organisations, will eventually help future scholars to evaluate and compare the performance of these enterprises within a particular timeframe so that the effectiveness of their strategies can be evaluated. Evaluation of existing strategies and the outcome of the adopted strategies are two important parameters for strategic managers for evaluating the overall performance of the company (Hoseinzadeh Shahri, Khodabandelou and Moshkdanian, 2019). Therefore, this action will help future researchers to link this research with strategic management research and it will open a new horizon of research in this field.

Moreover, it needs to state that this research is carried out by taking 2020-2022 as the timeframe when the concept of remote work was spreading throughout the world and employees were facing many difficulties to cope with the changing work culture. As a result, the negative factors identified as the major factors for reducing productivity in employees may not be a

significant factor in the future. As people will be more habituated to remote working and the digitalization process, currently identified factors may not contribute significantly to influencing employee productivity. Similarly, new challenges may arise in the Indian IT sector that can decrease the productivity of some employees. Therefore, future researchers should carry out the same research from time to time while taking a diverse range of Indian companies to identify new factors that can influence the productivity of employees. Hence, it can be assumed that if all these suggestive actions are considered in future research, an overall idea about the strategies taken by different Indian IT companies to manage employee productivity will be observed.

6.3.2 Limitation of the research

The limitations of this research are primarily of two types. One is the overall limitations of the entire research that arises due to several reasons. Another part is the limitation of the data collection and analysis process, which occurs due to negligible human errors in sampling and analysis. In the first segment, the overall limitations of this research are described. The biggest limitation of this research is that it covers only the big guns of the Indian IT industry like TCS, Wipro, and Infosys. However, there is a very chance that small to medium-sized companies have different employee's productivity management strategies from these big organisations. Similarly, the cybersecurity approaches taken by these big companies must be more advanced compared to the small and medium-sized organisations. Therefore, the actual standpoint of the Indian IT sector in terms of cybersecurity can not be understood if only the big companies are taken for research.

Another general limitation of this study is that it considers the time of onset of Covid-19 in 2020 to recent time as the timeline for this study. In 2020, remote work was a comparatively newer concept and most employees were inexperienced about it. Thus, employee productivity drops after starting remote work in Indian IT companies. However, as employees have become more used to remote work, not all the negative determinants of employee productivity may persist in recent times. Moreover, these age-old negative factors may not cause significant harm to employee productivity just like they did back in 2020. The data collection and analysis-based limitations are quite simple. All the respondents taken for the survey and interview are from recognised IT companies in India. Thus, the population sample is not diverse and may not reflect the exact scenario of the Indian IT industry. Moreover, there is a chance that respondents hesitate to share sensitive information regarding the strategy of

their organisations. Therefore, the analysis and interpretation possess a slight chance of standard deviation that results in decreases in the accuracy of the current research.

6.4 Conclusion

The first chapter of the research has shed light on the overall description of the content of the research. This particular chapter states that overall employee productivity has been reduced after Covid-19 in almost every domain. This phenomenon is also observed in the Indian IT industry where most of the workers have switched to remote work after Covid-19. Employee productivity has decreased in this sector due to multiple reasons and it hit so hard the revenue generation of several Indian IT companies that they adopt various counter strategies to improve the productivity of their employees. This particular research has tried to find the answer to two basic questions what is the impact of the COVID-19 outbreak on employees' productivity in the Indian IT sector and What are strategies taken for overcoming the challenges of the pandemic outbreaks for enhancing employee productivity in India IT sector.

However, this chapter has also highlighted the issues that create obstacles to employee productivity in professional fields. It is known that Covid-19 has forced many business organisations to switch to remote working or the work-from-home module when everything was closed due to the rapid infection of Corona Virus. Due to the lack of necessary digital infrastructure required to carry out remote work properly, many employees in the Indian IT sector have undergone underperformance and productivity decreases simultaneously. The purpose of this research is to evaluate the strategies taken by these Indian companies to counter this situation in terms of improving the productivity of employees. There are distinct significances of this research that have been described in the first chapter. It is observed that this research has both academic and practical implications in terms of management and administration, which are necessary for both fields.

The second chapter of the research has provided brief details about the different aspects of the research topic. The concept of employee productivity has been evaluated in detail with the help of relevant theoretical knowledge. The analysis of contingency management theory states that productivity is one of the useful parameters used to analyse the performance of management or a company. Therefore, it is the basic target of every organisation to maintain the employee productivity level constant so that organisational performance does not decrease. In addition, this segment has covered a detailed analysis of the condition of the Indian IT industry after the pandemic situation. The financial health of this industry has been critically

assessed keeping employee productivity in mind. It is observed that companies faced some difficulties at the initial stages of switching to remote work due to the rapid increase in Covid-19 cases in India in 2020. Several obstacles to remote work in the Indian context have been identified in the segment that is linked to the reduction in employee productivity in the work-from-home style.

Along with the IT sector, the overall condition of the Indian economy after the Covid-19 era has been described here with authentic statistical data to emphasise the importance of employee productivity to restore the Indian economy once again. In addition, several strategies taken by reputed Indian IT giants have been critically discussed in this segment along with their impact to maintain employee productivity in their respective organisations. In this particular context, the importance of maintaining the work-life balance comes up along with the actions taken by Indian companies to take care of the physical and mental health of their employees. Finally, this segment has discovered some factors that promote employee productivity even in remote work along with their implication strategies in reputed Indian IT firms after the Covid-19 era.

The third chapter has shed light on the overall research methodology that has been followed to conduct this particular research. In the initial part of this chapter, the research problem, that is, a decrease in employee productivity in the work-from-home module in the IT sector of India has been addressed. A few important detrimental factors are listed here that are responsible for the aforesaid phenomenon in the Indian IT sector. However, to understand the opinions of the people associated with the Indian IT industry, both a survey and an interview have been performed in this research. The survey has been conducted by taking 200 full-time professionals and 30 senior professionals in the Indian IT sector with the help of a pre-formed questionnaire to collect the quantitative data for this research. On the other hand, a few managers working in the Indian IT industry have been asked for a series of interviews to collect qualitative data for this research. In the end, interpretations from both set of data are compared and constructed to develop research findings for this research.

The fourth chapter has highlighted the obtained results after data collection, processing, and analysis. Initially, the researcher found that most employees agree that remote working is beneficial for their productivity improvement. However, they have admitted that they faced initial difficulties in coping with remote working for a short period. It needs to note that majority of them have blamed poor internet connection and lack of necessary digital infrastructures for that. Moreover, while they were surveyed about the steps taken by their respective organisations to help them in managing productivity issues, they all give positive feedback about their

respective companies. It is observed from their responses that almost all of their companies have put attention on digital infrastructure development and cybersecurity aspects to help their employees in difficult situations. It is observed that flexible work timings, the use of collaboration and communication software, and balancing work and life are some strategies taken by companies to improve employee productivity during remote work. The responses from the senior employees are more or less the same in this context.

On the other hand, the interview of managerial post holders in the Indian IT sector provides much valuable information regarding the survival strategies of reputed IT companies in India. Most managers have admitted that they have suffered financial losses during the early period of remote work due to a sudden drop in employee productivity followed by organisational performance in the global market. However, several strategies that have been taken by these companies are discovered from the interview transcript. It is observed that flexible timings, suitable training programs, and cloud-based platforms are some solutions adapted by some Indian IT companies to improve the productivity and quality of their employees in remote work.

The fifth chapter is the most important chapter of this research that contains all the research findings. After analysis of qualitative and quantitative data, a common set of knowledge has been generated and it is finally thematically interpreted with the support of existing secondary data of academic sources. It is observed the employees suffered many challenges in the initial phase as the conventional working pattern and conditions changed after Covid-19. This particular chapter has also covered the vital role of an organisation in enhancing employee performance in remote work, and the necessary steps to maintain the cybersecurity system even in remote work. It is obtained from primary and secondary data analysis that flexibility in work enhances human productivity while free-flowing communication and collaboration sharpen human productivity as well.

Meanwhile, different modes of cyberattacks and their evilness in the Indian IT sector have been discussed here. It is observed that digital remote workers are prone to cyberattacks due to their careless attitude and lack of security infrastructure at residences. As a result, reputed Indian IT companies like TCS and Wipro have already installed several advanced technologies in their operations to enhance cybersecurity in their business. Moreover, it is also found that well-known Indian IT companies like TCS and Wipro give enough importance to the work-life cycle of their employees to keep them healthy and productive. Several Indian IT companies have taken serious initiatives to conduct a series of training and development programs for their

employees so that they can acquire more technical and troubleshooting knowledge to carry out their remote duties more conveniently.

The sixth segment of this research has covered a compact summary of all the findings presented as the research findings of this research. All the important points that have been pointed out in the fourth and fifth chapters of this research are mentioned again in this part. In addition, the practical and academic implications of the research findings of this particular research have been described in the second part of this chapter. It is observed that future managers will be highly benefited from this research to formulate suitable strategic and operational plans for remote workers, so that their productivity and performance do not fluctuate with changing business environments. Moreover, some future recommendations such as the inclusion of small and medium-sized Indian It firms, and the formation of similar performance evaluation metrics for offline and remote workers are suggested along with some general and data collection-related limitations that should be rectified in future research.

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APPENDIX A: INTERVIEW QUESTION

1. What challenges the management in your organisation is facing in managing the productivity of remote working teams?
2. How is your organisation managing the changes in employee behaviours after the outbreak of Covid-19 for managing their productivity?
3. What strategies have your organisation adopted for enhancing employee loyalty by ensuring their security from cyber threats?
4. What according to you are the potential ways of managing the employees' issues in enhancing their performance under the changed working pattern and environment?

APPENDIX B: SURVEY QUESTIONS

1) What is your Age?

- 25-35
- 36-46
- Above 46

2) What is your work experience?

- Less than 1 year
- 1-6 years
- 7-15 years

3) To what extent do you think that work-from-home facility has increased your productivity?

- Agree
- Strongly Agree
- Neutral
- Strongly Disagree
- Disagree

4) Do you agree that changes in working patterns after the spread of CoronaVirus have caused organisations to face major challenges in maintaining their employees 'productivity?

- Agree
- Strongly Agree
- Neutral
- Strongly Disagree
- Disagree

5) How much do you think the poor digital infrastructure of your home can enhance your system vulnerability?

- Agree
- Strongly Agree
- Neutral
- Strongly Disagree
- Disagree

6) How much do you think that flexible working arrangements have aided in enhancing employee productivity?

- Agree

- Strongly Agree
- Neutral
- Strongly Disagree
- Disagree

7) To what extent do you think that the utilisation of digital-media collaboration and communication tools have been beneficial for enhancing employee productivity in the IT sector?

- Agree
- Strongly Agree
- Neutral
- Strongly Disagree
- Disagree

8) To what extent do you think that the work-from-home has enhanced your work-life balance?

- Agree
- Strongly Agree
- Neutral
- Strongly Disagree
- Disagree

APPENDIX C: SURVEY COVER LETTER

APPENDIX C: INFORMED CONSENT

APPENDIX D: INTERVIEW GUIDE