# FUTURE OF WORK

# THE PIVOT TO OUTCOMES AND QUANTUM

by

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## Dedication

This humble study is lovingly dedicated to the Late Prasad Subramaniam, my Mentor, and neighbour, whose words of encouragement and motivation for tenacity still ring in my ears. I also dedicate this dissertation to my fellow SSBM Doctorates and many friends in the community who have supported me throughout the process. I will always appreciate all they have done, for helping me master the leader dots. I want to extend my profound gratitude to all who helped me in any manner, and who have shared the effort and knowledge to make this research a reality. I dedicate this work and give special thanks to my wife Mahalakshmi and my wonderful daughter Dhriti for being there for me throughout the entire doctorate program. Both of them have been my best cheerleaders.

To Lord Muruga, for giving me the wisdom, strength, support, and knowledge to explore things, for the guidance in helping me surpass all the trials that I encountered, for giving me the determination to pursue my studies at the age of 63, and for making this study possible.

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ABSTRACT

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Just like the world at large, the world of work shifts and changes over time. The future of work refers to an informed perspective on what businesses and other organizations need to know about how work could shift (given digitization and other trends), plus how workforces and workplaces can prepare for those changes, big and small. It's the heyday of flex-work models, but the future of work is so much more, with opportunities ready to be tackled along the spectrum of workforce transformation. This study explores the future of work, focusing on factors influencing remote and offshore delivery, harmonized methodologies for delivery quality, employee development, and cloud environment management. The objective is to reveal how work systems and human capital might be best managed for an organisation to achieve change in the light of new technologies or organisational environments. Accelerated digitalization and technology advances fuel the need for skill transformations across large portions of today's workforce.

The extension of clouds to the edges benefits the expansion and functionality of more extended and efficient networks together with other technologies such as artificial intelligence, virtual reality, and quantum computing, among others are just a few of the emerging technologies dominating headlines. Quantum ERP and computing are important. This research work adopted a quantitative research approach using a survey of 168 respondents drawn across proficiency, age, and years of practice. Calculation of correlation coefficients, particularly Spearman's correlation analysis, was done in a bid to compare the connections between the important variables with a view of identifying patterns. Some of the variables included working model flexibility, technology integration, labour diversity, quantum computing, and cloud computing administration. The study concludes that organizations must embrace technological advancements, prioritize employee development, and foster inclusive environments in technological transformation, diversity, and sustainability to remain competitive. Organisations must focus on Quantum literacy and Technology Education for Leaders, fairness in the Future of work and strategic focus on cloud adoption, harmonized methodologies to enhance operational efficiency and innovation, positioning businesses for sustainable growth in the evolving landscape of work.

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# LIST OF ABBREVIATIONS

| Abbreviation | Full Form |
|---|---|
| ERP | Enterprise Resource Planning |
| ITS | Intelligent Transport Systems |
| QC | Quantum Computer |
| HPC | High-Performance Classical Computing |
| ML | Machine Learning |
| AI | Artificial Intelligence |
| IoT | Internet of Things |
| RL | Reinforcement Learning |
| QAOA | Quantum Approximate Optimisation Algorithm |
| VQE | Variational Quantum Eigen |
| QEP | Quantum Ethics Project |
| GPU | Graphics Processing Unit |
| SFU | Simon Fraser University |
| OBC | Outcome-Based Contracts |
| PHS | Public Human Services |
| RBV | Resource-Based View |
| MLA | Machine Learning Algorithms |
| VR | Virtual Reality |

# CHAPTER I:

# INTRODUCTION

## Introduction

The future of work is undergoing a profound transformation, driven by technological advancements, globalization, and evolving business models. The pivot to outcomes, combined with the rise of quantum computing, is reshaping how organizations deliver value and maintain competitive advantage. This study explores these transformative shifts, focusing on the integration of remote and off-shore delivery, harmonized project methodologies, skill enhancement, and cloud computing innovations, which are pivotal to navigating the complexities of a rapidly changing business landscape.

The challenge which organizations begin to encounter is the need to have concerns about these costs while delivering top-notch services. Only when organisations embraced right-shoring as a concept – or the optimisation of their delivery networks for global scale rather than just low costs, with remote and off-shore delivery models and a skills framework aligned to the global economy; have they been able to strike this balance (Modgil, Singh and Hannibal, 2022). Evidence-based practice shows that off-shore and remote delivery of standard services can lead to a drastic reduction of the cost of the operation and increase scalability and service quality (Whitaker *et al.*, 2020) (Tate *et al.*, 2009). However, fine-tuning these models calls for systematic reforms in the delivery approaches and enablers especially in harmonized global processes and risk management.

Thus, cloud computing and quantum technologies are also the key drivers of the future of work. Hybrid or private cloud, public or multi-cloud environments are all it takes to provide the elasticity that may overcome compliance and performance issues. Distributed cloud management is considered one of the important strategies that companies utilize to implement digital transformation and modernization of IT environments

(Almurisi and Tadisetty, 2022). On the other hand, industries interested in sea change advancements, such as quantum computing, that can be used for analysis of complex data and optimization tools are on the horizon (Pfaendler, Konson and Greinert, 2024). However, the course toward quantum-powered solutions involves primary changes, including cloud migration from business storage and adapting for quantum boost computational models.

This study aims to explore how businesses can systematically change their delivery models to increase the adoption of remote and off-shore strategies while driving high-value outcomes. It also examines the role of harmonized methodologies, cloud solutions, and quantum computing in this transformation. By addressing these elements, the research provides a comprehensive roadmap for navigating the evolving landscape of work, ensuring organizations remain agile and competitive in the face of disruptive forces.

**Future of work – the pivot to outcomes**

Globalization and economic uncertainties are challenging organizations to adapt quickly to changing business needs. Customers, industries, and the markets in which they operate are experiencing a huge shift in how value is created, measured, and delivered. This is due to COVID-19 and the quest for new model of development, growth and success. Cloud, artificial intelligence, blockchain, the internet of things and new technologies extend the opportunities for new product and service, new forms of business and the processes supporting them. The fast pace at which innovations are developed challenges many markets, and they are being challenged as well.

Technology is no longer a cost center; it is a value driver for customers. The primary driver for customers' buying decisions is now the business value that the cloud can deliver and the new business models and resilience it can enable. COVID-19 is accelerating digital disruption and has created a liquidity crisis as well as a renewed appreciation for the "triple"

bottom line - economic, societal, and environmental, as well as acceptance of purpose as imperative.

Technological advancements have made it more practical for businesses to recruit remote workers to carry out formerly in-person tasks. From a technological standpoint, broadband internet is now accessible to a wider audience, and computers are both more affordable and faster. Thanks to developments in desktop virtualization, cloud computing, and video conferencing, distant collaboration is now easier than ever (Ozimek, 2022).

The innovative and trustworthy culture that drives the Future of Work is adaptable. Success in company will depend on how well excellent people and cutting-edge technology work together. The way we work changed throughout the last 3 years as the pandemic persisted. Many people have worked remotely during the pandemic and continue in a hybrid model, but hybrid working is here to stay. It offers the workforce the necessary flexibility, reflected in different corporate technology stacks. Several employees left in search of a better work-life balance or greater flexibility in their working hours as expectations among employees gradually changed. Employers in the IT Industry began transforming workplaces to accommodate a new hybrid working paradigm as roughly 70% of workers have worked remotely – and many still do. Although many have expressed the desire to adopt hybrid virtual work in the future, there is still much to be done in terms of strategies for remote-relevant details. However, 100% remote working presents significant early-stage hurdles for businesses in terms of people, process, structure, and technology from an operating model perspective. To address these issues, leaders play a crucial role in generating solutions.

Remote employment has continuously increased over the past two decades; its percentage of labour force has remained relatively low. After COVID, hiring managers anticipate that, representing a 65% increase, 21.8% of their staff will be fully remote in

five years. The percentage of the workforce that is significantly remote (Figure 1.1) has had a similar acceleration in increase. In total, the projected expansion of remote work has been quadrupled from its pre-COVID-19 projections.

| | November, 2019 | Five Year Forecasted Rates | | Five Year Growth | |
|---|---|---|---|---|---|
| | | Pre-COVID | Pre-COVID | (Pre-COVID Forecast) | (Pre-COVID Forecast) |
| Entirely remote (all of their work is done remotely) | 13.2% | 17.2% | 21.8% | 30% | 65% |
| Significantly remote (half or more of their time) | 10.2% | 13.7% | 17.7% | 33% | 73% |
| Some remote (up to half of their time is spent remotely) | 9.5% | 15.0% | 18.8% | 57% | 98% |
| Not at all remote (all of their work is done on-site/in-office) | 67.1% | 54.2% | 41.7% | -19% | -38% |

*Figure 1.1: pre and post covid surveys conducted by (Ozimek, 2022)*

Early on in the pandemic, some of the major technology firms declared that their employee will have the option of working permanently from home. As time went on, attitudes began to change, and the emphasis shifted back to "returning to the office," as businesses began to understand that physical spaces serve as physical representations of their brands and that it is impossible to effectively instill the culture and values of an organisation in employees (especially new hires) through remote work. But more crucially, when teams are working remotely, they cannot inspire confidence in their clients and show their dedication to them.

Regrettably, the second wave severely affected us and the projections of the third and fourth waves made us more vulnerable, leading us to choose a middle ground—a hybrid office that combines work from home and the office.

Working from home is just not an option in so many industries. In various locations, sectors, and occupations, competent, educated workers tend to be highly concentrated in remote labour. According to recent McKinsey estimates, 20% of workforce may potentially work remotely three to five days per week without negatively impacting efficiency.

Before COVID-19, new technologies and trade ties caused most job disruptions. Covid-19 has enhanced the physical aspect of job for the first time. Pandemic forced companies and consumers to adopt new procedures that will stick, changing patterns. Thus, pre- and post-pandemic employment market consequences differ. How come we feel rushed? Customers can only achieve business goals by employing technology solutions in different situations to create value. This implies that economic value must first be shown to the customer and that our technology is driven by its ongoing supply. Only by implementing technology across business lines, geographies, and contexts can clients achieve their business goals.

When it comes to the future of work, organizations are beginning to leverage integrated technologies, to boost performance and flexibility. ERP is essential to serve as a tool for managing enterprise operations, increase its control, and provide a competitive advantage. However, the next frontier is in re-architecting ERP systems based on quantum computing at this time.

While Quantum ERP has only recently emerged as a viable product in the commercial market, its possibilities for revolutionizing the workplace are vast: the enhancement of the speed and accuracy of decisions, and the streamlining of processes that were previously unmanageable. For instance, the use of concepts such as “quantum superposition” can transform how organizations approach the analysis of trends and the application of the predictions derived from such trends in business. This integration of quantum capabilities into ERP systems reflects a broader shift in the future of work: the key to implementing change in adopting technologies that help organisations to manage new risks and exploit fresh opportunities.

| Feature | Classical Computer | Quantum Computer |
|---|---|---|
| Information Storage | Information is stored in bits, where each bit can be either 0 or 1 | The Information is stored in qubits (quantum bits), where each qubit represents any possible combination of 0 or 1 with each other |
| Computation | Results can be read directly from the bit string of 0s and 1s | Results of the computation are retrieved via statistical analysis of repeated quantum measurements |
| Performance | The performance scales linearly with the number of bits | The performance may scale exponentially with the number of qubits for certain problems |
| Pros and Cons | - Good for general-purpose computing<br>- Mature technology with low error rates<br>- Robust and cost-effective<br>- Cannot scale well for certain problems | - Cannot perform general-purpose computing<br>- Nascent technology with high error rates<br>- Currently Requires expensive specialized infrastructure<br>- Good at solving certain specific problems |

*Figure 1.2: Comparison between Classical and Quantum Computer*

**Source:** (McKinsey, 2024)

**The Shift to Remote and Off-Shore Delivery**

The shift to remote and off-shore delivery has emerged as a strategic response to the demands of globalization, technological advancements, and evolving customer expectations. This model, in which geographically disparate teams implement given tasks and deliver services, has become increasingly popular in recent years due to the benefits it offers through the optimisation of costs, flexibility, and accessibility of services (Di Mauro *et al.*, 2018). This means that the years of delivery away from the central operations hub, or off-shoring, is an important part of doing business today because of the flexibility it provides (Johansson and Olhager, 2018).

Among many factors, cost optimization remains one of the most persuasive in explaining this change. Off-shore delivery guarantees organizations access to those areas that have cheaper human resource without compromising on quality. Also, the introduced remote and off-shore delivery promote flexibility and company's resistance. The COVID-19 pandemic brought the notion of being able to work with a distributed team that can continue functioning if physical workplaces are unavailable. Companies that had prior experiences in remote and off-shore working models were able to shift more and continue

with their services delivery to clients during such times. This resilience has put remote and off-shore models at the center of business continuity planning (Tate *et al.*, 2009).

In addition to the cost factors as well as flexibility this delivery model would also facilitate improved access to external resources. With modern tools of communication and collaboration it becomes possible for organizations to avail services of professional talent assuming that the service provider is located in a distant corner of the globe. This has been especially useful in areas hence prevalent in sectors like software development research and analytics among others where such specialized talent may not easily be procured locally. Global teams guarantee that a business can draw from the best talent in the world for certain projects and hence higher value results and innovation.

Nevertheless, the use of remote and off-shore delivery has its drawbacks. The cooperation with distributed teams can be challenging; it is necessary to apply strong communication platforms and methodologies to reduce the gap between different geographical and cultural zones. Another reason for the centralization of processes and standards is the need to have common conditions that will guarantee the level of quality and services in geographical locations. Further, data protection and privacy issues become issues of concern whenever one is dealing with clients around the globe. This requires organisations to invest in secure systems and work within local and international laws to manage the risks to help retain the trust of their clients.

For organisations to fully unlock the benefits of remote and off-shore delivery, they also have to match their skills landscape to their delivery arrangements. This involves the provision of human capital development, with the acquisition of relevant skills for the development of adequate employees for either new or increased service delivery in the remote setting. Moreover, organisations have sought to create a culture of trust that will support the distributed workers and embrace them into the organisational main fold so that

they can complementarily function like a unified wholesome team to realise the strategic plans and goals set by the main organisational leadership.

## Research Problem

### Future of Work and Hybrid Services Delivery

Our world is changing at an unprecedented rate and with new degrees of complexity, forcing us to make drastic changes to how we work and live. The majority of workers wish to maintain the remote work arrangements that were necessitated by the COVID-19 epidemic. An "always-on" society and ongoing digitization raise concerns about stress at work and employee burnout. The news is still dominated by stories about skill shortages and the swing between the "great resignation" and the "great regret." Gen Z, the most diverse and first generation to grow up digitally, brings new expectations for

the workplace. These are just a handful of the upstarts transforming the workplace and opening doors for businesses across all sectors.

How value is created, assessed, and delivered is drastically changing for customers, industries, and the markets in which they operate. The perfect storm of COVID-19 and the need for new strategies for expansion, innovation, and success drive this. The hybrid office seems to be a reality, and businesses must design, construct, refit, and maintain offices that reflect their brand, culture, and values by prioritizing wellbeing, technology, flexibility, and a wealth of facilities.

Following the pandemic, hybrid remote work patterns are likely to continue, mostly for a highly educated, well-paid workforce minority. (Lund et al., 2020)

Companies that methodically handle the problems that have arisen as a result of the crisis have the opportunity to turn remote work into a competitive advantage. As a result, businesses have embraced remote work rapidly. (Bick et al., 2020)

Before the pandemic, offshore working was beginning to gain popularity, but the pandemic's worldwide reach and the revolution in video conferencing have demonstrated that distant work will soon become the norm. The key to our future success is realizing a capable Integrated Service Delivery model.

Virtual meetings and remote work will decline, although not as much as during the epidemic. Remote work hours may skyrocket due to COVID-19. Twenty to twenty-five percent of industrialized workers might work remotely three to five days a week if productivity stays the same. Four to five times more distant labour than before the outbreak might affect job distribution as corporations and individuals abandon large cities to suburbs and smaller towns. Some computing tasks are simpler face-to-face.

Some jobs, including as brainstorming sessions, crucial business decisions, negotiations, and the onboarding of new employees, may not be as fruitful when done remotely.

The "triple" bottom line—the economic, societal, and environmental aspects—as well as the recognition of purpose as essential are all being affected by Covid-19, which is speeding up digital disruption and causing a liquidity crisis. But amidst the chaos, there are also opportunities, and businesses that can adapt to serve as the functioning prototype of their clients' futures are on the verge of success.

After the COVID-19 pandemic, 74% of CFOs questioned by Gartner intend to permanently remote some portion of their personnel. Flexibility, higher production, and employee happiness are just a few of the advantages that remote work offers to both companies and workers. A number of businesses have previously stated their intentions to implement some form of remote or hybrid work arrangement following the epidemic. (Bick et al., 2020)

The nature of labor is evolving. This transition will be as profound due to artificial intelligence and automation as mechanization in earlier industry and agricultural processes. Even while many jobs will be created and some will be lost, practically all will change. Organizations had to reevaluate many aspects of work as a result of COVID-19 crisis, which exacerbated existing trends.

Despite companies like IBM and D-Wave building some functional machines, quantum ERP is still mostly in the project and prototype stage. However, quantum computing could address many of the most challenging issues in IT, including fully secure communication, thwarting hackers for all currently used traditional communication protocols, and accurate simulation of large-scale systems like stock and trading markets.

Businesses should think about taking the following measures to get ready for this future and quantum computing at scale:

1. Every business should keep track of the most recent developments
2. Businesses must secure their data if they have information that attackers may find appealing.
3. Sectors that will be affected by quantum computing need to get ready for a change in the way they do business.

**Quantum Computing and the Future of Work:**

The ability to manipulate interactions that produce quantum entanglement is the source of power for quantum information systems. But quantum circuits and simulations can only be as connected as the interactions themselves are, because of how natural and local they are. However, in reality, these methods have had control or size limitations, even though non-local connectivity can be created by a worldwide shared quantum data bus (Mølmer and Sørensen, 1999; Wright et al., 2019; Periwal et al., 2021), Several forward-thinking architectural plans have been put forward in theory during the last 20 years to

tackle this problem. Coherent and dynamical quantum information transfer via photonic links or movable traps has formed the foundation of these methods, which have been extensively tested experimentally on many platforms (Mandel et al., 2003; Beugnon et al., 2007; Monroe et al., 2014). Still, we're only talking about tiny, few-qubit devices that aren't fully connected, programmable, or truly parallel.

Our strategy to tackle this long-standing problem makes use of optical tweezers that can be reconfigured on the fly to transport entangled neutral atoms in two spatial dimensions. Quantum information can be stored and transferred between quantum operations using hyperfine states, and entanglement can be generated by exciting particles into Rydberg states. By dynamically transferring qubits between different zones, highly parallel operations are made possible. Collectively, these components comprise a robust quantum information architecture that we utilise to accomplish tasks such as entangled-state synthesis, topological surface and toric code state production, and hybrid analogue-digital quantum simulations. (Cirac and Zoller, 2000).

**Research Purpose and Questions**

**Research Purpose**

- To identify the right delivery mix to increase the share of remote/off-shore end-to-end delivery.
- To improve on the delivery performance.
- To ensure the right skill alignment with the delivery strategy to ensure customer satisfaction.
- To establish a distributed cloud environment.
- To drive CxOs that want their companies to benefit from quantum computing and help them start moving their business data to the cloud.

## Research Questions

### Key Research Questions:

1. **What are the factors that can systematically change the delivery mix to increase the share of remote/off-shore end-to-end delivery?**
2. **What are the factors to be considered to improve delivery quality via global adoption of harmonized implementation and project management methodologies?**
3. **What are the factors to support an environment that encourages people to develop themselves in order to drive delivery excellence, innovation, leadership, diversity, trust, and pride?**
4. **What is the major importance and focus for establishing a distributed cloud environment to deploy a range of cloud solutions (public, private, hybrid, and multi-clouds)?**
5. **What are the factors to be considered in driving CxOs to move their business data into the cloud?**

### Sub Research Questions:

1. To drive high added value off-shore delivery and push delivery of standard services and solutions.
    - What are the structured quality assurance services to be defined?
    - What are the risk management aspects across the whole customer engagement lifecycle to consider?
    - What are the people's development aspects to be considered?
    - What should be the focus on skill development and upskilling?
    - What should the business focus on to meet compliance and performance requirements?

# CHAPTER II:

# REVIEW OF LITERATURE

## Theoretical Framework

Customers, industries, and the markets in which they operate are experiencing a huge shift in how value is created, measured, and delivered. This is being driven by the perfect storm of COVID-19 and the need for new ways to grow, innovate and thrive.

Covid - 19 is accelerating digital disruption and has created a liquidity crisis as well as a renewed appreciation for the "triple" bottom line - economic, societal and environmental, as well as acceptance of purpose as imperative. But chaos also creates opportunity and companies that can transition to be the working model of their customer's future, are on the brink of possibility.

In the circumstances of the crisis, businesses have had to adopt remote working rapidly. By methodically addressing the ensuing difficulties, businesses may make remote working a competitive advantage (Bick *et al.*, 2020)

Remote work and virtual meetings will undoubtedly continue, but less so than during the epidemic. Remote employment has increased dramatically because to covid-19. Only remote work that doesn't reduce productivity might allow 20–25% of industrialised economies' workforce to work from home three to five days a week. This is four to five times more remote work than before the epidemic and might transform the landscape of employment as people and companies move to suburbs and small cities. Technology allows remote work, yet some tasks are better in person. Negotiations, crucial company decisions, brainstorming, sensitive criticism, and onboarding new staff may be less successful remotely.

According to Figure 2.1, which is based on responses from 504 C-suite executives, over 75% of those questioned by McKinsey assumed that the average "core" employee would return to the office three or more days per week (Smet *et al.*, 2021).

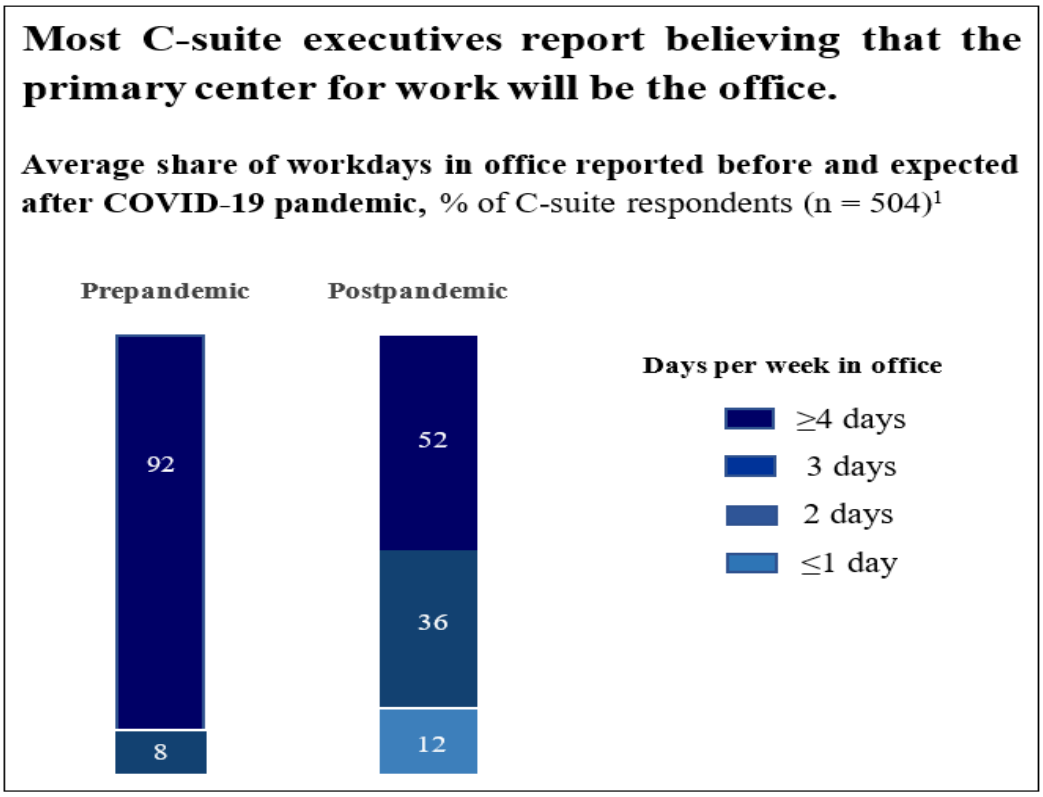


*Figure 2.1: Most C-suite executives report believing that the primary center for work will be the office*

**Source:** McKinsey CxO survey on return to workplace, May 2021.

By providing clients with tailored Industry Solutions and products like Model Company, the industry has gone beyond ERP to address their industry-specific needs. In the cloud age, ERP is developing an industry cloud approach that unites industry capabilities into a single end-to-end process for clients to achieve digital transformation. To continue utilising ERP technology, the client must first see the business value and then get it. This signals a change from license-led to service-led software sales. In our market, pre- and post-sales are irrelevant;

Industry 4.0 is an application area. It can be considered a subcategory of the Internet of Things (IoT) technologies, and in the literature, it is commonly referred to as well as "Smart Manufacturing", "Smart Industry", "Smart Factory", etc. Further, the Industry 4.0 concept incorporates several key technologies such as Big Data/Analytics, advanced human-machine interfaces, smart sensors and actuators, robotics, big data analytics, artificial intelligence, security authentication, cloud computing, location tracking technologies, 3D printing, augmented reality and wearable's, etc. It constitutes, according to many scholars and practitioners, the 4th industrial revolution. It should be noted that it is not limited to automation of a single production facility but it refers to the whole production chain, including the supply chain, material sourcing, warehousing, production and delivery. (Fitsilis, Tsoutsa and Gerogiannis, 2018).

The customer's digital environment is heterogeneous, built from legacy assets, new cloud capabilities, and software from different vendors and open source. Success will come from enabling open ecosystems, allowing developers of all scales (ISVs, Startups, SIs) to build and deliver solutions into ERP applications with cloud APIs from many sources for scenarios such as IoT.

The need for an integrated digital platform for the development, deployment, and lifecycle management of a portfolio of automation developed for service delivery is important. A hybrid and IoT-like integrated digital infrastructure, including the ERP support backbone, is key for intelligent service delivery to ensure end-to-end service delivery and deployment processes across the hybrid landscape. The scope of the research is to enhance the integrated delivery framework and cloud-based engagement leveraging the right shoring schema approach for enterprises that are willing to leverage as it benefits them with lower costs and flexibility of standardised services and expert-based engagement with an optimal mix focusing on a hybrid delivery model to deliver the best customer

solution. This will help to address customers' concerns about meeting compliance regulations on their processes.

**Theory of Reasoned Action**

In the literature review, the researcher outlines and enhances the future state of an efficient integrated delivery framework on a hybrid delivery model, keeping the industry and people's behavioural changes post-COVID-19 and the Industry transformation towards the Digital, Automation and Cloud pivoting to business outcomes.

**Digital transformation** has taken over every industry, and the COVID-19 pandemic accelerated it even further as businesses, supply chains, and the way people worked changed overnight. The ongoing pandemic is just one of the challenges we're facing.

By increasing digital adoption, the COVID-19 pandemic has increased the power curve difference between top and bottom enterprises on economic profit, boosting winner-take-most dynamics and separating digital winners from also-rans. Superior digital capabilities and technology, rapid delivery, and a tech-savvy C-suite are now more important than ever for competitive differentiation (Blackburn, Galvin and , Laura LaBerge, 2021).

Digital Intelligence, the next generational wave of software will be anchored in emerging intelligence technology – creating a new breed of intelligent enabled applications in the business application space. Which means that we must be prepared to deliver intelligent enabled versions of all business applications.

Digital's rise is seen in hyper-scale tech giants and non-digital-native corporations like John Deere, Goldman Sachs, BHP, Disney, and Bosch. These firms have extensively invested in digital strategies and business models. They had larger technology budgets than their contemporaries and outspent them on digital technologies during the epidemic.

Legacy organisations seeking comparable performance increases should re-examine the traditional strategy actions that, separately and in combination, have been shown to accelerate economic success (Blackburn, Galvin and , Laura LaBerge, 2021).

Companies may create a successful strategy in the age of digital disruption by implementing these traditional tactics, even if they may seem contradictory at first.

*Table 2.1: Digital strategy is changing the big moves that drive companies to outperform their competitors.*

| **Big Moves** | **What Worked in the Past 10 Years** | **How Technology and Digital Are Changing the Game** |
|---|---|---|
| **Differentiation Improvement** | A company's average gross margin must exceed its industries by 30% over 10 years. | In a winner-take-all market, most businesses need to stand out by providing innovative digital goods and services to customers at a faster rate than their rivals. |
| **Productivity Improvement** | The top 20% of firms' SG&A activity in comparison to the industry average; the top 30% of companies' labour activity in comparison to the industry average. | Instead of focussing on the most efficient incumbent peer, the standard for cost efficiency is lean greenfield attackers. |
| **Capital Expenditure** | For a minimum of ten years, keeping the capital expenditure to sales ratio higher than the median for the industry. | Either companies are going "capital light" or they are spending heavily in tech assets that set them apart. |
| **Resource Reallocation** | Distributing roughly half of the capital expenditure across a | Companies need to reallocate resources quickly to take advantage of |

| | | |
|---|---|---|
| | decade among several business divisions. | growth opportunities and the shifting value pools caused by digitalisation. |
| **Mergers, Acquisitions, and Divestments** | Decreased market capitalisation due to a string of smaller agreements totalling more than 30% over a decade; no single deal exceeded 30%. | To accelerate their digital skills and culture, companies are relying on significant digital acquisitions as a springboard for programmatic mergers and acquisitions. |

**Source:** Corporate Performance Analytics by McKinsey; McKinsey analysis. October 2021.

**Automation.** The most recent McKinsey Global Survey (July 2022) found that the percentage of businesses using automation technology is going up. The COVID-19 epidemic sped up the adoption of new automation technology by nearly half of the respondents (46%). Companies were driven to accelerate their efforts by the growing necessity to reimagine their business models and the increasing usage of digital channels by customers. Worries regarding the efficacy of company procedures rank highest among the reasons for automating. Enhancing the customer or staff experience ranks as the second most popular motivation for process automation (Rohit Panikkar, Leon Xiao, Anand Sahu, 2022).

Automation leaders are making sweeping (rather than incremental) process changes part of their automation agenda (Exhibit 3). The survey suggests that automation leaders are much more likely than others to use an integrated approach, taking a variety of actions such as demand reduction, process streamlining, zero-based redesign, automation of manual work, and use of advanced analytics.

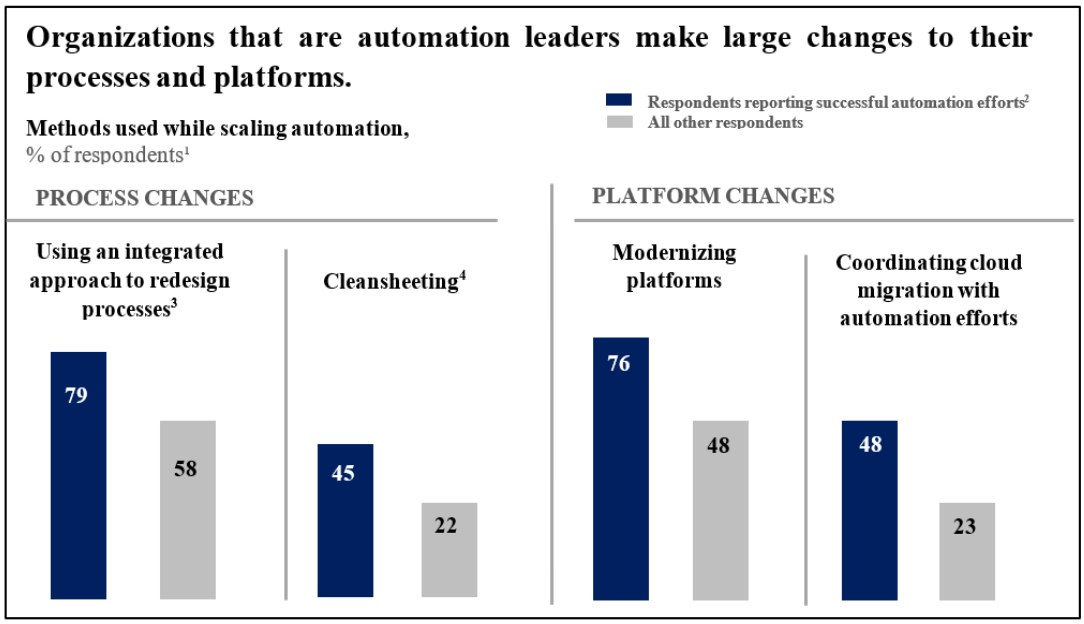


*Figure 2.2: Organizations that are automation leaders make large changes to their processes and platforms*

**Source:** McKinsey. Your questions about automation were answered. July 2022.

**Cloud.** Cloud deployment makes next-gen technologies in particular more scalable and drives their adoption, which changes the skills that providers need to have in their workforce. Also, customers and the workforce are at the center of the requirements for automated delivery of service. The smart tools & methods are relevant across different customer segments to drive the adoption and standardization of service delivery automation.

The topic of cloud computing is increasingly becoming front and centre in the strategy meetings of company leaders. Despite ongoing worries about data privacy and control, SaaS is quickly becoming the preferred method of software procurement for businesses across all sectors, thanks to improvements in processing power, more reliable network connections, the proliferation of mobile devices, and big data.

Despite the many advantages of software as a service (SaaS), both software developers and consumers have been hesitant to embrace cloud computing. Many software

firms are afraid of the difficulties of migrating their packaged software to the cloud. However, these organisations may improve their chances of success by adhering to six strategic guidelines. Among the six tenets are the following: a rapid speed of product development; a high tolerance for failure; a readiness to invest in new technology and capabilities; and the management of customer relationships (Santiago Comella-Dorda, Chandra Gnanasambandam, 2015).

**Introduction to the Future of Work**

Theodore Lynn *et al.* (2023) Technological advances, worker demographics, and company interests are rapidly transforming employment. As companies progress towards outcome-oriented models, they focus more on results than tasks. Automation, digital transformation, and work structure efficiency and flexibility are driving this change. Quantum computing, still developing, might transform companies by addressing complex issues at unprecedented speeds, enabling workforce efficiency and innovation. Additionally, the future of work promotes adaptability, critical thinking, and digital literacy to prepare individuals for a world where human inventiveness and new technologies like AI and quantum computing drive growth. These innovations are creating a workplace that values meaningful outcomes, cooperation, and adaptability, equipping organisations for a complex and interconnected world.

Burchell *et al.* (2024) The idea is to reconcile two contradictory arguments: one for lowering full-time workers' hours and another for shifting their schedules. In this historical context of working time, factors that lead to common employment links and reduced working hours are addressed. It examines present trends, the pause in working time reduction, and the variety of working time norms. Working consistently without overworking has benefits including better health and a more rewarding profession, but focussing entirely on clock time has negatives. The last section makes the reform case,

arguing that standard working hours should be shortened to make working time more sustainable in a dual-earner society and to reduce the supply of workers for jobs with fragmented working hours.

Greinert *et al.* (2023) The expected labour shortage raises serious issues. What is the future of second-generation quantum technologies? Which skills will future quantum workers need? What skills, background, and experience do future employees need? This study examines demand and prediction for the future quantum workforce. Our methodology involved three survey iterations. Professionals and academics from across Europe responded 188 times. The QTEdu CSA project offers the European Quantum Flagship the European Competence Framework for Quantum Technologies, based on our study. They'll also discuss expert predictions about the future quantum workforce, including the need for educational programs, the impact of quantum technologies on daily life, and the industrial importance of quantum technology's main domains.

Bravyi *et al.* (2022) Quantum error correction technology must advance to maximise computation's potential and speed up quantum algorithms super-polynomially. Focussing on heuristic quantum algorithms with asymptotic speedups, error suppression and mitigation, and circuit knitting to merge several QPUs could soon yield a computational benefit. This new architecture, called quantum-centric supercomputing, cannot seamlessly merge quantum and conventional processors until quantum computing software and hardware evolve. Hardware with qubit connections in topologies above 2D will improve quantum error-correcting codes. Quantum computing will be ubiquitous and frictionless thanks to modular designs to scale QPUs and parallelise workloads and software to hide the technology's complexities.

Hughes *et al.* (2022) decade has seen great advances in "quantum information science and technology" (QIST), which is now being used in many new industrial products.

This burgeoning quantum sector needs new QIST-trained staff. To properly educate and train students, schools must know what jobs are available and what degrees and skills are most in demand. Students should also know how to adapt their degree programs to the quantum sector. A study of 57 quantum sector enterprises illuminates the degrees, jobs, and skills needed for this rising workforce. They find jobs in business, software, hardware, and more generalist sectors like quantum algorithm and error correction researchers. These jobs require several skills, most of which are unrelated to quantum physics. Businesses who participated in the poll want people with bachelor's, master's, and doctoral degrees, except for specialist fields. Students, instructors, and school officials can now confidently train a larger quantum workforce.

W., N. and G. (2021) It's based on quantum theory's linear algebra and probability computations. Both subjects are essential to data science and other modern technology domains because they can address a wide range of complex problems that even the most powerful supercomputer cannot. Quantum computers use qubits, which may carry two bits at once and exist in both the zero and one states (quantum superposition). This lets them encrypt data better than traditional computers. A light-speed quantum computer outperforms a supercomputer. Quantum computing can fix encryption and cyber security challenges. Quantum computing promises to revolutionise AI and machine learning by solving even the most difficult problems quickly. This paper's focus on quantum computing's future uses and importance will help readers in cryptography, driverless vehicles, data analytics, medical research, pattern matching, forecasting, and other domains.

Theo Lynn *et al.* (2023) The Future of Work predicts, from the vantage points of many social actors, how technological, economic, political, and demographic shifts will impact the nature of work, workers, and workplace in years to come. Before delving into

the various subjects addressed throughout the rest of the book, this chapter defines Future of Work and explores some of the key themes, trends, and concepts in associated literature. At the end of the chapter, the authors urge more research that draws from a variety of disciplines, supports assumptions and hypotheses that underpin current Future of Work studies and policies, develops a research agenda that thoroughly covers workplaces, people, geographies, sectors, and types of organisations; and makes greater use of future approaches.

Student (2014) The area of quantum computing is relatively young, yet it has enormous potential. Instead of using transistors, which have long been used to store and update logical data, it uses primarily electrons, subatomic particles, for same function. By omitting superfluous terminology, they hope to present quantum computing in a way that the reader can grasp. It will become clear that quantum computing is essential for meeting the demands of emerging computer systems and staying up with present innovations. Since quantum computing is still in its infancy, most of the study and development surrounding it is also in its infancy. The promise of employing quantum computers to solve issues that cannot be solved using ordinary computers is enormous, if the potential can be fully realized.

**Overview of Workforce Transformation**

Lim (2023) Due to new technology, increased competitiveness, shifting demographics, rising societal demands, and recurring global crises or mega-disruptions, the world is undergoing remarkable upheavals, and work is changing faster than ever. To maximise these changes, this editorial gives The Workforce Revolution is a new movement that aims to change how we hire people and their roles in the workplace. Innovative leadership and HRM are becoming more vital for firms to adapt and prosper. This issue of Global Business and Organisational Excellence examines the latest research,

advancements, and ideas to assist managers and leaders create the future workforce. This issue covers topics like the gap between employee expectations and organisational performance, toxic and responsible leadership, human resources' traditional and transformative roles, and the new formal's impact on the future of work. By providing leaders and managers with the information they need to understand and manage these complex issues, the journal aims to equip workers for the future.

**The Pivot to Outcomes and Quantum**

Jerbi *et al.* (2021) Quantum algorithms have accelerated some machine-learning methods. Deep "reinforcement learning" (RL) is an exception. Deep neural networks and RL create strong Deep RL. It developed the AlphaGo system and other notable AI results. Currently, no quantum advantages have been found. They show how quantum computers can improve deep RL, especially in large action spaces. They apply statistical physics-inspired models, called "deep energy-based," and show that they outperform deep RL machinery in learning. Although quantum approaches can make these models more computationally efficient, they are more difficult. They provide quantum algorithms to accelerate deep energy-based RL, some of which are quantum computer-compatible and expected shortly. Thus, quantum AI and ML advancements are now equal.

Dahi and Alba (2022) A "quantum-inspired metaheuristic" solver uses non-quantum equipment to build quantum-inspired classical-approximate algorithms. The unorthodox character of quantum principles, their origin in quantum phenomena, and their application in radically divergent non-quantum systems pose challenges concerning the design and repeatability of these algorithms in actual or virtual quantum devices. This research seeks to discover key literature results that can be used to build hybrid or fully quantum algorithms for quantum machines as a first step towards solving such problems. Four quantum cellular genetic algorithms using a 32-bit quantum simulator and a 15-bit

superconducting quantum bit on a physical machine are proposed and analysed. With the authors' best knowledge, these algorithms are the first to be investigated in all three quantum realms. Radio network user mobility management is validated using thirteen real-world cases. Nine measures were utilised to compare results to six algorithms. We also performed extensive statistical testing and parameter sensitivity analysis. The experiments answered many questions, including how quantum technology affected algorithm search. They also improved our grasp of quantum metaheuristic design.

De Stefano *et al.* (2024) As quantum computing develops, "quantum software engineering" (QSE) is emerging to help programmers construct quantum applications. This page maps the current state of QSE research to establish the most researched subjects, study types and numbers, primary reported findings, and quantum computing tools/frameworks. The study will also examine the research community's interest in QSE, its development, and any previous contributions before the Talavera Manifesto. They selected the most relevant studies from our database searches using inclusion and exclusion criteria. After assessing resource quality, they extracted relevant research data and assessed it. The majority of QSE studies have focused on software testing, while software engineering management and other related topics have gotten less attention. Most studies used many technologies, however Qiskit was the most studied for methodology and tools. Some strong collaboration clusters have been found, and QSE researchers work closely together. The majority of QSE publications have been published in conferences, not theme-based venues. The study gives academics and practitioners a single source of information, makes it easier to share knowledge, and helps QSE grow.

Robert M. Parrish, Joseph T. Iosue, Asier Ozaeta (2019) The optimisation of circuit strictures of variational algorithms like "variational quantum eigen" solution (VQE) or "quantum approximate optimisation algorithm" (QAOA) is a major challenge for near-term

quantum computing implementation. They create a quantum-classical optimisation method that integrates Anderson acceleration and is inspired by Jacobi diagonalization for classical eigen decomposition. A local cluster of circuit features is analyzed using tomography, starting with quadrature points in the circuit angles. Observable objective function sampling is used. Classical optimisation finds the best circuit parameters in the cluster, while the others are fixed. Optimisation of circuit parameter clusters using sweeps yields a monotonically convergent fixed-point method. Stage 2 accelerates convergence by using the fixed-point Jacobi process's iterative history and Anderson's acceleration and Pulai's "direct inversion of the iterative subspace" (DIIS). For a sample problem from the "multistate, contracted variational quantum eigen solver" (MC-VQE), a noise-free quantum circuit simulator indicates that this Jacobi-Anderson technique is comparable to and often faster than Powell's method and L-BFGS.

Valls *et al.* (2021) Quantum processor dependability must be increased to increase algorithm execution and qubit utilisation. Error correction codes and decoders are a realistic and economical technique to lower quantum systems' logical error rate for intermediate and long-term designs, giving promising theoretical results. Most writers have focused on methods to improve quantum computers' correcting capabilities, but they have disregarded a vital component for their practical use: limiting latency to prevent qubit decoherence. Most have not recommended hardware architectures, and those who have just estimated decoding latency have overlooked this issue. Still, no genuine use has been shown. They compare hardware implementations of two "quantum low-density parity-check" (QLDPC) code-based algorithmic choices: (a) code pairs with belief propagation min-sum decoders and good error-floor behaviour, and (b) code pairs with early error-floor behaviour and "ordered statistics decoders" (OSDs). Maximum clock frequency that decoders can utilise to decode during qubit coherence time is a key criterion for judging

feasibility of a realistic implementation using current or future FPGA technology. They also report Xilinx FPGA implementation results showing that certain methods can meet time requirements of cutting-edge quantum computers.

Tate *et al.* (2023) QAOA Max-Cut issue. QAOA accuracy at moderate circuit depths is the top bound for noisy quantum devices, but classically challenging issue examples may demand a large circuit depth. Because theoretically enormous networks require interactions between reachable pairs of vertices. Their warm start begins QAOA with a biassed superposition of expected graph cuts to increase low-depth QAOA's solving capacity. To be more specific, QAOA starts with low-rank semidefinite programming on a Max-Cut relaxation. We found that QAOA-warm, a version of QAOA, outperforms conventional QAOA on lower circuit depths when assessing training and solution quality. Although the usual warm start contributes to this improvement, the QAOA circuit at shallow depths shows even greater improvement. The proposed framework's theoretical properties and experimental verification of improved performance are presented.

Khwaja (2024) The future of work is being reshaped by rapid technological advancements, demographic shifts, and evolving workforce expectations. This paper explores the key skills and strategies necessary for navigating this changing landscape. It examines the influence of automation, AI, and digital transformation on job roles and organizational structures. Additionally, it highlights the importance of lifelong learning, adaptability, and new competencies in ensuring career resilience. Through a multidisciplinary approach, this study provides insights into emerging trends and offers practical recommendations for individuals and organizations to thrive in the future work environment.

**Educational Reforms to Prepare for Quantum-Enabled Role**

Purohit *et al.* (2024) Quantum technology has transformed sensing, computation, secure communications, and material simulation, affecting many industries. Since quantum technologies' ecology is growing rapidly, it's important to assess their maturity and impending commercial viability. It emphasises a quantum-ready ecosystem and current quantum technology. Standard Quantum Technology Readiness Levels (QTRLs) are created. Innovative approaches and instruments are used to assess quantum technology readiness. QTRLs and QCRLs provide a solid framework for analysing quantum technology's market readiness and commercial feasibility. Indicators for key stakeholders like the government, industry, and academia are examined, and ethics and protocols are explained to better understand quantum technology readiness and help build a strong and efficient quantum ecosystem.

Sant'Anna (2024) In this research, quantum mechanics ideas are applied to organisational dynamics to analyse the stability and robustness of structures under change. This research uses entanglement, superposition, observer effect, quantum tunnelling, wave-particle duality, decoherence, and quantum topologies to address the complexity and fluidity of modern organisational contexts. Organisations may overcome modern business issues and maintain success by incorporating transdisciplinary perspectives. Integrating quantum physics into organisational dynamics helps explain how modern organisations are interconnected and dynamic. These principles give metaphors and frameworks for tackling organisational difficulties and improving flexibility, ambidexterity, innovation, and resilience. Topology studies add to this by revealing organisational structure stability and robustness in the face of change, providing a comprehensive approach to complex organisational management.

Rosenberg *et al.* (2024) Quantum science and computing, a vital link between research and technology, are growing in importance. These ideas must be added to the K–12 curriculum immediately to prepare the next generation for a fast-changing technology environment. This study examines 49 K–12 educators' quantum pedagogy and concept professional development. They examined how instructors saw quantum and integrated it into their curriculum using interviews, field notes, open-ended surveys, and workshop artefacts. Their research suggests that most educators want to teach quantum concepts, but they are aware of the many obstacles that could derail this trend. Few teachers linked their curriculum to computing, although most could easily link maths and science. Elementary and secondary school teachers were enthusiastic about teaching quantum concepts, demonstrating a broad grasp of its importance in preparing students for a future where quantum technology will be important in their personal and professional life.

Chang *et al.* (2015) Determinant of quantum mechanics Thermodynamic, magnetic and transport properties of interacting fermions on a lattice can be studied using the Monte Carlo method. For example, it is commonly used to study the quantum mechanics of cuprate superconductors and ultracold atoms contained on optical lattices. In this research, They describe an algorithmic improvement of the determinant quantum Monte Carlo approach. Algorithms designed for platforms with both CPUs and GPUs, or hybrids, are their main focus. It will be possible to measure the resulting acceleration in the models. With a focus on the physical values that may now be determined for various places, the outcomes of the simulations will also be displayed.

Chukwudubem Umeano, Annie E. Paine and Kyriienko (2024) Studying "quantum convolutional neural networks" (QCNNs) reveals several essential things: 1) Quantum data is like adding physical system parameters into a hidden feature map; 2) QCNNs excel in quantum phase recognition because they build an ideal basis set during ground state

embedding, where spin models' quantum criticality outputs basic functions with dynamic features; 3) QCNN pooling layers choose basis functions to form an effective decision boundary. 4) QCNN generalisation requires fitting measurements to translate few-qubit operators to full-register observables, and rot 5. Ground state embeddings and associated physics-informed models are best for QCNN accuracy and generalisation with few shots. They demonstrate these elements through simulation and provide sensing-relevant physical process classification insights. Finally, with suitable ground state embeddings, QCNNs can express shock wave solutions with strong trainability and generalisation in fluid dynamics problems.

Arrow, Marsh and Meyer (2023) This presentation introduces quantum ethics by defining the term and explaining what researchers are exploring regarding quantum technology's social, economic, and political effects. It also describes the "Quantum Ethics Project" (QEP) and its concepts and current activities. Part three updates QEP's curriculum development efforts, including a groundbreaking quantum technology ethics and society course. They explain the course's pedagogical structure, including its learning outcomes, focus, teaching methods, and reasoning. Finally, they discuss current restrictions and prospective study issues, including ethical reasoning teaching drawbacks and assessment and application approaches.

Rudolph *et al.* (2021) "Variational Quantum Algorithms" are a promising short- to medium-term QC application. Many academics are trying to figure out whether VQAs have barren plateaus and how to build efficient quantum circuits. High-quality, flexible loss landscape study software is needed. Multiple researchers can access the algorithm's optimised loss landscape. Various deep artificial neural network training visualisation methods are used to illustrate VQA high-dimensional loss landscapes. After analysing the Quantum Circuit Born Machine, Quantum Approximate Optimisation Algorithm, and

“Variational Quantum Eigen solver” VQAs, the approaches are applied. They also examine whether finite sampling noise affects loss function estimation. Their visualisation methods may confirm and illuminate past findings in each scenario. The open-source Python module viz calculates and displays 1D and 2D scans, Principal Component Analysis scans, Hessians, and Nudged Elastic Band analysis methods as a supplement.

**The Influence of Quantum Computing on the Future of Employment**

Möller and Vuik (2017) Quantum computing has garnered attention and financing from many economic sectors and academia. Developing a quantum computer has become a "new race to the moon" task. Future computing technology researchers, suppliers, and national authorities are interested in this technology since it could read modern encryption mechanisms and change our way of life. Many computation fields can benefit from quantum computing. They describe the scientific computing improvements they foresee from software-programmable quantum computers here. Thus, quantum computers may act as a co-processor or "graphics processing unit" (GPU) in hybrid accelerated computing platforms. They explain how quantum algorithms could improve applied mathematics and its applications. Finally, quantum-accelerated scientific computing may affect society.

Wang *et al.* (2021) The "intelligent transport system" (ITS) supports and monitors road traffic networks and uses new scientific and technology methods to accelerate urbanisation in different countries. This paper examines ITS issues, explains quantum computing, describes a universal and a special-purpose quantum computer, and shows how to use quantum computing to improve ITS. This study examines quantum computers in transportation from three perspectives: route planning, operations management, and facility layout. The current universal quantum computer is developing slowly, hence D-Wave quantum machines are important in application. This paper argues that quantum

computing can advance ITS development, emphasises its importance, and examines future development paths.

Singh (2015) Quantum theory was one of the most significant theories of the 20th century. A new scientific school predicts previously inconceivable events and affects modern technologies. Scientific rules, especially physics laws, can be expressed in many ways. Information can be communicated in many forms, including physical laws. Because data may be expressed in multiple ways without changing its essential character, automatic manipulation is possible. Air pressure carries words: "No information without physical representation." All information expression uses physical systems. Information, like contact, energy, momentum, and other abstract variables, is important in physics because it can be freely altered. This project report explains information processing and quantum computing to non-specialists.

Gill and Buyya (2024) Quantum computing (QC) solves complex problems quickly using quantum physics. Even before quantum computers are implemented, quantum technology could transform world progress. Countries are investing in quantum computing because it can increase communication, computation, and sensing and alter many industries. This includes public and private research investments. This paper discusses quantum computing advances and prospects over the next few decades. It is their mission to provide a scientifically creative blueprint for entering the quantum age and study groundbreaking quantum computing uses. They also demonstrate quantum programming platforms and software that can transform computing. They end by highlighting the benefits of unleashing quantum computing's revolutionary potential and its impact on next-generation research.

Gill *et al.* (2024) New quantum computing can outperform classical computation by using entanglement, superposition, and other quantum ideas. These quantum features

allow solving many complex problems that would be intractable with regular computation. These issues include quantum mechanics modelling, logistics, chemical advancements, pharmaceutical design, statistics, renewable energy, finance, trustworthy communication, and quantum chemical engineering. Quantum algorithms, software, and hardware research have advanced substantially in recent years, making quantum computers possible. The scientific community in QC business should perform a complete literature study to understand where things stand and what problems remain. This paper examines quantum computing's foundations and future based on current research. Recent advances in quantum computer hardware, software, cryptography, and high-scalability quantum computers are covered. This essay highlights numerous potential challenges and interesting new discoveries in quantum technology research and development to inspire a bigger discussion.

**Traditional vs. Outcome-Based Work Models**

Babu and Roy (2023) “Outcome-based education” (OBE) criticises the lesson-focused education system and emphasises students. The 2020 National Education Policy of India considers OBE the reformed model of education, and many higher education systems are adopting it. Thus, teachers' attitudes on switching from input-based to student-centered education must be studied. Thus, the study examines the outcome-based experiential learning experiences of Marian College Kuttikkanam Autonomous, Kerala, India teachers who have taught post-graduation OBE for at least five years. Thus, this study used qualitative narrative research. We pick 12 individuals from 6 postgraduate departments utilising expert analysis. Candidates were interviewed using a semi-structured format. Data was analysed thematically. The study showed how contributors' experiences with OBE curriculum modifications in teaching, academic activities, tests, marks, and quality of teaching differed from their regular curriculum.

D’cruz (2017) Students can enter the Engineering Education program after earning their Diploma and learn the skills to become engineers. Due to educational advances caused by quickly growing technologies and online communities, modern engineers face global concerns. In contrast to typical schools, outcomes-based education (OBE) emphasises students' predicted performance upon course completion rather than their actual learning progress. Outcome-based education has given Institutes a new way to reorganise teaching and learning. This study covers VLSI Design of Electronics and Communication Engineering Branch with a student-centered learning system. To help students accomplish Intended Learning Outcomes, evaluated assessment tasks and devised learning and teaching activities. When the focus switched from the "3Rs" to the "4 C's" (creativity, communication, critical thinking, and collaboration), course completion increased dramatically. CO accomplishment shows that the move from a teacher-centered to a learner-centred approach to education has generated the intended effects, validating the integrated OBE strategy.

Akhmadeeva, Hindy and Sparrey (2013) The "Mechatronic Systems Engineering" (MSE) Program at "Simon Fraser University" (SFU) is using an outcome-based curriculum to improve educational outcomes. However, instructors and students have struggled with this adjustment. OBE suggests continuous development, but mechanical pursuit of objectives without conscious adjustment of pedagogy, attitudes, and assessments cannot achieve this. This study analyses interview responses to determine how MSE instructors' teaching techniques affect student learning. Most teachers cited class size, unrealistic student qualities, assessment and evaluation issues, and low student enthusiasm as key impediments. OBE learning models often contradicted self-reported teacher qualities and expected instructor roles. The findings illuminate the pedagogical issues of upgrading

curricula for modern students. As they migrate from content-driven to outcome-based curricula, innovative teacher education opportunities emerge.

Tomkinson (2016) analyses government-funded “public human services” (PHS) and “outcome-based contracts” (OBC). In PHS, OBC means services improve customers' lives. Few studies have compared OBC PHS financing to others. There is little research on how payment affects outcomes when comparing OBC to grants or block money. Changing outcome-based payment arrangements during a contract has not affected outcomes. If given adequate leeway, service providers fulfil the outcome metrics their contracts pay for, according to limited data. Current outcome-based contracts have failed to motivate desired results. OBCs deliver the results for which they are paid, but they may not meet contract makers' or customers' goals. Results unrelated to pay did not improve and sometimes worsened. Outcome payments sometimes incentivised service providers to achieve unintended consequences. Increasing employment services contract modification and flexibility backfired. Contract limits and environmental conditions reduced providers' effect on results. Government must first select payment criteria that represent the outcomes they seek to encourage service-delivery providers compatible with this out metalling that need additional consideration.

Behnam *et al.* (2012) Outcome-based laws focus on quantifiable goals, not means. As regulators move towards outcome-based regulation, they must reuse past problem-solving information. Reusability is increased via patterns. A pattern-based framework helps regulatory parties by (i) setting a baseline for collecting information about company objectives and processes, (ii) extracting and tailoring models to stakeholders, and (iii) allowing data to evolve in response to new problems and solutions. They describe a strategy for gathering requirements to generate patterns and families and show how the “Goal-oriented Pattern Family” paradigm works in this uncommon situation. In order to reuse

compliance measuring approaches in context, they improve the framework's design and include the indicator concept.

Naskar and Karmakar (2023) Prioritising outcomes is the essence of “outcome-based education” (OBE). The first step for those who work in OBE is to identify the set of skills, knowledge, and abilities They hope their students will bring to bear when They graduate and face the realities of the workforce. OBE is a method for planning, executing, and documenting tasks to produce a certain result. A large number of students were reportedly unable to learn in American classrooms in the 1980s. Kids look and study as much as They can because of their open minds and want to learn.

**Challenges and Considerations in Shifting to Outcome-Driven Models**

De Pieri, Chiodo and Gerli (2023) Outcome-based contracting relies on outcome assessment, but academics have yet to identify its biggest challenges. This paper examines OBC social outcome measurement options and risks to fill this knowledge gap. It achieves so by focussing on three key areas: measuring method planning, measurement criteria, and their practical effects. Four UK case studies are examined in this study. Their results cast doubt on outcome-based contracting's ability to affect policymaking through payment outcomes assessment. However, the findings highlight the benefits of integrating many stakeholders in the assessment process and focussing on non-payment system consequences. They end by suggesting future research on governance and negotiating power in outcome-based contracting.

Fisher *et al.* (2020) Data-driven manufacturing models are growing due to inexpensive industrial IoT technology and cloud computing's increasing processing power. They use examples from the beverage, food, and waste management industries to discuss the challenges of designing data-driven models for production systems. A data-driven model that accurately portrays the production system requires high-quality data. The

CRISP-DM framework guides process manufacturers through data-driven model building. The next part discusses data-driven models and how they can be used to define process streams for circular economy concepts, process resilience, and waste value recovery.

Prachi (2023) Big data and technical advances allow for the collection, storage, and analysis of large amounts of data. "Data-driven decision-making" (DDD) is now widely accepted as a key technique for businesses gathering insights and making informed decisions. DDD has pros and cons in dynamic organisational settings. In an ever-changing business world, this research paper examines data-driven decision-making pros and cons. The article describes DDD's benefits, including better decisions, more efficient operations, and a competitive edge. The research also highlights business challenges such data governance and quality, sophisticated technology, and a dearth of experienced data professionals. The report suggests organisations take advantage of DDD's benefits while avoiding its drawbacks. Developing a data-driven culture, improving analytics and data architecture, safeguarding data privacy and security, and increasing IT-business collaboration are all important. This study expands our understanding of data-driven decision-making in fast-paced business environments, which may aid companies seeking a data-driven competitive advantage.

Kimoto, Mulder and Jackson (2015) This model is important because it states that success is achieved when students can describe how They can improve as public servants and citizens through the use of communication skills as the primary focus of public and nonprofit administration courses. Because it emphasises the need for communication in bridging the gap between public and private service, it is well-suited to teaching administration through personal development. In this case, communication is the most important tool for encouraging harmony between personal initiative and group regulation. In addition, ODL allows students to reach a higher degree of service learning through

action learning, wherein goals are jointly established with organisational partners who aim to produce significant results.

**Role of Technology in Enabling Outcome-Oriented Work**

Korunka (2021) Today's corporations value technology more. This boosts productivity, reduces physical labour, blurs work-life boundaries, and gives companies and people more flexibility. This chapter investigates how algorithmic management, automation, and telework affect the workplace. First, they discuss the significant increase in telework during the COVID-19 pandemic and its consequences on social work, work-life balance, and performance. Second, they discuss the pros and cons of automation and digitisation, including improved living and working conditions and employee stress. Third, they examine how AI-based algorithms guide, evaluate, and discipline workers and how they react. Overall, they advise businesses on how to adopt this new technology compassionately. They expect this chapter will spark fresh research on workplace technology's promise and drawbacks.

Chandwani, Shah and Shaikh (2021) Digital technology prevents bad encounters in everyday scenarios and keeps a corporation competitive in new markets. The article thoroughly analyses digital technology and its impact on competition-driven workers. Digital technology and employee experience were measured using a valid and reliable criterion. Researchers in India employed descriptive statistics to study how digital technology has affected job satisfaction. The findings show that only by integrating technology into an organisation can it survive these tough times. This must be a lasting solution to the COVID-19 lockdown's detrimental effects. The findings also demonstrate that organisations should prioritise employee skill development and that technological solutions pay off across sectors. The study also showed that organisations and institutions of all sizes and market shares required to invest in employee development, including basic

technology. This will assist businesses and institutions continue their plans and profitability following COVID-19. Due to technology-enabled HR practices, employees may live their life as they desire, take advantage of learning opportunities, and stay agile, engaged, safe, and motivated throughout lockdown and quarantine.

Chaudhuri *et al.* (2024) Companies may implement data-driven decision-making faster with Industry 4.0. Data-driven cultures may greatly impact organisational capacity for process and product innovation. Research has shown that data-driven cultures improve company results, but few have explored how Industry 4.0 affects them and product and process innovation. Little study has linked data-driven corporate culture to sustainability performance. Thus, the study seeks to evaluate how new Industry 4.0 technologies impact data-driven cultures and how they affect organisational performance and competitive advantage. The "Resource-Based View" (RBV) and "Dynamic Capabilities theory" were used to create a theoretical model. PLS-SEM was used to test the model on 416 organisations. Industry 4.0 technologies boost social, financial, and competitive performance for innovative, data-driven organisations.

**Quantum Computing's Potential to Optimize Workforce Productivity**

Harsanto *et al.* (2023) Numerous areas of society, technology, and research stand to benefit from the new field of QC. By applying concepts from quantum physics to solve difficult problems that classical computers have failed miserably at, quantum computing promises to revolutionise the sector. Examining quantum computing's possible uses and future is the goal of this research article. It illustrates the difficulties in creating workable quantum computers and investigates central ideas of quantum physics. This study looks at current research projects and recent developments to shed light on the potential of QC and its potential to revolutionise some different industries. The current status of QC, its underlying theories, and possible uses that could revolutionise sectors like medicine

development and cryptography are all examined in this study paper. They examine the difficulties that remain and talk about the future of this new technology.

Pfaendler, Konson and Greinert (2024) A lot is changing in the storyline surrounding quantum computing. Early indications that quantum computers can match the accuracy of HPCs in solving specific scientific issues are encouraging both consumers and business executives to stop sitting on their hands and start digging further. Database and data science industry executives and techies can use the information here as a springboard into quantum computing. This article offers a basic overview of the subject, some thoughts on how the state-of-the-art is rapidly evolving, a look at how German companies are tackling the problem of quantum computing competency development and adoption, and a rundown of what's happening in Europe along with some German-language learning resources.

Abbas *et al.* (2023) Thus, quantum algorithms, especially optimisation, have received attention in many disciplines. Stochastic extensions, non-convex optimisation, combinatorial optimisation, and convex optimisation are all used in physics and computer science to solve key optimisation problems. Quantum optimisation is investigated in this work using many methodologies. Using computational complexity theory, they first distinguish heuristic from provably exact settings and explain when quantum advantage may apply. Quantum optimisation algorithms' core building pieces are discussed before describing prominent issues, classifications, and major outstanding problems that will advance the field. Scaling issues on noisy quantum devices and benchmarking challenges are detailed. They emphasise benchmarking by offering clear measurements for meaningful comparisons with conventional optimising approaches. Finally, sustainability and finance, which provide many optimisation issues, may be used to test and evaluate quantum optimisation's practical consequences.

**Integrating AI, Machine Learning, and Quantum Computing**

Subbiah, Krishnaraj and Bellam (2024) Quantum computing enhances machine learning. Quantum physics and ML fix AI and computers. Quantum machine learning basics, methodologies, and applications will be covered in this section. In Part 1, they covered all classical and quantum ML basics. Quantum allows AI to support neural networks, clustering speed, and SVMs, the authors demonstrate. QML pros and cons are discussed below. Quantum computers optimise, parallelise, and manage enormous data sets better. Error correction and quantum hardware limitations reduce noise and decoherence. Discover how quantum machine learning is used in natural language processing, pharmacological research, economic forecasting, and photo verification. Using quantum algorithms, numerous fields might revolutionise quantum machine learning models. Quantum machine learning issues and directions conclude the chapter. Review dependable quantum machine learning benchmarks, hybrid algorithms, and frameworks. Quantum-based machine learning is novel and intriguing. This section covers fundamentals, research frameworks, and applications.

Dange *et al.* (2024) The application of ML approaches to improve quantum algorithms is explored in this paper, which also delves into the interaction between ML and QC. As a means of connecting AI with quantum algorithms, it delves into QML, quantum data analysis, and hybrid quantum-classical methodologies. It also assesses the potential future directions of AI-quantum integration based on quantum-assisted optimisation, quantum data creation, and quantum neural networks.

Jhanwar and Nene (2021) Machine learning has made strides thanks to the data. Researchers are eager to investigate the features of quantum computing because, despite machine learning's expansion, classical computing is drawing near to the physical limitations of chip manufacture. Computers that exploit features of quantum physics can

outperform classical computers in ML tasks. This study research helps fill gaps in our knowledge about the potential impact of quantum computers on ML. Machine learning in a quantum environment is discussed in this study about the ideas of quantum computing. Additional information is provided regarding the performance improvements achieved by several "machine learning algorithms" (MLA) when executed on quantum computers. In its last section, study summarises where quantum computers stand right now and makes a case for using quantum application software.

Rawat *et al.* (2022) An example of a developing technology is quantum computing. There are a variety of groups and societies engaged in research that are trying to make quantum computing practical. Next on the list of promising but still-developing fields is artificial intelligence. Research into quantum computing is expanding, and this paper aims to determine what effect this will have on AI applications. As a result, this study uses computational methods to conclude growing influence of quantum computing research on one particular AI application. Also covered in this paper are potential effects and outcomes of quantum computing on AI research.

**Enhancing Collaboration and Innovation through Technology**

Nalmpanti, Wong and Oghazi (2024) There is a rising consensus that companies may boost their innovation performance by expanding the range of partners They collaborate with, which allows them to access and integrate complementary knowledge, skills, and resources. Having said that, not every company reaps the same rewards from extensive collaboration. Important contingency factors that can reduce these benefits have not been examined in the literature, us. This research adds to our knowledge of correlation between cooperation breadth and innovation performance by arguing (providing empirical support for) the idea that the kind of limitations a firm encounter determines the strength and direction of this association. Firms will limit the effects of their openness when They

face financial, intellectual, and institutional innovation restrictions, according to organisational learning theory. Based on the data, it seems like innovative businesses have a hard time striking a balance between having a large network of collaborators and having a lot of financial, knowledge, and institutional constraints.

Feng, Zhao and Chen (2022) Collaboration in innovation is now a core component of business group strategies. On the other hand, business groupings are under-represented in the literature on collaborative innovation. This study employs the research framework of total innovation management to analyse several elements at the strategic, business, and support levels, including the corporate group's strategy, customers, research and development, management, finances, and talent. Management by collaborative innovation and its associated cooperative surplus model are the main points. The study uses case study methodology and examines Tus-Holdings as its subject. The factors analysed include strategy, business, and support levels. The research concluded that enterprise groups greatly benefit from using the collaborative innovation model as a foundation for their own comprehensive innovation systems. Collaboration innovation models inside enterprise groups are diverse and nonlinear. The performance of collaborative surpluses is strongly correlated with the mode of collaboration, and various modes of collaboration will result in different types of collaborative surpluses. Findings from this study have both theoretical and practical implications for helping contemporary business organisations effectively execute collaborative innovation strategies and boost their efficiency.

**Summary**

Software undergoes generational changes, in waves that rise from significant innovations. Today it’s cloud, and tomorrow it will be Big Data-informed and intelligent applications. Innovation leadership is paramount as it’s the fuel for long-term growth and

relevance in the marketplace, and ultimately all that is a software company is rewarded for longer-term in delivering to the customer.

The customer's digital environment is heterogeneous, built from legacy assets, new cloud capabilities, and software from different vendors and open source. Success will come from enabling open ecosystems; allowing developers of all scales (ISVs, Startups, SIs) to build and deliver solutions into ERP applications with cloud APIs from many sources, for scenarios such as IoT.

The need for an integrated digital platform for the development, deployment, and lifecycle management of a portfolio of automation developed for service delivery is important. A hybrid and IoT-like integrated digital infrastructure including the ERP support backbone is key for intelligent service delivery to ensure end-to-end service delivery and deployment across the hybrid landscape. The scope of the research is to enhance the integrated delivery framework and cloud-based engagement leveraging the right shoring schema approach for enterprises that are willing to leverage as it benefits them with lower costs and flexibility of standardized services and expert-based engagement with an optimal mix focusing on a hybrid delivery model to deliver the best customer solution. This will help address customers' concerns about meeting compliance regulations in their processes.

# CHAPTER III:

# METHODOLOGY

## Research Design

This study employed a quantitative research design to analyse the evolving dynamics of future work, in particular the transition to outcome-based frameworks and quantum work structures. To assist in analysing trends, behaviours and relationships that are relevant to the future of work, quantitative research was selected because it offers a systematic, objective approach that makes it possible to collect numerical data (Jamieson, Govaart and Pownall, 2023). The study also employs structured data collection methods to determine major trends and measurable variables that influence organizational strategies, employee performance and workplace adaptation as a result of digital and outcome-based models. The primary instrument of data collection was a survey questionnaire. The study was able to capture a broad array of insights about how organizations and employees are responding to changes in these underlying work processes involving technology driven quantum frameworks and increased emphasis on productivity outcomes. Questionnaire consisted of closed ended questions aimed at receiving very specific and quantitative responses that could be statistically analysed and formed the bedrock of results that are generalizable (Chowdhury, Oakkas and Ahmmed, 2022).

## Population and Sample

For this study, population includes senior executives, department heads and key senior executives who are involved in digital transformations, IT strategy, human resource and innovation management. These individuals are the first line of strategic decision-making and are directly responsible for creating and putting into practice transformational work practices within their organizations. As a population, they are valuable in understanding the impacts and challenges of adopting outcome oriented and quantum-

based work models. The target population was selected as 168 participants using a purposive sampling technique (Campbell *et al.*, 2020). This study included only those individuals who have expertise and responsibility related to the research objectives as this approach ensured the sample of the study aligns with the objectives of the research ensuring the reliability of the findings. For the sake of specificity, a quantitative study used purposive sampling to select a sample of participants that were knowledgeable about digital transformation and innovative work practices. The study sought to capture nuanced insights into the implications of outcome-centric and quantum work structures with professionals from designated backgrounds, in particular, professionals who are responsible for specific organizational functions.

The final sample of 168 participants was carefully balanced to include representation from various functional areas, such as digital transformation, IT strategy, human resources, and innovation management. This diversity made sure that the findings captured the breadth of what leaders see as the future of work. This targeted sampling approach allowed the study to capture valuable quantitative data that show the perspectives and practices being taken by those who must drive and manage the shift to outcome focused, quantum work environments. This sample size allows a reliable base on which to draw insights that generalize to other similar professional populations engaged in digital transformation and strategic innovation in a variety of other industries.

**Participant Selection**

The participant selection technique for this study included defined inclusion and exclusion criteria to guarantee relevance:

**Inclusion Criteria**

1. **Role and Expertise:** To participate, people were asked to be senior executives, department heads or professionals in digital transformation, IT strategy, human resources or innovation management.
2. **Experience:** To be sure of having depth of knowledge, we only included individuals who had at least three years of experience in these fields.
3. **Active Involvement:** They had to have been directly involved in the planning or the implementing of organizational changes.

**Exclusion Criteria**

1. **Non-strategic Roles:** Operational or entry level positions were excluded because the people holding them don't make strategic decisions.
2. **Limited Experience:** Less than three years of relevant experience was also not counted for those with less than three years of experience.
3. **No Involvement in Transformation Initiatives:** Excluded were those who did not work on digital or strategic transformation.

This technique secured a targeted sample, obtaining insights from professionals engaged in workplace change.

**Instrumentation**

Concerning the research methodology, the following instrumentation was developed to ensure the research achievements the outlined research objectives and questions while using a structured survey based on a Likert scale. The survey instrument was especially designed to elicit the respondents' perceptions, experiences, and attitudes towards the five themes, which are extending delivery models, improving delivery quality, driving skills development, managing distributed cloud systems, and integrating quantum computing. Every question was designed in relation to the specified research objectives thus improving the accuracy of data collection. The Likert scale was used because it offers

the respondent the opportunity to either agree or disagree with an opinion at different levels, meaning subjective responses can be quantified and compared to other data.

**Data Collection Procedures**

In this study, the procedure of data collection was designed thoroughly to address some aspects such as insights from senior executives, department heads, professionals involved in digital transformation, IT strategy, human resources, and innovation management. To start, a structured survey questionnaire was created with quantitative items intended to elicit measuring responses on outcome-oriented work models and quantum-based frameworks of the future of work. We used purposive sampling to recruit the participant group that would have relevant experience and the estimated time commitment and data confidentiality reassurances were sent in emails and professional networking platforms.

To make the survey as easy to fill out as possible, the survey was emailed to participants electronically through a secure online platform and, to allow space for thoughtful responses, participants were encouraged to complete the survey in two weeks. Response rates were maximized by sending regular reminders. During the data collection period, responses were closely monitored for completeness and consistency and incomplete or unclear entries were followed up by communication to clarify or complete the data. Respondents were anonymized all responses were stored securely on an anonymised encrypted database with limited access to authorized researchers to maintain participant confidentiality. Through this systematic procedure, high quality data, relevant and ethical standards were collected all through the study.

**Data Analysis**

For this study, data analysis proceeded with a structured approach using IBM SPSS and Microsoft Excel to determine the relationships between key variables in data analysis.

The raw data was collected through the survey and first organized and managed in Microsoft Excel. This software facilitated the efficient carrying out of sorting, cleaning and prepping the dataset, which eliminated any incomplete or inconsistent data items to make ready for additional statistical analysis. After this, the main tool used for the data analysis was IBM SPSS, which was able to carry out a full statistical analysis of the study's key hypotheses. Correlation analysis was carried out to discover and measure the degree and direction of the relationships among variables such as outcome-based work models, quantum-based models and organizational productivity determinants. This analysis was able to give initial understanding of how these variables interact with each other and how there are seemingly some significant interconnection between them.

In addition, regression analysis was performed to identify the relationships between independent and dependent variables in the study. The study was applied to regression techniques to evaluate the influence of some factors (such as digital transformation initiatives, innovation management practices) on the outcome as in employee performance and organizational adaptability. The regression results resulted in a better understanding of the determinants of outcome-centric and quantum work environments that are critical for work future. The use of this structured data analysis approach involving SPSS for statistical analysis and Excel for data management facilitated rigorous testing of objectives of this study. A regression and correlation analysis was performed by the study, which offered us valuable insights on how different factors will potentially shape the future of work, thus giving us a data driven foundation for the findings and recommendations.

**Research Design Limitations**

Though useful for measuring correlations, this study's quantitative research approach has drawbacks. Quantitative approaches use standardised, closed-ended questions, which might limit answer depth and hinder subtle insights revealed by

qualitative data. Therefore, this procedure may ignore participants' viewpoints and subjective experiences, which can be crucial to understanding the future of work in quantum work models and digital transformation.

Purposive sampling, which selects competent participant groups, restricts generalisability. The findings may not reflect the workforce or industries where digital transformation is less significant. Because it assumes high-level professionals can reflect organisational transitions, this sampling technique may be biassed.

The study also relies on self-reported data, which is prone to response bias, when people deliberately disclose their experiences and opinions to meet their expectations or social status. The subjective nature of workplace memories and impressions affects self-reported data accuracy. This means that statistical analyses like regression or correlation point to relationships or trends but not causation. This is why the studies show enormous relationships but not that one variable cause another.

Due to these constraints, future study may benefit from integrating quantitative and qualitative data to better understand outcome-oriented and quantum-based work models. This study provides vital information on developing work patterns, allowing for further research despite its limits.

**Conclusion**

Overall, this chapter illustrated this research methodology that was used to analyze the future workplace of outcome-based and quantum-based work models. Structured analysis was enabled by a quantitative design by targeting senior executives, department heads, and professionals in the area of digital transformation, IT strategy, human resource, and innovation management via purposive sampling. Data collected from a structured survey in MS Excel was analyzed using IBM SPSS for correlation and regression techniques. The results of these analyses emphasized strong relationships between key

variables and the factors which drive productivity and flexibility in emerging work environments. Methodology allowed for a strong data driven approach, but was limited, especially by quantitative methods, response biases, and limited generalizability. The limitations indicate what could be future research with qualitative insights and more diverse participant demographics. However, the methodology yielded useful insights that contribute to knowledge of emerging work models, establishing a basis for future research and strategic practice.

CHAPTER IV:

RESULTS

## Introduction

### Reliability Analysis

*Table 4.1: Reliability Statistics*

| Cronbach's Alpha | N of Items |
|---|---|
| .987 | 19 |

Table 4.1 shows that the 19 items' Cronbach's Alpha of 0.987 indicates strong internal consistency. This implies that the items are dependable and measure the target construct throughout the dataset.

### *Frequency Analysis*

*Table 4.2: Demographic Details of the Respondents*

| | | Frequency | Percent |
|---|---|---|---|
| Age Group | 25 to 30 Years | 17 | 10.1 |
| | 31-40 Years | 33 | 19.6 |
| | 41-50 Years | 67 | 39.9 |
| | 51 Years and Above | 51 | 30.4 |
| Educational Background | Undergraduate | 42 | 25 |
| | Postgraduate | 115 | 68.5 |
| | Doctorate | 11 | 6.5 |
| Role | Consultants | 34 | 20.2 |
| | Architect | 20 | 11.9 |
| | Technologist | 32 | 19 |
| | Management Level | 72 | 42.9 |
| | CxO | 10 | 6 |

| | | | |
|---|---|---|---|
| Overall Experience | 3 to 20 years | 34 | 20.2 |
| | 20 to 30 years | 96 | 57.1 |
| | 30 years and above | 38 | 22.6 |
| | 3 to 20 years | 34 | 20.2 |
| | 20 to 30 years | 96 | 57.1 |

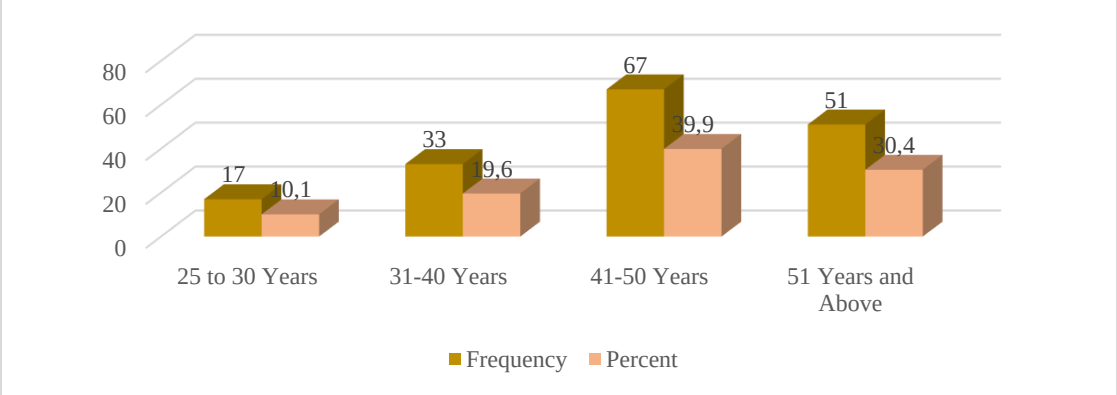


*Figure 4.1: Age*

Figure 4.1 shows the age distribution of respondents. The largest group is 41-50 years old (39.9%), followed by 51+ (30.4%). The youngest group, 25–30, makes up 10.1%, while the 31-40 group makes up 19.6%. The dataset includes mostly middle-aged and older participants.

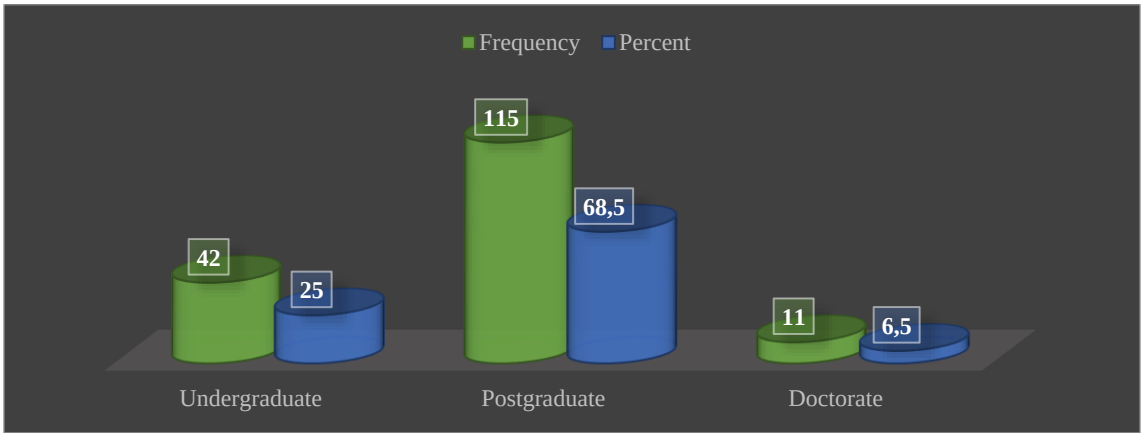


*Figure 4.2: Educational Background*

See Figure 4.2 for educational background. Most responders (68.5%) have postgraduate degrees, followed by 25% with undergraduate degrees and 6.5% with doctorates. Most participants have completed post-undergraduate education, suggesting the sample is well-educated.

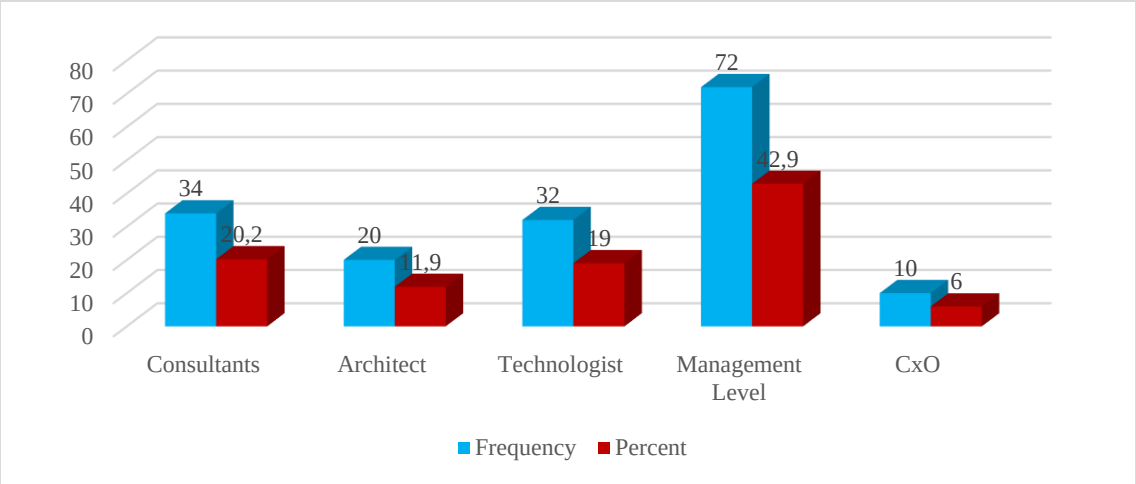


*Figure 4.3: Role*

Figure 4.3 shows that 42.9% of participants are managers. This is followed by consultants (20.2%), technologists (19%), and architects (11.9%). A mere 6% are CxOs. This distribution shows that most responders are managers, fewer are CxOs, and a balanced representation of other professional roles.

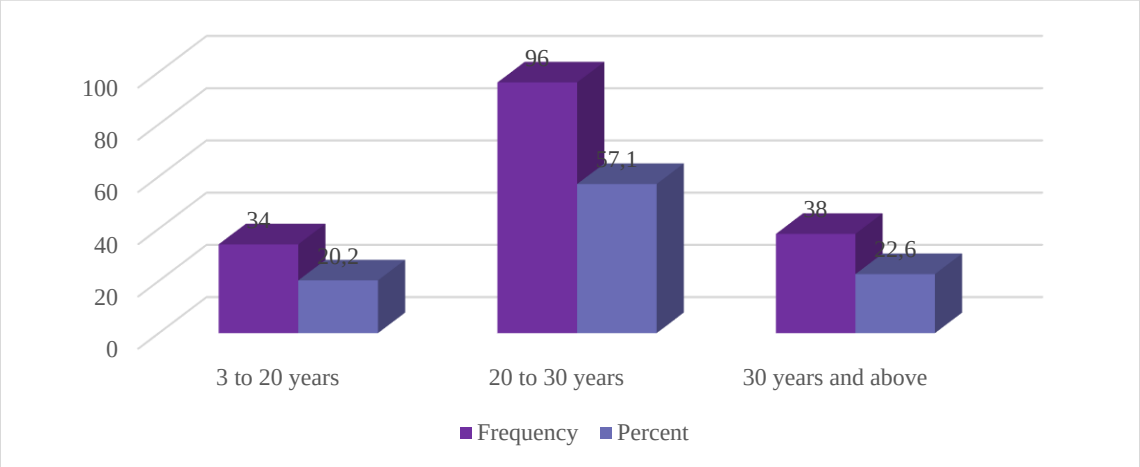


*Figure 4.4: Overall Experience*

Figure 4.4 demonstrates that most responders (57.1%) had 20–30 years of experience. 22.6% have over 30 years of expertise, while 20.2% have 3 to 20 years. This shows that most of the sample has professional experience, with a smaller fraction having less.

*Table 4.3: VAR_5_Sustainable hybrid work models*

| | Frequency | Percent |
|---|---|---|
| Disagree | 2 | 1.2 |
| Neutral/don't know | 5 | 3.0 |
| Agree | 82 | 48.8 |
| Strongly Agree | 79 | 47.0 |
| Total | 168 | 100.0 |

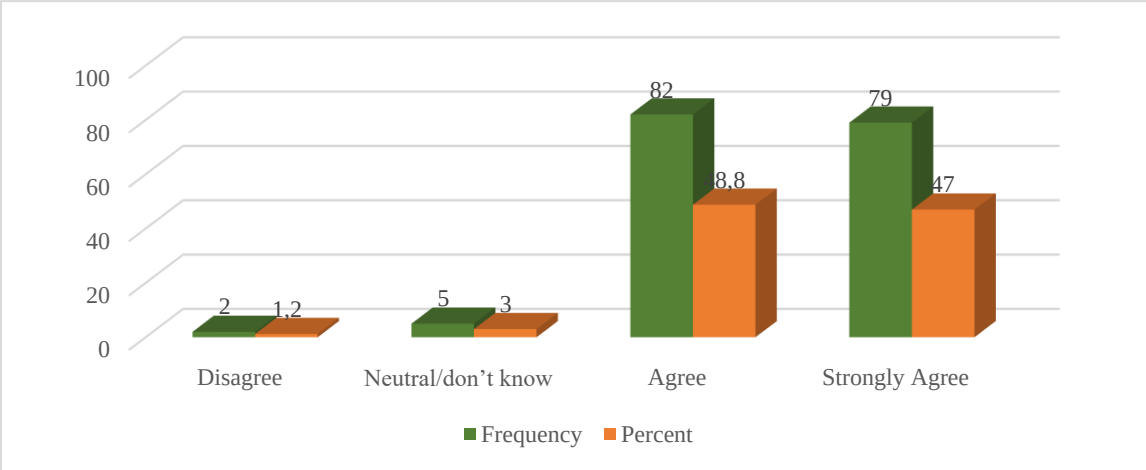


*Figure 4.5: VAR_5_Sustainable hybrid work models*

Figure 4.5 shows that 95.8% of respondents agree or strongly agree that a sustainable hybrid work paradigm should prioritise people over place. This statement has 48.8% agreement and 47% strong agreement. Only 3% are indifferent or unsure, while only 1.2% disagree. This implies respondents strongly support a people-centred hybrid work strategy.

*Table 4.4: VAR_6_Agility and resilience post-pandemic*

| | Frequency | Percent |
|---|---|---|
| Strongly Disagree | 10 | 6.0 |
| Neutral/don’t know | 2 | 1.2 |
| Agree | 57 | 33.9 |
| Strongly Agree | 99 | 58.9 |
| Total | 168 | 100.0 |

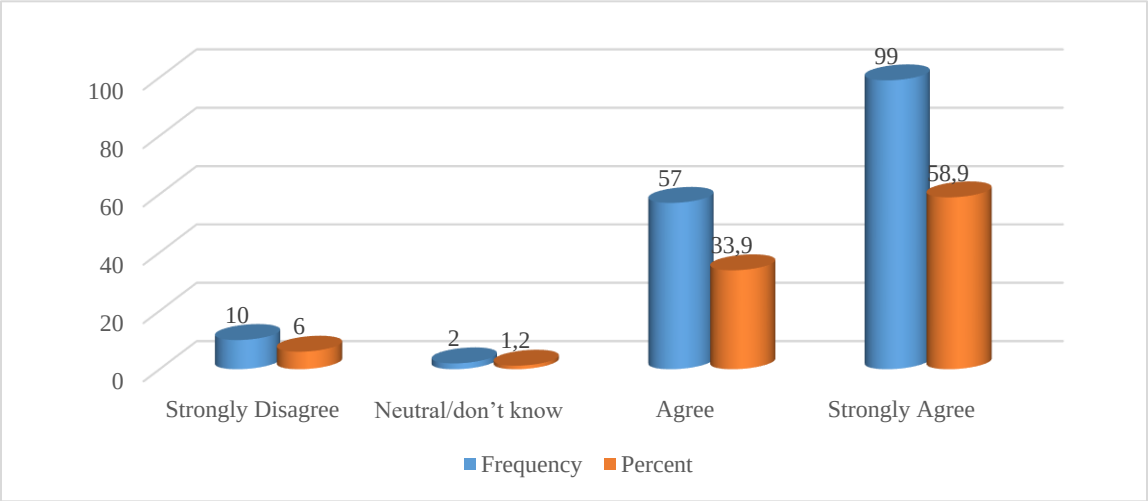


*Figure 4.6: VAR_6_Agility and resilience post-pandemic*

Figure 4.6 reveals that 92.8% of respondents agree or strongly agree that employees must work flexibly from anywhere and in dynamic teams to react to changing business demands. In particular, 58.9% strongly agree and 33.9% agree. A mere 6% strongly disagree, while 1.2% are neutral or uncertain. To address changing business needs, agility and resilience are strongly supported at all organisational levels.

*Table 4.5: VAR_7_Shift towards remote work*

| | Frequency | Percent |
|---|---|---|
| Strongly Disagree | 14 | 8.3 |
| Disagree | 3 | 1.8 |
| Agree | 64 | 38.1 |
| Strongly Agree | 87 | 51.8 |

| | | |
|---|---|---|
| Total | 168 | 100.0 |
| | | |

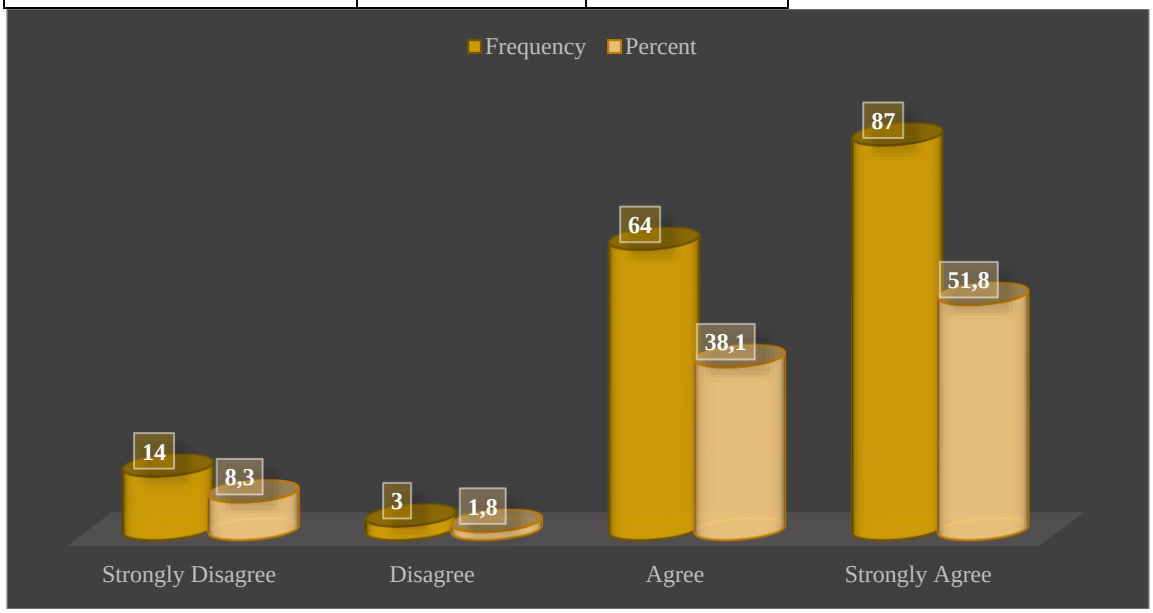


*Figure 4.7: VAR_7_Shift towards remote work*

Figure 4.7 shows that 51.8% of respondents strongly agreed with remote work and flexible work arrangements, and 38.1% agreed with them. These groupings account for 89.9% of responses, showing that most people like remote work. 8.3% strongly disagree, and 1.8% disagree, demonstrating that while remote work is largely favoured, a tiny percentage is less favourable.

*Table 4.6: VAR_8_Gig economy and job security.*

| | Frequency | Percent |
|---|---|---|
| Strongly Disagree | 5 | 3.0 |
| Disagree | 5 | 3.0 |
| Neutral/don't know | 10 | 6.0 |
| Agree | 59 | 35.1 |
| Strongly Agree | 89 | 53.0 |
| Total | 168 | 100.0 |

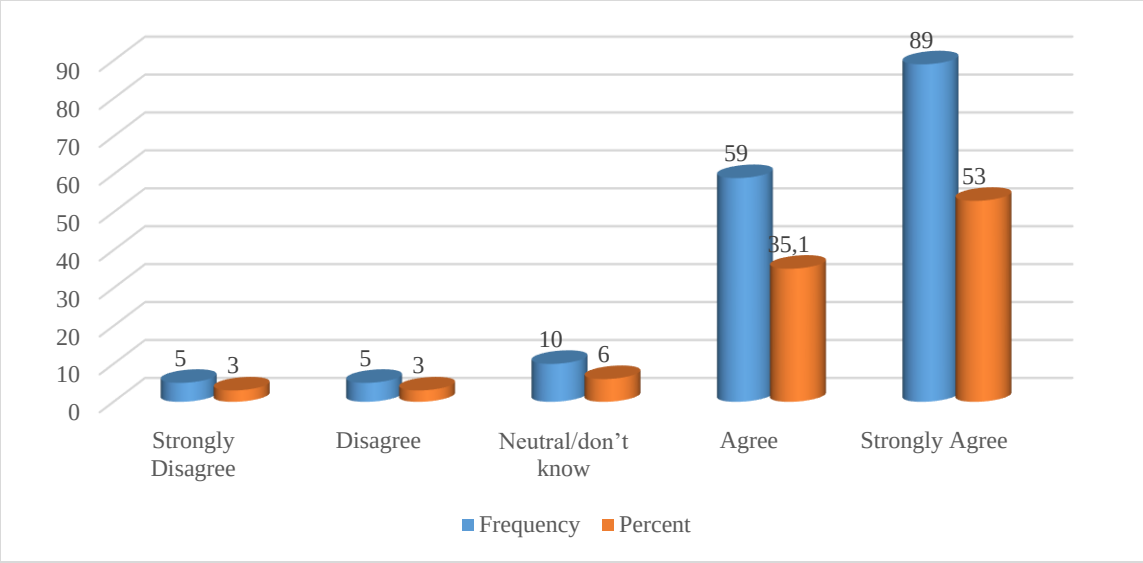


*Figure 4.8: VAR_8_Gig economy and job security.*

Figure 4.8 demonstrates that 88.1% of respondents recognise the gig economy and alternative work arrangements growing importance. In particular, 53.0% strongly agree and 35.1% agree that various work types will define the future of employment. This shows widespread recognition of the trend's effects on job security, benefits, and workers' rights. 6.0% are indifferent or undecided, while 6.0% disagree or strongly disagree, showing that while the gig economy is commonly seen as influential, there are some concerns about its overall effects.

*Table 4.7: VAR_9_Remote ERP service delivery*

| | Frequency | Percent |
|---|---|---|
| Strongly Disagree | 2 | 1.2 |
| Disagree | 5 | 3.0 |
| Neutral/don't know | 5 | 3.0 |
| Agree | 84 | 50.0 |
| Strongly Agree | 72 | 42.9 |
| Total | 168 | 100.0 |

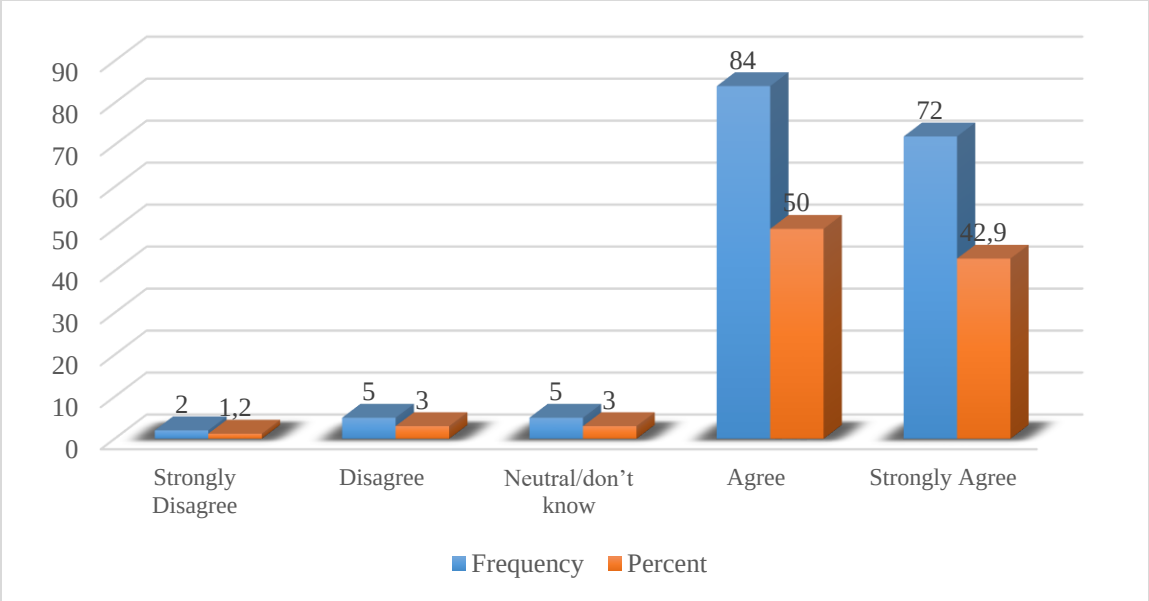


*Figure 4.9: VAR_9_Remote ERP service delivery.*

Figure 4.9 shows a solid consensus on ERP service delivery with high remote delivery. A total of 92.9% of respondents agree (50.0%) or strongly agree (42.9%) that remote ERP services will increase flexibility, cost savings, scalability, access to global talent, and automation and AI integration. 4.2% (3.0% disagree, 1.2% strongly disagree) disagree, while 3.0% are indifferent or undecided.

*Table 4.8: VAR_10_Diversity and inclusion in work*

| | Frequency | Percent |
|---|---|---|
| Disagree | 5 | 3.0 |
| Neutral/don't know | 3 | 1.8 |
| Agree | 64 | 38.1 |
| Strongly Agree | 96 | 57.1 |
| Total | 168 | 100.0 |

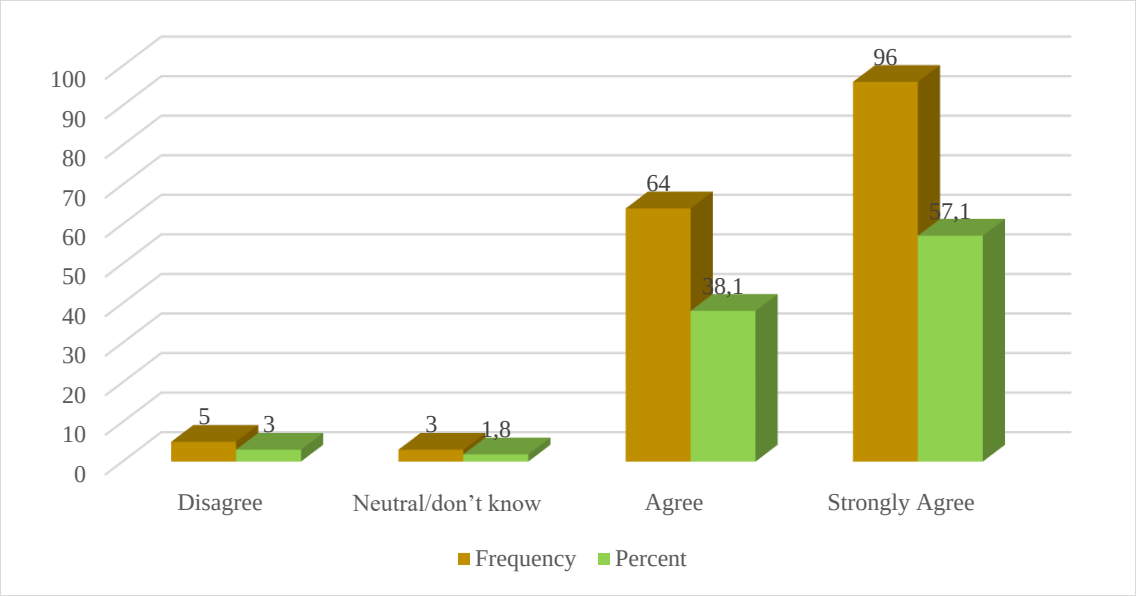


*Figure 4.10: VAR_10_Diversity and inclusion in work.*

Figure 4.10 shows a solid consensus on next-generation ERP service delivery with high remote delivery. The majority of respondents (92.9%) agree (50.0%) or strongly agree (42.9%) that remote ERP services will improve flexibility, cost savings, scalability, access to global talent, and automation and AI integration. While 3.0% are indifferent or undecided, 4.2% (3.0% disagree, 1.2% strongly disagree) disagree.

*Table 4.9: Multigenerational workforce opportunities*

| | Frequency | Percent |
|---|---|---|
| Strongly Disagree | 2 | 1.2 |
| Neutral/don't know | 10 | 6.0 |
| Agree | 69 | 41.1 |
| Strongly Agree | 87 | 51.8 |
| Total | 168 | 100.0 |

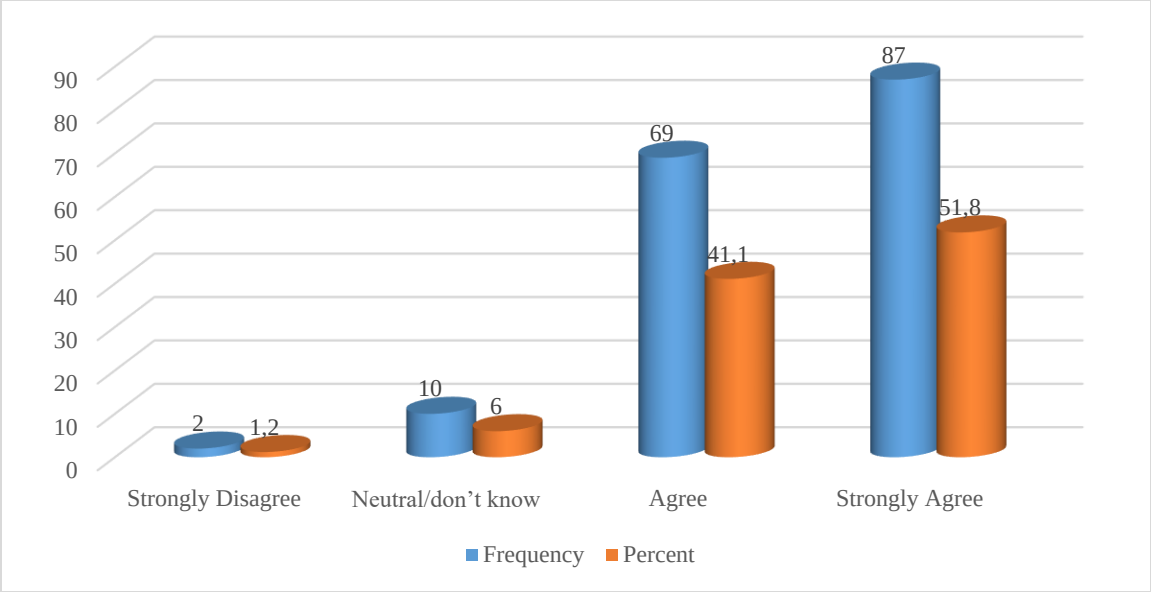


*Figure 4.11: Multigenerational workforce opportunities*

According to Figure 4.11, 92.9% of respondents recognise the benefits of a multigenerational workforce. Of these, 51.8% strongly agree and 41.1% agree that a diverse workforce may help organisations capitalise on generational diversity. 6.0% are undecided or impartial, while 1.2% strongly disagree.

*Table 4.10: VAR_12_Fairness in hybrid work*

| | Frequency | Percent |
|---|---|---|
| Strongly Disagree | 2 | 1.2 |
| Disagree | 20 | 11.9 |
| Neutral/don't know | 15 | 8.9 |
| Agree | 82 | 48.8 |
| Strongly Agree | 49 | 29.2 |
| Total | 168 | 100.0 |

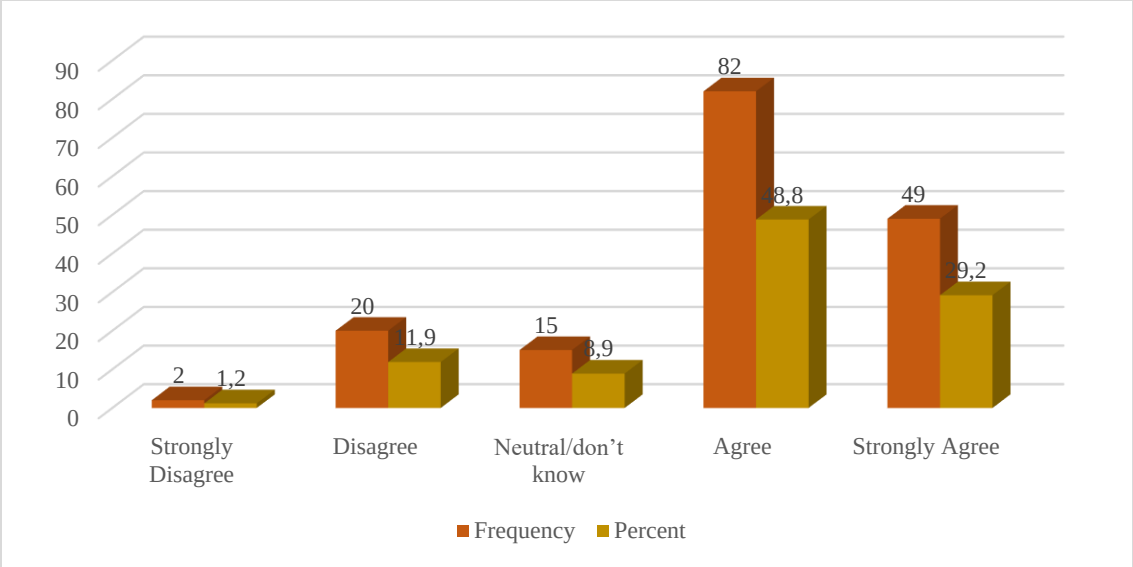


*Figure 4.12: VAR_12_Fairness in hybrid work*

Figure 4.12 reveals that most respondents think on-site workers are more visible to managers than remote workers. 48.8% agree and 29.2% strongly agree, meaning that 78% see an advantage for on-site staff. 13.1% strongly disagree, while 8.9% are neutral or unclear. In hybrid work environments, on-site employees may have more visibility and recognition chances.

*Table 4.11: VAR_13_Social and environmental work impact*

| | Frequency | Percent |
|---|---|---|
| Strongly Disagree | 10 | 6.0 |
| Disagree | 2 | 1.2 |
| Neutral/don't know | 5 | 3.0 |
| Agree | 87 | 51.8 |
| Strongly Agree | 64 | 38.1 |
| Total | 168 | 100.0 |

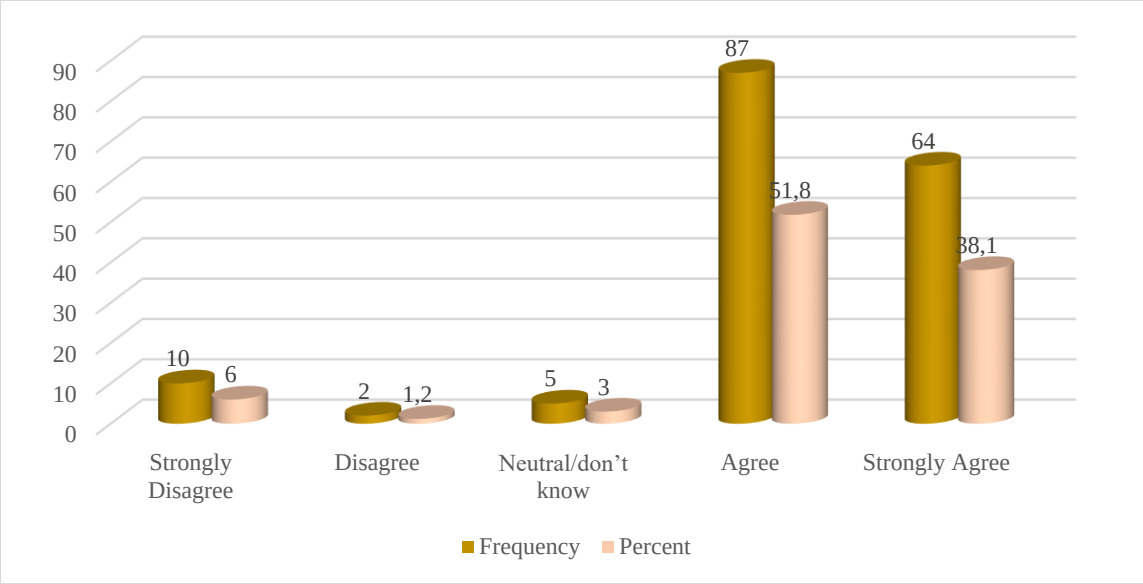


*Figure 4.13: VAR_13_Social and environmental work impact*

Figure 4.13 shows a significant consensus for including social and environmental factors into future work practises. 89.9% of respondents support sustainability, corporate social responsibility, and ethical decision-making in the future of work, with 51.8% and 38.1% strongly agreeing. Just 7.2% of respondents disagree or strongly disagree, while 3.0% are neutral or undecided.

*Table 4.12: VAR_14_Importance of lifelong learning*

| | Frequency | Percent |
|---|---|---|
| Strongly Disagree | 2 | 1.2 |
| Disagree | 2 | 1.2 |
| Neutral/don't know | 2 | 1.2 |
| Agree | 58 | 34.5 |
| Strongly Agree | 104 | 61.9 |
| Total | 168 | 100.0 |

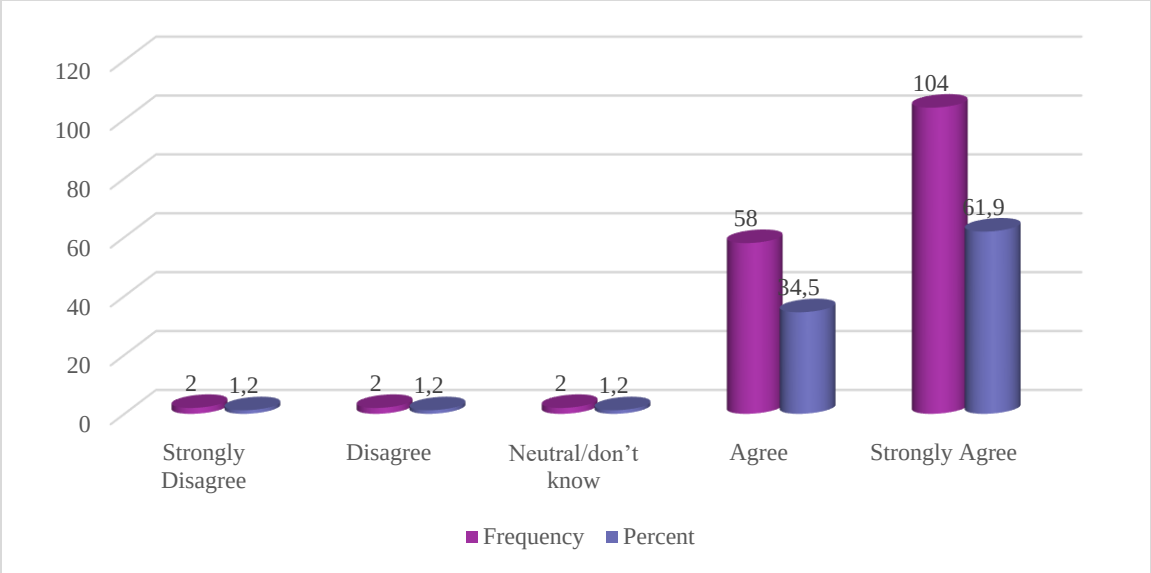


*Figure 4.14: VAR_14_Importance of lifelong learning.*

Figure 4.14 shows a significant belief that people must learn new skills and update their abilities to succeed in the changing workplace. A considerable 61.9% strongly agree, and 34.5% agree, totalling 96.4% of respondents favouring lifelong learning and adaptability to technology advances. Only 1.2% strongly disagree, 1.2% disagree, and 1.2% are unsure, leaving 3.6% who disagree with this perspective.

*Table 4.13: VAR_15_Digitalization and skill transformation*

| | Frequency | Percent |
|---|---|---|
| Disagree | 2 | 1.2 |
| Neutral/don't know | 2 | 1.2 |
| Agree | 77 | 45.8 |
| Strongly Agree | 87 | 51.8 |
| Total | 168 | 100.0 |

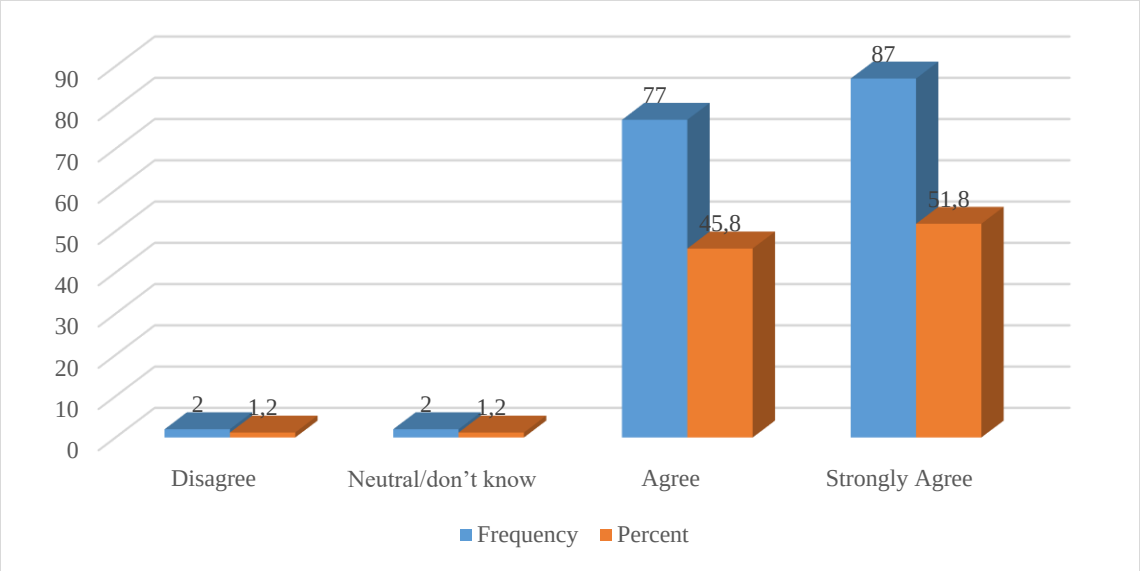


*Figure 4.15: VAR_15_Digitalization and skill transformation.*

Figure 4.15 strongly supports the idea that digitalisation will shape the future of work and demand a skills revolution for much of the workforce. 51.8% strongly agree, and 45.8% agree, totalling 97.6% of respondents who recognise the necessity for digitalisation and technological improvements. Only 1.2% disagree, and 1.2% are unclear, making 2.4% less supportive of this perspective.

*Table 4.14: VAR_16_Retaining the human factor in work.*

| | Frequency | Percent |
|---|---|---|
| Strongly Disagree | 5 | 3.0 |
| Disagree | 5 | 3.0 |
| Neutral/don't know | 2 | 1.2 |
| Agree | 67 | 39.9 |
| Strongly Agree | 89 | 53.0 |
| Total | 168 | 100.0 |

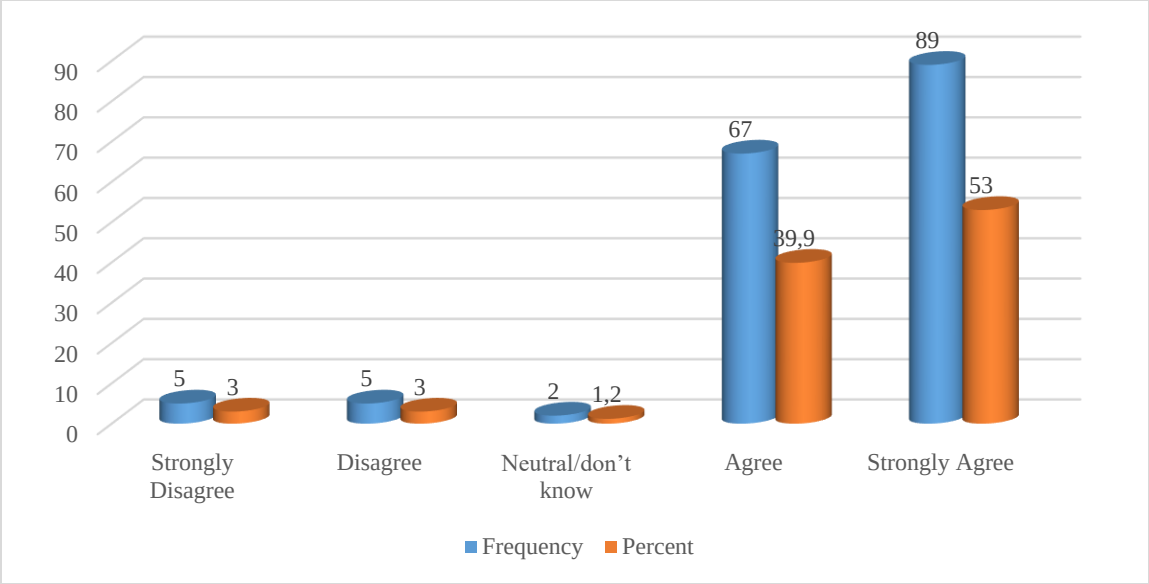


*Figure 4.16: VAR_16_Retaining the human factor in work.*

Figure 4.16 shows that despite technological advances, the "human factor" in the workplace is crucial. This assertion is strongly agreed by 53.0% (89 respondents) and agreed by 39.9% (67 respondents). Few respondents, 3.0% (5 respondents), strongly disagree or disagree, and 1.2% (2 respondents) are indifferent or undecided. With 92.9% agreeing or strongly agreeing, most participants believe human components in the workplace are essential to employee success.

*Table 4.15: VAR_17_Accelerated digital transformation.*

| | Frequency | Percent |
|---|---|---|
| Strongly Disagree | 5 | 3.0 |
| Neutral/don't know | 2 | 1.2 |
| Agree | 79 | 47.0 |
| Strongly Agree | 82 | 48.8 |
| Total | 168 | 100.0 |

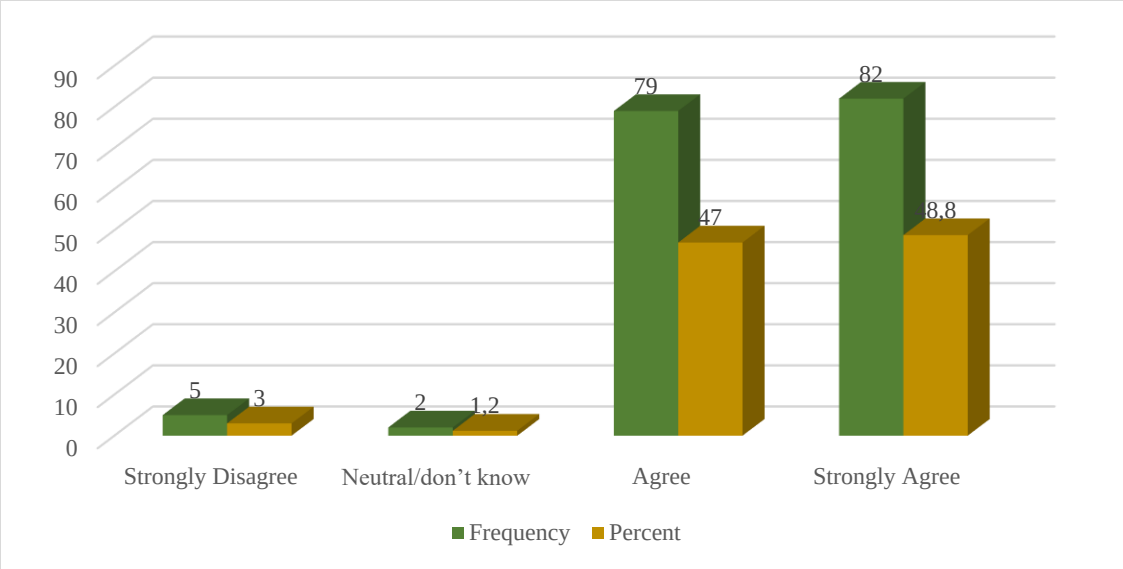


*Figure 4.17: VAR_17_Accelerated digital transformation.*

As shown in Figure 4.17, the epidemic advanced digital transformation and improved efficiency and productivity using AI, automation, and cloud capabilities. This is supported by 48.8% (82 participants) and 47.0% (79 people). While 1.2% (2 participants) are indifferent or unsure, 3.0% (5 participants) strongly disagree. A broad consensus on technological developments is shown by the fact that over 96% of respondents recognise digital technologies' positive impact on workplace transformation.

*Table 4.16: VAR_18_Adoption of AR and VR*

| | Frequency | Percent |
|---|---|---|
| Disagree | 10 | 6.0 |
| Neutral/don't know | 44 | 26.2 |
| Agree | 72 | 42.9 |
| Strongly Agree | 42 | 25.0 |
| Total | 168 | 100.0 |

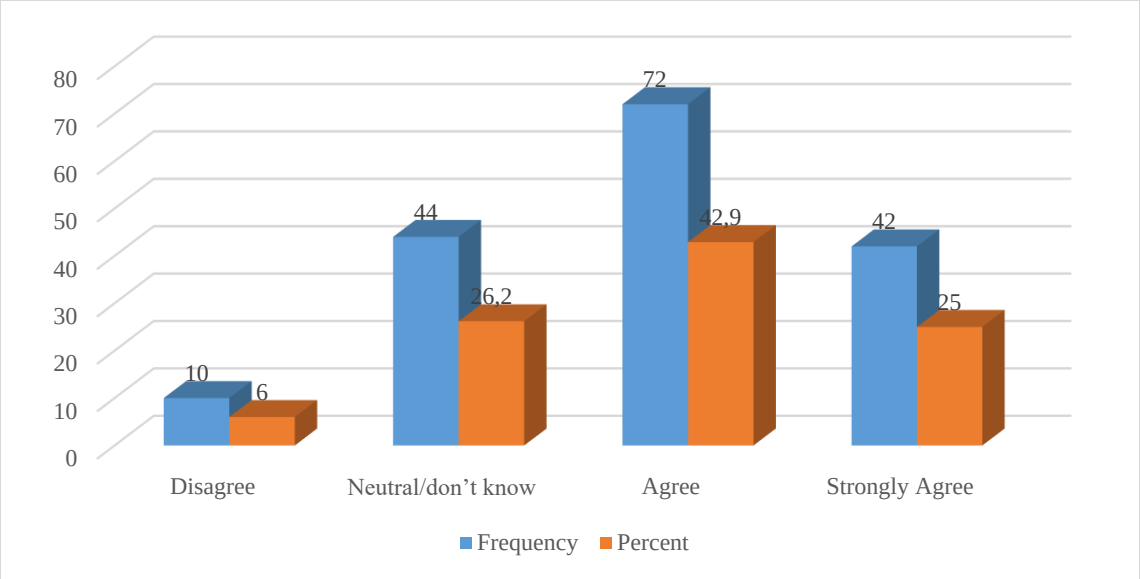


*Figure 4.18: VAR_18_Adoption of AR and VR*

Figure 4.18 shows varying predictions for commercial adoption of AR and VR in the coming years. A significant 26.2% (44 respondents) are ambivalent or uncertain about AR and VR becoming widespread, while 42.9% (72 respondents) approve and 25.0% (42 respondents) definitely agree. The idea is opposed by 6.0% (10 responders). This implies that while a majority of respondent's support AR and VR's future in business, a substantial portion are unsure or not convinced of their widespread acceptance.

*Table 4.17: VAR_19_Quantum ERP and computing for business operations*

| | Frequency | Percent |
|---|---|---|
| Strongly Disagree | 5 | 3.0 |
| Disagree | 2 | 1.2 |
| Neutral/don't know | 40 | 23.8 |
| Agree | 67 | 39.9 |
| Strongly Agree | 54 | 32.1 |
| Total | 168 | 100.0 |

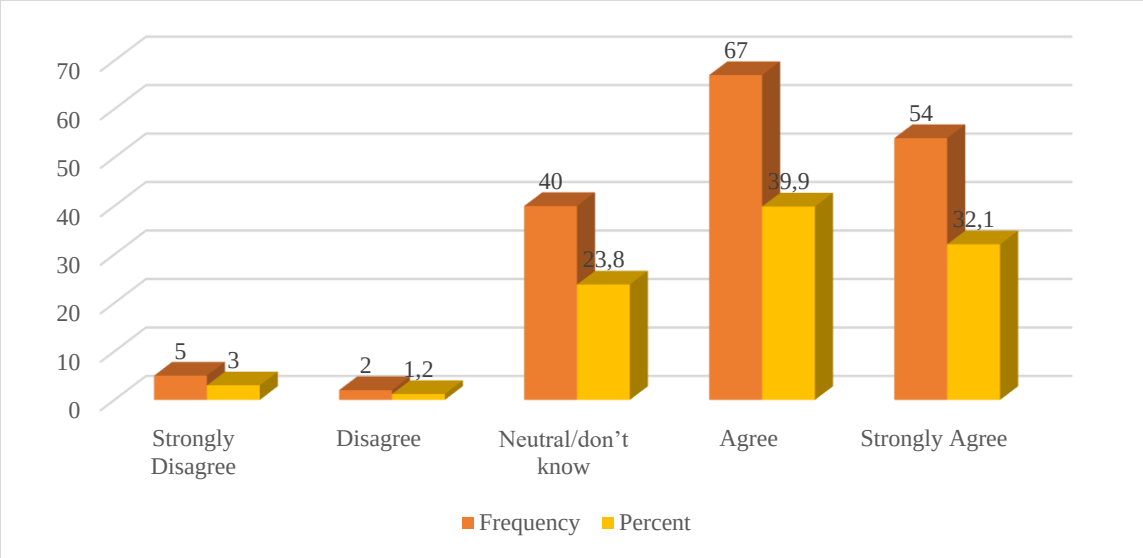


*Figure 4.19: VAR_19_Quantum ERP and computing for business operations*

Figure 4.19 shows a positive outlook on quantum computing's ability to boost corporate processing rates. While 39.9% (67 participants) agree and 32.1% (54 participants) strongly believe that quantum ERP systems can analyse vast amounts of data and execute complicated computations more efficiently than classical computing, 23,8% (40 people) are neutral or uncertain about its influence, 3.0% (5 participants) strongly disagree, and 1.2% (2 participants) disagree.

*Table 4.18: VAR_20_Quantum optimization in businesses.*

| | Frequency | Percent |
|---|---|---|
| Strongly Disagree | 2 | 1.2 |
| Disagree | 2 | 1.2 |
| Neutral/don't know | 35 | 20.8 |
| Agree | 84 | 50.0 |
| Strongly Agree | 45 | 26.8 |
| Total | 168 | 100.0 |

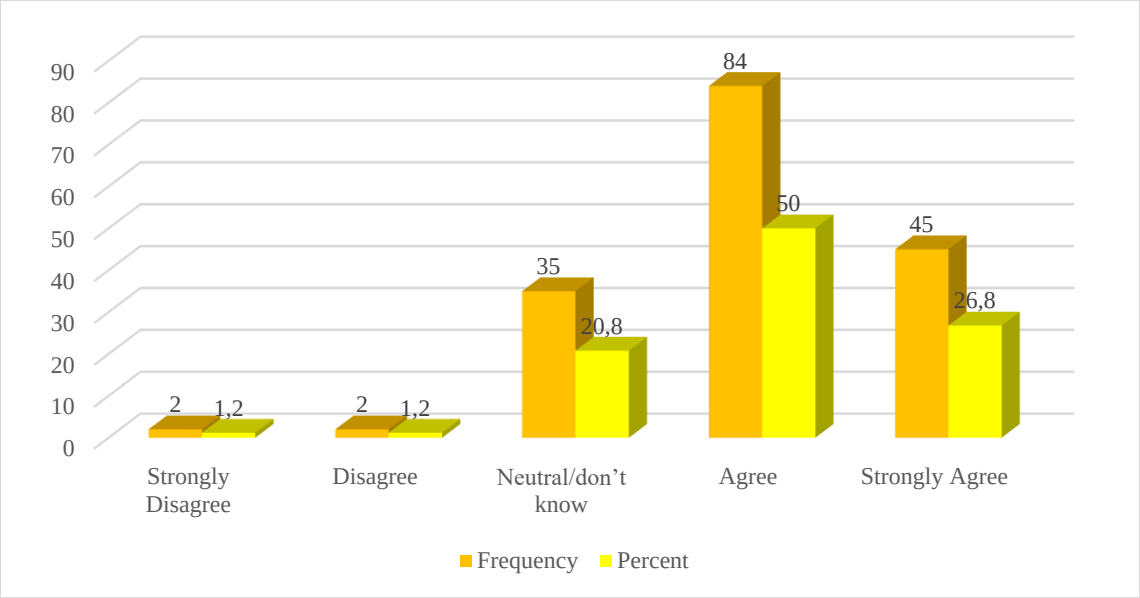


*Figure 4.20: VAR_20_Quantum optimization in businesses.*

Figure 4.20 strongly suggests that quantum algorithms can optimise complicated commercial operations like supply chain management and resource allocation. It was agreed by 50.0% (84 participants) and highly agreed by 26.8% (45 individuals). However, 20.8% (35 participants) are ambivalent or unsure regarding quantum algorithms' business optimisation effectiveness. Few, 1.2% (2 individuals) strongly disagree or disagree.

*Table 4.19: VAR_21_Streamlining operations using quantum computing.*

| | Frequency | Percent |
|---|---|---|
| Disagree | 7 | 4.2 |
| Neutral/don't know | 44 | 26.2 |
| Agree | 70 | 41.7 |
| Strongly Agree | 47 | 28.0 |
| Total | 168 | 100.0 |

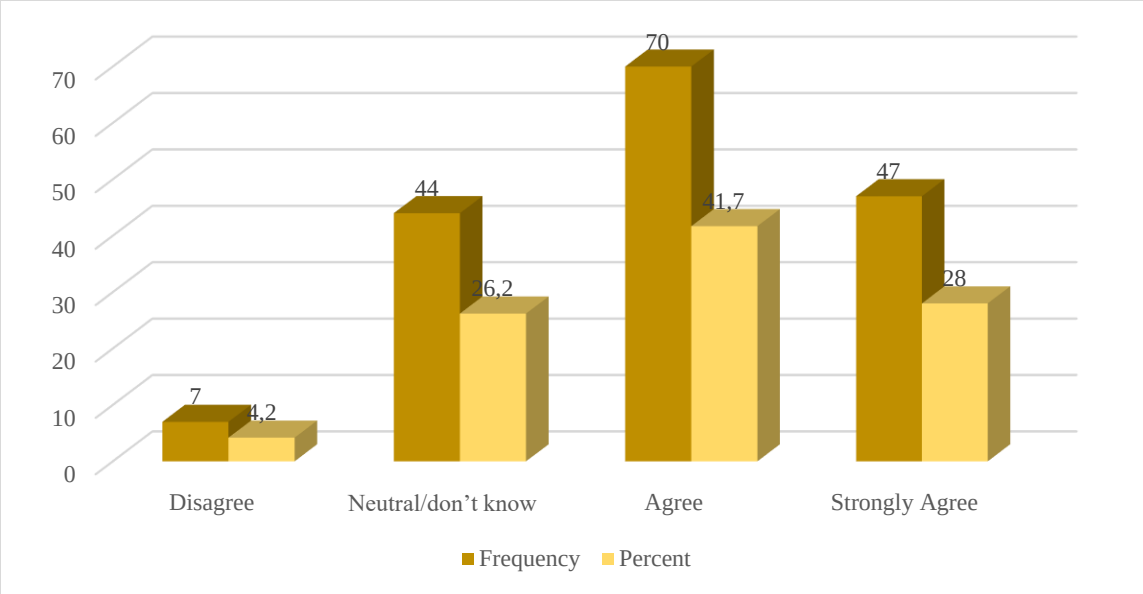


*Figure 4.21: VAR_21_Streamlining operations using quantum erp and computing.*

Figure 4.21 displays an optimistic outlook on quantum optimisation's ability to boost organisational efficiency. 69.7% (117 respondents) agree (41.7%, 70 respondents) or strongly agree (28.0%, 47 respondents) that these methods can reduce costs, streamline processes, and boost efficiency. However, 26.2% (44 respondents) are neutral or unsure, and 4.2% (7 respondents) disagree.

*Table 4.20: VAR_22_Enhanced security via quantum cryptography.*

| | Frequency | Percent |
|---|---|---|
| Neutral/don't know | 52 | 31.0 |
| Agree | 74 | 44.0 |
| Strongly Agree | 42 | 25.0 |
| Total | 168 | 100.0 |

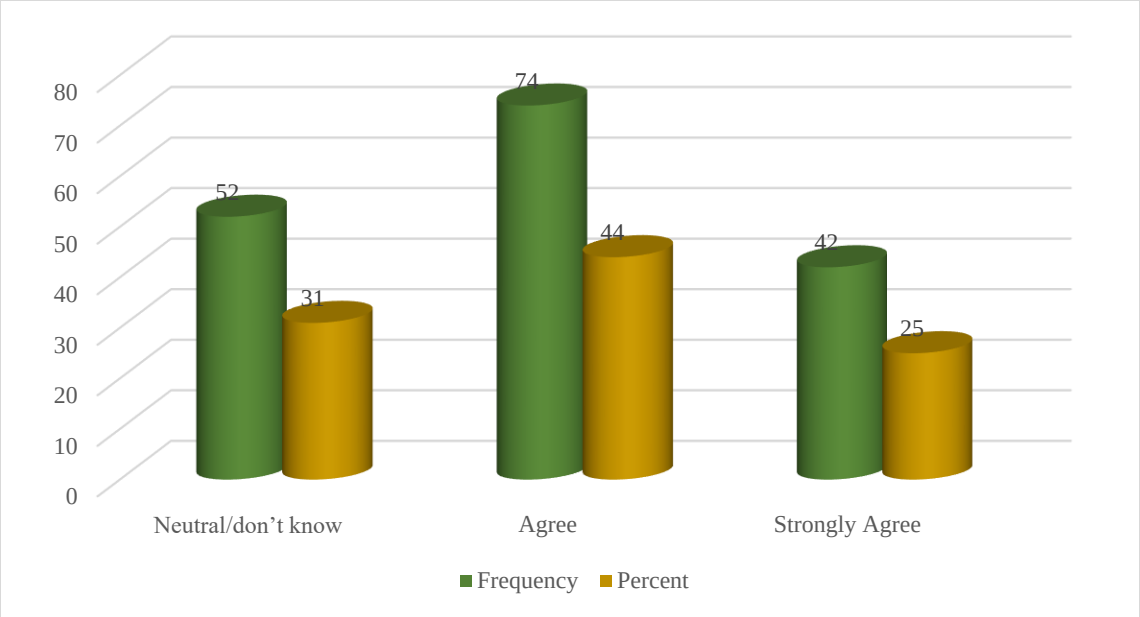


*Figure 4.22: VAR_22_Enhanced security via quantum cryptography.*

Figure 4.22 shows that most responders support quantum computing's security advances. Thus, 44% and 25% strongly agree that quantum cryptography methods like quantum key distribution could improve encryption and hacker protection. In contrast, 31% are neutral or undecided regarding quantum computing's security impact, indicating mixed confidence in the technology. Many (69%) agree or strongly agree, indicating optimism about its future role in data protection.

*Table 4.21: VAR_23_Quantum computing improving AI capabilities*

| | Frequency | Percent |
|---|---|---|
| Neutral/don’t know | 32 | 19.0 |
| Agree | 87 | 51.8 |
| Strongly Agree | 49 | 29.2 |
| Total | 168 | 100.0 |

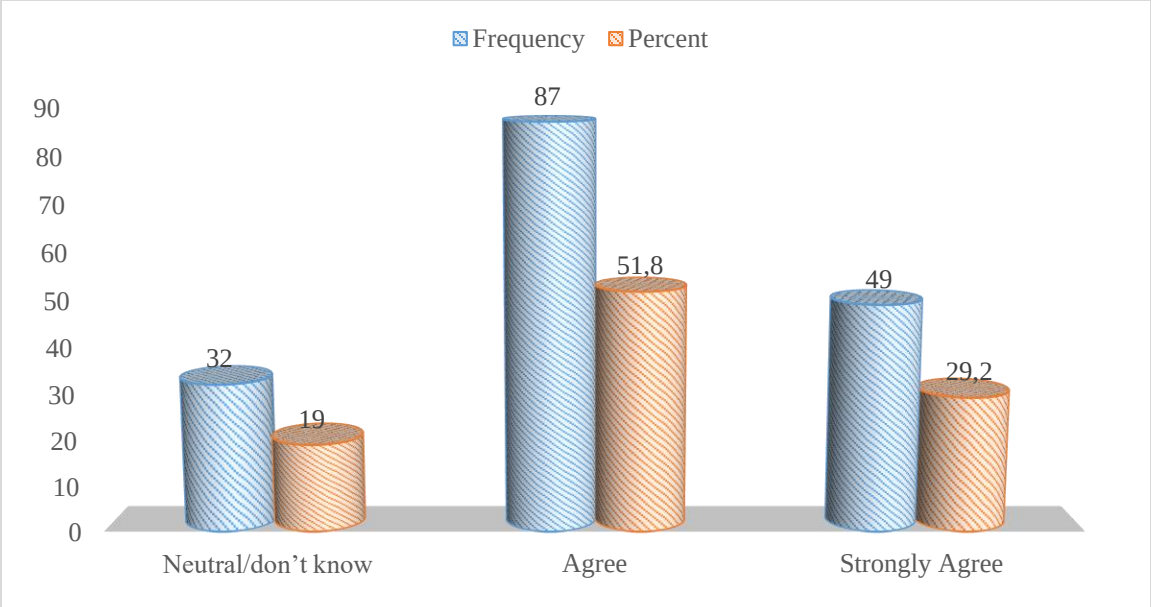


*Figure 4.23: VAR_23_Quantum computing improving AI capabilities*

Figure 4.23 demonstrates that 51.8% agree and 29.2% strongly agree that quantum computing can improve machine learning and AI by processing massive volumes of data, improving predictive models and personalised experiences. 19% are indifferent or unsure, showing uncertainty. The majority of responders (81%), are optimistic about quantum computing's potential.

**Hypotheses Testing**

**Hypothesis 1 (H1): Increasing Remote and Offshore Delivery to Improve Efficiency and Customer Satisfaction**

***Distribution of Respondents on Different Variables Based on their Age Group***

*Table 4.22: Age Group *VAR_5_ Sustainable hybrid work models Crosstabulation*

| | | **VAR_5_Sustainable hybrid work models** | | | | Total |
|---|---|---|---|---|---|---|
| | | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Age Group | 25 to 30 Years | 2 | 5 | 10 | 0 | 17 |
| | 31-40 Years | 0 | 0 | 33 | 0 | 33 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | 41-50 Years | 0 | 0 | 39 | 28 | 67 |
| | 51 Years and Above | 0 | 0 | 0 | 51 | 51 |
| Total | | 2 | 5 | 82 | 79 | 168 |

Table 4.22 shows a significant age trend in views towards sustainable hybrid employment arrangements. Most 25-—to 30-year-olds agree (10) or are neutral (5). However, the 31-—to 40-year-old age group agrees (33) without indifferent or disagreeing comments. Most 41-—to 50-year-old respondents (39) and a considerable number strongly agree (28). All responders strongly agreed in the 51-and-above group (51). Older groups are more unanimous and affirmative of sustainable hybrid work patterns.

*Table 4.23: Age Group* VAR_7_ Shift towards remote work. Crosstabulation*

| | | **VAR_7_Shift towards remote work**. | | | | Total |
|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Agree | Strongly Agree | |
| Age Group | 25 to 30 Years | 14 | 3 | 0 | 0 | 17 |
| | 31-40 Years | 0 | 0 | 33 | 0 | 33 |
| | 41-50 Years | 0 | 0 | 31 | 36 | 67 |
| | 51 Years and Above | 0 | 0 | 0 | 51 | 51 |
| Total | | 14 | 3 | 64 | 87 | 168 |

Table 4.23 shows how different age groups see remote employment. Most 25-30-year-olds strongly oppose the transition (14), with a few disagreeing (3) and no positive comments. All 33 31-40-year-old respondents support the change. Support increases with 41-50-year-olds when 31 agree, and 36 strongly agree. All 51-and-up respondents strongly support

remote work (51). Resistance is highest among younger respondents, while approval rises with age, culminating among elderly groups.

*Table 4.24: Age Group* VAR_9_Remote ERP service delivery. Crosstabulation*

| | | **VAR_9_Remote ERP service delivery**. | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Age Group | 25 to 30 Years | 2 | 5 | 5 | 5 | 0 | 17 |
| | 31-40 Years | 0 | 0 | 0 | 33 | 0 | 33 |
| | 41-50 Years | 0 | 0 | 0 | 46 | 21 | 67 |
| | 51 Years and Above | 0 | 0 | 0 | 0 | 51 | 51 |
| Total | | 2 | 5 | 5 | 84 | 72 | 168 |

As shown in Table 4.24, attitudes towards remote ERP service delivery differ by age. Some 25-30-year-olds disagree (5), remain indifferent (5), or agree (5), but there is no significant agreement. All 31-40-year-olds agree (33) without hesitation. With 46 agreeing and 21 strongly agreeing, 41-50 support is high. No respondents disagreed with the 51-and-up group (51). Remote ERP service delivery gains ground with age, achieving universal agreement among the oldest.

*Table 4.25: Age Group* VAR_12_Fairness in hybrid work Crosstabulation*

| | | VAR_12_Fairness in hybrid work | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Age Group | 25 to 30 Years | 2 | 15 | 0 | 0 | 0 | 17 |
| | 31-40 Years | 0 | 5 | 15 | 13 | 0 | 33 |
| | 41-50 Years | 0 | 0 | 0 | 67 | 0 | 67 |
| | 51 Years and Above | 0 | 0 | 0 | 2 | 49 | 51 |
| Total | | 2 | 20 | 15 | 82 | 49 | 168 |

Across age groups, Table 4.25 shows various perspectives on hybrid work fairness. For those aged 25-30, most disapprove (15), a few strongly disagree (2), and no neutrality or support. There are 5 disagreements, 15 neutrals, and 13 moderates in the 31-40 group. However, all 41-50-year-olds agree (67), demonstrating fairness and confidence. Nearly all respondents strongly agreed (49) and a tiny number agreed (2) in the 51 and above category. Older groups feel more aligned and agreeable about mixed work fairness.

***Distribution of Respondents on Different Variables Based on their Education***

*Table 4.26: Educational Background * VAR_5_Sustainable hybrid work models Crosstabulation*

| | | VAR_5_Sustainable hybrid work models | | | | Total |
|---|---|---|---|---|---|---|
| | | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Educational Background | Undergraduate | 2 | 5 | 35 | 0 | 42 |
| | Postgraduate | 0 | 0 | 47 | 68 | 115 |
| | Doctorate | 0 | 0 | 0 | 11 | 11 |
| Total | | 2 | 5 | 82 | 79 | 168 |

Educational level affects views on sustainable hybrid work arrangements (Table 4.26). Many undergraduates agree (35), but a few are neutral (5) or disagree (2), with no significant agreement. Significant support comes among postgraduates, with 47 agreeing and 68 strongly agreeing. Doctors agree strongly (11), giving the highest endorsement. With increased education, sentiments improve, with advanced degree holders agreeing most.

*Table 4.27: Educational Background *VAR_7 _Shift towards remote work. Crosstabulation*

| | | VAR_7_Shift towards remote work. | | | | Total |
|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Agree | Strongly Agree | |
| Educational Background | Undergraduate | 14 | 3 | 25 | 0 | 42 |
| | Postgraduate | 0 | 0 | 39 | 76 | 115 |
| | Doctorate | 0 | 0 | 0 | 11 | 11 |
| Total | | 14 | 3 | 64 | 87 | 168 |

The above Table 4.27 shows educational differences in attitudes towards remote employment. Undergraduates are divided, with 14 strongly disapproving, 3 disagreeing, 25 agreeing, and none strongly agreeing. With 39 agreeing and 76 strongly agreeing, postgraduates' favour significantly. Doctors unanimously agree (11), the highest endorsement. Those with advanced degrees are most supportive of remote employment.

*Table 4.28: Educational Background * VAR_9_Remote ERP service delivery. Crosstabulation*

| | | **VAR_9_Remote ERP service delivery**. | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Educational Background | Undergraduate | 2 | 5 | 5 | 30 | 0 | 42 |
| | Postgraduate | 0 | 0 | 0 | 54 | 61 | 115 |
| | Doctorate | 0 | 0 | 0 | 0 | 11 | 11 |
| Total | | 2 | 5 | 5 | 84 | 72 | 168 |

Table 4.28 shows a strong positive link between higher education and remote ERP service delivery efficacy. Only 30 of 42 undergraduates agree, and none strongly agree. Out of 115 postgraduate respondents, 54 agreed and 61 strongly agreed. Doctors unanimously agree, demonstrating confidence. Only undergraduates disagree or are neutral; postgraduates and doctorates are silent. This shows that educational qualifications boost confidence in remote ERP service delivery.

*Table 4.29: Educational Background * VAR_12_Fairness in hybrid work Crosstabulation*

| | | **VAR_12_Fairness in hybrid work** | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Educational Background | Undergraduate | 2 | 20 | 15 | 5 | 0 | 42 |
| | Postgraduate | 0 | 0 | 0 | 77 | 38 | 115 |
| | Doctorate | 0 | 0 | 0 | 0 | 11 | 11 |
| Total | | 2 | 20 | 15 | 82 | 49 | 168 |

Table 4.29 shows that greater education is strongly correlated with remote ERP service delivery efficacy. Thirty-two of 42 undergraduates agree, and none strongly agree. Of 115 postgraduate replies, 54 agreed, and 61 strongly agreed. The doctorates all agree, demonstrating confidence. Undergraduates can disagree or be neutral, while postgraduates and doctors cannot. This shows that education boosts confidence in remote ERP service delivery.

***Distribution of Respondents on Different Variables Based on their Job Role***

*Table 4.30: Role * VAR_5 _Sustainable hybrid work models Crosstabulation*

| | | **VAR_5_Sustainable hybrid work models** | | | | Total |
|---|---|---|---|---|---|---|
| | | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Role | Consultants | 2 | 5 | 27 | 0 | 34 |
| | Architect | 0 | 0 | 20 | 0 | 20 |
| | Technologist | 0 | 0 | 32 | 0 | 32 |
| | Management Level | 0 | 0 | 3 | 69 | 72 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | CxO | 0 | 0 | 0 | 10 | 10 |
| Total | | 2 | 5 | 82 | 79 | 168 |

Table 4.30 shows individual role perceptions of sustainable hybrid work arrangements. Seven consultants are neutral; 27 agree, but none strongly agree. Technologists (32) and architects (20) usually agree but not strongly. Only 3 management-level respondents disagreed with the idea, while 69 strongly agreed. All 10 CxOs strongly agree highest confidence. As organisational roles rise, hybrid work's sustainability becomes more probable.

*Table 4.31: Role * VAR_7_Shift towards remote work. Crosstabulation*

| | | **VAR_7_Shift towards remote work**. | | | | Total |
|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Agree | Strongly Agree | |
| Role | Consultants | 14 | 3 | 17 | 0 | 34 |
| | Architect | 0 | 0 | 20 | 0 | 20 |
| | Technologist | 0 | 0 | 27 | 5 | 32 |
| | Management Level | 0 | 0 | 0 | 72 | 72 |
| | CxO | 0 | 0 | 0 | 10 | 10 |
| Total | | 14 | 3 | 64 | 87 | 168 |

Table 4.31 shows different perspectives on remote work across roles. 17 consultants agree, 14 strongly disagree, and 3 disagree. Technologists agree (27) with 5 strongly agreeing, whereas architects agree (20). In contrast, all 72 management-level participants enthusiastically support the shift. Each of the 10 CxOs significantly supports remote work.

*Table 4.32: Role * VAR_9_Remote ERP service delivery. Crosstabulation*

| | **VAR_9_Remote ERP service delivery**. | Total |
|---|---|---|

| | | Strongly Disagree | Disagree | Neutral/ don't know | Agree | Strongly Agree | |
|---|---|---|---|---|---|---|---|
| Role | Consultants | 2 | 5 | 5 | 22 | 0 | 34 |
| | Architect | 0 | 0 | 0 | 20 | 0 | 20 |
| | Technologist | 0 | 0 | 0 | 32 | 0 | 32 |
| | Management Level | 0 | 0 | 0 | 10 | 62 | 72 |
| | CxO | 0 | 0 | 0 | 0 | 10 | 10 |
| Total | | 2 | 5 | 5 | 84 | 72 | 168 |

Table 4.32 displays role-based reviews of remote ERP service delivery. No consultants strongly agree, but 22 agree and 5 are neutral. Twenty architects and 32 technologists agree, although not strongly. However, 62 strongly agree, and 10 agree that management-level participants are optimistic. All 10 CxOs strongly agree, ranking highest in leadership trust in remote ERP service delivery.

*Table 4.33: Role * VAR_12_Fairness in hybrid work Crosstabulation*

| | | **VAR_12_Fairness in Hybrid Work** | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Role | Consultants | 2 | 20 | 12 | 0 | 0 | 34 |
| | Architect | 0 | 0 | 3 | 17 | 0 | 20 |
| | Technologist | 0 | 0 | 0 | 32 | 0 | 32 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Management Level | 0 | 0 | 0 | 33 | 39 | 72 |
| | CxO | 0 | 0 | 0 | 0 | 10 | 10 |
| Total | | 2 | 20 | 15 | 82 | 49 | 168 |

Figure 4.33 shows varied views on hybrid work's role-based fairness. Twenty consultants disagree, 12 are doubtful, and none firmly agree. With 17 agreeing and 3 neutral, architects are more positive. Technologists support, with 32 agreeing but none strongly. Management personnel agree most, with 39 strongly and 33 agreeing. All 10 CxOs highly agree, stating that leadership views hybrid work as fairer than other roles.

***Distribution of Respondents on Different Variables Based on their Experience***

*Table 4.34: Overall Experience * VAR_5_Sustainable hybrid work models Crosstabulation*

| | | **VAR_5_Sustainable hybrid work models** | | | | Total |
|---|---|---|---|---|---|---|
| | | Disagree | Neutral/don’t know | Agree | Strongly Agree | |
| Overall Experience | 3 to 20 years | 2 | 5 | 27 | 0 | 34 |
| | 20 to 30 years | 0 | 0 | 55 | 41 | 96 |
| | 30 years and above | 0 | 0 | 0 | 38 | 38 |
| Total | | 2 | 5 | 82 | 79 | 168 |

Table 4.34 shows years of experience-based views on sustainable hybrid work arrangements. 27 employees with 3 to 20 years of experience agree, none strongly agree, and 2 disagree. With 55 agreeing and 41 strongly agreeing, those with 20–30 years of experience stand stronger. All 38 employees with 30 or more years of experience strongly agree.

*Table 4.35: Overall Experience * VAR_7_Shift towards remote work. Crosstabulation*

| | | **VAR_7_Shift towards remote work**. | | | | Total |
|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Agree | Strongly Agree | |
| Overall Experience | 3 to 20 years | 14 | 3 | 17 | 0 | 34 |
| | 20 to 30 years | 0 | 0 | 47 | 49 | 96 |
| | 30 years and above | 0 | 0 | 0 | 38 | 38 |
| Total | | 14 | 3 | 64 | 87 | 168 |

Table 4.35 shows that opinions about remote work change with experience. Many (14) strongly disagree, 17 agree, and none strongly agree among individuals with 3 to 20 years of expertise. People with 20 to 30 years of experience support remote work more, with 47 agreeing and 49 strongly agreeing. All 38 experts with 30 or more years confirm their support.

*Table 4.36: Overall Experience * VAR_9_ Remote ERP service delivery. Crosstabulation*

| | | **VAR_9_Remote ERP service delivery**. | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Neutral/ don't know | Agree | Strongly Agree | |
| Overall Experience | 3 to 20 years | 2 | 5 | 5 | 22 | 0 | 34 |
| | 20 to 30 years | 0 | 0 | 0 | 62 | 34 | 96 |
| | 30 years and above | 0 | 0 | 0 | 0 | 38 | 38 |
| Total | | 2 | 5 | 5 | 84 | 72 | 168 |

Table 4.36 shows that opinions about remote work change with experience. Many (14) strongly disagree, 17 agree, and none strongly agree among individuals with 3 to 20 years

of expertise. People with 20 to 30 years of experience support remote work more, with 47 agreeing and 49 strongly agreeing. All 38 experts with 30 or more years confirm their support.

*Table 4.37: Overall Experience * VAR_12_Fairness in hybrid work Crosstabulation*

| | | **VAR_12_Fairness in hybrid work** | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Neutral/ don't know | Agree | Strongly Agree | |
| Overall Experience | 3 to 20 years | 2 | 20 | 12 | 0 | 0 | 34 |
| | 20 to 30 years | 0 | 0 | 3 | 82 | 11 | 96 |
| | 30 years and above | 0 | 0 | 0 | 0 | 38 | 38 |
| Total | | 2 | 20 | 15 | 82 | 49 | 168 |

In Table 4.37, years of experience show different viewpoints on hybrid work fairness. With 20 disapproving, 12 neutral, and none strongly agreeing, most with 3 to 20 years of experience are unsatisfied or uncertain. Workers with 20–30 years of experience are more positive, with 82 agreeing and 11 strongly agreeing. All 38 experienced professionals strongly agree.

***Correlations Between Different Variables***

*Table 4.38: Correlations*

| | | | **Sustainable hybrid work models** | **Shift towards remote work** | **VAR_9_ Remote ERP service delivery**. | **VAR_12_ Fairness in hybrid work** |
|---|---|---|---|---|---|---|
| Spearman's rho | **VAR_5_Sustainable hybrid work models** | Correlation Coefficient | 1.000 | .899** | .920** | .755** |
| | | Sig. (2-tailed) | . | .000 | .000 | .000 |
| | | N | 168 | 168 | 168 | 168 |
| | **VAR_7_Shift towards remote work**. | Correlation Coefficient | .899** | 1.000 | .859** | .772** |
| | | Sig. (2-tailed) | .000 | . | .000 | .000 |
| | | N | 168 | 168 | 168 | 168 |
| | **VAR_9_Remote ERP service delivery**. | Correlation Coefficient | .920** | .859** | 1.000 | .795** |
| | | Sig. (2-tailed) | .000 | .000 | . | .000 |
| | | N | 168 | 168 | 168 | 168 |
| | **VAR_12_Fairness in hybrid work** | Correlation Coefficient | .755** | .772** | .795** | 1.000 |
| | | Sig. (2-tailed) | .000 | .000 | .000 | . |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | N | 168 | 168 | 168 | 168 |
| **. Correlation is significant at the 0.01 level (2-tailed). | | | | | | |

The above Table 4.38 reveals significant positive correlations between sustainable hybrid work models, shift towards remote work, remote ERP service delivery, and fairness in hybrid work, all at the 0.01 significance level (2-tailed). The correlation between sustainable hybrid work models and remote ERP service delivery is the highest (r = 0.920), followed by the shift towards remote work and remote ERP service delivery (r = 0.859), and fairness in hybrid work with remote ERP service delivery (r = 0.795). The shift towards remote work and fairness in hybrid work also shows a strong correlation (r = 0.772). These results support the alternative hypothesis (H1), indicating that an increase in remote and offshore delivery significantly improves efficiency and customer satisfaction, as reflected by enhanced service delivery and perceptions of fairness.

**Hypothesis 2 (H2): Harmonized Methodologies for Enhanced Quality and Reduced Risk**

***Distribution of Respondents on Different Variables Based on their Age Group***

*Table 4.39: Age Group * VAR_6_Agility and resilience post-pandemic. Crosstabulation*

| | | **VAR_6_Agility and resilience post-pandemic**. | | | | Total |
|---|---|---|---|---|---|---|
| | | Strongly Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Age Group | 25 to 30 Years | 10 | 2 | 5 | 0 | 17 |
| | 31-40 Years | 0 | 0 | 33 | 0 | 33 |
| | 41-50 Years | 0 | 0 | 19 | 48 | 67 |
| | 51 Years and Above | 0 | 0 | 0 | 51 | 51 |
| Total | | 10 | 2 | 57 | 99 | 168 |

The above Table 4.39 shows varying perceptions of agility and resilience post-pandemic across different age groups. Among individuals aged 25 to 30 years, 10 strongly disagree, 2 are neutral, and 5 agree, but none strongly agree. In the 31-40 years group, all 33 participants agree with the statement, but none strongly agree. Among those aged 41-50 years, the majority (48) strongly agree, with 19 agreeing. Similarly, in the 51 years and above group, all 51 participants strongly agree, with no disagreement or neutrality.

*Table 4.40: Age Group * VAR_9_Remote ERP service delivery. Crosstabulation*

| | | **VAR_9_Remote ERP service delivery**. | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Age Group | 25 to 30 Years | 2 | 5 | 5 | 5 | 0 | 17 |
| | 31-40 Years | 0 | 0 | 0 | 33 | 0 | 33 |
| | 41-50 Years | 0 | 0 | 0 | 46 | 21 | 67 |
| | 51 Years and Above | 0 | 0 | 0 | 0 | 51 | 51 |
| Total | | 2 | 5 | 5 | 84 | 72 | 168 |

The above Table 4.40 reveals differing views on remote ERP service delivery across age groups. For those aged 25 to 30 years, opinions are mixed, with 5 agreeing, 5 being neutral, 2 strongly disagreeing, and none strongly agreeing. In the 31-40 years group, all 33 participants agree, but none strongly agree. Among individuals aged 41-50 years, 46 agree and 21 strongly agree, showing a higher level of approval. In the 51 years and above group, all 51 strongly agree, reflecting the strongest confidence in remote ERP service delivery.

*Table 4.41: Age Group * VAR_16_Retaining the human factor in work. Crosstabulation*

| | | **VAR_16_Retaining the human factor in work**. | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Age Group | 25 to 30 Years | 5 | 5 | 2 | 5 | 0 | 17 |
| | 31-40 Years | 0 | 0 | 0 | 33 | 0 | 33 |
| | 41-50 Years | 0 | 0 | 0 | 29 | 38 | 67 |
| | 51 Years and Above | 0 | 0 | 0 | 0 | 51 | 51 |
| Total | | 5 | 5 | 2 | 67 | 89 | 168 |

The above Table 4.41 shows differing opinions on retaining the human factor in work across age groups. Among individuals aged 25 to 30 years, 5 strongly disagree, 5 disagree, and 2 are neutral, with 5 agreeing and none strongly agreeing. In the 31-40 years group, all 33 participants agree with retaining the human factor, but none strongly agree. For the 41-50 years group, 29 agree, and 38 strongly agree, indicating a more favourable view. Among those aged 51 years and above, all 51 strongly agree, showing the highest level of support for retaining the human factor in work.

*Table 4.42: Age Group * VAR_17_Accelerated digital transformation. Crosstabulation*

| | **VAR_17_Accelerated digital transformation**. | | | | Total |
|---|---|---|---|---|---|
| | Strongly Disagree | Neutral/don't know | Agree | Strongly Agree | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Age Group | 25 to 30 Years | 5 | 2 | 10 | 0 | 17 |
| | 31-40 Years | 0 | 0 | 33 | 0 | 33 |
| | 41-50 Years | 0 | 0 | 36 | 31 | 67 |
| | 51 Years and Above | 0 | 0 | 0 | 51 | 51 |
| Total | | 5 | 2 | 79 | 82 | 168 |

The above Table 4.42 reveals varying levels of support for accelerated digital transformation across age groups. Among those aged 25 to 30 years, there is a mix of opinions, with 5 strongly disagreeing, 2 remaining neutral, and 10 agreeing, but none strongly agreeing. In the 31-40 years group, all 33 participants agree, although none strongly agree. In the 41-50 years group, 36 agree and 31 strongly agree, showing more positive sentiment. The 51 years and above group shows the highest level of agreement, with all 51 participants strongly agreeing. This indicates that as age increases, support for accelerated digital transformation strengthens.

***Distribution of Respondents on Different Variables Based on their Education***

*Table 4.43: Educational Background * VAR_6_Agility and resilience post-pandemic. Crosstabulation*

| | | **VAR_6_Agility and resilience post-pandemic**. | | | | Total |
|---|---|---|---|---|---|---|
| | | Strongly Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Educational Background | Undergraduate | 10 | 2 | 30 | 0 | 42 |
| | Postgraduate | 0 | 0 | 27 | 88 | 115 |
| | Doctorate | 0 | 0 | 0 | 11 | 11 |
| Total | | 10 | 2 | 57 | 99 | 168 |

Table 4.43 compares educational backgrounds' post-pandemic agility and resilience judgements. The undergraduates strongly disagree, 2 are impartial, and 30 agree, albeit none strongly agree. With 27 agreeing and 88 strongly agreeing, postgraduates believe in agility and resilience more. All 11 doctorates strongly concur, suggesting the utmost confidence in post-pandemic adaptability and resilience.

*Table 4.44: Educational Background * VAR_9_Remote ERP service delivery. Crosstabulation*

| | | **VAR_9_Remote ERP service delivery**. | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Neutral /don't know | Agree | Strongly Agree | |
| Educational Background | Undergraduate | 2 | 5 | 5 | 30 | 0 | 42 |
| | Postgraduate | 0 | 0 | 0 | 54 | 61 | 115 |
| | Doctorate | 0 | 0 | 0 | 0 | 11 | 11 |
| Total | | 2 | 5 | 5 | 84 | 72 | 168 |

As shown in Table 4.44, educational background affects perceptions of remote ERP service delivery. Two strongly disagree, five disagree, and five are indifferent, whereas 30 agree and none strongly agree among undergraduates. More postgraduates agree, 54 agreeing and 61 strongly agreeing. Ph. D.s highly concur, exhibiting the highest confidence in remote ERP service delivery. Remote ERP service delivery rises with education.

*Table 4.45: Educational Background * VAR_16_Retaining the human factor in work. Crosstabulation*

| | **VAR_16_Retaining the human factor in work**. | Total |
|---|---|---|

| | | Strongly Disagree | Disagree | Neutral/ don't know | Agree | Strongly Agree | |
|---|---|---|---|---|---|---|---|
| Educational Background | Undergraduate | 5 | 5 | 2 | 30 | 0 | 42 |
| | Postgraduate | 0 | 0 | 0 | 37 | 78 | 115 |
| | Doctorate | 0 | 0 | 0 | 0 | 11 | 11 |
| Total | | 5 | 5 | 2 | 67 | 89 | 168 |

The data shows differing views on retaining the human factor in work based on educational background. Among individuals with an undergraduate degree, 5 strongly disagree, 5 disagree, 2 are neutral, and 30 agree, with none strongly agreeing. In contrast, individuals with a postgraduate education show stronger support, with 37 agreeing and 78 strongly agreeing. All 11 participants with a doctorate strongly agree, indicating the highest level of agreement.

*Table 4.46: Educational Background * VAR_17_Accelerated digital transformation. Crosstabulation*

| | | **VAR_17_Accelerated digital transformation**. | | | | Total |
|---|---|---|---|---|---|---|
| | | Strongly Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Educational Background | Undergraduate | 5 | 2 | 35 | 0 | 42 |
| | Postgraduate | 0 | 0 | 44 | 71 | 115 |
| | Doctorate | 0 | 0 | 0 | 11 | 11 |
| Total | | 5 | 2 | 79 | 82 | 168 |

Figure 4.46 shows educational background-based thoughts on faster digital transformation. Five undergraduates strongly disagree, two are impartial, and 35 agree, none strongly agree. Support is higher among master's degree holders: 44 agree, and 71 strongly agree. Eleven doctorates highly agree, indicating the utmost confidence. Education promotes support for faster digital transformation, according to the findings.

***Distribution of Respondents on Different Variables Based on their Job Role***

*Table 4.47: Role * VAR_6_Agility and resilience post-pandemic. Crosstabulation*

| | | **VAR_6_Agility and resilience post-pandemic**. | | | | Total |
|---|---|---|---|---|---|---|
| | | Strongly Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Role | Consultants | 10 | 2 | 22 | 0 | 34 |
| | Architect | 0 | 0 | 20 | 0 | 20 |
| | Technologist | 0 | 0 | 15 | 17 | 32 |
| | Management Level | 0 | 0 | 0 | 72 | 72 |
| | CxO | 0 | 0 | 0 | 10 | 10 |
| Total | | 10 | 2 | 57 | 99 | 168 |

Table 4.47 shows role-based agility and resilience post-pandemic perspectives. Ten consultants strongly disagree, 2 are indifferent, and 22 agree, none strongly agree. All 20 architects agree, yet none strongly agree. Techies agree more, with 15 and 17 strongly agreeing. The management group is most confident in agility and resilience, with 72 strongly agreeing. Last, all 10 CxOs firmly concur.

*Table 4.48: Role * VAR_9_Remote ERP service delivery. Crosstabulation*

| | **VAR_9_Remote ERP service delivery**. | | | | | Total |
|---|---|---|---|---|---|---|
| | Strongly Disagree | Disagree | Neutral/don't know | Agree | Strongly Agree | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Role | Consultants | 2 | 5 | 5 | 22 | 0 | 34 |
| | Architect | 0 | 0 | 0 | 20 | 0 | 20 |
| | Technologist | 0 | 0 | 0 | 32 | 0 | 32 |
| | Management Level | 0 | 0 | 0 | 10 | 62 | 72 |
| | CxO | 0 | 0 | 0 | 0 | 10 | 10 |
| Total | | 2 | 5 | 5 | 84 | 72 | 168 |

Table 4.48 shows how different roles see remote ERP service delivery. Two consultants strongly disagree, five disagree, five neutral, and 22 agree, although none strongly agree. Twenty architects and 32 technologists agree, yet no one firmly agrees. Management-level professionals agree most, with 10 and 62 strongly agreeing. The 10 CxOs strongly agree. It appears that managerial and executive jobs enable remote ERP service delivery.

*Table 4.49: Role * VAR_16_Retaining the human factor in work. Crosstabulation*

| | | **VAR_16_Retaining the human factor in work**. | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Role | Consultants | 5 | 5 | 2 | 22 | 0 | 34 |
| | Architect | 0 | 0 | 0 | 20 | 0 | 20 |
| | Technologist | 0 | 0 | 0 | 25 | 7 | 32 |
| | Management Level | 0 | 0 | 0 | 0 | 72 | 72 |
| | CxO | 0 | 0 | 0 | 0 | 10 | 10 |
| Total | | 5 | 5 | 2 | 67 | 89 | 168 |

Table 4.49 compares role-based ideas on keeping the human aspect in work. Five consultants strongly disagree, five disagree, two are neutral, and 22 agree; none strongly agree. More positively, all 20 architects agree, albeit none strongly agree. Technologists favour with 25 agreeing and 7 strongly agreeing. Support is highest among managers, with 72 strongly agreeing. Also, all 10 CxOs firmly concur. The evidence reveals that management and CxOs appreciate the human component of work.

*Table 4.50: Role * VAR_17_Accelerated digital transformation. Crosstabulation*

| | | **VAR_17_Accelerated digital transformation**. | | | | Total |
|---|---|---|---|---|---|---|
| | | Strongly Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Role | Consultants | 5 | 2 | 27 | 0 | 34 |
| | Architect | 0 | 0 | 20 | 0 | 20 |
| | Technologist | 0 | 0 | 32 | 0 | 32 |
| | Management Level | 0 | 0 | 0 | 72 | 72 |
| | CxO | 0 | 0 | 0 | 10 | 10 |
| Total | | 5 | 2 | 79 | 82 | 168 |

As seen in Table 4.50, job affects consensus on faster digital transformation. Five consultants strongly disagree, two are indifferent, and 27 agree, although none strongly agree. Twenty architects support it, but not firmly. Technologists support it, with 32 agreeing but none strongly. Management agrees most, 72 strongly. Also, all 10 CxOs firmly concur. Data reveals that higher-level employees support digital transformation the most.

***Distribution of Respondents on Different Variables Based on their Experience***

*Table 4.51: Overall Experience * VAR_6_Agility and resilience post-pandemic. Crosstabulation*

| | | VAR_6_Agility and resilience post-pandemic. | | | | Total |
|---|---|---|---|---|---|---|
| | | Strongly Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Overall Experience | 3 to 20 years | 10 | 2 | 22 | 0 | 34 |
| | 20 to 30 years | 0 | 0 | 35 | 61 | 96 |
| | 30 years and above | 0 | 0 | 0 | 38 | 38 |
| Total | | 10 | 2 | 57 | 99 | 168 |

Work experience influences agility and resilience post-pandemic, as shown in Table 4.51. Of those with 3 to 20 years of experience, 10 strongly disagree, 2 are indifferent, and 22 agree; none strongly agree. Those with 20–30 years of expertise agree more, with 35 agreeing and 61 strongly agreeing! 38 of those with 30+ years of experience strongly agree, indicating the highest trust in agility and resilience post-pandemic. Overall, people with 20+ years of experience are more confident in agility and resilience in the post-pandemic workplace.

*Table 4.52: Overall Experience * VAR_9_Remote ERP service delivery. Crosstabulation*

| | VAR_9_Remote ERP service delivery. | | | | | Total |
|---|---|---|---|---|---|---|
| | Strongly Disagree | Disagree | Neutral /don't know | Agree | Strongly Agree | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Overall Experience | 3 to 20 years | 2 | 5 | 5 | 22 | 0 | 34 |
| | 20 to 30 years | 0 | 0 | 0 | 62 | 34 | 96 |
| | 30 years and above | 0 | 0 | 0 | 0 | 38 | 38 |
| Total | | 2 | 5 | 5 | 84 | 72 | 168 |

Figure 4.52 shows how work experience affects remote ERP service delivery agreement. Of those with 3 to 20 years of experience, 2 strongly disagree, 5 disagree, 5 are indifferent, and 22 agree, but none strongly agree. With 20–30 years of experience, 62 agree and 34 strongly agree, indicating a good response. All 38 individuals with 30 or more years of expertise strongly agree, suggesting the most support.

*Table 4.53: Overall Experience * VAR_16_Retaining the human factor in work. Crosstabulation*

| | | **VAR_16_Retaining the human factor in work**. | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Neutral/don ’t know | Agree | Strongly Agree | |
| Overall Experience | 3 to 20 years | 5 | 5 | 2 | 22 | 0 | 34 |
| | 20 to 30 years | 0 | 0 | 0 | 45 | 51 | 96 |
| | 30 years and above | 0 | 0 | 0 | 0 | 38 | 38 |
| Total | | 5 | 5 | 2 | 67 | 89 | 168 |

Work experience influences attitudes on keeping the human component in work, as seen in Table 4.53. Five people with 3 to 20 years of experience strongly disagree, five disagree, two are indifferent, and 22 agree, with none strongly agreeing. With 20–30 years of

expertise, 45 agree and 51 strongly agree. All 38 people with 30 or more years of experience strongly agree, favouring keeping the human element in work. Experience increases support for this idea.

*Table 4.54: Overall Experience* VAR_17_Accelerated digital transformation. Crosstabulation*

| | | **VAR_17_Accelerated digital transformation**. | | | | Total |
|---|---|---|---|---|---|---|
| | | Strongly Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Overall Experience | 3 to 20 years | 5 | 2 | 27 | 0 | 34 |
| | 20 to 30 years | 0 | 0 | 52 | 44 | 96 |
| | 30 years and above | 0 | 0 | 0 | 38 | 38 |
| Total | | 5 | 2 | 79 | 82 | 168 |

According to work experience, Table 4.54 shows different viewpoints on fast digital transformation. For those with 3 to 20 years of expertise, 5 strongly disagree, 2 are indifferent, and 27 agree; none strongly agree. For those with 20–30 years of expertise, 52 agree, and 44 strongly agree, supporting faster digital transformation. All 38 practitioners with 30 or more years of experience strongly concur, demonstrating the highest trust in digital transformation acceleration. Experienced people agree more with faster digital transformation.

***Correlations Between Different Variables***

*Table 4.55: Correlations*

| | **VAR_6_Agility and resilience** | **VAR_9_Remote ERP** | **VAR_16_Retaining the** | **VAR_17_Accelerated digital** |
|---|---|---|---|---|

| | | | **post-pandemic** | **service delivery**. | **human factor in work**. | **transformation**. |
|---|---|---|---|---|---|---|
| Spearman's rho | **VAR_6_Agility and resilience post-pandemic**. | Correlation Coefficient | 1 | .779** | .907** | .829** |
| | | Sig. (2-tailed) | . | 0 | 0 | 0 |
| | | N | 168 | 168 | 168 | 168 |
| | **VAR_9_Remote ERP service delivery**. | Correlation Coefficient | .779** | 1 | .853** | .894** |
| | | Sig. (2-tailed) | 0 | . | 0 | 0 |
| | | N | 168 | 168 | 168 | 168 |
| | **VAR_16_ Retaining the human factor in work**. | Correlation Coefficient | .907** | .853** | 1 | .920** |
| | | Sig. (2-tailed) | 0 | 0 | . | 0 |
| | | N | 168 | 168 | 168 | 168 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | **VAR_17_ Accelerated digital transformation**. | Correlation Coefficient | .829** | .894** | .920** | 1 |
| | | Sig. (2-tailed) | 0 | 0 | 0 | . |
| | | N | 168 | 168 | 168 | 168 |
| **. Correlation is significant at the 0.01 level (2-tailed). | | | | | | |

Spearman's correlation analysis in Table 4.55 demonstrates strong positive connections between the four variables, all statistically significant at 0.01. Agility and resilience post-pandemic correlate with remote ERP service delivery (0.779), retaining the human factor in work (0.907), and accelerated digital transformation (0.829). Remote ERP service delivery correlates 0.853 with "Retaining the human factor in work" and 0.894 with "Accelerated digital transformation". Finally, Retaining the human aspect in work and Accelerated digital transformation correlate best at 0.920. These substantial correlations and their significance support the alternative hypothesis (H2) that harmonised techniques improve quality and minimise risk, improving digital transformation and organisational performance.

**Hypothesis 3 (H3): Optimization of Processes, Methodologies, and Tools for Productivity and Knowledge Reuse**

***Distribution of Respondents on Different Variables Based on their Age Group***

*Table 4.56: Age Group * VAR_17_Accelerated digital transformation. Crosstabulation*

| | **VAR_17_Accelerated digital transformation**. | | | | Total |
|---|---|---|---|---|---|
| | Strongly Disagree | Neutral/don’t know | Agree | Strongly Agree | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Age Group | 25 to 30 Years | 5 | 2 | 10 | 0 | 17 |
| | 31-40 Years | 0 | 0 | 33 | 0 | 33 |
| | 41-50 Years | 0 | 0 | 36 | 31 | 67 |
| | 51 Years and Above | 0 | 0 | 0 | 51 | 51 |
| Total | | 5 | 2 | 79 | 82 | 168 |

As seen in Table 4.56, age groups' responses to digital transformation acceleration vary. Five 25-to-30-year-olds strongly opposed, two were indifferent, and 10 agreed, although none strongly agreed. All 33 respondents aged 31-40 agreed, but none in other groups. In the 41-50 age range, 36 agreed, 31 strongly agreed, and none were indifferent. Finally, 51 respondents aged 51 and older strongly supported faster digital transformation, with no dissent or indifferent comments.

*Table 4.57: Age Group * VAR_18_Adoption of AR and VR. Crosstabulation*

| | | **VAR_18_Adoption of AR and VR**. | | | | Total |
|---|---|---|---|---|---|---|
| | | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Age Group | 25 to 30 Years | 10 | 7 | 0 | 0 | 17 |
| | 31-40 Years | 0 | 33 | 0 | 0 | 33 |
| | 41-50 Years | 0 | 4 | 63 | 0 | 67 |
| | 51 Years and Above | 0 | 0 | 9 | 42 | 51 |
| Total | | 10 | 44 | 72 | 42 | 168 |

Table 4.57 shows how different age groups see AR and VR adoption. In the 25–30 age group, 10 disagreed, 7 were indifferent, and none strongly agreed. The 31-40 age group had 33 neutrals and no agree or disagree. None objected or strongly agreed with AR and

VR adoption in the 41-50 age range, while 4 were neutral. Finally, 9 were undecided and 42 strongly supported AR and VR adoption in the 51-year-old cohort, with no one disapproving. It appears that younger age groups, notably those in their 30s, are indifferent to AR and VR adoption, while older age groups, particularly those 51 and above, support it.

*Table 4.58: Age Group * VAR_19_Quantum ERP and computing for business operations. Crosstabulation*

| | | **VAR_19_Quantum computing for business operations**. | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Age Group | 25 to 30 Years | 5 | 2 | 10 | 0 | 0 | 17 |
| | 31-40 Years | 0 | 0 | 30 | 3 | 0 | 33 |
| | 41-50 Years | 0 | 0 | 0 | 64 | 3 | 67 |
| | 51 Years and Above | 0 | 0 | 0 | 0 | 51 | 51 |
| Total | | 5 | 2 | 40 | 67 | 54 | 168 |

As seen in Table 4.58, age groups have different views on quantum computing for business operations. In the 25–30 age group, 5 strongly disagreed, 2 disagreed, and 10 were indifferent. The 31-40-year-old group had 30 neutrals, 3 undecideds, and no significant disagreement or agreement. 64 were neutral, 3 agreed, and no one strongly disagreed or concurred among 41-50-year-olds. In contrast, 51 people who were 51 or older strongly supported the idea.

*Table 4.59: Age Group * VAR_20_Quantum optimization in businesses. Crosstabulation*

| | **VAR_20_Quantum optimization in businesses**. | Total |
|---|---|---|

| | | Strongly Disagree | Disagree | Neutral/don't know | Agree | Strongly Agree | |
|---|---|---|---|---|---|---|---|
| Age Group | 25 to 30 Years | 2 | 2 | 13 | 0 | 0 | 17 |
| | 31-40 Years | 0 | 0 | 22 | 11 | 0 | 33 |
| | 41-50 Years | 0 | 0 | 0 | 67 | 0 | 67 |
| | 51 Years and Above | 0 | 0 | 0 | 6 | 45 | 51 |
| Total | | 2 | 2 | 35 | 84 | 45 | 168 |

In Table 4.59, younger age groups (25-30 years) are largely neutral or disagree with quantum optimisation in firms, whereas 31-40 years is a mix of neutrality and agreement. Age groups 41-50 and 51 and older are more favourable, with the majority agreeing or strongly agreeing, especially 45 strongly agreeing.

*Table 4.60: Age Group * VAR_21_Streamlining operations using quantum computing. Crosstabulation*

| | | **VAR_21_Streamlining operations using quantum computing**. | | | | Total |
|---|---|---|---|---|---|---|
| | | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Age Group | 25 to 30 Years | 7 | 10 | 0 | 0 | 17 |
| | 31-40 Years | 0 | 33 | 0 | 0 | 33 |
| | 41-50 Years | 0 | 1 | 66 | 0 | 67 |
| | 51 Years and Above | 0 | 0 | 4 | 47 | 51 |
| Total | | 7 | 44 | 70 | 47 | 168 |

Table 4.60 shows age-based reactions to quantum computing streamlining. Of the 25-30 age range, most are neutral or disagree, and none strongly agree. 31-40-year-olds are neutral. There is substantial agreement among 66 individuals aged 41-50. In the 51-plus age bracket, 47 strongly agree. This implies that elderly people prefer quantum computing for operational gains.

*Table 4.61: Age Group* VAR_22_Enhanced security via quantum cryptography. Crosstabulation*

| | | **VAR_22_Enhanced security via quantum cryptography**. | | | Total |
|---|---|---|---|---|---|
| | | Neutral/don't know | Agree | Strongly Agree | |
| Age Group | 25 to 30 Years | 17 | 0 | 0 | 17 |
| | 31-40 Years | 33 | 0 | 0 | 33 |
| | 41-50 Years | 2 | 65 | 0 | 67 |
| | 51 Years and Above | 0 | 9 | 42 | 51 |
| Total | | 52 | 74 | 42 | 168 |

Age groups respond differently to quantum cryptography security, as seen in Table 4.61. Young people aged 25-30 are mostly indifferent or doubtful, with no or strong agreement. The 31-40 age group is mostly neutral. The 41-50 age group is more positive, with 65 saying that quantum cryptography is secure. 42 people over 51 strongly agree. This suggests that older people view quantum cryptography as a security instrument.

*Table 4.62: Age Group* VAR_23_Quantum computing improving AI capabilities. Crosstabulation*

| | **VAR_23_Quantum computing improving AI capabilities**. | Total |
|---|---|---|

| | | Neutral/don't know | Agree | Strongly Agree | |
|---|---|---|---|---|---|
| Age Group | 25 to 30 Years | 17 | 0 | 0 | 17 |
| | 31-40 Years | 15 | 18 | 0 | 33 |
| | 41-50 Years | 0 | 67 | 0 | 67 |
| | 51 Years and Above | 0 | 2 | 49 | 51 |
| Total | | 32 | 87 | 49 | 168 |

Table 4.62 compares age groups' views on quantum computing enhancing AI. All 25–30-year-olds are indifferent or uncertain, with no significant agreement. The 31-40 age range is more balanced, with 15 indifferent, 18 agreeing, and no strongly agreeing. Most 41-50-year-olds (67) highly agree, whereas none are indifferent or agree. Those 51 and older highly agree, with 49 strongly agreeing, 2 agreeing, and no neutral. Most respondents strongly think that quantum computing would advance AI, especially those over 41.

***Distribution of Respondents on Different Variables Based on their Education***

*Table 4.63: Educational Background* VAR_17_Accelerated digital transformation. Crosstabulation*

| | | **VAR_17_Accelerated digital transformation.** | | | | Total |
|---|---|---|---|---|---|---|
| | | Strongly Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Educational Background | Undergraduate | 5 | 2 | 35 | 0 | 42 |
| | Postgraduate | 0 | 0 | 44 | 71 | 115 |
| | Doctorate | 0 | 0 | 0 | 11 | 11 |

| | | | | | |
|---|---|---|---|---|---|
| Total | 5 | 2 | 79 | 82 | 168 |

Table 4.63 compares age groups' views on quantum computing enhancing AI. All 25–30-year-olds are indifferent or uncertain, with no significant agreement. The 31-40 age range is more balanced, with 15 indifferent, 18 agreeing, and no strongly agreeing. Most 41-50-year-olds (67) highly agree, whereas none are indifferent or agree. Those 51 and older highly agree, with 49 strongly agreeing, 2 agreeing, and no neutral. Most respondents strongly think that quantum computing would advance AI, especially those over 41.

*Table 4.64: Educational Background * VAR_18_Adoption of AR and VR. Crosstabulation*

| | | **VAR_18_Adoption of AR and VR**. | | | | Total |
|---|---|---|---|---|---|---|
| | | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Educational Background | Undergraduate | 10 | 32 | 0 | 0 | 42 |
| | Postgraduate | 0 | 12 | 72 | 31 | 115 |
| | Doctorate | 0 | 0 | 0 | 11 | 11 |
| Total | | 10 | 44 | 72 | 42 | 168 |

Table 4.64 shows how education affects attitudes toward AR and VR adoption. Undergraduates are mostly indifferent or undecided (32), with 10 disapproving and none strongly agreeing. Postgraduate respondents agree more, with 72 agreeing, 31 strongly agreeing, 12 indifferent, and none disagreeing. Though small (11 responders), the PhD group strongly supports AR and VR adoption.

*Table 4.65: Educational Background * VAR_19_Quantum computing for business operations. Crosstabulation*

| | **VAR_19_Quantum computing for business operations**. | Total |
|---|---|---|

| | | Strongly Disagree | Disagree | Neutral/ don't know | Agree | Strongly Agree | |
|---|---|---|---|---|---|---|---|
| Educational Background | Undergraduate | 5 | 2 | 35 | 0 | 0 | 42 |
| | Postgraduate | 0 | 0 | 5 | 67 | 43 | 115 |
| | Doctorate | 0 | 0 | 0 | 0 | 11 | 11 |
| Total | | 5 | 2 | 40 | 67 | 54 | 168 |

Table 4.65 shows how education affects commercial quantum computing attitudes. Most students (35) are indifferent or undecided, while a few (2) strongly disagree (5) and none agree or strongly agree. Postgraduates approve the idea, with 67 agreeing, 43 strongly agreeing, and 5 indifferent. Doctors all strongly agree (11), no neutral or negative replies. Postgraduate and PhD responders strongly support quantum computing in business operations, whereas undergraduates are indifferent or negative.

*Table 4.66: Educational Background * VAR_20_Quantum optimization in businesses. Crosstabulation*

| | | **VAR_20_Quantum optimization in businesses**. | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Educational Background | Undergraduate | 2 | 2 | 35 | 3 | 0 | 42 |
| | Postgraduate | 0 | 0 | 0 | 81 | 34 | 115 |
| | Doctorate | 0 | 0 | 0 | 0 | 11 | 11 |
| Total | | 2 | 2 | 35 | 84 | 45 | 168 |

The above Table 4.66 explores the connection between educational background and views on quantum optimisation in businesses. Among undergraduates, the majority (35) are uncertain, with a few disagreeing (2 strongly, 2 moderately) and only 3 expressing agreement, while none strongly agree. Postgraduate respondents show clear enthusiasm, with 81 agreeing 34 strongly agreeing, and no neutral or negative responses. Doctorate holders are fully aligned, with all 11 respondents strongly agreeing.

*Table 4.67: Educational Background * VAR_21_Streamlining operations using quantum computing. Crosstabulation*

| | | **VAR_21_Streamlining operations using quantum computing**. | | | | Total |
|---|---|---|---|---|---|---|
| | | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Educational Background | Undergraduate | 7 | 35 | 0 | 0 | 42 |
| | Postgraduate | 0 | 9 | 70 | 36 | 115 |
| | Doctorate | 0 | 0 | 0 | 11 | 11 |
| Total | | 7 | 44 | 70 | 47 | 168 |

Table 4.67 shows how education affects attitudes on deploying quantum computing to simplify processes. Most undergraduates (35) are indifferent or undecided, 7 oppose it, and none support it. Postgraduates approve the idea, with 70 agreeing, 36 strongly agreeing, and 9 indifferent. Doctors endorse substantially (11), with no neutral or opposing comments. Higher education enhances support for quantum computing in speeding processes, whereas undergraduates are typically indifferent or opposed.

*Table 4.68: Educational Background * VAR_22_Enhanced security via quantum cryptography Crosstabulation*

| | **VAR_22_Enhanced security via quantum cryptography**. | Total |
|---|---|---|

| | | Neutral/don't know | Agree | Strongly Agree | |
|---|---|---|---|---|---|
| Educational Background | Undergraduate | 42 | 0 | 0 | 42 |
| | Postgraduate | 10 | 74 | 31 | 115 |
| | Doctorate | 0 | 0 | 11 | 11 |
| Total | | 52 | 74 | 42 | 168 |

Table 4.68 compares educational background and quantum cryptography security views. All 42 students are indifferent or unsure, with none strongly agreeing. Postgraduate respondents' favour, with 74 agreeing, 31 strongly agreeing, and 10 indifferent. Doctors all strongly agree (11), with no neutral or mild replies. Higher education is related to increased trust in quantum cryptography's security potential, whereas undergraduates are indifferent.

*Table 4.69: Educational Background * VAR_23_Quantum computing improving AI capabilities. Crosstabulation*

| | | **VAR_23_Quantum computing improving AI capabilities**. | | | Total |
|---|---|---|---|---|---|
| | | Neutral/don't know | Agree | Strongly Agree | |
| Educational Background | Undergraduate | 32 | 10 | 0 | 42 |
| | Postgraduate | 0 | 77 | 38 | 115 |
| | Doctorate | 0 | 0 | 11 | 11 |
| Total | | 32 | 87 | 49 | 168 |

Table 4.69 shows how education affects thoughts on quantum computing improving AI. Most undergraduates (32) are undecided or indifferent, with 10 agreeing and none strongly agreeing. Postgraduates favour, with 77 agreeing, 38 strongly agreeing, and no neutral. Doctors agree strongly (11), without neutrality or moderation. In general, more education

increases belief in quantum computing's capacity to develop AI, whereas undergraduates are mostly indifferent or disagree.

***Distribution of Respondents on Different Variables Based on their Job Role***

*Table 4.70: Role * VAR_17_Accelerated digital transformation. Crosstabulation*

| | | **VAR_17_Accelerated digital transformation**. | | | | Total |
|---|---|---|---|---|---|---|
| | | Strongly Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Role | Consultants | 5 | 2 | 27 | 0 | 34 |
| | Architect | 0 | 0 | 20 | 0 | 20 |
| | Technologist | 0 | 0 | 32 | 0 | 32 |
| | Management Level | 0 | 0 | 0 | 72 | 72 |
| | CxO | 0 | 0 | 0 | 10 | 10 |
| Total | | 5 | 2 | 79 | 82 | 168 |

Table 4.70 compares professional responsibilities and attitudes toward fast digital transformation. Most consultants (27) agree, 5 completely disagree, 2 are indifferent, and none strongly agree. Technologists and architects agree without neutrality or strong endorsement, with 20 and 32 replies, respectively. Management- and CxO-level experts substantially agree (72, 10). Accelerated digital transformation is supported by all jobs, but management and CxOs are more enthusiastic than consultants.

*Table 4.71: Role * VAR_18_Adoption of AR and VR. Crosstabulation*

| | | **VAR_18_Adoption of AR and VR**. | | | | Total |
|---|---|---|---|---|---|---|
| | | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Role | Consultants | 10 | 24 | 0 | 0 | 34 |
| | Architect | 0 | 20 | 0 | 0 | 20 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Technologist | 0 | 0 | 32 | 0 | 32 |
| | Management Level | 0 | 0 | 40 | 32 | 72 |
| | CxO | 0 | 0 | 0 | 10 | 10 |
| Total | | 10 | 44 | 72 | 42 | 168 |

Table 4.71 compares professional job attitudes toward AR/VR adoption. Most consultants (24) are uncertain, 10 disagree, and none firmly agree. Twenty architects are undecided, and none support or disagree. All 32 technologists support the adoption, with no neutrality or significant disagreement. Management professionals support, with 40 approving and 32 strongly agreeing. All 10 CxOs powerfully endorse adoption.

*Table 4.72: Role * VAR_19_Quantum computing for business operations. Crosstabulation*

| | | **VAR_19_Quantum computing for business operations**. | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Role | Consultants | 5 | 2 | 27 | 0 | 0 | 34 |
| | Architect | 0 | 0 | 13 | 7 | 0 | 20 |
| | Technologist | 0 | 0 | 0 | 32 | 0 | 32 |
| | Management Level | 0 | 0 | 0 | 28 | 44 | 72 |
| | CxO | 0 | 0 | 0 | 0 | 10 | 10 |
| Total | | 5 | 2 | 40 | 67 | 54 | 168 |

Table 4.72 illustrates how professional jobs affect perspectives on quantum computing for commercial operations. Most consultants (27) are indifferent or undecided, 5 strongly disagree, 2 moderately disagree, and none agree or strongly concur. Architects are more

divided, with 13 indifferent and 7 agreeing but not strongly. All 32 technologists support the notion, although none strongly. Most management experts approve of the notion, with 28 agreeing and 44 strongly agreeing. All 10 CxOs enthusiastically concur.

*Table 4.73: Role * VAR_20_Quantum optimization in businesses. Crosstabulation*

| | | **VAR_20_Quantum optimization in businesses**. | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Neutral/ don't know | Agree | Strongly Agree | |
| Role | Consultants | 2 | 2 | 30 | 0 | 0 | 34 |
| | Architect | 0 | 0 | 5 | 15 | 0 | 20 |
| | Technologist | 0 | 0 | 0 | 32 | 0 | 32 |
| | Management Level | 0 | 0 | 0 | 37 | 35 | 72 |
| | CxO | 0 | 0 | 0 | 0 | 10 | 10 |
| Total | | 2 | 2 | 35 | 84 | 45 | 168 |

Table 4.73 shows how professional jobs affect business quantum optimisation viewpoints. Most (30) consultants are unclear, with 2 very strongly opposing, 2 disapproving, and none supporting or highly supporting. Architects are split, with 5 neutral and 15 agreeing but no consensus. Technologists support it, with 32 agreeing but none strongly. Executives favour it, with 37 agreeing and 35 highly approving. Each of the 10 CxOs clearly agrees.

*Table 4.74: Role * VAR_21_Streamlining operations using quantum computing. Crosstabulation*

| | **VAR_21_Streamlining operations using quantum computing**. | | | | Total |
|---|---|---|---|---|---|
| | Disagree | Neutral/don't know | Agree | Strongly Agree | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Role | Consultants | 7 | 27 | 0 | 0 | 34 |
| | Architect | 0 | 17 | 3 | 0 | 20 |
| | Technologist | 0 | 0 | 32 | 0 | 32 |
| | Management Level | 0 | 0 | 35 | 37 | 72 |
| | CxO | 0 | 0 | 0 | 10 | 10 |
| Total | | 7 | 44 | 70 | 47 | 168 |

Table 4.74 compares professional duties and quantum computing streamlining viewpoints. Most consultants (27) are unsure, 7 don't agree, and none strongly concur. Architects are split, with 17 indifferent and 3 accepting but no strong opinion. All 32 technologists endorse it, although none strongly. Management professionals support, with 35 accepting and 37 highly disagreeing. All 10 CxOs enthusiastically approve.

*Table 4.75: Role * VAR_22_Enhanced security via quantum cryptography. Crosstabulation*

| | | **VAR_22_Enhanced security via quantum cryptography**. | | | Total |
|---|---|---|---|---|---|
| | | Neutral/don’t know | Agree | Strongly Agree | |
| Role | Consultants | 34 | 0 | 0 | 34 |
| | Architect | 18 | 2 | 0 | 20 |
| | Technologist | 0 | 32 | 0 | 32 |
| | Management Level | 0 | 40 | 32 | 72 |

| | | | | | |
|---|---|---|---|---|---|
| | CxO | 0 | 0 | 10 | 10 |
| Total | | 52 | 74 | 42 | 168 |

Table 4.75 compares professional jobs with quantum cryptography security opinions. All 34 consultants are indifferent or undecided, with no strong support. Eighteen architects are impartial, two agree, and none strongly support. All 32 technologists favour the idea, although none enthusiastically. Management-level professionals support, with 40 agreeing and 32 strongly. All 10 CxOs highly agree. The research shows that management and CxO jobs embrace quantum cryptography for security, whereas consultants and architects are agnostic.

*Table 4.76: Role * VAR_23_Quantum computing improving AI capabilities. Crosstabulation*

| | | **VAR_23_Quantum computing improving AI capabilities**. | | | Total |
|---|---|---|---|---|---|
| | | Neutral/don't know | Agree | Strongly Agree | |
| Role | Consultants | 32 | 2 | 0 | 34 |
| | Architect | 0 | 20 | 0 | 20 |
| | Technologist | 0 | 32 | 0 | 32 |
| | Management Level | 0 | 33 | 39 | 72 |
| | CxO | 0 | 0 | 10 | 10 |
| Total | | 32 | 87 | 49 | 168 |

Table 4.76 demonstrates how occupational jobs affect beliefs on quantum computing benefiting AI. Most consultants (32) are indifferent or undecided, with only 2 agreeing and none strongly agreeing. As many as 20 architects agree, with no neutrality or strong backing. Technologists support, with 32 agreeing but none strongly. 33 managers agree

and 39 strongly agree. All 10 CxOs heavily agree. Management and CxOs are more optimistic about quantum computing's AI benefits, whereas consultants are agnostic.

***Distribution of Respondents on Different Variables Based on their Experience***

*Table 4.77: Overall Experience * VAR_17_Accelerated digital transformation. Crosstabulation*

| | | **VAR_17_Accelerated digital transformation**. | | | | Total |
|---|---|---|---|---|---|---|
| | | Strongly Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Overall Experience | 3 to 20 years | 5 | 2 | 27 | 0 | 34 |
| | 20 to 30 years | 0 | 0 | 52 | 44 | 96 |
| | 30 years and above | 0 | 0 | 0 | 38 | 38 |
| Total | | 5 | 2 | 79 | 82 | 168 |

Figure 4.77 compares the overall experience to opinions on faster digital transformation. Most (27) of those with 3–20 years of experience agree, 5 have strong disagreements, 2 are indifferent, and none strongly concur. For those with 20–30 years of experience, 52% agree, 44 strongly concur, and there are no neutral or negative comments. All 38 30-year veterans completely concur. The research shows that experience increases support for faster digital transformation, with the most experienced exhibiting the biggest endorsement.

*Table 4.78: Overall Experience * VAR_18_Adoption of AR and VR. Crosstabulation*

| | | **VAR_18_Adoption of AR and VR**. | | | | Total |
|---|---|---|---|---|---|---|
| | | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Overall Experience | 3 to 20 years | 10 | 24 | 0 | 0 | 34 |
| | 20 to 30 years | 0 | 20 | 72 | 4 | 96 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | 30 years and above | 0 | 0 | 0 | 38 | 38 |
| Total | | 10 | 44 | 72 | 42 | 168 |

Table 4.78 examines how overall experience affects AR and VR adoption. Of those with 3 to 20 years of experience, 24 are doubtful, 10 disagree, and none firmly agree. 72 agree, 4 firmly agree, and 20 are indifferent to those with 20–30 years of expertise. Over-30-year veterans overwhelmingly favour it, with 38 participating. In general, AR and VR acceptance improves with experience, with the most experienced group supporting it the most.

*Table 4.79: Overall Experience * VAR_19_Quantum computing for business operations. Crosstabulation*

| | | **VAR_19_Quantum computing for business operations**. | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Neutral/ don't know | Agree | Strongly Agree | |
| Overall Experience | 3 to 20 years | 5 | 2 | 27 | 0 | 0 | 34 |
| | 20 to 30 years | 0 | 0 | 13 | 67 | 16 | 96 |
| | 30 years and above | 0 | 0 | 0 | 0 | 38 | 38 |
| Total | | 5 | 2 | 40 | 67 | 54 | 168 |

Figure 4.79 shows how experience affects commercial quantum computing opinions. Most (27) people with 3 to 20 years of experience are impartial or undecided, 5 strongly disagree, 2 disagree, and none agree or strongly agree. Moderate support is shown by 13 indifferent,

67 accepting, and 16 strongly in agreement with 20–30-year veterans. All 38 30-year veterans strongly agree.

*Table 4.80: Overall Experience * VAR_20_Quantum optimization in businesses. Crosstabulation*

| | | **VAR_20_Quantum optimization in businesses**. | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Neutral/ don't know | Agree | Strongly Agree | |
| Overall Experience | 3 to 20 years | 2 | 2 | 30 | 0 | 0 | 34 |
| | 20 to 30 years | 0 | 0 | 5 | 84 | 7 | 96 |
| | 30 years and above | 0 | 0 | 0 | 0 | 38 | 38 |
| Total | | 2 | 2 | 35 | 84 | 45 | 168 |

Table 4.80 compares business experience with quantum optimisation opinions. Most (30) people with 3 to 20 years of experience are neutral or undecided, 2 firmly oppose, 2 oppose, and none agree or fully concur. Many 20- to 30-year veterans' favour, with 5 indifferent, 84 agreeing, and 7 highly supporting. All 38 30-year veterans completely concur.

*Table 4.81: Overall Experience * VAR_21_Streamlining operations using quantum computing. Crosstabulation*

| | | **VAR_21_Streamlining operations using quantum computing**. | | | | Total |
|---|---|---|---|---|---|---|
| | | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Overall Experience | 3 to 20 years | 7 | 27 | 0 | 0 | 34 |
| | 20 to 30 years | 0 | 17 | 70 | 9 | 96 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | 30 years and above | 0 | 0 | 0 | 38 | 38 |
| Total | | 7 | 44 | 70 | 47 | 168 |

Table 4.81 shows how experience affects thoughts on deploying quantum computing to simplify processes. Most (27) of individuals with 3–20 years of experience are doubtful, 7 disagree, and none firmly agree. 70 of 20–30-year-olds agree, 9 strongly agree, and 17 are neutral. Of those with 30+ years of expertise, 38 strongly agree. In general, experience enhances support for quantum computing operations simplification, with the most experienced group agreeing strongly.

*Table 4.82: Overall Experience * VAR_22_Enhanced security via quantum cryptography. Crosstabulation*

| | | **VAR_22_Enhanced security via quantum cryptography**. | | | Total |
|---|---|---|---|---|---|
| | | Neutral/don't know | Agree | Strongly Agree | |
| Overall Experience | 3 to 20 years | 34 | 0 | 0 | 34 |
| | 20 to 30 years | 18 | 74 | 4 | 96 |
| | 30 years and above | 0 | 0 | 38 | 38 |
| Total | | 52 | 74 | 42 | 168 |

Table 4.82 investigates the relationship between overall experience and perspectives on better security using quantum cryptography. All 34 respondents with 3 to 20 years of experience are doubtful or indifferent, with none agreeing or strongly agreeing. Individuals with 20 to 30 years of experience had considerable support, with 74 agreeing, 4 firmly agreeing, and 18 remaining indifferent. Those with 30 or more years of experience are unanimously in favour, with 38 substantially approving.

*Table 4.83: Overall Experience * VAR_23_Quantum computing improving AI capabilities. Crosstabulation*

| | | **VAR_23_Quantum computing improving AI capabilities**. | | | Total |
|---|---|---|---|---|---|
| | | Neutral/don't know | Agree | Strongly Agree | |
| Overall Experience | 3 to 20 years | 32 | 2 | 0 | 34 |
| | 20 to 30 years | 0 | 85 | 11 | 96 |
| | 30 years and above | 0 | 0 | 38 | 38 |
| Total | | 32 | 87 | 49 | 168 |

The above Table 4.83 investigates the association between overall experience and thoughts on quantum computing's potential to improve AI capabilities. The majority (32) of those with 3 to 20 years of experience are indifferent or undecided, with just two agreeing and none strongly agreeing. Those with 20 to 30 years of experience had considerable support, with 85 agreeing and 11 strongly agreeing. Individuals with 30 years or more of experience are unanimously positive, with all 38 strongly agreeing.

***Correlations Between Different Variables***

*Table 4.84: Correlations*

| | **VAR_17_Accelerated digital trans** | **VAR_18_Adoption of AR and VR.** | **VAR_19_Quantum computing for busin** | **VAR_20_Quantum optimization in** | **VAR_21_Streamlining operations using** | **VAR_22_Enhanced security via quant** | **VAR_23_Quantum computing improving** |
|---|---|---|---|---|---|---|---|

| | | | **formation.** | | **ess operationsions.** | **businesses.** | **quantum computing.** | **um cryptography.** | **AI capabilities.** |
|---|---|---|---|---|---|---|---|---|---|
| Spearman's rho | **VAR_17_ Accelerated digital transformation.** | Correlation Coefficient | 1.000 | .779** | .803** | .735** | .787** | .758** | .732** |
| | | Sig. (2-tailed) | . | .000 | .000 | .000 | .000 | .000 | .000 |
| | | N | 168 | 168 | 168 | 168 | 168 | 168 | 168 |
| | **VAR_18_ Adoption of AR and VR.** | Correlation Coefficient | .779** | 1.000 | .919** | .919** | .961** | .982** | .879** |
| | | Sig. (2-tailed) | .000 | . | .000 | .000 | .000 | .000 | .000 |
| | | N | 168 | 168 | 168 | 168 | 168 | 168 | 168 |
| | **VAR_19_ Quantum computing for business operations** | Correlation Coefficient | .803** | .919** | 1.000 | .915** | .951** | .918** | .908** |
| | | Sig. (2-tailed) | .000 | .000 | . | .000 | .000 | .000 | .000 |
| | | N | 168 | 168 | 168 | 168 | 168 | 168 | 168 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **VAR_20_ Quantum optimization in businesses**. | Correlation Coefficient | .735** | .919** | .915** | 1.000 | .934** | .917** | .939** |
| | | Sig. (2-tailed) | .000 | .000 | .000 | . | .000 | .000 | .000 |
| | | N | 168 | 168 | 168 | 168 | 168 | 168 | 168 |
| | **VAR_21_Streamlining operations using quantum computing**. | Correlation Coefficient | .787** | .961** | .951** | .934** | 1.000 | .966** | .911** |
| | | Sig. (2-tailed) | .000 | .000 | .000 | .000 | . | .000 | .000 |
| | | N | 168 | 168 | 168 | 168 | 168 | 168 | 168 |
| | **VAR_22_ Enhanced security via quantum cryptography**. | Correlation Coefficient | .758** | .982** | .918** | .917** | .966** | 1.000 | .873** |
| | | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | . | .000 |
| | | N | 168 | 168 | 168 | 168 | 168 | 168 | 168 |
| | **VAR_23_ Quantum** | Correlation | .732** | .879** | .908** | .939** | .911** | .873** | 1.000 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **computing improving AI capabilities.** | Coefficient | | | | | | | |
| | | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | .000 | . |
| | | N | 168 | 168 | 168 | 168 | 168 | 168 | 168 |
| **. Correlation is significant at the 0.01 level (2-tailed). | | | | | | | | | |

Table 4.84 reveals significant positive correlations ($p < 0.01$) among variables, with the strongest correlations between AR/VR adoption and factors like quantum optimisation, streamlining operations, and enhanced security (0.919, 0.961, and 0.982). Quantum computing improves AI skills with significant correlations of 0.732 to 0.939. These findings confirm Hypothesis 3 (H3) that technology advances enable productivity and knowledge reuse process, methodology, and tool optimisation. The alternative hypothesis is supported, and the null hypothesis is rejected.

**Hypothesis 4 (H4): Employee Development, Leadership, and Diversity for Delivery Excellence and Innovation**

***Distribution of Respondents on Different Variables Based on their Age Group***

*Table 4.85: Age Group * VAR_10_Diversity and inclusion in work. Crosstabulation*

| | | **VAR_10_Diversity and inclusion in work.** | | | | Total |
|---|---|---|---|---|---|---|
| | | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Age Group | 25 to 30 Years | 5 | 3 | 9 | 0 | 17 |
| | 31-40 Years | 0 | 0 | 33 | 0 | 33 |
| | 41-50 Years | 0 | 0 | 22 | 45 | 67 |
| | 51 Years and Above | 0 | 0 | 0 | 51 | 51 |

| | | | | | |
|---|---|---|---|---|---|
| Total | 5 | 3 | 64 | 96 | 168 |

Table 4.85 compares age groups' perspectives on workplace diversity and inclusion. Five 25-to-30-year-olds oppose, three are neutral, and nine agree; none strongly agree. In the 31-40 age range, 33 agree; none dissent or are neutral. In the 41-50 age range, 22 approve and 45 fully support diversity and inclusion. Among 51 people above 51, all strongly agree.

*Table 4.86: Age Group * VAR_13_Social and environmental work impact Crosstabulation*

| | | **VAR_13_Social and environmental work impact** | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Age Group | 25 to 30 Years | 10 | 2 | 5 | 0 | 0 | 17 |
| | 31-40 Years | 0 | 0 | 0 | 33 | 0 | 33 |
| | 41-50 Years | 0 | 0 | 0 | 54 | 13 | 67 |
| | 51 Years and Above | 0 | 0 | 0 | 0 | 51 | 51 |
| Total | | 10 | 2 | 5 | 87 | 64 | 168 |

Table 4.86 compares age groups' perceptions of work's social and environmental consequences. In the 25–30 age group, 10 strongly disagree, 2 disagree, 5 are neutral, and no one agrees or strongly agrees. In the 31-40 age range, 33 agree, none dissent or are neutral. In the 41-50 age range, 54 agree and 13 strongly agree, with no one objecting or indifferent. All 51 people, 51 and older, strongly agree. For the most part, older age groups, notably those over 41, strongly support the social and environmental effects of their employment, whereas younger age groups are less positive.

*Table 4.87: Age Group * VAR_14_Importance of lifelong learning. Crosstabulation*

| | **VAR_14_Importance of lifelong learning**. | Total |
|---|---|---|

| | | Strongly Disagree | Disagree | Neutral/don't know | Agree | Strongly Agree | |
|---|---|---|---|---|---|---|---|
| Age Group | 25 to 30 Years | 2 | 2 | 2 | 11 | 0 | 17 |
| | 31-40 Years | 0 | 0 | 0 | 33 | 0 | 33 |
| | 41-50 Years | 0 | 0 | 0 | 14 | 53 | 67 |
| | 51 Years and Above | 0 | 0 | 0 | 0 | 51 | 51 |
| Total | | 2 | 2 | 2 | 58 | 104 | 168 |

Table 4.87 shows how age affects lifetime learning. In the 25–30 age group, 2 severely disapprove, 2 oppose, 2 are neutral position and 11 concur, with no highly supporting. In the 31-40 age range, 33 agree, none dissent or are unsure. The 41-50 age group prefers lifelong learning, with 14 agreeing and 53 highly approving. All 51 over-50s are unanimously in agreement. Age groups over 41 highly favour lifelong learning, whereas younger age groups are more mixed or moderate.

*Table 4.88: Age Group * VAR_15_Digitalization and skill transformation. Crosstabulation*

| | | | | | | |
|---|---|---|---|---|---|---|
| Count | | | | | | |
| | | **VAR_15_Digitalization and skill transformation**. | | | | Total |
| | | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Age Group | 25 to 30 Years | 2 | 2 | 13 | 0 | 17 |
| | 31-40 Years | 0 | 0 | 33 | 0 | 33 |
| | 41-50 Years | 0 | 0 | 31 | 36 | 67 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | 51 Years and Above | 0 | 0 | 0 | 51 | 51 |
| Total | | 2 | 2 | 77 | 87 | 168 |

Table 4.88 compares age groups' perspectives on digitalisation and skill transformation. Two 25–30-year-olds disagree, two are neutral positions, and 13 concur, with no significant agreement. In the 31-40 age range, 33 agree, none dissent or are neutral. The 41-50 age range includes 31 agreeing and 36 definitely approving. All 51 people, 51 and older, strongly agree. Overall, older age groups, notably those 41 and older, strongly endorse the influence of digitalisation on skill transformation, whereas younger age groups are neutral or partly in agreement.

***Distribution of Respondents on Different Variables Based on their Education***

*Table 4.89: Educational Background * VAR_10_Diversity and inclusion in work. Crosstabulation*

| | | **VAR_10_Diversity and inclusion in work**. | | | | Total |
|---|---|---|---|---|---|---|
| | | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Educational Background | Undergraduate | 5 | 3 | 34 | 0 | 42 |
| | Postgraduate | 0 | 0 | 30 | 85 | 115 |
| | Doctorate | 0 | 0 | 0 | 11 | 11 |
| Total | | 5 | 3 | 64 | 96 | 168 |

Table 4.89 shows how schooling affects workplace diversity and inclusion viewpoints. Five undergraduates disagree, three are neutral, and 34 agree, none completely concurring. Postgraduates agree 30 and completely concur 85, with no objections or indifferent comments. All 11 doctorate students powerfully approve. The pattern implies that postgraduates and doctorates are more likely to strongly support workplace diversity and inclusion, whereas undergraduates are more split, with a large majority supporting it.

*Table 4.90: Educational Background * VAR_13_Social and environmental work impact Crosstabulation*

| | | **VAR_13_Social and environmental work impact** | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Educational Background | Undergraduate | 10 | 2 | 5 | 25 | 0 | 42 |
| | Postgraduate | 0 | 0 | 0 | 62 | 53 | 115 |
| | Doctorate | 0 | 0 | 0 | 0 | 11 | 11 |
| Total | | 10 | 2 | 5 | 87 | 64 | 168 |

Figure 4.90 shows how education affects work's social and environmental consequences. No one completely concurs among undergraduates, yet 10 strongly disapprove, 2 disagree, 5 are indifferent, and 25 agree. No postgraduates disagree or are impartial; 62 concur and 53 firmly concur. All 11 a PhD responder strongly agree. This shows that postgraduates and doctorates agree more on the social and environmental effects of employment than undergraduates, who are more divided and indifferent.

*Table 4.91: Educational Background * VAR_14_Importance of lifelong learning. Crosstabulation*

| | | **VAR_14_Importance of lifelong learning**. | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Neutral/ don't know | Agree | Strongly Agree | |
| Educational Background | Undergraduate | 2 | 2 | 2 | 36 | 0 | 42 |
| | Postgraduate | 0 | 0 | 0 | 22 | 93 | 115 |
| | Doctorate | 0 | 0 | 0 | 0 | 11 | 11 |
| Total | | 2 | 2 | 2 | 58 | 104 | 168 |

Figure 4.91 compares educational background to lifetime learning relevance. Two wholly disagree, two oppose, and two moderate students, while 36 agree and none entirely concur. 22 postgraduates agree and 93 fully concur. None completely disapprove or disapprove. 11 doctors strongly supported the statement. The majority of postgraduate and doctorate responders strongly think that continuing learning is important.

*Table 4.92: Educational Background * VAR_15_Digitalization and skill transformation. Crosstabulation*

| | | **VAR_15_Digitalization and skill transformation.** | | | | Total |
|---|---|---|---|---|---|---|
| | | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Educational Background | Undergraduate | 2 | 2 | 38 | 0 | 42 |
| | Postgraduate | 0 | 0 | 39 | 76 | 115 |
| | Doctorate | 0 | 0 | 0 | 11 | 11 |
| Total | | 2 | 2 | 77 | 87 | 168 |

Education levels affect opinions about digitalisation and skill transformation, as seen in Table 4.92. No undergraduate strongly agrees, yet 2 disagree, 2 are indifferent, and 38 agree. Postgraduate respondents agree more, with 39 strongly agreeing and 76 indifferent. All 11 master's degrees agree unanimously.

***Distribution of Respondents on Different Variables Based on their Job Role***

*Table 4.93: Role * VAR_10_Diversity and inclusion in work. Crosstabulation*

| | | **VAR_10_Diversity and inclusion in work.** | | | | Total |
|---|---|---|---|---|---|---|
| | | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Role | Consultants | 5 | 3 | 26 | 0 | 34 |
| | Architect | 0 | 0 | 20 | 0 | 20 |
| | Technologist | 0 | 0 | 18 | 14 | 32 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Management Level | 0 | 0 | 0 | 72 | 72 |
| | CxO | 0 | 0 | 0 | 10 | 10 |
| Total | | 5 | 3 | 64 | 96 | 168 |

Table 4.93 shows role-specific diversity and inclusion views. Five consultants disapprove, three are impartial, 26 agree, and none substantially concur. All 20 architects favour diversity and inclusion, while none oppose or stay indifferent. 18 technologists agree, 14 fully concur, and none dissent or are impartial. The majority of management-level professionals (72 of 72) and all 10 CxOs are in agreement.

*Table 4.94: Role * VAR_13_Social and environmental work impact Crosstabulation*

| | | **VAR_13_Social and environmental work impact** | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Role | Consultants | 10 | 2 | 5 | 17 | 0 | 34 |
| | Architect | 0 | 0 | 0 | 20 | 0 | 20 |
| | Technologist | 0 | 0 | 0 | 32 | 0 | 32 |
| | Management Level | 0 | 0 | 0 | 18 | 54 | 72 |
| | CxO | 0 | 0 | 0 | 0 | 10 | 10 |
| Total | | 10 | 2 | 5 | 87 | 64 | 168 |

Table 4.94 illustrates differing viewpoints on social and environmental job effects across roles. Ten consultants completely disagree, two disapprove, five are indifferent, and 17 believe, although none strongly agree. All 20 architects and 32 technologists endorse, with

no major disagreements or neutrals. At the management level, 54 of 72 respondents strongly agree, and 18 agree. Finally, all 10 CxOs strongly concur, showing that management and CxOs are more likely to recognise social and environmental work's significance.

*Table 4.95: Role * VAR_14_Importance of lifelong learning. Crosstabulation*

| | | **VAR_14_Importance of lifelong learning**. | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Role | Consultants | 2 | 2 | 2 | 28 | 0 | 34 |
| | Architect | 0 | 0 | 0 | 20 | 0 | 20 |
| | Technologist | 0 | 0 | 0 | 10 | 22 | 32 |
| | Management Level | 0 | 0 | 0 | 0 | 72 | 72 |
| | CxO | 0 | 0 | 0 | 0 | 10 | 10 |
| Total | | 2 | 2 | 2 | 58 | 104 | 168 |

Table 4.95 shows different views on lifetime learning across jobs. 28 consultants agree, and 2 have reservations about the benefits of lifelong learning, but none fully concur. The 20 architects agree but do not fully concur or oppose. Technologists are optimistic, with 22 highly agreeing, 10 agreeing, and no neutral. All 72 management-level workers strongly agree, indicating a significant focus on lifelong learning at upper organisational levels.

*Table 4.96: Role * VAR_15_Digitalization and skill transformation. Crosstabulation*

| | | **VAR_15_Digitalization and skill transformation**. | | | | Total |
|---|---|---|---|---|---|---|
| | | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Role | Consultants | 2 | 2 | 30 | 0 | 34 |
| | Architect | 0 | 0 | 20 | 0 | 20 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Technologist | 0 | 0 | 27 | 5 | 32 |
| | Management Level | 0 | 0 | 0 | 72 | 72 |
| | CxO | 0 | 0 | 0 | 10 | 10 |
| Total | | 2 | 2 | 77 | 87 | 168 |

The preceding Table 4.96 indicates varied consensus on digitalisation and skill transformation across jobs. Thirty consultants support digitalisation and skill change, two are undecided, and two disagree. The 20 architects agree without vehemently agreeing or objecting. Technicians support the issue more than consultants, with 27 agreeing and 5 strongly agreeing. Digitalisation is highly supported by 72 management-level personnel, showing a high degree of commitment to skill change. Ten CxOs fully endorse the idea.

***Distribution of Respondents on Different Variables Based on their Experience***

*Table 4.97: Overall Experience * VAR_10_Diversity and inclusion in work. Crosstabulation*

| | | **VAR_10_Diversity and inclusion in work.** | | | | Total |
|---|---|---|---|---|---|---|
| | | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Overall Experience | 3 to 20 years | 5 | 3 | 26 | 0 | 34 |
| | 20 to 30 years | 0 | 0 | 38 | 58 | 96 |
| | 30 years and above | 0 | 0 | 0 | 38 | 38 |
| Total | | 5 | 3 | 64 | 96 | 168 |

According to overall experience, Table 4.97 shows varied degrees of agreement on workplace diversity and inclusion. 26 people with 3 to 20 years of experience value diversity and inclusion, 5 oppose it, and 3 are indifferent. The 20–30 years' experience group has 38 agreeing and 58 strongly disagreeing. Diversity and inclusion are highly

supported by all 38 responders with 30 years or more of experience. With experience, particularly those with 20 or more years, diversity and inclusion are more supported.

*Table 4.98: Overall Experience * VAR_13_Social and environmental work impact Crosstabulation*

| | | **VAR_13_Social and environmental work impact** | | | | | Total |
|---|---|---|---|---|---|---|---|
| | | Strongly Disagree | Disagree | Neutral/ don't know | Agree | Strongly Agree | |
| Overall Experience | 3 to 20 years | 10 | 2 | 5 | 17 | 0 | 34 |
| | 20 to 30 years | 0 | 0 | 0 | 70 | 26 | 96 |
| | 30 years and above | 0 | 0 | 0 | 0 | 38 | 38 |
| Total | | 10 | 2 | 5 | 87 | 64 | 168 |

Table 4.98 shows different viewpoints on work's social and environmental effects depending on overall experience. 17 people with 3 to 20 years of experience think that social and environmental job effects are important, 10 strongly disapprove, 2 disagree, and 5 indifferent. Most 20- to 30-year veterans (70) agree, and 26 fully concur. However, all 38 respondents with 30 or more years of experience are in agreement, demonstrating a high conviction in social and environmental work effects.

*Table 4.99: Overall Experience * VAR_14_Importance of lifelong learning. Crosstabulation*

| | **VAR_14_Importance of lifelong learning**. | | | | | Total |
|---|---|---|---|---|---|---|
| | Strongly Disagree | Disagree | Neutral/ don't know | Agree | Strongly Agree | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Overall Experience | 3 to 20 years | 2 | 2 | 2 | 28 | 0 | 34 |
| | 20 to 30 years | 0 | 0 | 0 | 30 | 66 | 96 |
| | 30 years and above | 0 | 0 | 0 | 0 | 38 | 38 |
| Total | | 2 | 2 | 2 | 58 | 104 | 168 |

Table 4.99 shows substantial patterns of lifelong learning relevance across experience levels. 28 persons with 3 to 20 years of experience believe that lifelong learning is important, 2 completely disagree, 2 disapprove, and 2 are indifferent. 30 of those with 20–30 years of expertise agree and 66 strongly agree, supporting lifelong learning. All 38 responders over 30 unanimously concur, emphasising the necessity of lifelong learning in their careers.

*Table 4.100: Overall Experience * VAR_15_Digitalization and skill transformation. Crosstabulation*

| | | **VAR_15_Digitalization and skill transformation**. | | | | Total |
|---|---|---|---|---|---|---|
| | | Disagree | Neutral/don't know | Agree | Strongly Agree | |
| Overall Experience | 3 to 20 years | 2 | 2 | 30 | 0 | 34 |
| | 20 to 30 years | 0 | 0 | 47 | 49 | 96 |
| | 30 years and above | 0 | 0 | 0 | 38 | 38 |
| Total | | 2 | 2 | 77 | 87 | 168 |

Table 4.100 demonstrates various viewpoints on digitalisation and skill transformation across experience groups. Digitalisation and skill transformation are vital to 30 persons

with 3 to 20 years of experience, 2 disagree, and 2 are indifferent. 47 people with 20–30 years of experience agree, and 49 strongly agree, supporting digitalisation and skill change. All 38 respondents aged 30 and over firmly think that digitalisation and skill transformation are crucial to their professional progress.

***Correlations Between Different Variables***

*Table 4.101: Correlations*

| | | | **VAR_10_Diversity and inclusion in work.** | **VAR_13_Social and environmental work impact** | **VAR_14_Importance of lifelong learning.** | **VAR_15_Digitalization and skill transformation.** |
|---|---|---|---|---|---|---|
| Spearman's rho | **VAR_10_Diversity and inclusion in work.** | Correlation Coefficient | 1.000 | .741** | .913** | .897** |
| | | Sig. (2-tailed) | . | .000 | .000 | .000 |
| | | N | 168 | 168 | 168 | 168 |
| | **VAR_13_Social and environmental work impact** | Correlation Coefficient | .741** | 1.000 | .692** | .778** |
| | | Sig. (2-tailed) | .000 | . | .000 | .000 |
| | | N | 168 | 168 | 168 | 168 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | **VAR_14_Importance of lifelong learning**. | Correlation Coefficient | .913** | .692** | 1.000 | .823** |
| | | Sig. (2-tailed) | .000 | .000 | . | .000 |
| | | N | 168 | 168 | 168 | 168 |
| | **VAR_15_Digitalization and skill transformation**. | Correlation Coefficient | .897** | .778** | .823** | 1.000 |
| | | Sig. (2-tailed) | .000 | .000 | .000 | . |
| | | N | 168 | 168 | 168 | 168 |
| **. Correlation is significant at the 0.01 level (2-tailed). | | | | | | |

Table 4.101 demonstrates substantial positive correlations between variables using Spearman's rho. Diversity and inclusion in work correspond with social and environmental work impact (0.741), lifelong learning importance (0.913), and digitalisation and skill transformation (0.897). The importance of lifelong learning (0.692) and digitalisation and skill transformation (0.778) are linked with social and environmental job effects. Lifelong learning is linked to digitalisation and skill transformation (0.823). Each link is significant at the 0.01 level, confirming the alternative hypothesis (H4) that staff development, leadership, and diversity improve delivery and creativity.

**Summary of Findings**

The results present socio-demographic shifts that are underway and evolve the nature of work, technology adoption, and pandemic lessons. Cohesion and stability coupled with maturity and high levels of education assumed by the workforce is one of the critical factors that influence the ability of an organisation to provide for adaptability, strategic foresight, and decision making. Almost all the important positions are supported by people with many years of work experience, which is why the focus is on strategic management of changes in organizations.

There is agreement as to the admissibility of the new mixed and home-based work schedules, as well as the majority of respondents' affirmation of the stability and positive effects of this type of workflow. However, equality in both contexts is still an important issue because the perception of unfair treatment within hybrid environments can weaken trust and, therefore, engagement. It has also been established that whenever people work from home as part of a team, they should not be subjected to discrimination in promotion or any form of reward or recognition.

Speed and digitization have been established as key factors in organizational performance. Specifically, flexibility-oriented approaches, which implement an element of agility, help to maintain the stability of an organisation in a volatile environment. The usage of modern technologies, including artificial intelligence, quantum computing, and augmented and virtual reality, reveals a high readiness to improve processes, facilitate cooperation, and support innovations. Nevertheless, the knowledge deficit of leaders and employees indicates that there is not enough awareness regarding the topic and that the area of quantum technologies remains rather obscure.

The revelations also uphold the themes of diversity, inclusion and sustainability as measures of engagement, innovation, and efficient delivery. Companies operating with these values increase innovation and organisational commitment while achieving organisational goals compatible with social objectives. Of similar importance is the lifelong training and skill derivation to make employees relevant in a constantly evolving technological environment.

The mathematical relationships between hybrid work patterns, remote delivery models, fairness, and agility demonstrate their interdependence regarding organisational success. This has led to significant improvements in scalability, security and business

continuity solutions to analyses cloud adoption and distributed management solutions to foster team collaboration across global platforms.

Thus, the results indicate that this is a workplace changing: technology implementation, employees with disabilities, and the use of strategic planning approaches. For example, examples where there are functioning PT structures in place are rare, as many organizations have not been able to move beyond the discussion and planning phase despite notable advancements in the field, including expounding on the need for equity in hybrid learning environments while pointedly overlooking its execution.

**Conclusion**

This chapter concludes that shifting cultural objectives, technology improvements, and demographic shifts are all having a significant impact on the workplace. While remote and hybrid work models increase productivity and employee happiness, a mature and highly trained workforce serves as the basis for flexibility and strategic decision-making. Nonetheless, it is emphasised that fairness in these work arrangements is essential to preserving employee equality and confidence.

Digital transformation and agility are seen as key components of resilience, and new technologies like artificial intelligence (AI), quantum computing, augmented reality (AR), and virtual reality (VR) provide enormous opportunities for process optimisation and innovation. However, to optimise their advantages, knowledge gaps—especially with respect to quantum technologies—highlight the need for focused instruction and leadership development.

The report also emphasises how sustainability, diversity, and inclusion promote innovation and organisational development. By incorporating these principles into their fundamental operations, organisations may better engage their workforce and meet social expectations.

All things considered, the results emphasise how critical it is to create inclusive, flexible, and technologically sophisticated cultures. By tackling issues like as knowledge gaps and equality in hybrid contexts, organisations may better negotiate the intricacies of the changing workplace and set themselves up for long-term success.

# CHAPTER V:

# DISCUSSION

## Discussion of Results

The findings shed light on the important changes registered in the workplace, taking into account demographics, technological progress, and the impact of the COVID-19 crisis. The age distribution is biased towards the mature workers; 70% of the employees are above 41 years of age, implying high experience levels in decision-making and the ability to adapt to change. Specialized human capital, Postgraduate education for 68.5% of the workers, is well poised to manage change by virtue of the complexity. Positions primarily found within management (42.9%) suggest an intentionally deployed role in planning organisational responses to issues. The shift towards hybrid and remote work, forced by the pandemic, was generally approved, with 95.8% of the respondents agreeing or strongly agreeing that they can be people-centric for the long term. The highly endorsed concern by 92.8 percent of the respondents for agility underlines appreciation of the importance of having miscellaneous and dynamic teams to support team success. Some other fields promise to be strong such as quantum computing and artificial intelligence. More than 70% concurred with the statement regarding their capability to revolutionise the delivery of ERP, supply

chain enhancement, and even machine learning. However, extensive neutrality, such as 31% for quantum cryptographic techniques, means that there is a lack of knowledge being taught, as stated by Deloitte (2022), help develop quantum literacy expertise. When quantum computers become widely available, attackers may use them to break current. At 95.2%, diversity, inclusion, and sustainability received equal support.

The correlations suggest a significant communion between sustainable hybrid working paradigms, decentralised work, remote ERP service provision, and equitability of work in decentralised contexts. The strong positive relationships imply that all these variables jointly define the efficiency and fairness of remote and off-shore delivery modes. There is a positive relationship between sustainable hybrid work models and remote work and remote ERP delivery that identifies flexibility and the digital environment as aspects of adaptation and increased performance. This is supported by Aprilina and Martdianty (2023) studies suggesting that effectively executed hybrid work models provide improvements in productivity and employee engagement together with a decrease in operational expenses. Accordingly, contentment and perceived productivity strongly influence workers' hybrid work intentions. This suggests that working from home boosts productivity and contentment, hence employees prefer it. Similarly, Mustajab (2024) showed how remote work reduces workplace distractions and increases flexibility, increasing productivity and job satisfaction. Fairness in hybrid workplaces is also linked to the other elements. It is thus important for the perceived fairness to address biases of on-site employees to prevent on-site bias, preferring in-site employees in career advancement opportunities. This view is affirmed by Krajčík, Schmidt and Baráth (2023) Fairness views affect employee engagement and trust, which are essential for hybrid work's sustainability. Employee preferences favour a mixed work paradigm. Understanding employees' time and place needs is crucial since only workplaces that are suited to employees and have

organisational resilience can survive and compete. Since global talent pools, cost efficiencies, and scalability matter, this paradigm promotes remote ERP delivery. Strong structure and a well-defined methodology improve client satisfaction through remote ERP delivery. These data support the idea that remote and offshore delivery may improve customer happiness and cost. Creating hybrid working circumstances in businesses requires addressing equity, technological investment, and culture.

The findings explored the correlation between agility and its impact on business resilience beyond COVID-19, remote delivery of ERP services, the importance of maintaining human interactions in work and fast-tracking digitalisation. These correlations provide evidence for the presented hypothesis that states that harmonised methodologies lead to improved delivery quality and decreased risk through flexibility and using technologies. The findings of this research mark agility and resilience as the core post-pandemic challenges, which have a strong link to digital transformation and human factors. According to authors from Prisca, Lucky, Bamidele and Kudirat, Bukola (2024), organisations that implement agile processes have more opportunity for successful adaptation when dealing with threats and maintaining the effectiveness of their operations. By encouraging continuous improvement and quick market reaction, agile approaches boost product innovation and consumer pleasure. In addition to these benefits, the evaluation notes the difficulty of adopting agile frameworks and the scalability of agile techniques in big organisations. Aligning project management and implementation allows organisations to respond to changes in the environment and, at the same time, preserve the integrity of the work being delivered. The link between remote ERP service delivery and vendors' ability to spur clients to digitize further more vividly illuminates technology's role in establishing ERP systems standardization globally. This is in sync with Piccoli, Grover and Rodriguez (2024) where there is a call to integraitve tools and frameworks to

enable remote provision of services. Digital transformation makes it possible to integrate rigorous processes that lower variance and improve processes within organisations. Sustaining the human element remains critical, as supported by a strong positive link with agility, ERP implementation, and change.

Correlations are illustrated to draw attention to the interconnection between digitalisation, advanced technologies such as AR, VR, and QC, as well as process enhancement, efficiency, and knowledge sharing. Such strong positive coefficients indicate that these factors positively reinforce one another in affecting operations efficiency and innovation. The necessity and positive correlation between the speed of digital transformation and the presence of the AR, VR, and quantum computing capabilities suggest the increased weight of new technologies in managing the company's business. According to Pelser and Gaffley (2020) Digital transformation is the cornerstone enabler, bringing together tools and approaches to create scaling, Agile and collaborative structures across multiple teams. Implementation of AR and VR supports strong correlation with quantum computing features including process integration capability, security, and Artificial Intelligence. Cloud technology enables digital transformation because humans cannot handle the magnitude and pace of data needed to run a digital firm. By developing prediction and simulation models and scaling to give decision-making data, AI and machine learning help transcend human limitations. This bears witness to insights provided by Joy Onma Enyejo *et al.* (2024) whereby AR and VR ranked top of the list of innovative approaches to delivering first-class immersive, interactive solutions especially in areas such as workforce training, collaboration platforms, and customer centricity. This coordination is achieved with the goal of integrating these technologies with each other, which minimizes inefficiencies and promotes knowledge management. Based on the correlations between quantum computing and business operations, optimization, and

protection, this technology demonstrates high intercorrelations, which can be considered proof of its viewpoints on becoming a revolutionary tool. With quantum optimization solutions, companies will be able to optimize the allocation of resources in areas such as supply chain management and dramatically improve data analysis. The increase in the usage of quantum computing in the development of AI capabilities showcases its perspective. Quantum AI improves predictive accuracy and automation by facilitating the quick processing of data and the building of models.

The correlations depict the realization that diversity and inclusion, social and environmental, being lifelong learners, and institution skills transformation by digitization fuels delivery excellence and innovation. These interdependencies support the argument that the development of the employees and the provision of leadership when aligned with diversity initiatives, produces better organizational results. Lifelong and skills development present strong, consistent relations with Diversity, and inclusion, highlighting that their contributions facilitate innovation. Diverse teams always perform better than non-diverse teams by virtue of using different viewpoints to arrive at solutions for most of their problems. This clearly implies that, as a strategy for enhancing creativity and innovation, it is about time that everyone working in organizations becomes more inclusive. The strong relationship between social and environmental issues and other factors requires more attention on corporate social responsibility. According to (Assoratgoon and Kantabutra, 2023; Harsanto *et al.*, 2023) talent expects more from organizations of today and is willing to give more to organizations that embrace the right policies of the ethics and sustainability of the business. This fit with overarching social objectives translates to delivery excellence due to motivation among employees. Lifelong Education and digitization are correlated as lifelong learners have to learn anew as changes in the digitization environment persist. According to Radicic and Petković (2023) employees; skills become obsolete at a faster

rate due to increased digitalization in most businesses, and employees, therefore, need to be trained regularly. Such measures do not only facilitate efficiency at the individual level but also foster organizational creativity. Small innovation impacts rely on digitalisation and innovation. The research also examines how internal R&D moderates. The data show that internal R&D weakens digitalization's innovative impact.

**Discussion of Research Question One**

***RQ1: What are the factors that can systematically change the delivery mix to increase the share of remote/off-shore end-to-end delivery?***

The study results indicate some key issues which can systematically affect the delivery mix to increase the share of remote and offshore end-to-end delivery. Sustainable hybrid work models were listed as the most crucial enabler and were centred around organisational flexibility in effectively combining on-site and remote work. This shift is due to the purpose of flexibility, cost effectivity and the ability to tap into talented people all over the world. This increases the flexibility of teams that require collaboration across locations, effective information and communication technology infrastructures, cloud solutions, and technology-enabling real-time teamwork.

The other factor is the organisational commitment to fairness in the extended hybrid workplaces. This is especially important to ensure fair representation of talents by creating career and visibility path of employees that are not privileged to be physically present in Company offices. Through managing possible stereotypes, organisations can maintain/maximise employee satisfaction and performance in other less privileged areas, such as working remotely or offshore.

It also helps to introduce new forms of organisational flexibility, with a higher proportion of remote deliveries matched by equally efficient and adaptable technologies. These methodologies promote a Nonlinear workflow and constant response to changes in business requirements for remote working. Furthermore, greater use of automation and AI technologies in business processes increases productivity rates and provides uniformity to output, which also supports remote adoption.

Last but not least, faith and decentralisation of trust within the organisational structure are needed to support remote teams. Top-down, shortest-path communications, void of a process-focused mentality, create a culture of ownership and accountability to remote employees. These combined circumstances pave the way not only for the possibility but for the functionality and advantage of remote and offshore outsourcing solutions in organisations, permitting them to grow competitively while successfully innovating in the context of globalised environments.

**Discussion of Research Question Two**

***RQ2: What are the factors to be considered to improve the delivery quality via the global adoption of harmonised implementation and project management methodologies?***

Enhancing the delivery quality involves the introduction and use of globally harmonised implementation and project management approaches that take into consideration the aspects of standardisation, conformity and integration and teams' interoperability. That is why the pandemic experience shows that such components as agility and resilience have become the defining factors for the further course of development, which is why it is necessary to insist on the presence of the most flexible frameworks and, at the same time, constantly monitor the quality of services.

Standardisation of methods allows for straight and unhindered project execution and decreases most sources of error. Norms facilitate accurate understanding and shared

expectations among organisational members and cover a good number of procedures for like-located units. Such consistency not only increases organisational efficiency but also guarantees that the results are good enough despite their place of production.

This has brought the human element in work another significant measure. Although methodologies could be rigorous to the extent that even their implementation is affected by technology, they have to be people-oriented, where the values being espoused include empathy, teamwork, and clear responsibility. This human dimension makes the link between teams and the delivery of objectives that are not only tasks but also value-based objectives, leading to a strong delivery culture among the teams.

With the rapid growth of digital transformation featured prominently, harmonisation is best underscored through accelerated support. Communications and project management platforms let multiple teams share information in real-time and monitor results, so one can consider one's team as a single unit, regardless of the location of team members. The use of Digital tools and platforms also permits the training and upskilling of colleagues, who are guaranteed to master the outlined methods.

Finally, the leadership and governance structures need to be robust to support the necessary push of this technology. Executive support for the value of integrated approaches and ongoing enhancement through follow-up review and learning is also required. These factors, therefore, should be complemented in organisational practices to improve delivery quality, mitigate risks and foster a sound and adequate business model for competitiveness in a global market.

**Discussion of Research Question Three**

***RQ3: What are the factors to support the environment that encourages people to develop themselves in order to drive delivery excellence, innovation, leadership, diversity, trust and pride?***

Building corporate culture and a resource and leadership pipeline that results in individual growth and delivers organisational objectives such as innovation, leadership, and increased organisational diversity, trust and pride are not incidental occurrences but are built carefully by design. The implications highlighted by the research relate to the need to integrate diversity and inclusion not as an accumulation of specific activities but as integrating concepts into the practices of organisations. A diverse workforce ensures the organisation has different views, ideas, and approaches to eliminating challenges now that the talent is esteemed and believed to be of great value.

Another factor is that lifelong learning should be promoted. When organisations pursue education, including skill transformation throughout the workers' working cycle, they are able to align their human capital to rapidly growing technologies and adaptable business environments. Training, development, coaching and innovative training tools help the employee become more suitable and relevant in the job market. Digitalisation further facilitates this process, providing seamless access to resources and tools necessary for development.

A culture of growth and trust begins at the top or the leadership level of an organisation. Organisational leaders who engage in empathy, information sharing, and appreciation, foster organisational accountability throughout the teams and create organisational pride. This study postulates that when employees look at the leaders and see that they are committed to the development and then see the successes the organisation is achieving, then they are likely to commit their selves to the organisational goals.

This study also presents the importance of the goal congruence between the employee and the organization. Another advantage for top management is to ensure the personnel understands goals to be set and to appreciate their work done on time. Furthermore, companies that devise strategies for social and environmental management

enable companies to create a purposeful and meaningful organisational culture that appeals to a company's employee stakeholders, in a far more positive way than traditional motivators.

Together, these make it possible for organisations to foster conditions in which people can grow individually and for the organisation's performance to be driven by the greatness of people who are willing to innovate, lead and excel.

**Discussion of Research Question Four**

***RQ4: What are the major importance and focus of establishing a distributed cloud environment management to deploy a range of cloud solutions (public, private, hybrid, and multi-clouds)?***

It is therefore important to initiate the establishment of a distributed cloud environment management for cloud solutions such as public cloud, private cloud, hybrid cloud, and multi-clouds. It also solves the modern problem of flexibility, scalability and effectiveness in the management of a company's operations. Distributed cloud management makes it possible for organisations to exercise management of various cloud types while benefitting from the different types of clouds in an organisation's system.

The major impact of distributed cloud environments is divided with the help of an assessment of the scalability and elasticity they provide. There is flexibility in workflow provision of resources since demands vary, and this will help organisations perform well at low costs. This is especially so for Cyclical work businesses or those who wish to venture into sectors with low infrastructure investment index.

It is also possible to name security and compliance as rather important concerns here. Distributed cloud management also assists organisations in delivering the same measures for security and compliance with the laws necessary and minimising the risks from the leakage of information and violations of standards. The fine-tuning of encryption

and administrative control may likely occur in cases and environments where deployment is either a public or private cloud.

Moreover, the application of distributed cloud environments increases the dependence on the current technologies and services, these being available on different platforms. They promote the use of artificial intelligence, machine learning, and analytics applications which put a spin on insights and decisions. Businesses also usually aim at the economic cost-oriented solutions with the least cost per activity in a public or private cloud.

Last but not least, distributed cloud management is beneficial for business continuity & disaster recovery. This is the case because a distributed workload as well as distributed data minimises the points of failure when organisations are confronted with multiple disruptions. This reliability is important to the firm's customers as it maintains their confidence while at the same time maintaining stability for the change-creating digital environment of the firm.

Thus, the focus on managing distributed cloud environments can be attributed to the requirements of operational flexibility, security and cost optimization, as well as operational reliability and business resilience, it is possible to consider it as the essential factor for their preparation for the future.

**Discussion of Research Question Five**

***RQ5: What are the factors to be considered in driving the CxO to move their business data into the cloud?***

CxOs consider various reasons to transform their business data to the cloud, with operational factors to strategic motives. Knowledge of these drivers is essential for managing the risks and possibilities existing in the process of moving to the cloud successfully.

- **Cost efficiency** A major factor is one of the primary considerations. Most cloud services are used when compared to more costly infrastructure systems – often, capital resources are replaced by easily manageable operational costs. It is useful because such relieve frees up resources for other use apart from physical structures, especially for innovativeness.
- **Scalability and flexibility** are also critical factors. This makes different hosting services to allow structures within organisations to increase or decrease its resources, thus, making it efficient without incurring in overhead costs. This flexibility is mainly helpful to organisational dynamism which is essential for those organisational that encompass fields involving high levels of volatility or in essence essential for organisations that are still growing at a very fast pace.
- **Data security and compliance** are great decision-makers and this will have a great impact on the decision-making process. Security measures offered by cloud solutions providers include; encryption, threats, and security access solutions. However, many providers satisfy industry-specific regulatory rules and assure the CxOs that their data governance obligations are being met.
- **Enhanced collaboration and productivity** are additional advantages. This facilitates exchange of information and information working and cooperation regardless of the geographical location of the workers. With more switching of work calendars evident today than in the past and more employees sharing workstations or more bullpen, this is perfect for generating novelty and optimization.
- **Access to advanced technologies**, another valid reason to exit from the conventional model or to look for a more effective solution is the relevance of the technologies like AI, machine learning or big data analytics, which can be

associated with the cloud only. These tools allow the organization to gain new perspectives, improve decision making and sustain competitive advantage.

Therefore, CxOs are migrating business data to the cloud for cost optimisation, scalability, security, collaboration, access to superior tools, and emergence for survival of their organizations.

# CHAPTER VI:

# SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

## Summary

The future of work is an emergent pattern that can be defined by changes in demography, technology, and experiences from previous shocks such as the coronavirus crisis. Employers who value flexibility, diversity, equal opportunity, and employee welfare establish conditions that mobilise, involve, and enable the worker to cope with change. For instance, in one case, 70% of employees were aged 41 and above, 68.5% of them had postgraduate qualifications thus promoting highly skilled and experienced generation. This demographic composition was of great benefit to the organizations and helped in decision making and the strategic positioning that made it possible to cope with volatile environs. Moreover, continuing education programmes and designing work in a flexible environment, both, at the workplace and remotely have become the new front-runners of creativity and performance management aimed at improving organisational sustainability as a response to the dynamic environment in the modern world.

Hybrid work has been approved, with 95.8% supporting the approach's sustainability because it provides improved productivity and worker satisfaction at a lower operating price. However, fairness in a hybrid environment cannot be downplayed because where there is perceived injustice, it reduces employee trust and engagement. According

to the study, on-site employees should be awarded biases with equal career progression opportunities as an important factor for sustainable development.

Technology plays a very significant role in determining how organisations evolve and the structure of the workplace. Advanced technologies like AI, quantum computing, augmented reality, and virtual reality are now pushing process excellence, supply chain reinvention, and better teamwork. More than half of the respondents understand their nature (neutrality 43%, more than 31%) as being transformative, but some gaps remain in awareness across the board, especially in quantum literacy. These shortcomings underscore the need for coaching and training so organisations can effectively exploit these tools by their leaders and teams.

In assessing the use of remote and offshore delivery models, trust, automation, and fairness are most critical. Open work schemes and strong processes make it possible to scale, be flexible, and fulfil operational standards. It is therefore important to note that agility frameworks and human-centred methodologies are especially important in this regard since they align the technological aspects of change with the human side – ensuring reliability, consistency and effectiveness when it comes to implementation.

There is a strategic target of CxOs related to cloud solutions that are characterised by scalability and security needs, as well as flexibility. Distributed cloud management improves cost control and technology usage while simultaneously increasing business recovery. These priorities are in general consonant with the idea of providing support for teamwork, creativity, and effective collaboration to geographically distributed workers.

Finally, it can be concluded that the workplace is a constantly changing and complex interconnection of technology, integration of newly employed diversity, and abilities for further strategic change. Organisations must address various emerging

imperatives, such as knowledge creation and sharing, equity, and methodological convergence, to ensure the continuity and future readiness of their operational models.

**Implications**

The dynamic workplace environment poses theoretical and managerial challenges to organisational strategies about where to be and how to remain relevant as the environment continually changes. Conceptual frameworks for understanding organisational behaviour and work, leadership, and technology utilisation advance understanding of how such changes can be better managed and harnessed.

From a theoretical perspective, the application of hybrid work models, new and emerging technologies, and a mature workforce requires the reconsideration of conventional management theories. The emphasis on becoming more agile and implementing digital change requires new structures rather than focusing on hierarchy and more freeing up structures. Hypotheses of organisational flexibility and dynamic resources pose that organisations need to implement their processes, structures and competencies on the base of changes in the environment. For example, management practices, such as hybrid work, require constant, agile leadership that addresses people's needs and leverages technology. The application of transformational leadership theory is rather appropriate at this point, as leaders need to champion change that enhances the involvement of employees with the organisation, establishing visions, ideals and goals.

In addition, the growth of new-generation technologies including AI, quantum computing, and AR/VR, implies the nature of how technology enhances human skills rather than replaces them. In conjunction with this idea, the human-technology interaction theory also plays a role that emphasises that technology can provide increased productivity with fresh, new, innovative ideas, creative decision-making, and problem-solving

capabilities. This perspective recognises that the role of automation is to complement, not replace, human inputs and, therefore, should both be integrated.

Managerial implications are equally profound, especially considering main organisational contingencies such as work from home, digitalisation and diversity. Firstly, for the new organisational models (hybrid or remote work), managers have to learn how to carry employees with them. A very important notion will become relevant here – psychological safety: people are to work comfortably and safely in distance environments, they have to share their ideas and take risks while acting distantly. Organisations should make it clear to managers that remote workers should not be provided fewer chances of promotion, recognition, and growth than onsite workers, so the concepts of fairness and equity are very important.

This is due to the fact that most agile methodologies require flexibility when forming organisational leadership as well as other organisational structures. Managers are required to understand many intricacies of agile project management, which is based on iterative, collaborative and change-responsive approaches. This, in turn, demands a change of mould from asserting and autocratic management techniques to more participative and enabling methods. To foster decision-making within the company, managers are going to have to step back from the process and rely less on their own authority, which means that people will have to be selected and trained properly so that they are capable of making decisions independently from the setting of clear goals and objectives.

Also, the adoption of cloud and cloud management on a distributed model has major implications for management. Managers require an understanding that cloud systems should be adopted in a manner that allows firms to take advantage of their capabilities in areas such as scalability and data security, as well as geographic distribution. Since the adoption of these tools is continually gaining popularity in organisations, managers are in

a position of having to monitor and evaluate the organisation's technological capacities in relation to attainable organisational objectives, as well as ensure that implementation of technology solutions is complemented with attempts to harness them for efficiency and organisational gains.

Ultimately, diversity and sustainability, as global priorities, entail that managers promote inclusion as values inherent in their organisations. This refers to workforce diversity, inclusive decision-making and organizational practices to support environmental and social responsibility policies. This is usually Executive sponsorship and/or champions who make sure that diversity and inclusion are not mere fads but the reality of the organization.

Therefore, from the methods of theory related to the case study, as well as the managerial approaches, it is clear that flexibility, the use of technologies, and inclusive leadership are critical. I think preparing leaders to manage their organisations in this new era involves adapting a new culture of working, practising and supporting empathetic leadership, as well as training employees on the new skills necessary in order to succeed in this new working environment defined by technology and conflicting demands. In so doing, they can create strong sustainable organisations that are able to face and capitalise on the changes in the world of work.

**Recommendations for Future Research**

**Impact of Hybrid Work on Organizational Culture and Employee Well-being:** In future studies, it remained imperative to disseminate more data on how the adoption of hybrid and remote work models affects the company culture, engagement, and well-being of the employees, among others. Although the current literature provides an evidence-based for productivity gains from hybrid work, it is still unknown how continuous remote work impacts organisational values, cooperation, and employees' well-being. Studying

how these models influence trust, communication and organisational commitment in various industries and across genders could offer useful tips to leaders who are willing to have well-organised organisations with both merit and equity.

**Adoption and Integration of Emerging Technologies:** With more and more enterprises investing in AI, quantum computing, AR and VR, there still could be no real evaluation of their developed benefits on productivity, decision-making, or new product development. There is nothing but hope for these technologies as enabling and innovation-inducing. However, it is equally important to point toward the research that should investigate the obstacles and limitations of the implementation of these technologies. Studies need to be concentrated on the realism that those technologies alter decision-making inhuman beings, how integrated those are in current business practices, and how the organisational structure must appear to extract the greatest worth from the systems.

**Fairness in Hybrid and Remote Work Environments:** While research on fairness in hybrid work arrangements is slowly accumulating, there is limited knowledge on what moderates them within these contexts. Subsequent research could look at fairness across industries and different organizational cultures regarding hybrid work and how leaders can dismantle biases embedded in favouring onsite workers. Furthermore, how can leaders contribute to fairness or equity and how can leaders design effective fairness-enhancing systems in hybrid and remote contexts would offer valuable information to managers who wish to sustain fairness.

**Leadership and Human-Centric Management in Digital Transformation:** Due to the growing adoption of digital tools and technologies in management and work environments, future studies should explore how leadership accelerates human-centred management systems. Understanding how technology is integrated with care, trust, and togetherness while working from a distance or in hybrid modes during organisational

changes, particularly the managerial question of how one arranges technology to support such change, will reveal aspects of dynamic leadership. Knowledge of the competencies and ways of leadership that foster transitions will be useful in creating strong organisations in the future.

**Cross-Disciplinary Approaches to Organizational Agility:** Since the speed of organisational change remains a focus for future research, it would also be interesting to investigate how agile, lean management practices and other organisational systems collectively affect performance. There is also potential for future research in identifying how people in sectors outside information technology are incorporating agile practices into their business and what difficulties they experience when applying such processes to industries that do not align with the historical roots of agile management in software development. The synthesis of information from both fields might allow exploring the practices promoting agility in different contexts.

**Quantum Literacy and Technology Education for Leaders:** Opinion: the existing literature shows some gaps to be filled in the contexts of quantum computing and other emergent technologies. Understanding the level of quantum literacy among business leaders and how it affects their technology adoption and decision-making will be an important area of study that will help organisations realise the potential of these innovations. Quantum literacy and readiness could be studied in terms of the outcomes produced by educational programs, workshops, and knowledge-sharing platforms, which can increase senior executives and technology specialists' awareness.

**Diversity, Inclusion, and Sustainability in Technological Transformation:** Many directions could be expanded upon, especially regarding the conversation about how diversity and inclusion an important factor encouraging innovation in technologies' implementation. An aspect for further research would be to examine how intrapreneurial

teams containing innovators from different backgrounds solve problems and how ideation and implementation of novel solutions by using increased inclusiveness affect the use of technological advancements such as AI and quantum computing. Moreover, studies could look more specifically into how sustainable goals are implemented within technologies being developed, whether inclusive leadership enhances sustainable practices within varied organisations and firms and so on.

**Long-term Impacts of Cloud Adoption on Organizational Flexibility:** That is why cloud adoption is still growing, but there is a lack of research regarding the prospects of performance, adaptability, and scalability of organisations in the long term. Subsequent research might explore how distributed cloud management will continue emerging as the key enabler of further globalisation of business and operations, advanced data protection, as well as sustaining business innovation. Further, the research could explore the primary objectives of cloud technologies in various sectors, including how organisations in various sectors harness the technology to solve unique problems like how data privacy and compliance issues might be solved in the future.

## Conclusion

The existence of landmark demographic, technological, and cultural changes are significantly influencing the nature of work and work environment. On the one hand, it's beneficial to have strong, talented, and well-educated workers, particularly at the moment when more and more people are working remotely and using flexible work schedules in a hybrid model. At the same time, more and more organisations are turning to agility, digitalisation in their various fields, and implementation of new technologies, including AI, QC, and AR/VR – they also face the challenges of fairness, equality, and diversity in their current environment.

Therefore, the study establishes that technological developments hold a significant possibility for change, but achieving such improvements is limited by how suitable the technologies are to human-oriented processes, management approaches, and organisational norms. Central to this change is the understanding that technology is to enhance human capacities and BPC has not done enough to appreciate this fact. Management requires a culture that embraces trust, flexibility, teamwork, and innovation, embracing and incorporating divergent views, and promoting learning.

It is important to observe that the fairness of hybrid work arrangements is still a contentious area today. MBO has to guarantee that every company worker, no matter where he or she works, has equal chances of being promoted or rewarded.

Also, this is a sign that appeals to diversity, inclusion, and sustainability have advocated that businesses' daily functioning must correspond to these values. When such values are included in these business models, organisations are in a position to promote creativity at the workplace, and staff members would be motivated to work towards the company's objectives.

Finally, the outcomes stress that in order to preserve being relevant and prepared for constant evolution, organisations need to adopt flexibility and innovation, introduce technologies and innovative practices, and foster diversified and adaptive surroundings. Of course, some concerns and issues need to be solved, such as gaps in knowledge transfer and equity issues in hybrid situations, But the potential for building organisations to meet the needs of the future is tremendous. Through embracing technology, diversity and human-centred leadership, organisations are capable of overcoming challenges that arise while operating in the current dynamic working environment and, in essence, foster sustainable organisational growth and success.

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https://doi.org/10.1109/TITS.2018.2815678.

# APPENDIX A:

# DATASET

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Age Group | Education | Role | Overall Ex | As the | The | The | The rise | The | Creating | Massive | With | The future | In order to | To archite | Beyond ad | The pande | Augmente | Quantum | Quantum | By leverag | Quantum | Quantum c |
| 2 | 2 | 1 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 4 |
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| 111 | 3 | 2 | 4 | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 112 | 4 | 3 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 113 | 4 | 2 | 4 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 114 | 2 | 1 | 1 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 |
| 115 | 3 | 2 | 4 | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 116 | 4 | 2 | 4 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
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| 118 | 3 | 2 | 4 | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 4 | 4 | 4 | 4 | 4 |
| 119 | 3 | 2 | 4 | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
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APPENDIX B:

Variables of the study

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| **VAR_1_Age** | Age Group |
| **VAR_2_Education** | Educational Background |
| **VAR_3_Role** | Role |
| **VAR_4_Experience** | Overall Experience |
| **VAR_5_Sustainable hybrid work models** | As the pandemic situation evolves, more employers have turned to a hybrid model with a mix of on-site and remote work. A sustainable hybrid model designs work around people rather than location. |
| **VAR_6_Agility and resilience post-pandemic** | The pandemic brought renewed awareness of the need for agility and resilience at organizational, team, and individual levels. To quickly adapt to changing business demands, employees must be enabled as members of dynamic teams, able to flexibly work from any location at any time. |
| **VAR_7_Shift towards remote work** | The COVID-19 pandemic has accelerated the shift towards remote work and flexible work arrangements. Considering the benefits and challenges that come with remote work will be important in shaping the future of work, including the impact on productivity, work-life balance, and employee well-being. |
| **VAR_8_Gig economy and job security** | The rise of the gig economy and alternative work arrangements, such as freelancing and independent contracting, will continue to shape the future of work. It is |

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| | important to consider the impact of these arrangements on job security, benefits, and workers' rights. |
| **VAR_9_Remote ERP service delivery** | The future state of ERP service delivery with high remote delivery will be characterized by increased flexibility, cost savings, scalability, access to global talent, automation and AI integration, and evolving service models. |
| **VAR_10_Diversity and inclusion in work** | Creating a future of work that is diverse and inclusive is essential. This includes addressing issues of gender equality, racial and ethnic diversity, and ensuring equal opportunities for all individuals. |
| **VAR_11_Multigenerational workforce opportunities** | Massive demographic change brings opportunities as well as challenges for a multigenerational workforce. The right mix of generations can be an opportunity for organizations to build an age-inclusive workforce. |
| **VAR_12_Fairness in hybrid work** | With hybrid work, an additional dimension of fairness comes into play: Do those working on site and more visible to managers have advantages over those working remotely? |
| **VAR_13_Social and environmental work impact** | Work methods should also address social and environmental impacts in the future. Promote sustainable practices, CSR, and ethical decision-making. |
| **VAR_14_Importance of lifelong learning** | To adapt to the changing work landscape, individuals will need to acquire new skills and continuously upskill or reskill themselves. Lifelong learning and the ability to adapt to new technologies will be crucial for future job prospects. |

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| **VAR_15_Digitalization and skill transformation** | To architect the future of work, we need to take full advantage of the opportunities and disruptive power of digitalization. Accelerated digitalization and technology advances fuel the need for skill transformations across large portions of today's workforce. |
| **VAR_16_Retaining the human factor in work** | Beyond advances in automation and rising technologies like virtual and augmented reality, it is more important than ever for HR to retain the "human factor" at work and empower people to thrive. |
| **VAR_17_Accelerated digital transformation** | The pandemic dramatically accelerated the pace of digital transformation. With this continued disruption, digital technologies including AI, automation and cloud capabilities boost efficiency and productivity and enable new ways of working. |
| **VAR_18_Adoption of AR and VR** | Augmented reality, or AR (adding digital elements to a real-life experience) and virtual reality, or VR (creating a complete virtual world to interact with) are projected to become mainstream and widely adopted in business within the next couple of years. |
| **VAR_19_Quantum ERP and computing for business operations** | Quantum computing may outperform traditional computers in processing power. Quantum ERP systems can process massive volumes of data and complicated computations faster, improving corporate operations. |

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| **VAR_20_Quantum optimization in businesses** | Quantum algorithms can optimize complex business processes, such as supply chain management and resource allocation. |
| **VAR_21_Streamlining operations using quantum computing** | By leveraging quantum optimization techniques, organizations can minimize costs in ERP implementation, streamline operations, and maximize efficiency. |
| **VAR_22_Enhanced security via quantum cryptography** | Quantum computing can boost security. Quantum cryptography methods like quantum key distribution (QKD) can strengthen encryption and data protection, making it harder for hackers to steal critical data. |
| **VAR_23_Quantum computing improving AI capabilities** | Quantum computing can quickly analyse and analyse large volumes of data to improve machine learning and AI. This helps companies improve prediction models, automate processes, and personalise consumer experiences. |