

**INVESTIGATING THE COPING STRATEGIES OF WOMEN IN THE
CHANGING WORLD OF TECHNOLOGY IN THE WORKPLACE: A
CASE STUDY OF
NAMPAK MOBENI, DIVFOOD.**



**UNIVERSITY OF
KWAZULU-NATAL**

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I, **Nonhlanhla Samukelisiwe Ngubane**, declare that this dissertation titled: **“Investigating the coping strategies of women in the changing world of technology in the workplace: A case study of Nampak Mobeni Divfood, Durban, South Africa”** for the award of Master’s Degree in Industrial Organisational and Labour Studies at the University of Kwa-Zulu Natal is my own work from start to the last page, and the materials that have been used to support my study have all been acknowledged accordingly.



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DEDICATION

To God Almighty, through whom all powers are derived, and in whom all powers must be referred. Glory Be Thy Name for all the blessings and gift of life. He has been my guide; He firmly held my hand throughout this journey. In times of fear and despair, He strengthened me. I would never have made it this far if it was not for His unending love and abundant grace.

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ABSTRACT

In light of the growing concerns of the impact of technology on job security, this study explored the coping strategies of women in the changing world of technology in the workplace. The study took place in Nampak Mobeni, Durban. This study was prompted by the need to gain an in-depth understanding of the challenges that women encounter in the workplace as a result of technology. This research aims at investigating coping strategies in the changing world of technology in the workplace. To do this, the study had to begin with an analysis on the new world of technological change. The study is situated within the critical realism tradition. A mixed method approach was used to address the research objectives. Although the study privileged women, a disproportionate number of women employees at the case study meant that the researcher had to accommodate men so that they speak through the voices of women. Data was collected through questionnaires and interviews. The findings show that women are severely constrained as far as technological know-how is concerned. This then negatively impacts their efforts to climb the promotional ladder in the workspace. Since their level of education is generally low, coping with further studies to catch-up with a new paradigm of technology is severely constrained. This therefore puts them in an uncomfortable situation, resulting in untold stress. The study strongly recommends, as a matter of urgency, counseling, and other emotional support systems must be prioritised at Nampak-Mobeni to assist in the emotional requirements of women. These support systems must acknowledge the centrality of women and the support they need from the employer for quality working experiences.

CHAPTER ONE

1.0 INTRODUCTION

In recent years, the labour environment has evolved from the conventional clerical mode to a more sophisticated one. This evolution is made possible through Information Communication Technology (ICT). The development has impacted work dynamics, and similarly, on job expectations. It is without a doubt that female dynamics in the workplace differ from their male counterparts. Since most companies are migrating from the conventional way of operating to primarily ICT driven, there is a perception that women are destined to find it tough in terms of coping with the times. This study assessed the coping strategies of women under the phenomena of the introduction of technology at Nampak Mobeni.

1.1 Background to the Study

The advent of new technology has changed the workplace drastically over the last few decades. According to studies conducted by Acemoglu and Restrepo (2017), significant developments have occurred in the workplace, including digitalisation, artificial intelligence, and machine learning. These improvements have changed the face of what used to be the normal work routine in the manufacturing process, and has increased productivity (Brynjolfsson and McAfee, 2011). According to Xu and Quaddus (2010) labour-saving innovations, such as automation and artificial intelligence, require skilled labour and remove repetitive tasks mostly performed by people with low and mid-level skills. In this way, work historically done using manual labour has now been replaced by modern technology such as machines and computers. As a result, large numbers of workers, including those that were hitherto occupied by women, continue to suffer elimination (Lansky, Ghosh, Méda, and Rani, 2017). In support of that claim, Author and Dorn (2013) emphasised that while the world accepted the introduction of technology and how work would be made simple, little was known about the impact it would have on the workplace and the future of employment.

Consequently, the use of these technologies has resulted in higher unemployment rates (Abu-Rayash, and Dincer, 2020). In the words of Merkel (2019:426), “employment has become precarious with lots of job insecurities, and there is a drastic change from hierarchical jobs with benefits to freelancing, and casualisation. As a result, vast numbers of jobs have been displaced, including those traditionally occupied by women”.

The current world order of technological changes, based on automation of socio-economic relations, digitalisation, and artificial intelligence are creating great changes in the world of work (Mosteanu, 2020). This has resulted in further changes effected on the labour force. Whilst acknowledging that these changes affect both sexes, Mosteanu (2020) argues that women are experiencing a substantial risk. In the same vein, Abu-Rayash and Dincer (2020) argue that technology has been a male-dominated field and an inherent gender bias that has resulted in lesser attention to the contributions of women in the workplace. Autor, Dorn, Katz, Patterson, and Van Reenen (2020) further indicated that the challenges facing women due to the introduction of technological dynamics, include the risk of unemployment, discrimination, inequality, and excessive control of women in the workplace. These risks are an addition to a chain of pre-existing critical challenges that women, especially in Africa, encounter, particularly that of patriarchy and gender discrimination (Autor et.al., 2020). Understandably, the changes in the world of work leave those without technological skills vulnerable with minimal prospects of getting future employment.

A World Economic Forum (2016a) estimate, around 96,928,000 administration jobs will be rendered redundant by the year 2022. Available literature shows that women are considerably concentrated in entry jobs such as manufacturing and administration (Powell, 2018). With production lines being taken over by automation, most non-technical workers are at risk of losing their jobs through such take-overs (Hawkins, 2017). Technological advancement, in the views of Acemoglu and Restrepo (2017), put women at very disadvantageous positions across occupations as a result of their skill levels in terms of their vulnerability to displacement. Although extensive studies have been made by Autor, Dorn, Hanson and Majlesi (2016): Xu and Gao (2021), their focus is centred on the impacts of digital technology on women in the workplace. Very little has been done to examine women's coping mechanisms amid these technological changes in the workplace. The challenges in the workplace have prompted women to employ coping mechanisms to deal with the stresses and the challenges of the changing world of work as a result of technology (Lazarus, 2020). Indeed, the changes in the world of work have received great attention from various scholars, however, little has been done to study the coping mechanisms that workers have to employ in dealing with these changes.

This then warrants an investigation into the coping strategies of women under these circumstances.

According to Ali and Syed (2017), women are dealing with a lot of challenges in the workplace, including gender inequality, gender discrimination and sexual harassment. Additionally, they have to deal with family issues, career development and the need to remain relevant in this current epoch of job insecurity and financial crisis. In order to remain competitive in coping with the challenges associated with the application of technologies in the workplace, women are compelled to adopt some coping strategies for dealing with them. In order to draw a meaningful conclusion in this regard, it is crucial to investigate the coping strategies of women in the changing world of technology in the workplace and to establish its adaptability and measurability. By so doing, the attributes that other women employ in coping with the changes can be deduced to assist other women who are about to enter the challenging world of work.

1.2 Statement of the Problem

1.2.1 The Corporate Rat Race

The introduction of technology has in effect, engineered a corporate rat race. In his work on the rat race and working time regulations, Jauch (2020) defines the corporate rat race as a way of life in modern society, in which people compete with each other for power and money. This tendency requires a compelling majority of workers to go through repeated experiences of having to adapt to changes under the circumstance.

1.2.2 The New World of Technological Change

The routine of work is drastically changing from standardised and secure jobs to flexible labour which is characterised by skilled tendencies (Hellström and Revi, 2019). Companies are now restructuring their work settings and opting for highly skilled workers, and those without the necessary skills are vulnerable and insecure as their future is not guaranteed.

There is a dynamic shift from standardised employment with benefits to freelancing casualisation (Erukora, 2020). Companies have resorted to using machines to cut costs of manual labour, which according to industry players, comes with a lot of cost effectiveness (Molin, Chazdon, Frosini de Barros Ferraz, and Brancalion, 2018). Macdonald (2021) reported that the introduction of technology in the workplace harms job security as manual

labour is replaced by machines, robots, and other systems which require some level of expertise in artificial intelligence. They also contend that these advancements in technology have more negative impacts on women than on men (Macdonald, 2021).

Change based on automation of socio-economic relations, digitalisation, and artificial intelligence are creating great changes in the world of work (Jauch, 2020). However, due to these changes, the work environment is confronted with challenges. While these changes affect both sexes, Macdonald (2021), argues that women are the ones at greater risk. The challenges facing women due to these technological changes include the risk of unemployment, discrimination, inequality, and excessive control of women in the workplace. These risks are an addition to a chain of pre-existing critical challenges that are faced by women especially in the African context, for instance, patriarchy and gender discrimination (Autor and Dom, 2013). As indicated by Hellström and Revi, (2019), technology is a male-dominated field and inherent gender bias can result in lesser attention to the contributions of women at the workplace. The changes in the world of work, as a result of technology, has received great attention from various scholars. The change in work is not unique to the South African labour market. In the South African context, there seem to be less liberalisation on the labour front. Women are always at the receiving end. Unfortunately, gender activists who are supposed to spearhead the advocacy for women appear rather subdued (Bernstein, 2019). While much research focus on the cost of labour (Molin, Chazdon, Frosini de Barros Ferraz, and Brancalion, 2018). However, other scholars like Macdonald and Hellström and Revi, have focused on the challenges facing women due to the technology in the workplace, and its impacts in the absence of strong advocacy machinery, as gap in labour inequality continues to widen. Various studies that have been conducted around this subject sphere have focused on the broader changes in the workplace as a result of technology. However, to the best of my knowledge, no research has focus on the coping strategies of women in the changing world of technology in the workplace in Nampak Moben, South Africa.

1.3 Research Aim and Objectives

This research aims at investigating coping strategies in the changing world of technology in the workplace. To achieving the aim of the study the following research objectives will be explored:

1. To investigate the specific changes brought by the introduction of technology at Nampak Mobeni.
2. To identify the impact caused by technology on women at Nampak Mobeni.
3. To examine the coping strategies of women in the changing world of technology at Nampak Mobeni.
4. To identify how women at Nampak respond to the issue of stress on women at Nampak Mobeni caused by the introduction of technology.

1.4 Research Objectives

The research will be guided by the below research questions.

- What are the specific changes that have occurred at Nampak Mobeni as a result of the introduction of technology?
- What impacts have these changes had on women at Nampak Mobeni?
- What coping strategies are employed by the women at Nampak Mobeni to deal with industry related stress associated with the introduction of technology?
- How do women at Nampak Mobeni respond to the changing world of technology?

1.5 Significance of the Study

The study will thus bring an in-depth understanding on the coping strategies that women employ to deal with the difficulties encountered at the workplace due to technology related stress. Academically, the study will contribute to the existing body of knowledge since extensive literature was reviewed in this regard. The literature will therefore serve as a guide for both future researchers, as well as policy makers who might want to venture along similar lines.

Policy Makers: Since this study was a company-based assessment, it will help policymakers with information that is necessary for promoting the needs of women who are currently employed in companies that depend highly on technology. Juxtaposing the position of Nampak Mobeni within the industrial set-up of South Africa, it is safe to conclude that, the company represents just a minute portion of the industry. The extensive information that was gathered can be used as a guide to policy makers to navigate areas that require urgent interventions and immediate responses.

Academic Community: An understanding of the coping mechanism of women working at Nampak Mobeni can help other academics and researchers that might find their roots from this particular study. This will invariably contribute to the body of knowledge.

Companies: Although the results of this study cannot be replicated in its entirety, the document can serve as a guide to companies whose modus operandi is similar to Nampak Mobeni. Valuable lessons may be drawn from the findings which might be useful to guide other companies including SMEs that might be considering using new technology as a strategy to improve company efficiency.

1.6 Location of the study

This study will be conducted in Durban, the province of KwaZulu-Natal, where the industry is located. Nampak Mobeni as the study site, stems from the fact that it is one of the foremost companies in South Africa with high technological advancement. Being one of the most vibrant companies, they are always mindful of competition, and are consistently ready to leapfrog their competitors with the ulterior motive to maximise production and profit. Additionally, Nampak Mobeni employs women and men from more than seven townships around their location. The employees of Nampak have different academic, technical, and cultural backgrounds.

1.7 Research Scope

This study investigates the coping strategies of women in the changing world of technology in the workplace. The research focused on Nampak Mobeni, Durban, and its employees. The total number of participants chosen for the study was seventy (70). Due to the limited number of female staff in the company, the researcher had to improvise by augmenting the number with men. This was welcomed as it meant that views in different perspectives could be captured to enrich the data for the study. The entire company of Nampak Mobeni became the target population to select the sample size for the study. There was interest, as the company is one of the biggest in terms of workforce and vibrancy in South Africa. Primary data was collected from participants through a mixed method involving qualitative and quantitative approach. This was obtained through online interviews via WhatsApp Messenger, and survey questionnaires.

1.8 Limitations of the Study

This research project has contributed to the existing literature in the sphere of coping strategies that women employ to deal with changes in the world of technology in the workplace. This was done by identifying the limitations of previous research concerning the conceptualisation of coping strategies as a phenomenon and the complexities that women encounter in the workplace due to the introduction of technology. Moreover, this study provided an empiric circumstance that resulted in women to lag in STEM. The study displayed that women need more support to reach the heights of technology.

Challenges are bound to occur whenever one embarks on credible research to attain good results. This study is of no exception. The researcher encountered some challenges in the line of obtaining the data to represent good results. The case study's company is a well-resourced one, with strict protocols. As such, it took a lot of efforts before the researcher was given the clearance to make contact with participants.

Getting female participants was a big challenge. Most of them feared victimisation. After convincing them of the researcher's intentions, another related challenge surfaced. The number of women under the sector that the research was focused on was inadequate. The researcher therefore had to improvise by augmenting the number with men. This slightly altered my original objective.

Funds to carry out the research have always been a constraint. The researcher had limited funds to conduct such an important study. A particular challenge was the advent of COVID-19. The country was under strict lockdown. The days were therefore not ordinary times. Strict protocols were to be followed. Instead of interpersonal interviews and direct dissemination of questionnaire, the researcher had to opt for telephone interviews and printing of questionnaires after they were returned. This therefore put additional financial strain on the researchers' meager resources.

1.9 Dissertation Structure

This dissertation comprises of six chapters. **Chapter one** introduced and outlined the research topic and was aimed at evaluating the coping strategies of women in the changing world of technology in the workplace. It further outlined the motivation for the study, the statement of the problem, the research questions, the objectives, the significance of the study,

the paradigm perspective, the research scope, the structure of the dissertation, and the chapter summary.

Chapter two presents a concise introduction of the coping strategies of women in the changing world of technology in the workplace. The chapter further reviewed existing literature relating to coping strategies and technology in the workplace. Factors which exacerbate the widening gap of women lagging in technology were also identified. Furthermore, the chapter propounds on the theoretical framework that underpins the study and the rationale for choosing this framework.

Chapter three discussed the research methodology. It outlines the introduction of the methodology chosen to underpin the study. The research methodology espoused paradigm philosophy and the motivation for selecting the paradigm philosophy. Furthermore, the chapter outlined the study's approach, the study's site and data collection strategies employed by the researcher, including sample size and sampling strategies, data analysis, and data quality procedures.

Chapter four discussed data presentation and the study's findings as per the prescripts of the research questions raised by the study and problem statement. The chapter also discusses the demographic attributes of the participants. Furthermore, it proffered the empirical findings from both qualitative and quantitative data analysis

Chapter five presented the empirical findings obtained from both qualitative and quantitative data, in agreement with research questions and theory to ensure that all aspects relating to the research problem have been addressed. This was followed by a chapter summary.

Chapter six presented summaries, conclusions, recommendations, and suggestions for future research and to illuminate areas or gaps that have been identified by the study. It further discussed how the study contributed to the body of knowledge, as well as the limitations of the study, recommendations for future research, and a conclusion.

1.10 Concluding remarks

This chapter proffered a background to the coping strategies of women in the changing world of technology in the workplace. The scope of this research study focused on Nampak Mobeni, Durban. The chapter discussed the gaps from the existing literature that propelled the interest to close said gaps. The study employed a mixed method approach, and research data were obtained through interviews using WhatsApp Messenger and survey questionnaires.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviewed available literature on the changes that are brought about by technology in the workplace with a particular interest in the coping strategies women have had to employ to deal with the changing world of technology and to withstand the challenges and the demands of the workplace. The theory of Feminist Intersectional Theory, which underpins this study, was also discussed.

2.1 South African Context

Over the years, a lot of scholars have taken a keen interest in the study of technology. Studies along these lines have gained momentum with the introduction of the Fourth Industrial Revolution, which is a product of technology, robotics, and artificial intelligence (Acemoglu and Restrepo, 2019). In South Africa, women make up about 51 per cent of the population (STATSSA, 2019). Social and economic conditions demand that women play a supportive role to augment the financial stake of the family. This explains why the role of South African women in the economic life of the country can never be underestimated. In recent years, however, the numbers of non-standardised jobs have increased with the introduction of technology thereby resulting in an upsurge of retrenchments, casualisation, outsourcing, and company restructuring (Mitchell and Murray, 2016). This has induced fear and panic in majority of women who are either unskilled or semi-skilled as their jobs are inline to become redundant and obsolete. Given the dire nature of the situation and its attendant stress, women are left with no other option than to seek strategies to cope or deal with the situation.

The change in nature of work has always been evolving, and each stage of industrialisation brought with it the changes in the form of how the work will be performed in the labour market (Campanari, Chiesa, Manzolini and Bedogni, 2014). From the steam engine to the application of small-scale energy and technology, to the rise of the network society, it meant that human beings had to find ways of adapting and adjusting to the changes in the world of

work (Campanari, Chiesa, Manzolini and Bedogni, 2014). In agreement with the above, Hughes, Robert, Frady and Arroyos (2019) stated that each paradigm shift of technology brings new changes and transformations to the nature of how work is performed as well as workplace dynamics.

As far as the work culture of South Africa is concerned, men have always dominated the labour market and women have been continuously considered as homemakers and bearers of children (Thriveni and Rama Devi, 2012). The situation was however better around the 1970s, when women were allowed to work in the formal labour market (Buğra and Yakut-Cakar, 2010). The majority of women were employed in unskilled and semi-skilled positions which are the areas most affected by the introduction of technology. According to Gamarnikow (2013:98), under the labour theory of value, the organisation and division of labour within the capitalist mode of production was highly differentiated by sex. Gamarnikow (2013) argued that even the relationships between the commodity production and consumption under capitalism are gendered.

According to Barker (2007), the rise in the numbers of women in the job market is a result of the expansion of the services sector, in which women have been traditionally active. He furthered that the proliferating degree of development amongst women and the advancement of automation has created a possibility for women to contribute productively to the labour market. However, gender inequality, gender discrimination, harassment, job insecurity, and many other factors are highly persistent in the labour market, and it has a negative impact on women (Ukpere, Slabbert and Ukpere, 2014).

In pre-industrial societies, women's work was largely home-based which entailed childbearing and other household duties. In post-industrial societies however, gender roles converged to a structural revolution in the paid labour market (Ukpere, Slabbert and Ukpere, 2014). Industrialisation has thus impacted women profoundly, as they have to work in the factories, thereby having to face the conflict between family obligations and their ability to earn money. This consequently affected woman, as they had to choose occupations that were not so demanding so as to find the balance between home and work (Ukpere, Slabbert and Ukpere, 2014). With the changes that have been introduced in the world of work, industries are now relying on machines for most of their production processes, and these changes have

had a direct and indirect impact on the labour market. The nature of jobs that are being offered by the labour market has changed to be precarious, non-standardised jobs that have no security or benefits (Anner, Fischer-Daly and Maffie, 2021). Companies are resorting to freelancing and casualisation of labour with the aim of cutting, and to maximise returns (Anner, Fischer-Daly and Maffie, 2021).

The introduction of machines and automation has taken the world by storm (van Tonder, 2004). The driving factor behind the meteoric changes is the quest to remain competitive. Companies are retrenching and restructuring their business models to survive the cutthroat business world. In the opinion of Burnes (2004), the changes that are happening in the workplace are part of life and are unavoidable. The disturbing scenario is that the changes that we are witnessing in the current job market is that the major casualties are the loyal ones who have been within the organisations for a very long time, and who mostly do not have the skills or the capacity to grasp the constant changes of technology (Heifetz and Linsky (2017). Consequently, when changes are implemented other employees embrace them, while others repudiate them. Factors like the degree of education, expertise, effectuality, and ability to withstand the changes give rise to whether a person embraces change. Heifetz, and Linsky (2017) posits that employees and managers that do not have the skills or the expertise to meet the demands of the changing work have a bleak future ahead of them. Toendepi (2018) argues that some organisations fail to continuously capacitate their employees or notify them adequately about the changes that are taking place and the rationale behind them. Most of the employees usually have no idea on how new technology could be beneficial to their wellbeing. Hence, there is constant resistance from other workers (Toendepi, 2018).

According to the International Labour Organisation (ILO, 2013) report, the changes in the world of work is bringing a lot of uncertainties in the labour market. The report states that although the number of women in the labour market has increased exponentially over the years, about 40 per cent of the world's labour force being women is still disproportionately involved in housework, care work, and clerical jobs. This argument is also supported by Statistics South Africa (Statssa, 2018). In their second quarter report of 2018, STATSSA said the number of women in the labour market accounts for 43, 8 per cent of total employment.

Various researchers and scholars have taken interest in studying the changes that are brought by the introduction of technology in the workplace and how these harm women globally. (ILO, 2013; WEF, 2016) conducted a study in the future of work; in their published report they stated that approximately 65 per cent of students who now go to school, will be performing a new set of jobs by the time they enter the job market. Furthermore, (WEF, 2016) have prognosticated that 41 per cent of job operations in South Africa are at the risk of automation, with 44 per cent in Ethiopia that is at risk of being automated, 46 per cent in Nigeria and 52 per cent in Kenya. With the changing nature of work due to artificial intelligence that is being introduced in the labour market, women will soon find themselves off work if they do not have enough technological skill to compete in the labour market. According to the World Economic Forum (WEF, 2018), women make up 22 per cent of artificial intelligent professionals globally as compared to 78 per cent of male. This number is alarming considering that the workplace is evolving at a dramatic speed.

The expansion of artificial intelligence is further widening the gap of inequality in the labour market. In further support of the widening gap of inequality, WEF (2018), and OECD (2016), in their report, stated that 14 per cent of women choose science-related subjects as compared to 39 per cent of men. Russ (2017) went a step further by locating additional reasons responsible for the situation. Russ states that there is a movement from the economy that is based on raw material and manual labour to one that is knowledge-driven, based on global capital and the development of interactive communication networks, and this movement calls for a new labour environment (Russ, 2017).

2.1.2 Wage Disparities

The global estimate of women constitutes about 49 per cent of the labour participation, with men constituting about 75 per cent (ILO, 2017). In South Africa, women are more vulnerable to the unemployment phenomenon. The few who find themselves in formal employment sadly fall under the wage disparity, as majority of them receive far less pay as compared to men. According to (Statssa, 2018), South African women are less represented in the labour force than their male counterparts. Moreover, women are more likely to be concentrated in low paying jobs with fewer prospects of development (STATSSA, 2018). As much as the challenge in the future of employment cuts across all genders, women are more susceptible and vulnerable to these changes as they are the newcomers in the employment marketplace

(ILO, 2017; STATSSA, 2018). A significant number of women are also concentrated in entry-level jobs, with a consequent low remuneration. In the opinion of Russ (2017A), a large number of women do not have the necessary skills to operate the highly sophisticated machinery that is being introduced in workplaces nowadays, and that is where this automation of work is highly visible.

2.3 Globalisation

The world has become a web of the interrelated global economy, through the introduction of globalisation. Iline and Simuforosa (2016) stated that this interconnectedness is what propels the meteoric revolutionary changes socially, political, economically, and in all spheres of our lives. Before the dawn of democracy, South Africa was sanctioned from joining the global economy. The advent of democracy in 1994 then saw South Africa joining the world of the global financial system, where borders of the countries were relaxed to allow trade with other countries through exportation and importation of various goods and services. This brought a dynamic shift in the market as the country had to be ready to compete with developed countries. This further meant that South Africa had to match the global economic standard and restructure its economy and the world of work. Glenn (2012) opines that, globalisation has ensured that the world becomes a ‘global village’, and the introduction of technology allows people and businesses to communicate and share ideas within a blink of an eye. The events that take place in far-flung countries have a direct and indirect footprint in other countries in the other part of the world (Schulte, 2013). Castells (1996) describes it as the rise of the network society.

Globalisation also brings competition in the market as borders are broken down, thereby permitting free trade among countries (Glenn, 2012). The introduction of new machinery and technological innovations also means a change in work structure to allow automated processes, and workers have to adapt by acquiring a new skill set to ensure efficiency and to remain relevant. The use of technology has the capability to replace duties that are carried out through conventional means (Schulte, 2013; Brynjolfsson and McAfee, 2014). As a result of the intrusive nature of globalisation, Noble (2017) refers to it as the measurement of universal economy that has been reinforced by automation. The universalisation of globalisation through technology and financial capital has prompted organisations and nations to

reconfigure their trade policies to match that of international standards to allow easier competitiveness, and to also reduce and remove trade barriers to allow market liberalisation (Reisinger and Dimanche, 2010).

The introduction of technology in the workplace has brought immense changes in the execution of work. Companies and organisations are currently opting for the minimal hierarchical composition of hybrid units with few levels and decentralisation. The borderlines across departments become fewer as they integrated into one (Schulte, 2013). Brynjolfsson and McAfee (2014), argue that the technological revolution is the propulsion force of globalisation, and that the changes brought by globalisation meant that companies had to change their business strategy to increase their competitiveness, whereas others joined forces with others to increase their viability. To keep up to the pace of technological advancement, workers have to acquire the latest and most adroitness to improve their proficiency within the organisation (Brynjolfsson and McAfee, 2014). According to Reisinger and Dimanche (2010), the changes in technological advancements ensued in the exodus to highly skilled labour and dropping those who do not possess the required high-tech skills. As a result, those without technical skills are rendered redundant by the high utilisation of technology, and it further aggravates the rate of unemployment.

In their review titled “Agentification of the Internet of Things”, Pico-Valencia and Holgado-Terriza (2018) argue that the changes in the world of work, as a result of technology, is leaning more towards cognitive competencies with the ability to be flexible and work across various duties and conditions. Hence, the nature of work is becoming more complex, and requires employees who possess a high level of dexterity and efficiency to work well in any department within an organisation. In the wake of increasing automation across board, job security is also slowly diminishing, and workers are also losing enthusiasm and commitment to their jobs as the prospects of growth and promotion decreases (Demerouti, Veldhuis, Coombes and Hunter, 2019). Thus, workers become more concerned about finding ways of coping with the possibilities of being rendered redundant and retrenched than the tasks at hand.

The PWC report (2018) emphasised that, in the wake of extensive automation in the field of work, women are the hardest hit. According to the report, women are still not adequately

represented in science and technology as they account for only 19 per cent of the technology linked jobs in the top 10 of the global companies as compared to 81 per cent of men. According to World Economic Forum, WEF (2016), 41 per cent of work undertakings in South Africa have been subjected to mechanisation and this signifies that the country needs to prepare and adjust to technological changes by obtaining better training, development, skills and relevant qualifications to be able to withstand the challenges of technology in the workplace. Supporting that claim, Leopold, Ratcheva, Samans and Zahidi (2017) reported that jobs that required certain skills in 2015 will have changed in 2020 and no longer require the same set of skills as technology keeps evolving.

2.2.4. Technology in the Workplace

The use of technological innovations has taken the world of work by storm and technology is gaining meteoric velocity. This has resulted in changes in the nature of work and the organisation of the workplace (Leopold, Ratcheva, Samans and Zahidi, 2017). Traditionally, the work setting was characterised by manual labour, standardised jobs with incentives, and job security. However, recently the majority of companies have opted for intensive use of technological machines to speed up production processes. Consequently, this trend has resulted in flexible labour, extensive use of the internet, virtual teams, and outsourcing of other functions of the business to contractors (Gurung and Prater, 2017). In highlighting the outlook of the new production atmosphere of the corporate world, Hinings, Gegenhuber and Greenwood (2018) reiterated that the expeditious changes in technology, and the need for quick production of goods and services, have prompted companies to change their business structures. Automation in the workplace meant that workers have to possess a certain level of skill to operate the equipment and those that do not have the necessary skills will find themselves outmoded (Hinings, Gegenhuber and Greenwood 2018). In consideration of the aforementioned, it is imperative that workers need to upgrade, as well as acclimatise themselves with the requirements of the current technological trends to avoid becoming obsolete.

2.2.5. Women Face a Greater Risk of Automation than Men

Traditionally, women have been considered as homemakers and child bearers. However, the emergence of industrialisation and the recent surge of globalisation has drastically changed

this outlook (Oyafunke-Omoniyi and Babatunde, 2017). Although women have visible presence in the workplace, they are continuously experiencing challenges in their lines of duty as a result of digitisation and automation threatening their jobs. Ordinarily, women carry out more typical or classified duties than men in all departments and occupations, and usually the type of jobs they do are susceptible to automation. Moreover, it is notable that the number of women who perform duties that require high-end technology is very few and, the use of automation precipitates female employees to be in a precarious position of being supplanted in their jobs (Linden and Dierickx, 2019). Dauth, Findeisen, Südekum and Woessner (2017) posit that women who are above the age of 40 and those with lower levels of education are at a higher risk of being replaced by automation than men who are in the same group. It is thus momentous to educate and train women with the necessary technological skills to protect themselves against being supplanted by automation.

Over the years, women have made inroads to the labour market. However, the majority of those who have entered the labour market are concentrated in low paying jobs (WEF, 2018). Studies have affirmed that women are underrepresented in STEM jobs - this leads to a wider gap of gender inequality even in higher positions of management (WEF, 2018; ILO, 2017; UN, 2017). It must be pointed out that, when it comes to the current trend in automation and job issues, a lot of studies have been done in this area. However, most of the studies, as important as they are, tend to focus on job losses in general. The question as to how women are affected by technology or automation, as far as the labour market is concerned, has remained largely unanswered. In a “Future of Work” report, conducted by PWK UK (2017), it is stated that many traditional manufacturing jobs are now done using new technology and most female-oriented jobs such as clerical jobs will perish in future A WEF (2018) report also affirmed that women face 11 per cent risk of losing their jobs due to the use of technology as compared to men.

technology, robotics, and AI are continuously transforming the nature of work and the workplace. According to Schwab and Sala-i-Martin (2016), the transformation of the nature of work and the workplace has gained momentum due to higher level of technological innovations. It is agreeable that such changes threaten manual jobs. However, women are the most affected since they mostly find themselves confined to manual and lower-paying jobs. With the introduction of hi-tech innovations, the use of manual labour has thus become

obsolete (Schwab and Sala-i-Martin, 2016). WEF (2019) report gave an interesting perspective when it stated that, middle aged and elder women across the wide economic spectrum are more at risk to losing their jobs due to automation and technology as they face the challenge of skill-building.

It is vital to also try to understand which types of work are susceptible to technological changes. According to OECD (2017b), in today's digital era, automation does not often denote robotic assembly lines in factories that make cars. Gradually, smart apps, machine learning, and artificial intelligence allow the automation of workplaces in many departments, from virtual assistants to diagnosis of AI-assisted to customer service and Chat-bots. Therefore, modern technology will affect a lot of tasks and skills a lot more than anticipated, for instance, customer care tasks, logistics, back-office work, and accounting (OECD, 2017b). Therefore, modern technology at the workplace offers advantages as well as challenges among different groups of people. In that light, Dauth, Findeisen, Südekum and Woessner (2017) hinted that women are the ones to be most affected by technological changes since they make up the majority of the workers who are employed in jobs that are very much vulnerable to automation. These high-risk jobs include clerical positions such as secretaries, back-office and administrative personnel, and front-line service jobs including cashiers and fast-food employees.

It is against the aforementioned backdrop that this study aims to examine.

2.3 Rise of Technology at the Workplace is Leaving Women Behind

The current epoch is characterised by the meteoric pace of life, which is exacerbated by the rapid changes in technology, which further increases the rising number of unemployed people. All these changes are bringing precariousness as well as contributing to competitiveness in the labour market. Women remain the victims of this workplace evolution as they are lagging in STEM. Oyafunke-Omoniyi and Babatunde (2017) posit that there is a transition from the economy based on raw material and manual labour to cognitive skills, global markets, and the development of interactive communication networks. Historically systemic disadvantages and gender inequality is a major contributing factor to women having challenges to cope with the changes in the workplace, considering that apartheid had a negative impact on women as there were jobs which were allocated mainly to women and

those that were reserved specifically for men (Jaga, Arabandi, Bagraim and Mdlongwa, 2018). It is even argued that, in course of education, women often opt for soft subjects, and when they enter the labour market, they opt for administration jobs.

Technology has become integral and sits at the apex and a crucial integrant in the world of work and in all spheres of our human lives (Oyafunke-Omoniyi and Babatunde, 2017). The changes in the world of work have become substantial and many companies and organisations have joined the quest to advance their economies to increase productivity and competitiveness. However, these changes have produced the new forms of how work is performed as it sometimes induces fear in the workers (Galluch, Grover and Thatcher, 2015). Supporting that claim, OECD (2018), in their report, noted that the changes that are brought by the intensive use of technology pose a threat to older workers as they do not possess the skills or know-how of operating such machinery. Notwithstanding myriads of studies conducted by various scholars, government, and other stakeholders on gender disparities and its impacts on women including changes brought by the introduction of technology, very little has been done to provide interventions to capacitate women on how to deal with these changes in order to be able to compete and remain relevant in the labour market. Women are still lagging behind, and joblessness is increasing due to the fact that women are behind in terms of STEM as compared to their male peers.

Arntz, Gregory and Zierahn, (2016) argue that perhaps the positive side of technology in workplaces is that they promote growth and productivity in jobs that are directly tied to technology. Additionally, it is often said that, with the introduction of technology, it opens up chances of work flexibility which allows women flexibility to participate and attend to other tasks in and around their household. However, Acemoglu and Restrepo (2017) provide significant statistics that women make up just 17 per cent of software engineers and 20 per cent of computer programmers in an African context. Royce (2018), in their report, stated that women are the ones who are highly challenged by the use of technology in the workplace. The report furthered that, although women make up a significant percentage of the labour market they are somehow concentrated in entry level jobs which are precarious and susceptible to vulnerabilities. Additionally, it is reported that technology widens

inequality even amongst women as they come from different backgrounds with different socio-economic characteristics (Royce, 2018). In the opinion of Arntz, Gregory and Zierahn, (2016), the use of extensive technology in the workplace will have a more dire effect on women than on men. Supporting that claim, Royce (2018) stated that women experience 48 per cent of job losses as compared to 52 per cent of men. However, even though the figures may look like they are biased to women, the fact of the matter is that men make up a higher percentage of the labour market as compared to women.

In that regard, the statistics are not likely to change in the short term, given today's lower ratio of women who are taking science subjects in most developing countries. Therefore, it can be noted, from the above, that women are at a higher risk of the negative effects of technology in the workplace. Anderson, Armitage, Jack, and Wittner (2019) however, suggest that women are not always passive victims of the negative aspects brought by technology at workplaces. They always have coping strategies. Thus, this study sought to reveal the coping strategies of women in the changing world of technology in the workplace.

2.4 As Technology Changes, the Demand for Skills and the Outlook for Women are Mixed

Patel (2016) submits that computers, robots, as well as artificial intelligence, are increasing the ability to manage tasks that were traditionally performed by humans. However, they have proven to be inappropriate to substitute those human abilities that will become ever more important in the near future. It is argued that the gender repercussions of these ever-changing job profiles and skills are mixed. While automation will replace jobs previously done by women, Carpenter (2017) opines that it is important to note that some of the skills that will never be replaced by robot skills are those associated with women, like empathy, as well as compassion, care, and social skills. Spencer (2018), on his part, argues that women are at greater risk of automation because they hold inferior positions at workplaces. It is difficult to automate positions in management, leadership, and intellectual work than more traditional and inferior roles. For example, a customer service agent or bank teller experiences are at greater risk of automation than their first-line manager does. Previous assertions by Carter and Peters (2016) further indicated that women are going to be outnumbered by men in executive positions, mainly at the executive level. This means that men will be safer from the

risk of automation than women since the higher positions are not threatened by automation. This clearly shows that women are the victims of the transforming world of modern technology, but little has been said concerning their coping strategies amidst all these changes in the workplace. Therefore, this research seeks to fill that gap by examining their coping strategies amid such disruptive technologies.

In support of the above, the International Labour Organisation (ILO, 2013) submitted that the changes in the world of work carry many uncertainties in the employment market and more so for women. While the numbers of women in the labour market has risen exponentially over the years, women are still overwhelmingly involved in housework, care work, and clerical employment. Moreover, companies now prefer to hire workforce that have the applicable skills needed to operate the technological equipment and machines, instead of training the existing workforce as they claim that it is costly. Research carried out by WEF (2018) highlighted that women make up 22 per cent of artificial intelligence practitioners worldwide compared to 78 per cent of males. In that regard, the increasing growth of artificial intelligence is now widening the disparity in the job market that now demands the latest collection in skills like networking and programming. OECD (2017) supports this argument as it states that 14 per cent of women prefer science-related subjects relative to 39 per cent of men.

2.5 Changing Nature of Work

The world of work keeps evolving. According to International Labour Organisation (ILO, 2013), the changes in the world of work are bringing lot of unpredictability in the labour market. Patel (2016) further stated that there is a shift from the unprocessed material and physical labour to the one that is based on information technology, intelligence, global capital, and creation of business networks to share ideas. Companies are now employing based on the skills of an individual and the ability to adjust to the changes and the demands of the workplace. We are now living in the age of change and human capital should not be about qualification alone, but on the aptitude to work, creativity, and the innovative capacity of workers to take risk. Equally, jobs are becoming precarious and require workers with the highest level of adaptability and proficiency (Royce, 2018). There is great anxiety about the path that the nature of work is taking - the anxiety is caused by the rising number of

unemployment and job losses globally. The notion that machines will substitute human labour in the near future is also causing uncertainties. The new form of the labour market is thus emerging, which is fuelled by new technological innovations.

2.6 Principal Theory Upon Which the Research Project will be Constructed

Theories are employed to narrate and expound a phenomenon successfully; they give a guide on what the study will examine (Clark, 2014). It is crucial to comprehend the evolution of technology and how women are affected by these constant changes in the workplace. Theories are thus, a key tool that brings a better apprehension to this issue. Numerous scholars hold different perspectives and theories with regards to how technology affects women in the workplace.

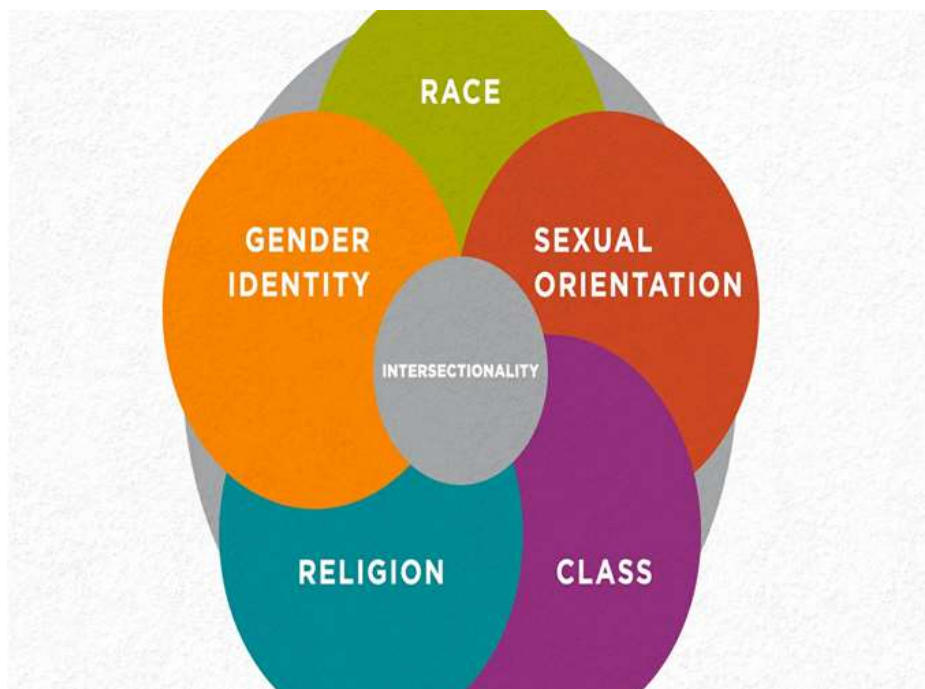
This research was guided by a single theory, which is the Feminist Intersectionality Theory (FIT). The rationale for using this theory was to answer questions raised by the study as well as to understand changes brought by technology at Nampak Mobeni, that technology aimed to examine the coping strategies of women in the changing world of technology in the workplace.

Intersectionality theory emerged as an advocacy of the social equality for the sexes. Kimberlé Crenshaw, law professor and social theorist, first coined the term ‘intersectionality’ in her 1989 paper *“Demarginalising the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics”* (Crenshaw, 2018:57). Intersectionality is a framework for conceptualising a person, group of people, or social problem as affected by a number of discriminations and disadvantages (Crenshaw, 2018:58). It takes into account people’s overlapping identities and experiences in order to understand the complexity of prejudices they face. In other words, intersectional theory asserts that people are often disadvantaged by multiple sources of oppression: their race, class, gender identity, sexual orientation, religion, and other identity markers. Intersectionality recognises that identity markers (e.g., “woman” and “black”) do not exist independently of each other, and that each informs the others, often creating a complex convergence of oppression.

Studies conducted by Kreiss and Adams (2019), shows that women have encountered, and are still experiencing, challenges in the workplace, especially where they have to perform

aberrant tasks. According to Crenshaw, as cited in Winker and Degele (2011), the feminist theory of intersectionality is an empirical method that attempts to ascertain how interlocking power structures affect those most disadvantaged in society. The intersectionality theory claims that different types of social inequality, such as age, religion, ethnicity, disability, sex, and sexual orientation, are not separated from each other but rather interwoven. The theory was coined by Kimberlee Williams Crenshaw in 1989. Her rationale for coining this theory was to tackle the aggravating character of repression and marginality that was embedded in gender and race. Moreover, this theory aimed to illuminate the plethora of challenges that black women encounter and the precarious space they often find themselves in. She argued that as much as women were under discrimination by the system, black women suffered multiple effects of marginalisation because of their gender and race, class, and more inequities as a result of culture and patriarchal tradition, which saw women as sub-standard beings (Calás, Smircich, Clegg, Hardy and Nord, 1999; Collins, 1989; Davis, 1981; Hooks, 1981; Mies, 1982; Mies *et al.*, 1986; Spelman, 1982, 1988). Since then, the intersectionality theory has gained popularity in studies of gender and related fields.

Intersectionality Diagram



Source: Birdie Taylor (2019)

The intersectionality perspective intensifies the understanding and the ability to enhance the lived experiences of marginalised groups in STEM. The theory intends to yield suitable results in achieving equality so that people can be regarded as a whole and not just part of their identity. Furthermore, intersectionality theory assists by focusing on context and systems and determines the research questions that should be asked during the interviews or surveys. It also identifies those who are affected and unearths missing voices as well as linking what has been discovered to broader systemic issues. Intersectionality is a contextual framework to scrutinise how the system of oppression is intensely interlinked and influences experiences and opportunities.

The conceptualisation of the intersectionality theory, for this study, is essential to comprehend how black African women in South Africa cope with the changes brought by technology in the workplace. The patriarchal system in South Africa is still very rife considering that it is a country that still holds a strong belief in culture and tradition where women have found it difficult to manoeuvre out of the social system (Kobo, 2018). Intersectionality is aimed at accentuating the comprehension of various overlapping structures and identities that can function in life of individuals on a day-to-day basis. The theory is used as an instrument for investigation, analysis, advancing the formulation of policies to deal with gender marginalisation, and disadvantages that happen as a result of concerted identities.

Whilst other feminist theories focus on gender as general approach, intersectionality takes cognisance that women are heterogeneous and are coming from different backgrounds with distinctive challenges. In a South African context, this theory will assist in tackling the challenges that emanated from racism, class repression, gender discrimination, and various other inequities that women experience, most of which are the outcome of historical, social, and political injustices. Intersectionality encouraged the society to understand that repression is multifaceted and cannot be treated in a singular manner. Other people are experiencing a variety of oppression which requires an in-depth understanding as well as more intense solutions (Nash, 2008). Over the years, women have always been segregated. Women were deprived of obtaining education, right to own houses, and land. In essence, women had limited choices in terms of what they could do. However, African women experienced over and above what other women of other races were going through. African women endured

cultural oppression as a result of social structures which considered women as weak.

Through it all, African women lived through racial suppression (Glenn, 2012). Furthermore, the type of education system in South Africa exacerbated inequality as people of other races had a better level of education and opportunities as compared to African people who received a considerably inferior form of education.

2.7.1 Historical Perspective

Historically, the labour market has always been hegemonized by men, and women were considered as homemakers and child bearers who were only a support system for working men. The introduction of technology in the workplace further widened the gap, as males tended to dominate most of the high-tech task jobs (Glenn, 2012). Even in institutions of higher learning, men made up the majority of students in the science and technology fields. However, recent years have seen women making an entry in these previously male reserved jobs.

The majority of women were employed in unskilled and semi-skilled positions, which are the area that is affected the most by the introduction and use of technology. Meek (1956), in his labour theory of value, argued that the organisation and division of labour within the capitalist mode of production, was highly differentiated by sex, and even the relationships to commodity production and consumption, under capitalism, are gendered. According to Barker (2007), the rise in the numbers of women in the job market is a result of the expansion of the services sector, in which women have been traditionally active - and the proliferating degree of development amongst women and the advancement of automation has created a possibility for women to contribute productively to the labour market. However, gender inequality, gender discrimination, harassment, job insecurity, and many other factors are highly persistent in the labour market, and it has a negative impact on women.

2.7.2 Synthesis on Conceptual Framework and Theory

The conceptual framework had its focus on the feminine intersectionality theory to proffer exegesis of how women cope with these changes. Intersectionality discusses how women are disadvantaged in all spheres of life based on their gender. It becomes even more difficult for black African women to break the stereotypes at a societal level, as well as in the workplace

because women have always been regarded as minorities. Over the decades there has been an increase of women who have entered the labour market, however, majority of the women who are in the labour market are unskilled, semi-skilled and some only have high school qualification and others are school dropouts. The introduction of technology means that most of these women will find themselves unemployed soon.

The theory of intersectionality helps the researcher to distinguish privileged types of experiences with coping with the evolving world of technology among women at work. It also helps the researcher to capture how the perception of what are women's valid coping mechanisms are and how they often relate to social roles and power relationships. The basis for selecting this theory is that it will help the researcher to gain in-depth knowledge and objective facts about the coping strategies of women in the changing world of technology in the workplace, to answer questions raised by the study and by ensuring that the data collected is analysed using the relevant theory for the study.

2.8 Coping Strategies

Coping strategies refer to the attempt which is both the behavioral and psychological attempt that people utilise to overcome, endure, and minimise taxing circumstances (Coyne, 1981; Dewe, 2001; Folkman and Lazarus, 1984). The efficacy of a person's capacity to cope is based on the coping strategy that they utilize to address the difficulties that they experience. Miller and Kirsch (1987) observed that gender has a crucial part in a person's option of coping strategies as well as their coping manner (Ngo, Tran, Tran, Nguyen, Hoang, Nguyen, and Ho, 2021). Women and men employ different coping strategies in dealing with their difficulties. Hence, this study focused on the coping strategies that are employed by women in the changing world of technology in the workplace. The aim is to understand the experiences that women undergo to cope with changes. This distinctly shows the necessity for this study to be more 'coping strategy' connected in order to be conducted, as there is an exponential growth in the number of women who are making inroads in the labour market, and they need to be aware of how they need to cope should they encounter challenges in the world of work.

Workplaces are sometimes challenging, and the changes in the world of work, as a result of

technology, has exacerbated difficulties for other workers, and if the equipoise between technology and workplace demand remains unrelieved, job security will be threatened, and the end result is uncertainty. Workers will then have to come up with coping strategies to deal with such ensuing uncertainties (Dauber and Tavernier, 2011). In essence, workers tend to apply different coping strategies to deal with the changing world of technology in the workplace. The coping strategy may vary depending on the magnitude of the emotional state of the worker (Magley, Gallus, and Bunk, 2010). There are various aspects of coping strategies with each interlocking and each with unique features. However, this study focuses on two aspects of coping strategies, namely the problem-focused coping strategy, and emotional-focused coping strategy. Coping strategies are linked with different life challenges and difficulties which include, but not limited to, unemployment, retrenchments, hopelessness, illnesses, and even changes in the environment (Lazarus and Folkman, 1984; Frazer *et al*, 2005). Each of these aspects will be discussed in the subsequent paragraph saliently.

2.8.1 Problem-Focused Coping Strategy

Lazarus and Folkman (1984) divided coping strategies into two aspects, namely, problem-focused coping strategy, and emotional-focused coping strategy. The problem-focused coping strategy is directed at resolving and changing the root of stress by taking necessary measures to avoid, lessen and to eliminate the effect of stress (Zeidner, 1995). Whenever individuals are faced with difficulties and challenges that they can manage, it restricts those individuals to assume a problem-focused coping strategy.

The solution may involve finding an alternative job or up skilling through education and training to remain relevant in the workplace and to avoid retrenchment. Often work-related strain has a dire ramification for individuals and companies as it leads to worker discontent, disengagement, low team spirit, work conflict, and less productiveness.

2.8.2 Emotion-Focused Coping Strategy

The study draws on all the literature as reviewed, including the principal theory upon which the study is constructed, The Feminist Intersectionality Theory reinforces that the strength of the literature, reviewed by the researcher, rests on emotional-focused coping strategies.

The reason is that the worker's emotional psyche is the common denominator when it comes to work and related matters. Emotion-focused coping is a type of stress management that attempts to reduce negative emotional responses that occur due to exposure to stressors (Krischer, Penney, Hunter,2010).

Negative emotions such as fear, anxiety, aggression, depression and humiliation are reduced or removed by the individual by various methods of coping. Emotion-focused coping can be positive or negative. Positive examples include talking or writing about their emotions through therapy or journaling, mindful meditation, or distraction with other activities. Negative examples of emotion-focused coping (that typically are not beneficial or helpful in the long term) are suppression of emotions, avoidance, and alcohol or drug use in order to dull or avoid emotions (Krischer, Penney, Hunter,2010). Emotion-focused techniques might be the only realistic option when the source of stress is outside the person's control.

As Gilbar, Weinberg and Gil (2012) noted, drug therapy can be seen as emotion focused coping as it focuses on the arousal caused by stress not the problem. Other emotion focused coping techniques include:

- Distraction, e.g., keeping yourself busy to take your mind off the issue.
- Emotional disclosure. This involves expressing strong emotions by talking or writing about negative events which precipitated those emotions (Pennebaker, 1995). This is an important part of psychotherapy.
- Praying for guidance and strength.
- Meditation, e.g., mindfulness.
- Eating more, e.g., comfort food.
- Drinking alcohol.
- Using drugs.
- Journaling, e.g., writing a gratitude diary (Cheng, Tsui, and Lam, 2015).
- Cognitive reappraisal. This is a form of cognitive change that involves construing a potentially emotion-eliciting situation in a way that changes its emotional impact (Lazarus and Alfert, 1964).
- Suppressing (stopping/inhibition of) negative thoughts or emotions. Suppressing emotions over an extended period of time compromises immune competence and leads to poor physical health (Petrie, Booth and Pennebaker, 1988).

An emotional-focused coping strategy is focused on reducing the emotional strain that relates to stress difficulties. Carver and Conner-Smith (2010) stated that each individual employs a variety of responses to deal with stressful situations. Some individuals cry, some put more concentration in their work to distract themselves by avoiding over thinking and getting emotional. It is in the light of the possibility of one avoiding overthinking and getting rid of emotions, under emotional focused coping strategy, that the strength in this literature revolves around it.

Concluding remarks

This chapter discussed available literature, as well as principal theory upon which the study is constructed on, to gain in-depth knowledge and objective data on the coping strategies of women in the changing world of technology in the workplace. The next chapter will discuss methodology applied for the study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter focuses on the research design and methodology of the study, which espouses the accurate systematic research method when conducting the research. It also discusses the research paradigm, research design, and approach to inform the data analysis and exposition. The methodology section elucidates on determining and describing the sample size as well as the sampling method utilised, and the demographic dispersal of the sample. The study is aimed at investigating the coping strategies of women in the changing world of technology in the workplace. This study employed the critical realism research paradigm. The reason is that the study is aimed at gaining empirical and objective understanding, as well as an in-depth understanding the coping strategies that women employ when dealing with the taxing challenges brought by technology in the workplace. According to Pashaeizad (2010), research paradigm refers to a cluster of beliefs, which, for scientists in a particular discipline, influence what should be studied, how research should be done, and how results should be interpreted. This chapter discusses the measurement instrument that was employed for this study. It further discusses the development of the measurement, the logic behind it, and how it was applied and interpreted. Lastly, this chapter discusses the data collection method and analysis and will conclude the chapter summary.

3.1 Defining Methodology

This research is designed to examine the coping strategies that are utilised by female staff at Nampak Mobeni. Various elements were factored into account when choosing the relevant methodology to use in collecting and analysing the data for this study. Methodology plays a crucial function in the determination of the data collected during the study. The study employed a mixed-method approach to capture the responses of the participants who were selected for this survey. According to Edwards (2010), a mixed-method approach of data gathering is a mixture of both qualitative and quantitative methodologies. Thus, a mixed-method approach shall be used to gain in-depth knowledge as well as objective data on how women cope with the ever-changing technology in their workplaces.

Neuman (2006), stated that the major challenges that are associated with qualitative studies are that findings cannot be generalised to the whole population, hence, the use of quantitative methodology such that findings can be generalised to the whole population. This study adopted a mixed-method approach. The rationale for choosing a mixed research method is that it provides a stronger understanding of the problem, since it looks at both the qualitative and quantitative data. The advantage is that, by applying two different research methodologies simultaneously, the limitations of each other are countered.

This study was aimed at examining the coping strategies that are utilised by women who are currently working at Nampak Mobeni. The study employed a mixed-method approach to capture the copying mechanisms employed by female employees. However, as a result of the limited number of female employees available at Nampak Mobeni, the researcher had to augment the number of participants with male employees, so that they could speak through the voices of women.

3.2 Research Paradigm Philosophy

The research paradigm of the study draws on Schnellker (2006:44), who posits that a research paradigm is a collection of essential beliefs and principles that defines the actions, views and interpretations of the world that the researcher lives. The paradigm is the philosophical context that the researcher analyses the methodology's features of their research study to determine the applicable method and how data is processed (Schnelker, 2006). Paradigms are distinguished by how the researcher responds to the ontological, epistemological, and methodological questions. Ontology refers to the nature of reality; epistemology is concerned with possibilities, nature, sources, and limitations of knowledge in the field of study, here the researcher categorises on what he regards as knowledge or not. Axiology refers to what roles do the values of the researcher play during the proceedings of the study (Walter 2006:11).

Critical realism is the philosophical worldview that emerged as a result of the dissatisfaction with positivism and interpretivism (Wiltshire, 2018). Critical realists posit that our knowledge of what we consider as reality is the outcome of social conditioning (Saunders, Lewis and Thornhill, 2007). The main aim of critical realists is to transmute the social relations by revealing, critiquing, and transforming inequitable practices in the society by

removing all forms of oppression and emancipating people to create a better life for themselves (Du Plooy- Cilliers, 2014). Critical realists believe that things must be thoroughly investigated and analysed.

Critical realism is relevant in a mixed-method inquiry because they hold a view that using a single method does not furnish decisive results, however, combining both a qualitative and quantitative method, yields better results as these two methods supplement each other.

Table 3.1: Tabular Explanation of Terms

	Definition	Critical realism
Ontology	The nature of reality	Reality changes over time, as it is under the governance of other structures.
Epistemology	The relationship between the researcher and research participant	Knowledge should supply people with tools needed to change their lives.
Axiology	The role of values in the research process	Freedom, equality, and emancipation are valuable.
Linguistic relativity structure	The language and presentation of the research	Accept a degree of subjectivism and support the idea that it is almost impossible to do value-free research as even research topic is value-laden.
Methodology	The process and procedure of the research	Mixed method approach is employed (qualitative and quantitative).

Source: Reworked from (Du Plooy Cilliers *et al*, 2014)

- It gives a name to a stance which in practice is held by a lot of social scientists, i.e., there is an objective reality, some accounts are ‘better’ than others, with an integration of values.
- It highlights the importance of ontology and the consequences that flow from ontological positions. It helps us to see that debates (space between interpretivism and positivism) should not be restricted to the level of the method (mixed methods versus quantitative/qualitative division) but ontology (critical realism versus objectivism/constructionism).
- It is a flexible term that encourages creativity and flexibility in application and a rejection of methodological boxes.

Some scholars have raised concerns about the limitations of the critical realism paradigm.

- Interpretivists view critical realism as too realistic, whereas the positivists view this approach as not practical enough.
- Some of the scholars of critical realism, like Bhaskar, have been majorly criticised for their complex line of argument that makes it hard to follow them.
- Critical realism is a meta-theory and does not offer a procedure for the conduct of social research. As such, it can mean many things in practice and some of the most interesting theoretical work, which seeks to bridge structure and agency, has taken place without the help of the critical realist theory or under the looser banner of post-positivism.

3.2.1 The Motivation of Critical Realism Paradigm

Critical realism paradigm is highly applicable in this study as it investigates the coping challenges of women in the changing world of technology in the workplace. It uncovers how women, who have lower educational standards and opportunities, encounter challenges in the workplace as they cannot grasp or cope with the changes of the fast-paced technology.

3.3 Study Approach

According to Leedy and Ormrod (2001), a research study can be categorised into two broad categories: qualitative and quantitative studies. The quantitative approach is well known as the traditional, experimental, or positivistic approach,

while qualitative research, which deals with the complex nature of phenomena, is also referred to as the interpretative, inductive, constructivist, or post-positivist approach (Leedy and Ormrod, 2001). A mixed method approach was chosen for this study to enable me to gain comprehensive knowledge and understanding of the coping strategies of women at Nampak-Mobeni in the wake of technological application in the production process. I was also able to make sense of the complexities and challenges that the participants encountered in their attempts to manoeuvre their way around the times.

3.4 The Study Site

This study was conducted at Nampak Mobeni in Durban. The reason for choosing this site is because Nampak Mobeni has a large number of respondents and participants that will make the study successful. Moreover, it is one of the companies that has undergone various changes over the years due to the introduction of technology. The targeted community for the study comprises of production plant workers, foremen, superintendents, organised labour, males and females, and inclusive race working at Nampak Mobeni. The study was conducted with ten months in 2020.

3.5 Data Collection Strategies

The study on evaluating the coping strategies of women in the changing world of technology in the workplace, was carried out using primary data for wider views and coverage. In the case of a qualitative research approach, data collection was obtained by means of flexible-structured interviews with an unrestricted line of questioning among the employees of Nampak Mobeni. The quantitative data was collected using questionnaires, which was largely distributed to the target participants. This instrument assisted in the coverage of a wide range of participants with diverse views. The interviews and questionnaires were conducted in both English and IsiZulu. The ethical consideration for this study was strictly followed in line with the University's ethical standards.

This study took place during a very critical time where the country is under strict regulations of lockdown due to the COVID-19 pandemic. The rules that have been put in place compelled the researcher to improvise since interpersonal interviews were not a possibility given the circumstances of the times. As such, participants were contacted online and interviews were conducted virtually via Google Hangout, Skype, and WhatsApp messenger depending on suitability. This strategy falls in line with Jowett (2020), who argued that due to

the current pandemic, researchers are re-modelling their research study and the data collection method to online platforms, taking into consideration the issue of social distancing. According to (Lo lacono, Symonds, and Brown, 2016), the use of online applications for communication, as a method of conducting interviews, has become crucial and popular to the researchers as they provide a real-time connection without having to sit down and have physical one-on-one meetings. Equally significant is that these online platforms offered me a time-efficient and financially affordable way of conducting the interviews. All questionnaires were emailed to participants/respondents.

3.6.1 Sample Size

The participants were the male and female staff at Nampak Mobeni. Although the study focuses on women, the limited number of female employees at Nampak meant that, the researcher had to augment the sample frame with male employees. A total of 70 participants were used for the study. They were selected through a systematic sampling technique and purposive sampling. This was done to get prior information before using questionnaires for data collection. About 60 questionnaires were disseminated to the selected participants. The remainder were recruited for semi-structured interviews after purposively selecting them. The rationale for choosing this sample size was to get in-depth knowledge as well as a concise response for a meaningful analysis of the findings.

3.6.2 Sampling Strategies

3.6.2.1 Systematic Sampling and Purposive Sampling

According to Creswell, Fetters, and Ivankova (2004), the systematic sampling technique includes an accidental selection of the first item and then selecting the following participants at standard intervals. Creswell, *et.al* (2004) stated that the systematic sampling technique is simple to interpret and to carry out once the first interval is found. Another reason for which the researcher opted to use a systematic sampling technique is that the population is guaranteed to be evenly sampled without the risk that the same points are clustered together. On purposive sampling technique ten participants were selected through this sampling strategy. The technique uses the calculated selection of specific units of an interval to make up a sample that can be generalised to the whole population. According to Robinson (2014),

purposive sampling is vital, especially when the researcher can easily identify the target sample. The researcher chose this technique because it is easy to collect specific and required information that suits the research objectives since the information is taken from chosen experts, thus less time-consuming.

3.7 Data Collection

The focus of the study was on evaluating the coping strategies of women in the changing world of technology in the workplace. Hence, the researcher collected the data from the participants in the case study area of Nampak-Mobeni. Quantitative data was collected via survey instruments to augment the study. Personal dissemination of the survey instruments was not possible because of COVID-19 restrictions. Hence, all survey instruments were conducted virtually.

The research study followed a mixed method design, operating within the critical realism paradigm. Mixed methods helped the researcher to get the research design that was suitable for the research problems in order to make the study more manageable. Therefore, in order for the study to obtain the intended outcomes, a convergent parallel design was selected. Mixed methodologists usually operate within the critical task. Scholars accept that defining critical realism is not an easy task. However, there is a pool of scholars that critical realists often draw upon. Critical Realism evolved from the writings of the philosopher Roy Bhaskar in his book, “A Realist Theory of Science, 1975”. In this text, Bhaskar lays the foundations of Critical Realism with his thesis for transcendental realism. Bhasker states that in order for science, as a body of knowledge and methodology, to work or be intelligible, then epistemology and ontology need to be separated and we must distinguish between the transitive and intransitive bodies of knowledge or dimensions. Transitive knowledge relates to qualities of changeability or provisionally of our knowledge of the real. Thus, the transitive dimension comprises of our theories of the events and structures that we seek to understand in the intransitive dimension. The realism paradigm is interested in both narrative and numeric data and their analysis.

Two factors influenced the researcher’s decision to adopt the mixed-method approach. Firstly, the mixed method approach allows the researcher to obtain subjective and objective information from various viewpoints. Secondly, the mixed method approach allows the

researcher to implement the quantitative and qualitative strands during the same phase of the research process, it prioritises the methods equally, keeps the strands independent during analysis, and then merges the two sets of results to assess in what ways the results about adolescent attitudes converge and diverge (Creswell, Klassen, Plano Clark, and Smith, 2011). In the case of a qualitative research approach, data was collected through the conduct of a flexibly structured interview amongst the employees of Nampak-Mobeni. The quantitative data was collected using questionnaires, which was distributed to the participants at Nampak-Mobeni. This instrument assisted in covering a wide range of participants with diverse views. The interviews and questionnaires were conducted in both English and IsiZulu. The ethical consideration for this study was strictly subjected to the University's Ethical Committee for scrutiny. The questionnaires were sent to respondents via emails, and qualitative interviews were conducted through telephone. This is as a result of the COVID-19 pandemic which doesn't allow gatherings.

3.8. Population, Sampling Size, Sampling Strategy, and Procedure to the Study

The participants were women and men employees at Nampak Mobeni, a company that utilises new technology in performing their duties.

The total number of participants selected for the study was 70. Out of the 70 participants, the quantitative research design is 60. The sample size can further be ascertained through the Krejcie and Morgan (1970) table. The statistical formula below can equally be applied to determine the sample size of 60 participants.

$$\text{Yamen (1967) - } n = \frac{N}{1+N(e)^2} \text{ to allow generalisability}$$

In the case of qualitative research, the population size was 10 participants who were purposively selected. This strategy helped in selecting specific participants who were in a strategic position to supply the information required to address the research problem. The sampling technique considers the calculated selection of specific units of the universal item to make up a sample that can be generalised to the whole population. According to Tongco (2007:147), purposive sampling is employed to deal with specific context suitable for the demographic's characteristics of the research area and the participants. The true concern of the purposive sampling is to get in-depth information from a strategic group or individuals who are well vested, willing and knowledgeable in the subject matter. The researcher chose

this technique because it was easy to collect specific and required information that suits the research objectives, since the information is taken from a chosen constituency of experts, thereby making the process less time-consuming.

3.9.1 Data Analysis

Data collected in this study was analysed thematically and descriptively. Thematic analysis is defined as a method for identifying, analysing, and reporting patterns within data (Braun and Clarke, 2006:79). This data analysis method is characterised by more open, tentative, intuitive, and more focused on ‘meaning units’, those that are meaningfully described by the participants. It provides a flexible and clear source of data corpus and rich and detailed interpretation and reporting. Again, thematic analysis allows for flexibility in the researcher’s choice of theoretical framework. Some other methods of analysis are closely tied to specific theories, but thematic analysis can be used with any theory a researcher chooses. Through this flexibility, thematic analysis allows for a rich, detailed, and complex description of a particular data.

The inductive essence of this study requires the thematic device of review to be acquired in the study (Patton, 1980:306). Braun and Clarke claim that the meticulous technique is thoroughly utilised to help find themes concerning the distinctive ontological and epistemological positions within the study. Following the description of data management, the transcripts draw meaning from the data collected before breaking it down into different themes. The next step after reading the transcript was coding, classifying, and categorising, as well as interpreting and describing. Here, common themes were identified, coded, and grouped into categories. Under this section the researcher began interpreting the views obtained through personal observation and script reading. Thus, in interpretation, the researcher made meaning of the data collected. The next step involved reducing the information to a small, manageable set of themes to be written into the final narrative and finally data presentation. The presented results were credible since it involved participants’ own words. The analysis was based on the transcripts, audios, notes, and reflections. The quantitative aspect was collected through questionnaires and was analysed statistically through Statistical Product and Services Solutions (SPSS).

Since the study relied on a mixed method approach, qualitative and quantitative data were consolidated in the findings.

3.9.2 Trustworthiness for Qualitative Research

In his first publication, Guba (1981) raised some trustworthy concerns that any researcher needs to address, irrespective of his/her research paradigm. These questions are: how can a researcher establish confidence in his/her findings? How do we know if the findings presented are genuine? (Truth value concern). Another concern is how do we know or determine the applicability of the findings of the inquiry in other settings or with other respondents? (Applicability concern). Credibility is defined as the confidence that can be placed in the truth of the research findings (Holloway and Wheeler, 2002; Macnee and McCabe, 2008). Credibility establishes whether or not the research findings represent plausible information drawn from the participants' original data and is a correct interpretation of the participants' original views (Graneheim and Lundman, 2004; Lincoln and Guba, 1985).

In this study, one of the standpoints was to spend most of the stipulated time, first by paying visits to the case study sites, and later via electronic means (as a result of COVID-19 restrictions), to engage, build trust, and develop cordial relationships with the participants. The participants were credible in that, they were qualified to provide in-depth information relating to the subject matter. Participants were staff from the case study context. Though the findings of this research cannot be generalised in the country, the close-focused analysis, it presents, raises awareness to issues that might be applicable to similar staff/workers with the same conditions as the study context. In this study the audit trail included materials such as the recordings, the interview transcripts, the list of interviewees, and the lists of categories that were used while analysing the data.

Dependability is known to be a qualitative parallel to reliability (De Vos *et al.*, 2005:246; Martens, 2010:259; Patton, 2002:546). According to Babbie and Mouton (2001:278) dependability or reliability is determined by the credibility. Lincoln and Guba in (Shenton, 2004:71) emphasise that a demonstration of credibility ensures dependability and vice versa. To enhance dependability of the study, a detailed recording of data collected, and all the research processes were maintained.

The process helped to keep an audit trail (Martens, 2010).

Transferability is an alternative to external validity or generalisability of the research findings, according to Lincoln and Guba (1986 in Martens, 2010:259; De Vos *et.al.*, 2005:346; Patton,2002:546). Since this study was specific to a defined company (Nampak-Mobeni), findings are not generalisable to other situations. However, it provides an example from which other companies, bodies, agencies, and institutions may learn. The details of the concept, and, or, findings, can stimulate thought and discussion on the topic. Detailed discussions of the study phenomenon, gives readers a fuller understanding of it, enabling them to make decisions about transferability to other places (Babbie and Mouton, 2001; Shenton, 2004). The sample of participants used, has also been described in great detail, including its context as well as the research methods used in the investigation and the findings thereafter.

Confirmability is the qualitative alternative to objectivity of the researcher (De Vos *et. al.*, 2005;Patton, 2002). It relates to the degree to which the findings accurately reflect what the study focused on primarily (Babbie and Mouton, 2001:278). An audit trail demonstrates that the research findings “are the result of the experiences and responses of the participants, rather than the characteristic of, and preferences of the researcher” (Shenton, 2004:72), therefore promotes confirmability. Shenton (2004) further concludes that triangulation increases the chances of confirmability and reduces the effect of researcher bias (Mertens, 2010:260). In the study, an audit trail, to promote confirmability and dependability, included the following:

- Conducting a literature review guided by the research question.
- Conducting interviews and questionnaires using questions designed on the basis of the research questions as well as insights from literature.
- Using different data sources (men and women, workers of differing ranks) to obtain similar/related information.

3.9.3. Ethical Considerations

Ethical considerations are vital in every study. According to Kothari (2004), scientific research involves the conduct with humans; therefore, adherence to conventional or standard norms and values approved by the scientific community is the key.

Creswell *et al* (2004) said, a researcher must avoid harm to participants; get informed consent from the participants; ensure that the research is not invading the privacy of the respondents, and lastly avoid deception. In light of the ethics mentioned above, the researcher sought permission to research all respective stakeholders including the department and gatekeepers at Nampak Mobeni. All interviewees, respondents, and participants confirmed their willingness to participate through their participation in voluntary consent forms. The researcher adopted pseudonyms to identify respondents. The study was also anchored on the principle of confidentiality, meaning that all the information were not to be made known to other parties.

3.9.3 Concluding remarks

The study aimed at investigating the coping strategies of women in the changing world of technology in the workplace. The chapter addressed the research methodology and method of the study. It also discussed the research paradigm, research design, and approach which informed data analysis. It further described sample size as well as the sampling techniques. The next chapter will be chapter four, which deals with data presentation.

Chapter Four

Presentation of Research Findings

Introduction

This chapter proffers data findings that were cumulated from the research respondents. The purpose of gathering the data was to explicate on the objectives and research questions that were raised by the study in investigating the coping strategies of women in the changing world of technology in the workplace. The data was gathered through survey questionnaires (quantitative method) and online interviews (qualitative interviews) which were conducted using WhatsApp messenger (as a result of COVID-19 restrictions). The rationale for using a mixed method was to analyse the vast range of respondent's/participant's distinctive viewpoints.

The interviews were conducted both in English and IsiZulu. This was done to cover the diverse nature of participants in Nampak Mobeni. 60 survey questionnaires were distributed to respondents and 10 online interviews were conducted. The survey questionnaires and interview questions were crafted to solicit the cognisance of coping strategies that women employ to deal with the changes in the world of work as a result of technology in the workplace.

4.1 Demographic Attributes of Respondents/Participants

The research took cognisance of the heterogeneous nature of social and demographic variants such as gender, age, qualifications, and position at work to present applicable acuity towards participant's/respondent's livelihood and the fact that the workplace comprises of contrasting workforce of the older generations, who possess no technological skill and lower standard of educational qualification, who often encounter numerous challenges as a result of evolving technology, and the younger generation who are technologically savvy, with higher educational qualifications. The two groups of people react differently to the use of technology in the workplace.

4.1.1. Description of Participants and Respondents

The total number of respondents/ participants was (70) out of the total number percentage

represented males and percentage was made of females

There were ten participants for individual interviews and the participants were selected through a purposive sampling technique.

Table 4.1 Work Position of Participants

Designation	Department
Production Manager	Production
Production Supervisor	Production
Artisan	Production
Clerk	Printing
Lithographer	Printing Department
Logistics Superintendent	Supply Chain
Finished Goods Foreman	Supply Chain
Lacquering Technician	Can Factory
Production Processor	Can Factory
Packer	Monoblock
Packer	Monoblock
Production Processor	Dispatch

Source: Study, Interviews 2021

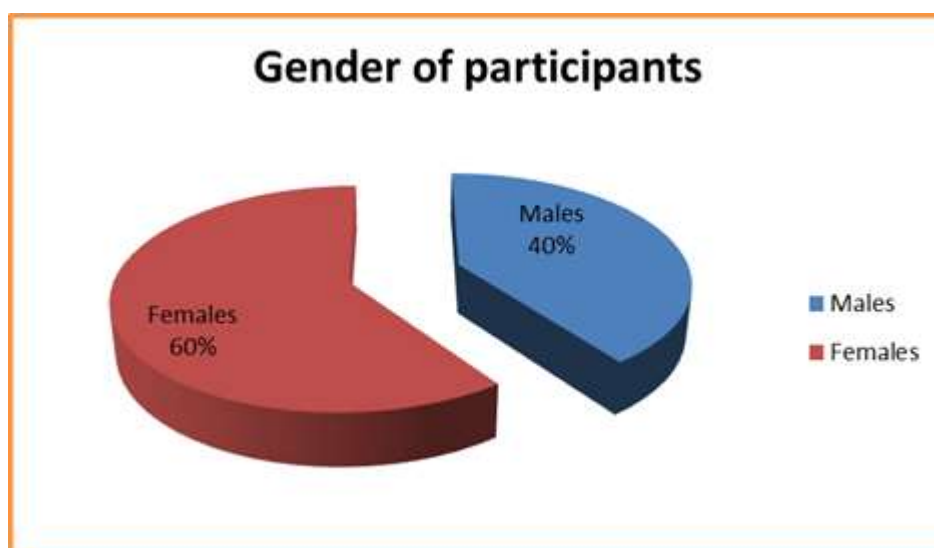
The participants from the table are a depiction of team members in each department within Nampak Mobeni.

Table: 4.2 Gender of Participants

Gender	Number	Percentage
Males	4	40%
Females	6	60%
Total	100	100%

Source: Study Interview, 2021

The table above characterises the gender of participants. Thereupon, the chart is utilised to exhibit a compendium of the figures furnished for proportional conception.



Source: Study Interview, 2021

Table 4.3 Educational Qualifications

Qualification	Number	Percentage
Matric	5	50%
Diploma	3	30%
Under-Graduate Degree	1	10%
Post-Graduate Degree	1	10%
Doctoral Degree	0	0%

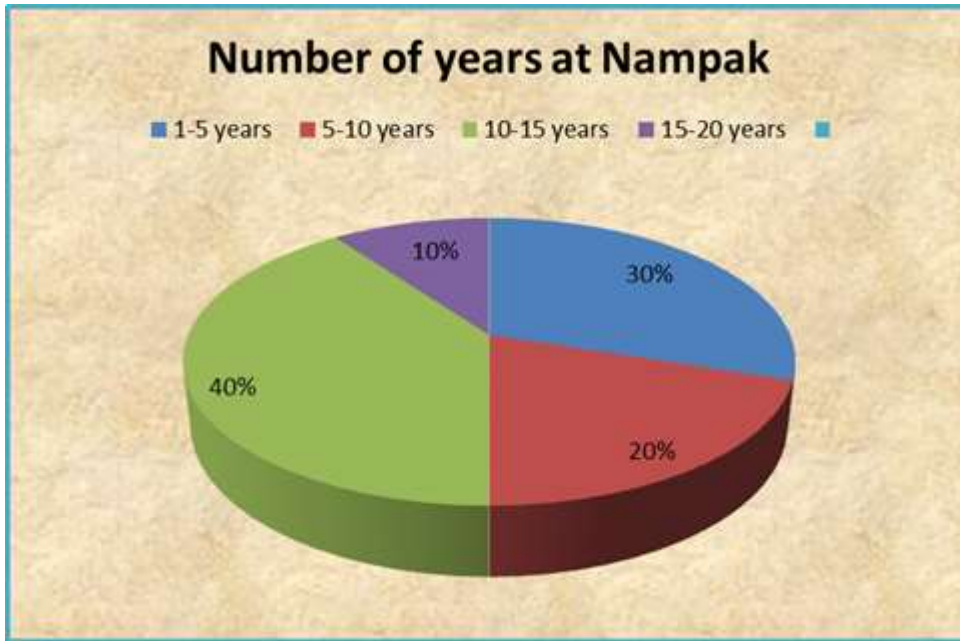
Source: Study Interview, 2021

On analysing the table above, it can be noticed that participants hold varying educational qualifications. However, half (50%) of them have grade 12, followed by 30 per cent who have diplomas, ten per cent with undergraduate degrees and ten per cent with a post graduate degree.

Table 4.4 Number of years working at Nampak

Years	Number	Percentage
1-5 years	3	30%
5-10	2	20%
10-15	4	40%
15-20	1	10%
20-25	0	0%
25+	0	0%

Source: Study Interview, 2021



Source: study, 2021.

Majority of the participants have been working at Nampak Mobeni for a number of years, with only 30 per cent having been working for five years and below.

Data was gathered by means of online WhatsApp messenger for individual interviews (qualitative). Interviews were flexibly structured with an unrestricted line of questioning. This was done to keep the interview flowing with the ease to pose follow-up questions depending on how the participant responded. Survey forms were distributed to the respondents to solicit their views regarding the introduction of technology in the workplace. According to Creswell (2014), social sciences investigators are faced with intricate issues that they have to confront and resolve through their studies. Thus, employment of a mixed method is imperative to tackle the intricacy of the societal problems. Moreover, there is better discernment attained when employing a combination of these approaches as it furnishes the augmented cognisance of the research problems.

Interview questions were crafted to procure comprehensive knowledge of the coping strategies of women in the changing world of technology in Nampak-Mobeni. The sample size of ten participants were selected for individual interviews and for the survey the sample size was 60 respondents. Although, the sample size of 70 respondents/participants looks as if is insufficient to provide adequate delineation of the total population of Nampak Mobeni, it

nonetheless provided a demonstration of materiality of coping strategies that women have to employ to deal with challenges that emanate from introduction of technology in the workplace.

Interviews were carried out in English as well as in IsiZulu to accommodate the diverse employees of Nampak Mobeni. The interviews were arranged for 45 minutes per individual online interview, and survey questionnaires were distributed and were retrieved after two weeks. This was meant to give respondents ample time to respond to the survey at their own leisure to eliminate mistakes. The interviews and survey questionnaires were carried out to present responses to the research questions raised by the study:

1. What are the changes brought about by the technology in the workplace on women?
2. What is the impact of technology on women in the workplace?
3. What are the coping strategies of women in the changing world of advance technology in the workplace?
4. What are the appropriate measures in addressing changes brought by technology on women?

4.2 Recapitulation of Discussion on the Basis of Question

Interviews were coordinated in Nampak Mobeni. The motivation for carrying out the interviews was to procure perspectives, outlooks and practices of participants on the coping strategies of women in the changing world of technology in the workplace. Participants were granted an ample timeframe to respond to the inquiry. Interviews comprised of 14 pre-formulated questions which were crafted as a model during interview deliberation. Nonetheless, follow up questions were posed based on the participant's responses to generate exhaustive answers to the enquiry. Questions and deliberations were centralised on the idiosyncrasy of apprehending the changes brought about by the introduction of technology in the workplace on women, the impact of technology on women in the workplace, coping strategies of women in the changing world of advance technology in the workplace and appropriate measures in addressing changes brought by technology on women. During the interview process numerous themes materialised which are outlined below:

Table 4.5: Interview Themes

S/N	Research Objective	Emerged Theme
1	Understanding changes brought about by the introduction of technology in the workplace on women?	Understanding Technology
2	Impact of technology on women in the workplace	Education
		Transition to automation and digitisation
		Work-family integration
3	Coping strategies of women in the changing world of advance technology in the workplace	Ways of coping
		Social Support
		Organisational Resources
4	Measures in addressing changes brought by technology on women	Training and Development

Source: Survey, 2021

4.2.1 Producing Themes

The quintessence motive for carrying out this study was meticulously explained in the research questions. The key intention was to solicit knowledge on the coping strategies of women in the changing world of technology in the workplace. Notwithstanding that technology is being praised to change human lives for the better, the challenge of transitioning from manual labour to automation is still extant. During the interviews participants depicted a pellucid delineation of their understanding regarding the facets that are behind the challenges of coping with the changes emanating from technology in the workplace.

Transcripts were scrutinised with thorough cogitation to solicit assiduous apprehension of the perspectives, standpoints, and background of individual participants. During the transcription process several themes materialised in the interview. The themes that materialised are within the ambit of the coping strategies of women in the changing world of technology. The themes are discussed saliently below:

4.2.1.1 The Understanding of Automation and Digitisation

To institute the participant's comprehension of technology in Nampak Mobeni questions associated with technology were posed.

What is your understanding about automation and digitisation?

Are there any challenges that are brought by technology that you have experienced?

The responses proffered by the participants underlined the realisation that participants have regarding technology.

- Automation and Digitisation

Automation and computation is the much-cogitated subject in this current era, as it pertains to all areas of our livelihood. However, there are still those who are not entirely in tune with the fast-paced changes in technology. During the online interviews with employees of Nampak Mobeni, it was evident that some of them were not aware of the intensity of technology in the workplace even though the participants were aware that technology is about making things easy in life generally.

Participant 6 stated that: *"I know that it is about using new machines because when the company buys new technological equipment, we are then called to a meeting where it is*

explained to us that there will be changes”.

Participant 8 responded, thus: *“I have no idea what it is about, we do not use computers where I work, so I wouldn’t know what it entails. But in general, I know that computers make things easy in the place of work”.*

Participant 3 stated that: *“The introduction of computers in the workplace has brought so many changes; it has increased the speed of production process. I can say that automation is the repetition of production of work that is done with the aim of maximising production and profit. Here at Nampak the printing department or lithography uses more of digitisation than any other departments”.*

Automation and digitisation have brought unconventional ways of how work is carried out. For others, it brings possibilities for increased guerdon and fulfilment in their work and better lifestyle whereas for some it is vexatious, and it occludes opportunities for advancement.

- Education

During the interview process, it emerged that the majority of female participants did not have tertiary qualifications. They cited financial constraints as the key reason for not being able to further their studies. Some of the women mentioned that their family circumstances forced them to go and seek for jobs to support their families. They therefore became breadwinners by default.

Most participants eluded that due to their background and circumstances, they did not choose the job that they were doing. However, they took whatever job offered and available regardless of whether there will be a possibility of development.

Participants 7 and 8 stated that: *“I did not choose this job. After I finished grade twelve, I was interested in doing Information Technology. However, due to circumstances, I couldn’t pursue it. Then I applied here at Nampak, and I was offered the position of packing.”.*

Participant 8: *“I just applied for a job at Nampak. I wasn’t specific on the job that I wanted to do. I was told that they only have a vacant position in the packing department, of which I did not have a problem with as I was desperate for a job”.*

Women are continuously experiencing challenges in all aspects of life despite the myriads of intervention from different stakeholders that ensure that women participate competitively in

the workplace through education. Circumstances and family background are still making it difficult for them to succeed and develop themselves.

- **Technology Challenges**

During the interview process, various challenges emerged as far as technology is concerned. Some of the participants stated that they find it difficult to adjust to the changes in the world of technology, especially in the initial stages of the introduction of technology in the workplace. Although technology is often praised for making life easy and produces more goods within a short space of time, there is still a long way to go for most people to reach the optimum standard of applying them without difficulty.

Participant 3 stated that: *“The transition and adaptation are not easy. However, the key is to identify those problems and try to solve them as much as possible. Currently, there is a challenge of the internet, and older people, here at Nampak, have difficulty in adapting to the new ways as they do not have the skill to conduct the machines. Furthermore, when teaching old people, one has to be extra patient with them. Old people have to work twice as much more than young people in understanding technology; it puts a strain on them”* (participant3).

Participant 5 further echoed: *“I think the challenge is more about understanding how to use technology and the delay in getting the necessary training. Sometimes you find that even though you have received training, using the technology to your suitability becomes a challenge”* (Participant 5).

The introduction of technology has taken a lot of people out of jobs. Changing from conventional machines to more digitised machines means that the company will need less workers in the production lines. Moreover, the actual training and understanding of technology is also a serious aspect, especially for women who have been previously disadvantaged. Because whilst the companies and the country itself is still trying to close the gap on gender inequality in the workplace, new forms of technology are being introduced and the goal post keeps shifting.

- Organisational Support

During the interview, it also emerged that the company has set up an employee wellness programme in place to assist its employees to deal with challenges that they might be facing. However, participants had different views regarding these programmes. Some participants reported that though they have such programmes, they are not useful to them as they feel that they don't address their challenges. Others however said, some of the workers are happy with the programme.

Participant 3 stated that: *“There is a programme called I care. Employees are to phone and talk to a counsellor regarding any challenge or stress that you might have. However, I will be honest, that programme never worked for me. I was under enormous stress due to various challenges here at work, but that programme did not assist me at all”.*

Participant 9 said: *“There is a programme called I care where employees attend when they have challenges. However, I have not used such a programme”.*

One participant reported: *“Those that have been put in place to conduct programmes that assist employees should be independent and should not align to certain people or managers. Programmes should be private to ensure integrity”.*

Another participant stated that: *“It was better when the counsellors were site-based. The company decided to do away with face-to-face counselling, it becomes difficult to talk to the counsellors as they cannot see you and understand your position at that point in time. Adding to the challenge is that our offices are open plan so it becomes difficult to have a confidential discussion where your colleagues can overhear the conversation”.*

- Work-family integration

Integration of work and family also emerged during the interview; some participants mentioned it as one of the notable causes of stress that women have to endure. While women are busy with cementing their position in the workplace, issues at the home also need to be attended to. Participants also mentioned that the difficulties that they encounter at work, they often have to share it with their family members. It also emerged that women had to work twice as much as men as they needed to take care of their family before they go to work, and when arriving back home they have to cook, clean, attend to the kids and husband regardless of their emotional and physical state.

Participant 5 stated that:

“Various factors add to the challenges that women face, having to work twice as much as their male peers. Due to multi-tasking and various roles that women hold; it becomes a challenge to have time for self-development. Hence, women are finding it hard to keep up with all these stresses, and they end up having emotional breakdowns because of all the things that are stacking up” (Participant 5).

“Moreover, women spend most of their time in the workplace trying to prove that they are capable for promotions and leadership positions as their capabilities are always questioned more so in a male-dominated environment such as Nampak” (Participant 1).

Our modern way of life requires that there should be integration between work and family life without compromising the other. However, the discussion that emerged during the interviews, painted a different picture altogether as some of the participants stated that they are experiencing difficulty in maintaining the equilibrium of the two and this puts women under immense stress as they navigate their way through.

- Social Support

Participants reported that having a social support structure is the most effectual method- having a person that they can talk to and give advice. During the interview process, participants unanimously agreed that their colleagues play a crucial role in assisting them to handle the pressure and the stresses that emanate from work. Some of the participants mentioned that they prefer talking to their family members because it's where they are better understood.

Participant 2 reported that: *“My colleagues do assist, we are more like a family, we are open to talk about challenges that we encounter at work”*.

Participant 3 echoed the same sentiment as participant 2 stated that: *“Teamwork is very crucial in every operation. So, it helps to discuss whatever challenges that arise with your colleagues, working in isolation is not advisable as you might encounter difficulties and have no one to discuss with”*.

- **Ways of Coping**

Participants reported that they employ various coping strategies. For some participants, they seek training to be able to cope with challenges in the workplace. Others talk to their colleagues and family members, whereas some of them meditate to deal with the problem at hand. Each individual employs a strategy that is suitable to them in relation to the challenge that they encounter at that present moment.

4.2.2 Qualitative Data Analysis

This section presents comprehensive findings which emerged from the qualitative angle of the study. Ten (10) employees from Nampak Mobeni were interviewed. The interviews were recorded and transcribed for accuracy and consistency of analysis. The interviews carried out among the ten participants enabled the researcher to obtain experiences and perspectives of the participants concerning the coping strategies of women in the changing world of technology in the workplace. Participants were allowed the chance to give their views and experiences with regards to the challenges they encounter regarding their experiences with the introduction of technology in their departments of endeavour, and the coping strategies they use to deal with them.

4.2.3 Summary of the Themes Identified in the Qualitative Data Analysis

The themes identified in the qualitative data analysis (employees of Nampak Mobeni Divfood) are presented in the table below:

able 4.6: Themes in qualitative data

Understanding of Technology	Benefits of Technology in the Workplace
Lack of proper training on technology	It makes things faster
Lack of infrastructure	There is less pressure in the production line
Lack of education and development	Solidifies technological understanding
52	

Difficulty in adapting and transitioning to technology	Smoothens operational efficiency
	Difficulties/Disadvantages
Organisational Support	Ever changing technology which makes it difficult to transition or adapt
Employee Wellness programmes	Resistance to change
Management support	Adaptation
Lack of trust in programmes in place	Disorder in work arrangement
Work-family integration	Risks
Inequality	Job losses
Gender Inequality	Societal imbalance
Social Support	
Support from the colleagues	
Ways of Coping	
Emotional support from colleagues and friends	
Meditation	

Source: Survey, 2021.

4.2.4 Participant's Recommendation

In summing up the interviews, the participants were asked to give their comments as to what they felt would be helpful in addressing the challenges in their workplace as a result of the introduction of technology. The responses from ten (10) participants were as follows:

Participant 1: *“I would recommend proper training sessions across all departments to alleviate conflicts between cross functional teams and the workforce at large.”*

Participant 2: *“I would propose that the company invest in team building programmes as this encourages teamwork and unity to ensure that workers are able to bond”.*

Participant 3: *“I would recommend that the company invest in training and development especially to those who do not have the skill or the chance to go to school due to their circumstances. Moreover, there must be trust between employers and employees, communication lines should be straight forward and those that have been tasked to conduct programmes that assist employees should be independent and should not be aligned to certain people or managers. Programmes should be conducted privately to ensure integrity and confidentiality”.*

Participant 4, 6 and 7 stated that: *“We need onsite training support, as much as we have training facilities here on site, but we do not have support, especially of people with the holistic understanding. It would also be nice to have an onsite library where employees can go and look for information. Moreover, I would propose that communication should be looked into and to have an open-door policy in management. I would also recommend that they train and promote women in departments such as can production and printing. At printing department there are only two women and there is none at can production”.*

Participant 5: *“For females in the workplace, it is a challenge to climb the corporate ladder. Various factors add to the challenges that women face. Women have to work twice as much as their male peers for them to be recognised. What adds to this challenge is that women have a lot of roles to play, the home-front, work-front and they end up having no time for self–development. Hence, women are finding it hard to keep up and with all these stresses, women end up having emotional breakdowns because of all the things that are stacking up. I think it will be more relevant to have onsite EAP personnel like it used to be as opposed to contacting a stranger on the phone. Over and above that our office set-up are open plans where anybody can hear your telephonic conversation and there is no privacy and confidentiality”.*

Participant 8 *“I would recommend that the company gives internal employees first preference for promotions when there are positions within the company. I believe that internal employees now have a better understanding of how work is performed and what is expected out of them”*.

Participant 9: stated that *“I would recommend that the company revive the BEP programme. That programme for me as an individual was an eye opener. It shed light on how the production process should be like and what was expected from us as employees. It also had a platform where managers had one on one meeting with employees to understand them on a more personal space”*.

Participant 10: posited that *“I would recommend that behavioural programme be rolled over to the entire Nampak employees not only to supervisors and line managers, that programme can assist with various solutions to the challenges that the employees might be facing.”*

4.3. Quantitative Data Presentation

Introduction

This sub-section centres on the interpretation of quantitative outcomes of the primary data. 70 survey questionnaires were disseminated to the respondents from Nampak Mobeni Divfood. Out of the 70 survey forms issued, 69 were successfully retrieved. Some of the forms were not properly filled in the comment section. Some respondents skipped some of the questions on the survey form. 4 questions were asked from each research study objective.

4.3.1. Demographic Attributes of Respondents

This paragraph is aimed at illuminating the conspectus of the respondents which was determined using statistical formula of Yamen (1967). The respondents comprised of different demographic groups of men, women, Africans, Indians, managers, line workers, highly qualified, and those who are less qualified.

4.3.1.2 Age of Respondents

Table: 4.7

Age(years)	Number of respondents	Percentage %
20 years	0	0%
21-30 years	10	14.49%
31-40	47	68.12%
41-50	10	14.49%
51-60	2	2.90%
61-70	0	0%
Total	69	100%

Source: Field Survey, 2021

4.1: Graphical Representation of Age of Respondents.

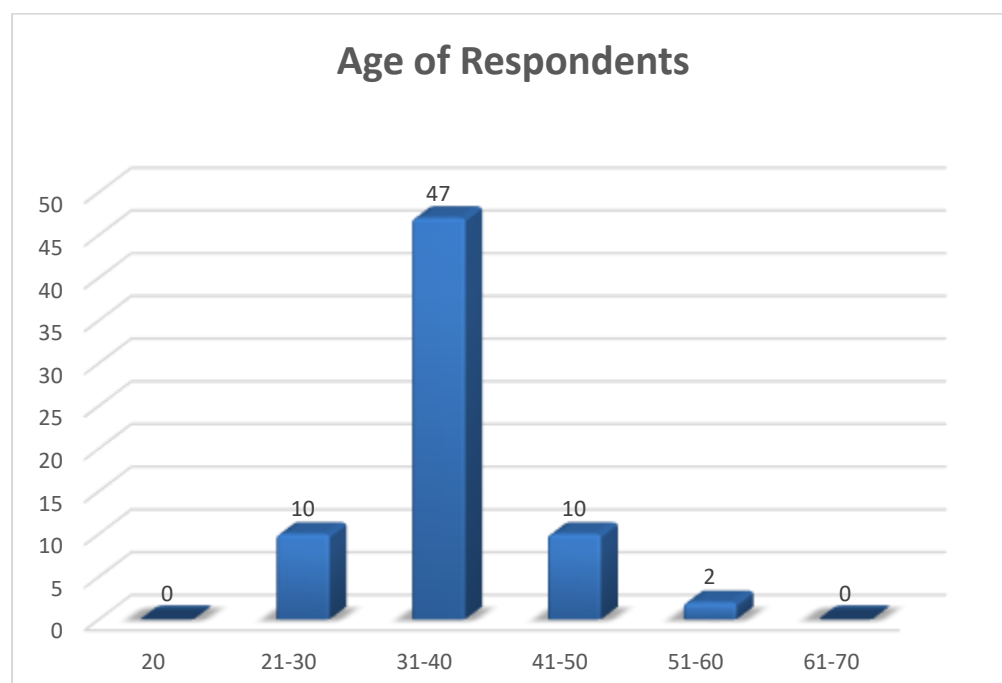


Figure: 4.1 (Source-survey, 2021).

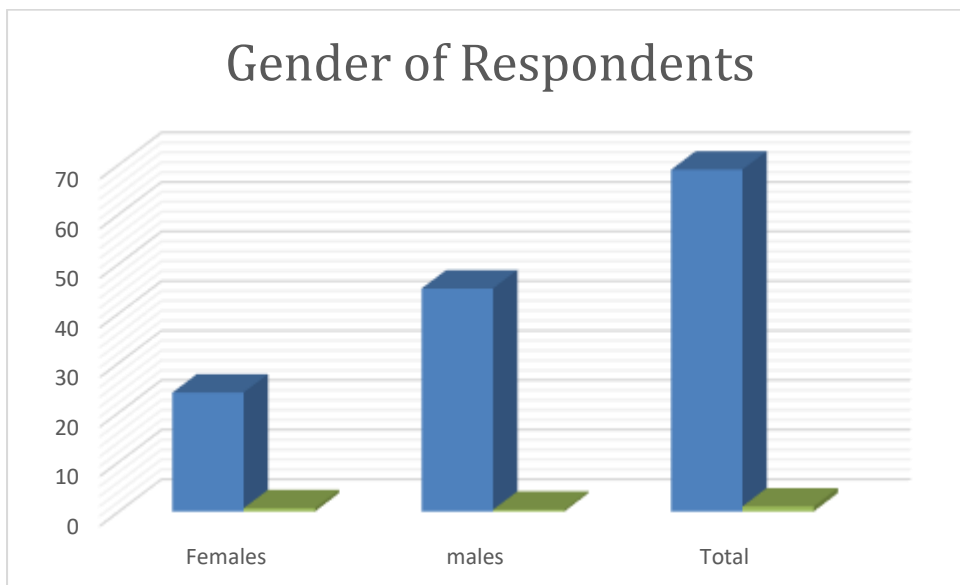
The presentation in table 4.7 and Graph 4.1 depicts the age of respondents who took part in answering the survey questionnaires. Majority of respondents (n=47 or 68.12%) were in the age group of 31-40, followed by respondents in age group 41-50 (n=10 or 14.49%); (n=10 or 14.49%) were respondents in age group between 21-30 and respondents (n=2 or 2.90%) were at the age range of 51-60. No respondents were younger than age 20 or older than age 61(n= 0 or 0%).

Table 4.8: Gender of Respondents

Sex	Number of Respondents	Percentage %
Males	45	65.22%
Females	24	34.78%
Total	69	100%

Source: Field Survey, 2021

Figure 4.2: Gender of Respondents



Source: Field Survey, 2021

The illustration on the table and graph above displays that (n=45 or 65.22%) were male

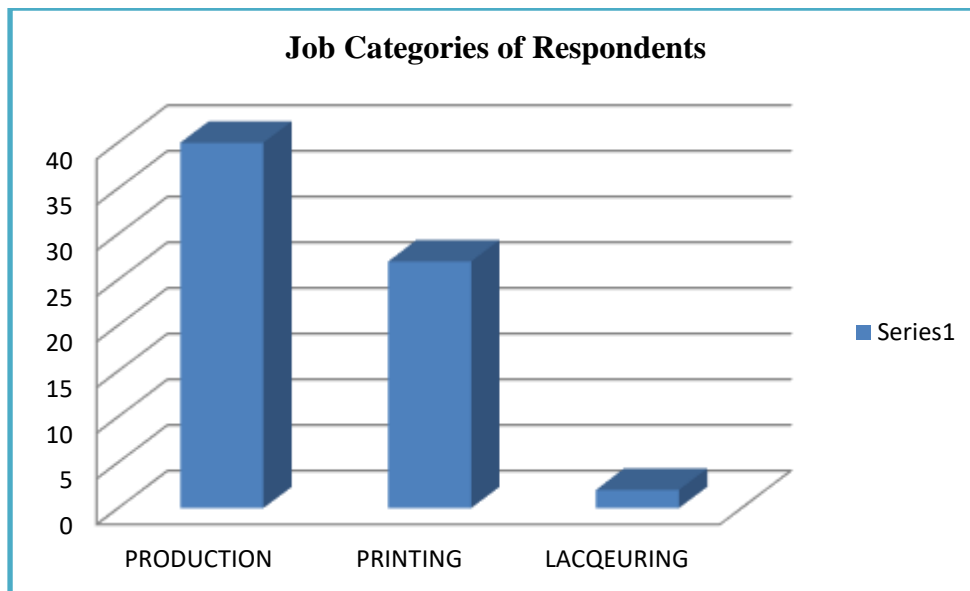
respondents and (n=24 or 34.78%) were female respondents. Although the study was based more on women it became clear that male still make up majority of workers in most companies.

Table 4.9. Job Categories of Respondents

Respondents Job Categories	Number of Respondents	Percentage %
Production	40	57.97%
Printing	27	39.13%
Lacquering	2	2.9%
Total	69	100%

Source: Field Survey, 2021

Figure 4.3: Job Categories of Respondents.



Source: Field Survey, 2021

The illustration in table 4.9 and figure 4.3 respectively displays that most (n=40 or 57.97%) of respondents were from production department; (n=27 or 39.13%) were from printing

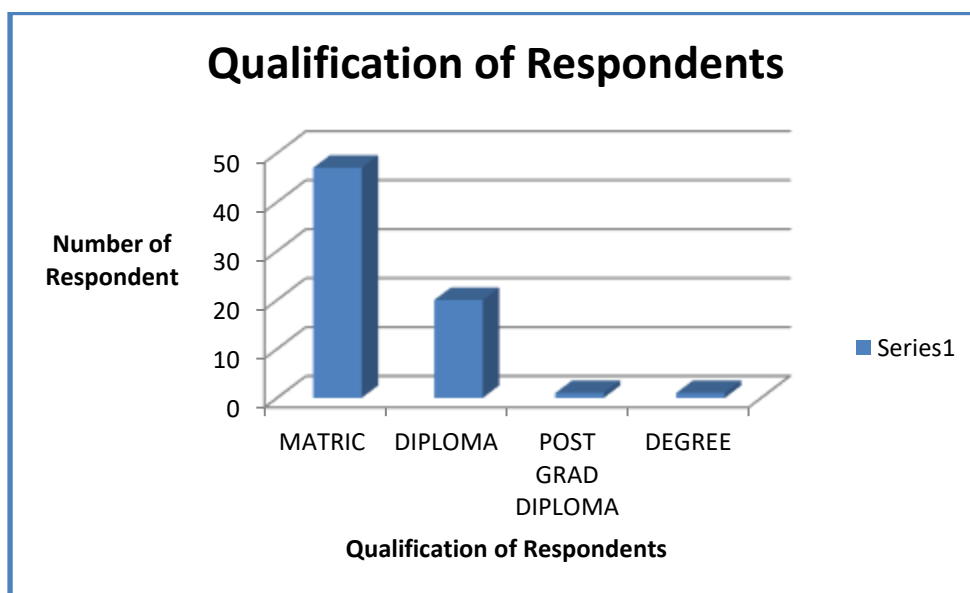
department and (n=2 or 2.90%) were from the Lacquering department.

4.10 Level of Educational Qualification of Respondents

Level of Educational Qualification of Respondents	Number of Respondents	Percentage %
Grade 12	47	68.12%
Diploma	20	28.98%
Post graduate Diploma	1	1.45%
Degree	1	1.45%
Total	69	100.00%

Source: Field Survey, 2021

Figure 4.4: Qualification of Respondents



Source: Field Survey, 2021

Table 4.9 and Figure 4.4 illustrates the level of educational qualification of respondents; (n=47 or 68.12%) of respondents have matric, (n=20 or 28.98%) have diplomas, (n=1 or 1.45%) have post grad diploma and (n=1 or 1.45%) have a degree qualification. **Table 4.10: Work Experience of Respondents**

Work Experience(years)	Number of Respondents	Percentage %
➤ Years		
1-5	10	14.49%
6-10	44	63.77%
11-15	10	14.49%
16-20	1	1.45%
21+	4	5.8%
Total	69	100.00%

Source: Field Survey, 2020

Figure 4.5: Work experience of respondents

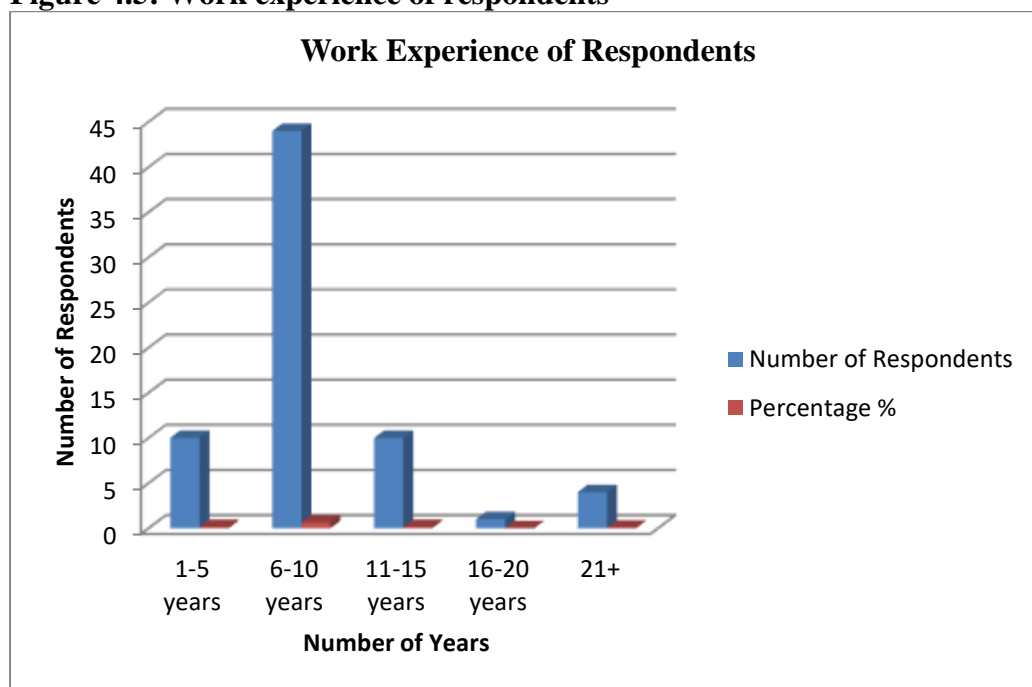


Table 4.10 and Figure 4.5 above illustrates that (n=10 or 14.49%) have been with the company for a period between 1-5 years, (n=44 or 63.77%) have worked for years between 6-10 years, (n= 10 or 14.49%) have worked for period between 11-15 years, (n=1 or 1.45%) have worked for period between 16-20 years, and (n=4 or 5.8%) have also worked for more than 21 years.

4.4: Quantitative Data Analysis

This section analysis the scientific findings of the quantitative data that was collected using the survey questionnaires to determine the coping strategies of women in the changing world of technology in the workplace. This is done by succinctly summarising the findings, and by displaying how the quantitative findings strengthen some of the themes of the qualitative findings.

According to Du Plooy-Cilliers (2014), it is imperative to analyse statistical data as it allows the researcher to supply evidence and to persuade other researchers to accept your approach. 70 survey questionnaires were disseminated to the respondents from Nampak Mobeni, out of which 69 were retrieved. Du Plooy-Cilliers (2014) posits that before the analysis of data begins, the researcher has to inspect if there are any mistakes in the dataset to avoid erroneous data which might compromise the analysis. As mentioned above, 70 respondents were drawn as a sample and out of the 70 survey forms that were disseminated, 69 filled forms were returned by respondents which equate to 98.57 per cent of the total sample. The research result is on the basis of 98.57 per cent that was received.

Tabular representations of the responses are consequently outlined to illuminate and analyse their vantage points, as well as their sentiments on the topic. The questionnaire consisted of two sections of twenty-one questions. The questions were asked using the Likert Scale (agree, strongly agree, disagree, strongly disagree and neutral) and ordinal question point scale (1-5). The data that was elicited from the survey questionnaires was statistically analysed using SPSS approach.

4.4.1. Demographic Attributes of Respondents

This section is aimed at illuminating the conspectus of the respondents which was determined using statistical formula of Yamen (1967). The respondents comprised of different demographic

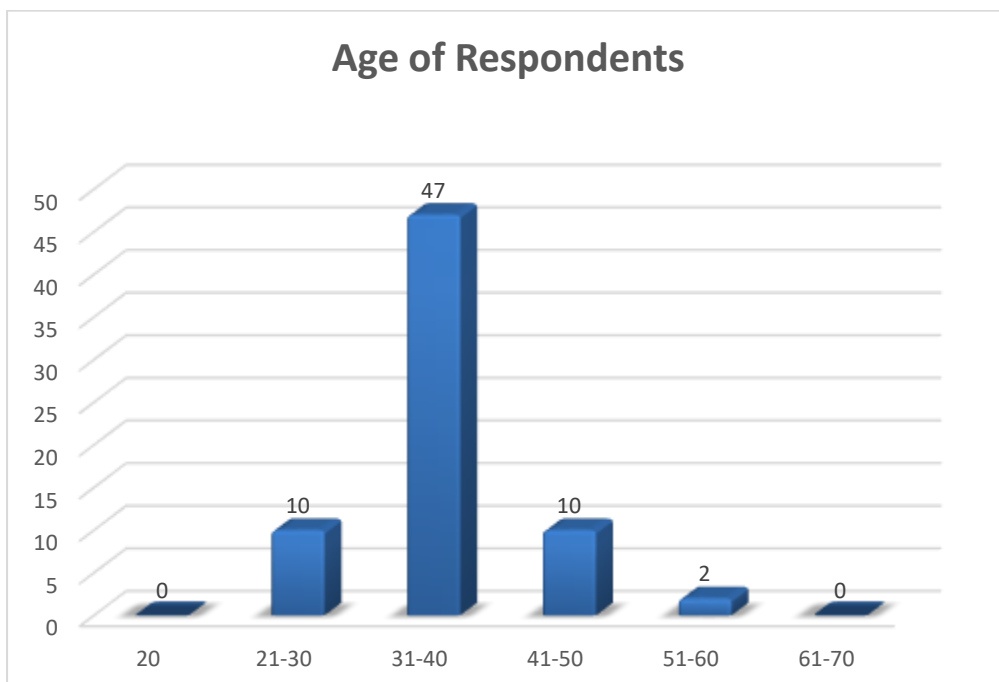
groups of men, women, Africans, Indians, managers, line workers, highly qualified, and those who are less qualified.

Table 4.11: Age of Respondents

Age(years)	Number of Respondents	Percentage %
20 years	0	0%
21-30 years	10	14.49%
31-40	47	68.12%
41-50	10	14.49%
51-60	2	2.90%
61-70	0	0%
Total	69	100%

Source: Field Survey, 2021

Figure 4.6: Age of respondents



Source: Survey, 2021

4.4.2 Graphical Presentation of Respondents by Age

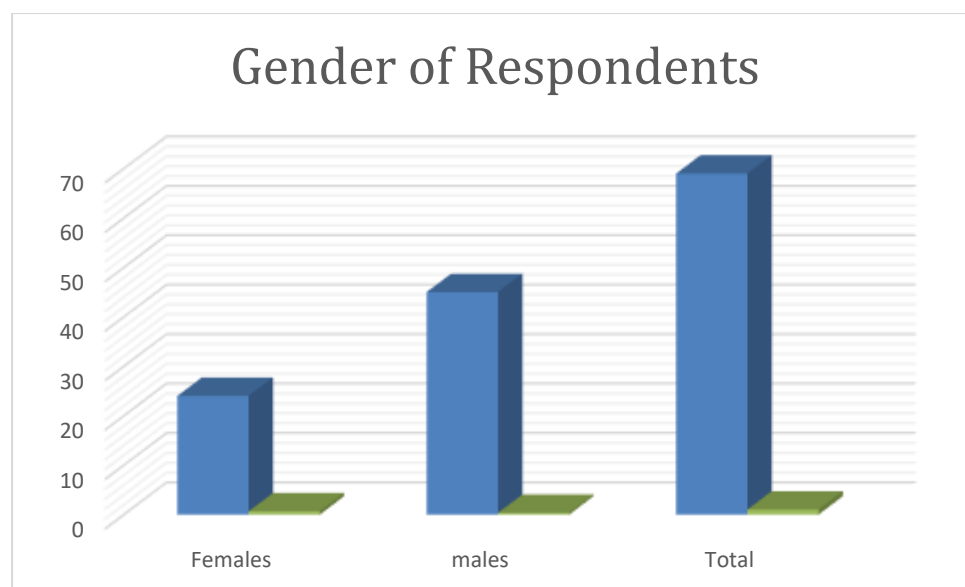
The presentation in table 4.11 and figure 4.6 depicts the age of respondents who took part in answering the survey questionnaires. Majority of respondents (n=47 or 68.12%) were in the age group of 31-40, followed by respondents in age group 41-50 (n=10 or 14.49%); (n=10 or 14.49%) were respondents in age group between 21-30 and respondents (n=2 or 2.90%) were at the age range of 51-60. No respondents were younger than age 20 or older than age 61(n= 0 or 0%).

Table 4.12: Gender of Respondents

Sex	Number of Respondents	Percentage %
Males	45	65.22%
Females	24	34.78%
Total	69	100%

Source: Field Survey, 2021

Figure 4.7: Gender of respondents



Source: Field Survey, 2021

The illustrations on table 4.12 and the Figure 4.7 displays that (n=45 or 65.22%) were male

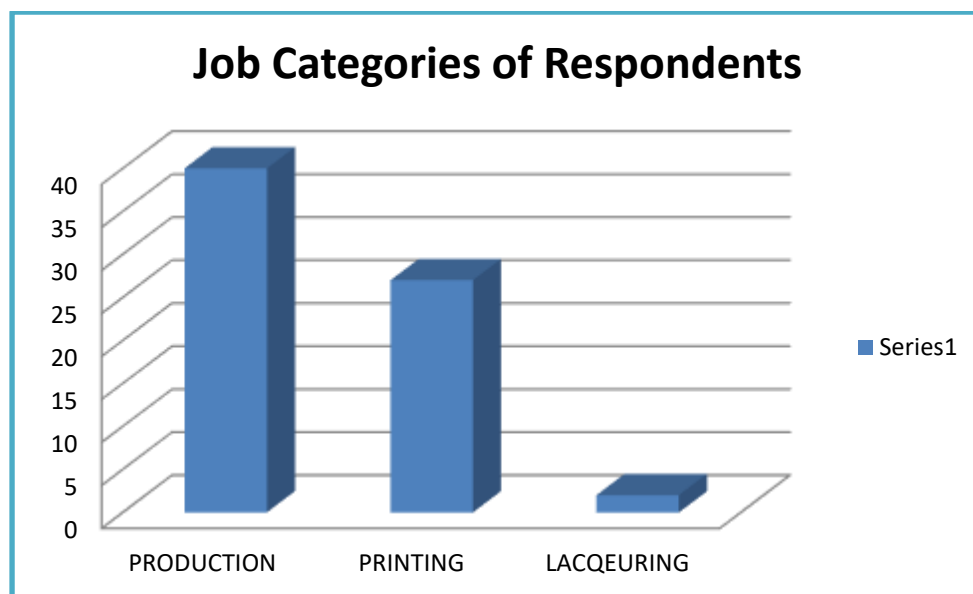
respondents and (n=24 or 34.78%) were female respondents. Although the study was based more on women, it became clear that the male category still made up the majority of workers in Nampak Mobeni.

Table 4.12: Respondents Job Categories

Respondents Job Categories	Number of Respondents	Percentage %
Production	40	57.97%
Printing	27	39.13%
Lacquering	2	2.9%
Total	69	100%

Source: Field Survey, 2021

Figure 4.8: Job Categories of respondents.



Source: Field Survey, 2021

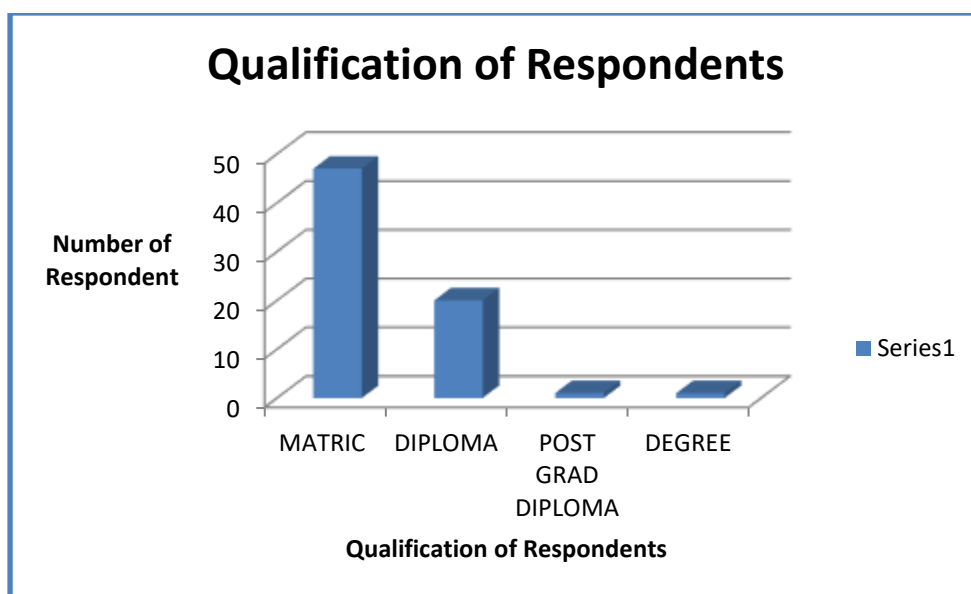
The illustrations in table 4.12 and figure 4.8 respectively displays that most (n=40 or 57.97%) of respondents were from production department; (n=27 or 39.13%) were from printing department and (n=2 or 2.90%) were from Lacquering department.

Table 4.13: Level of Educational Qualification of Respondents

Level of Educational Qualification of Respondents	Number of Respondents	Percentage %
Grade 12	47	68.12%
Diploma	20	28.98%
Post graduate Diploma	1	1.45%
Degree	1	1.45%
Total	69	100.00%

Source: Field Survey, 2021

Figure 4.9: Qualification of Respondents



Source: Field Survey, 2021

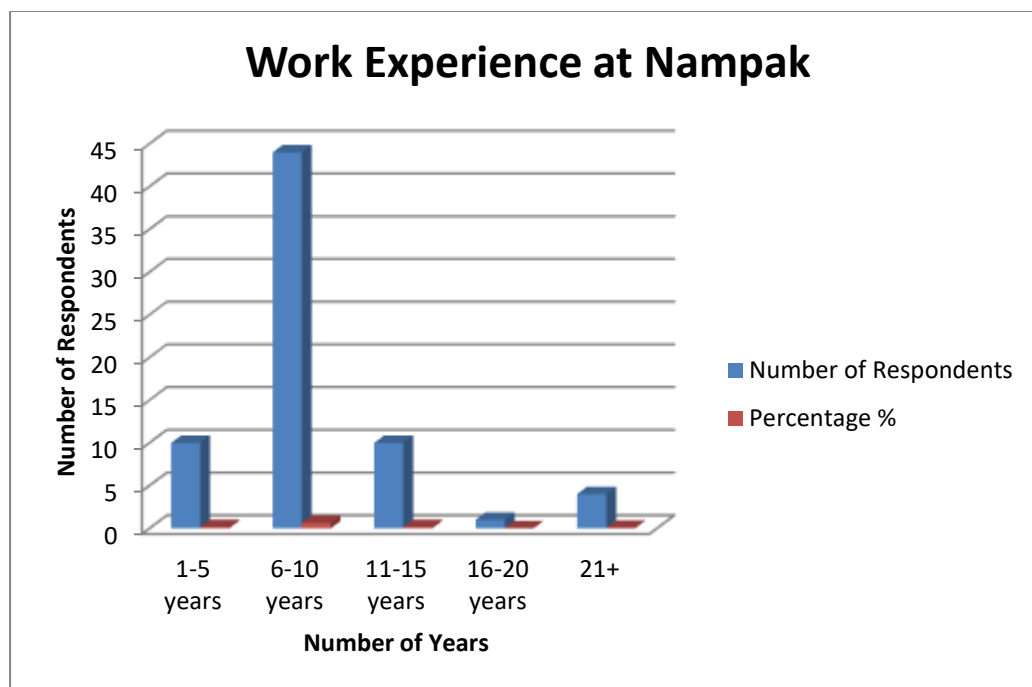
The table and figure in 4.13 and 4.9 illustrate the level of educational qualification of respondents (n=47 or 68.12%) of respondents have matric, (n=20 or 28.98%) have diplomas, (n=1 or 1.45%) have post grad diploma and (n=1 or 1.45%) have a degree qualification.

Table 4.14 Work Experience at Nampak

Work Experience(years)	Number of Respondents	Percentage %
1-5	10	14.49%
6-10	44	63.77%
11-15	10	14.49%
16-20	1	1.45%
21+	4	5.8%
Total	69	100.00%

Source: Field Survey, 2021

Figure 4.10: Work experience at Nampak



Source: Survey, 2021

The table and figure above in 4.14 and 4.10 respectively illustrates that (n=10 or 14.49%) have been with the company for a period between 1-5 years, (n=44 or 63.77%) have worked for years between 6-10 years,(n= 10 or 14.49%) have worked for period between 11-15 years, (n=1 or 1.45%) have worked for period between 16-20 years and (n=4 or 5.8%) have worked for more than 21 years.

4.4.3 Sample Results Analysis

As stated already, 70 respondents were drawn as a sample. Out of 70 questionnaires developed and disseminated, 69 filled forms were returned by respondents which equate to 98.57 per cent. The research result is therefore evaluated on the basis of 98.57 per cent of the retrieved results. Tables are used below to illuminate and analyse the responses of the respondents, their vantage points as well as their sentiment on the topic. The questionnaire consisted of two sections with twenty-one questions. The questions were asked using the Likert Scale (agree, strongly agree, disagree, strongly disagree and neutral) and ordinal question point scale (1-5).

Question: What are the changes brought about by the introduction of technology in the workplace on women?

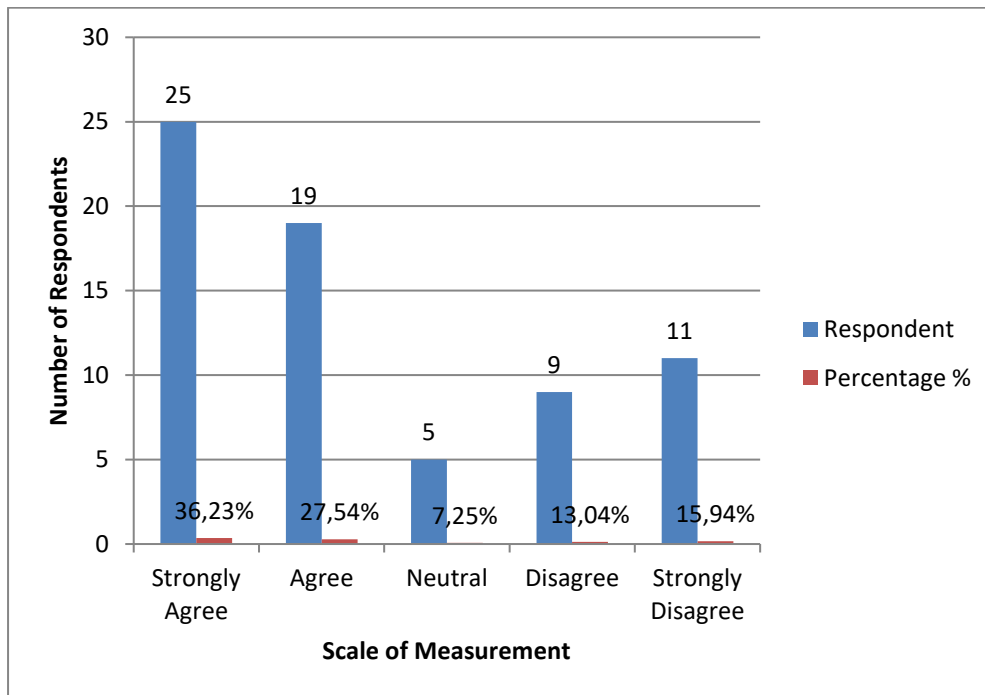
The research question above was aimed at soliciting responses regarding the changes that are brought by technology on women.

Technology forces me to do more work than I can handle.

Scale	Respondent	Percentage %
Strongly Agree	25	36.23%
Agree	19	27.54%
Neutral	5	7.25%
Disagree	9	13.04%
Strongly Disagree	11	15.94%
Total	69	100%

Table 4.15: Response on the Effect of the Introduction of Technology

Figure 4.11: Response on the Effect of the Introduction of Technology



Source: Field Survey, 2021

The table and figure above (4.15 and 4.10) respectively displays that (n=25 or 36.23%) respondents hold a belief that technology is forcing them to do more work than they can handle, whilst (n=19 or 27.54%) also agreed to what the 25 respondents were saying, (n=5 or 7.25%) opted for neutral, (n=9 or 13.04%) disagreed with the question and (n=11 or 15.94%) strongly disagreed. Clearly, the greatest number of respondents were of the view that the use of advance technology is forcing them to do more work they can handle.

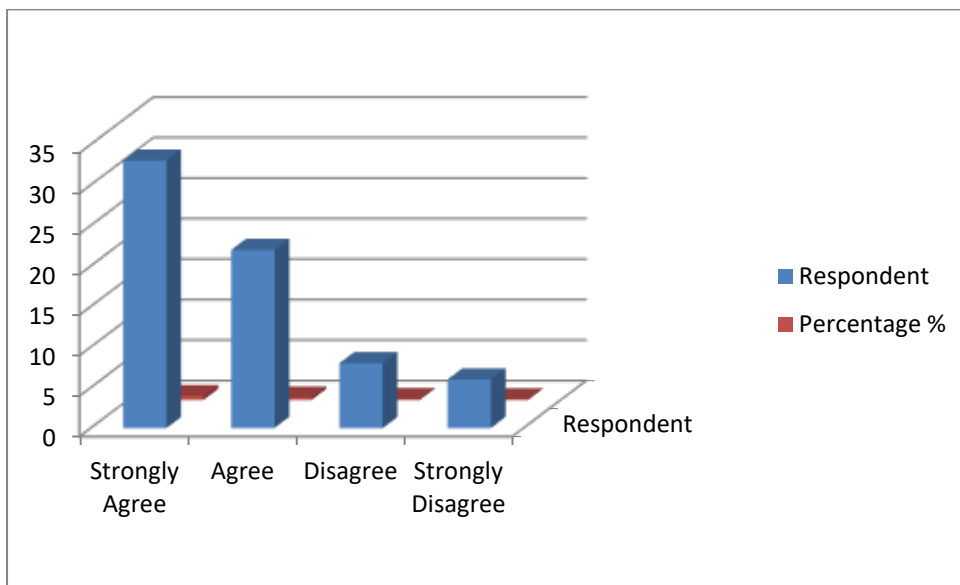
Option: I am forced to change my work habits to adapt to new technology

Scale	Respondent	Percentage %
Strongly Agree	33	47.83%
Agree	22	31.88%
Neutral	-	-
Disagree	8	11.59%
Strongly Disagree	6	8.7%
Total	69	100%

Table 4.16

Source: Field Survey, 2021

Figure 4.11.



The table and figure above displays that (n33 or 47.83%) of the respondents strongly agree that technology forces them to change their work habit in order to adapt to the changes, this is supported by (n=22 or 31.88%) of the respondents, (n8 or 11.59%) of the respondents

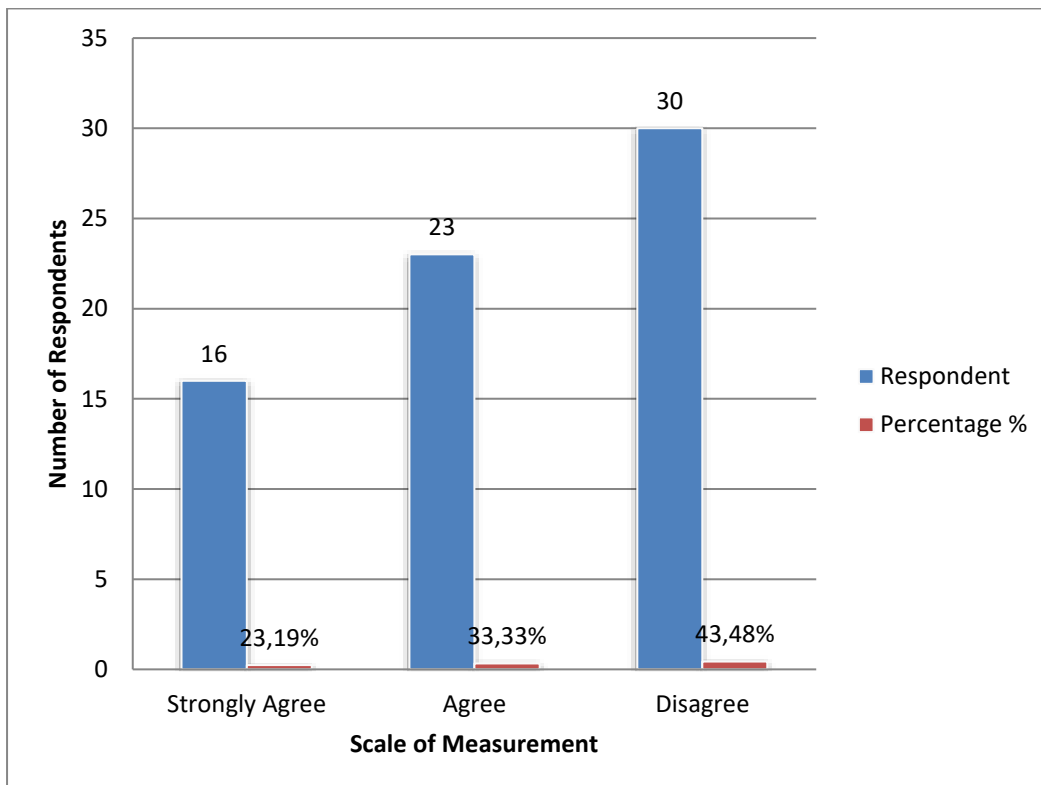
disagreed with the statement and this is further supported by (n=6 or 8.7%) of the respondents who felt that they did not have to change their work habit.

Table 4.17

Option: I have higher workload because of increased technology complexity

Scale	Respondent	Percentage %
Strongly Agree	16	23.19%
Agree	23	33.33%
Neutral	-	-
Disagree	30	43.48%
Strongly Disagree	-	-
Total	69	100%

Figure 4.12



Source: Field survey, 2021

The table and figure above displays that (n=16 or 23.19%) of respondents strongly agreed that they have experienced a higher workload as a result of technology complexity, (n=23 or 33.33%) agreed, (n=37 or 53.62%) disagreed.

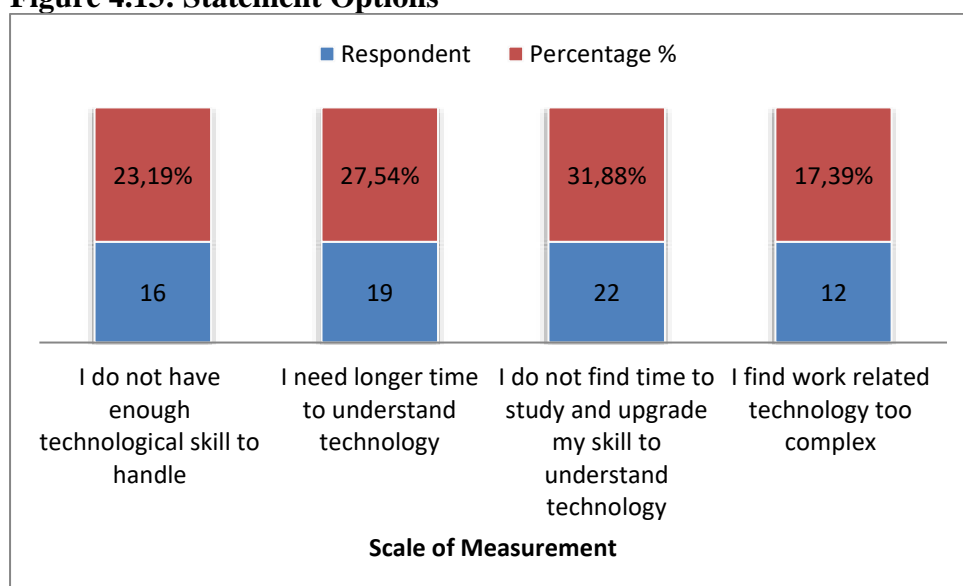
Statement Options: **Which of the following statements applies to your experience of technology difficulty?**

Table 4.18: Statement options

Experience of Technology	Respondent	Percentage %
I do not have enough technological skill to handle	16	23.19%
I need longer time to understand technology	19	27.54%
I do not find time to study and upgrade my skill to understand technology	22	31.88%
I find work related technology too complex	12	17.39%
Total	69	100%

Source: Field Survey, 2021

Figure 4.13: Statement Options



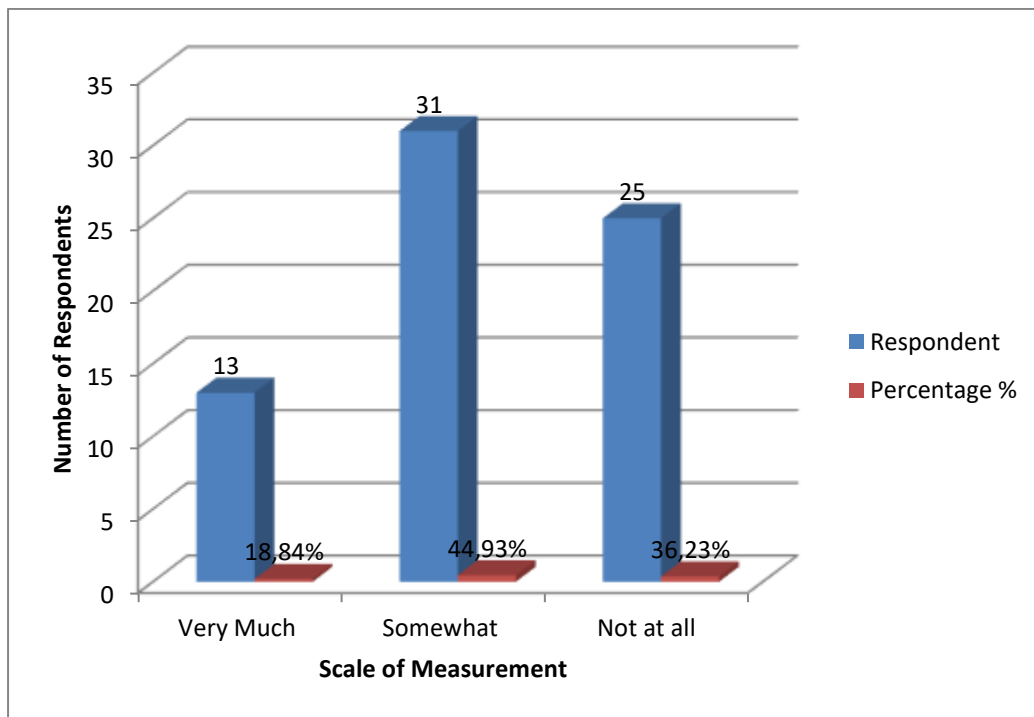
The table and figure above (4.18 and 4.13 respectively) displays the responses and the challenges that the respondents have experienced in using technology. (n=16 or 23.19%) stated that they do not have the skills to handle technology, (n=19 or 27.54%) stated that they need longer time to understand technology, 22 or 31.88 per cent stated that the reason they have difficulty in using technology is that they do not find time to study and upgrade their skill to understand technology, (n=12 or 17.39%) stated that they find technology to be too complex to understand.

Option: To what extent do technological machines upgrades disrupt your ability to work?

Table 4.19

Scale	Respondent	Percentage %
Very Much	13	18.84%
Somewhat	31	44.93%
Not at all	25	36.23%
Total	69	100%

Figure 4.14



Source: Field Survey, 2021 Source

The table and figure (4.19 and 4.14 respectively) display the responses of respondents on whether machine upgrades disrupt their ability to work. (n=13 or 18.84%) stated that they are very much disrupted by machine upgrades, (n=31 or 44.93%) stated that they are somewhat disrupted, (n=25 or 36.23%) stated that they are not disrupted at all by the machine upgrades.

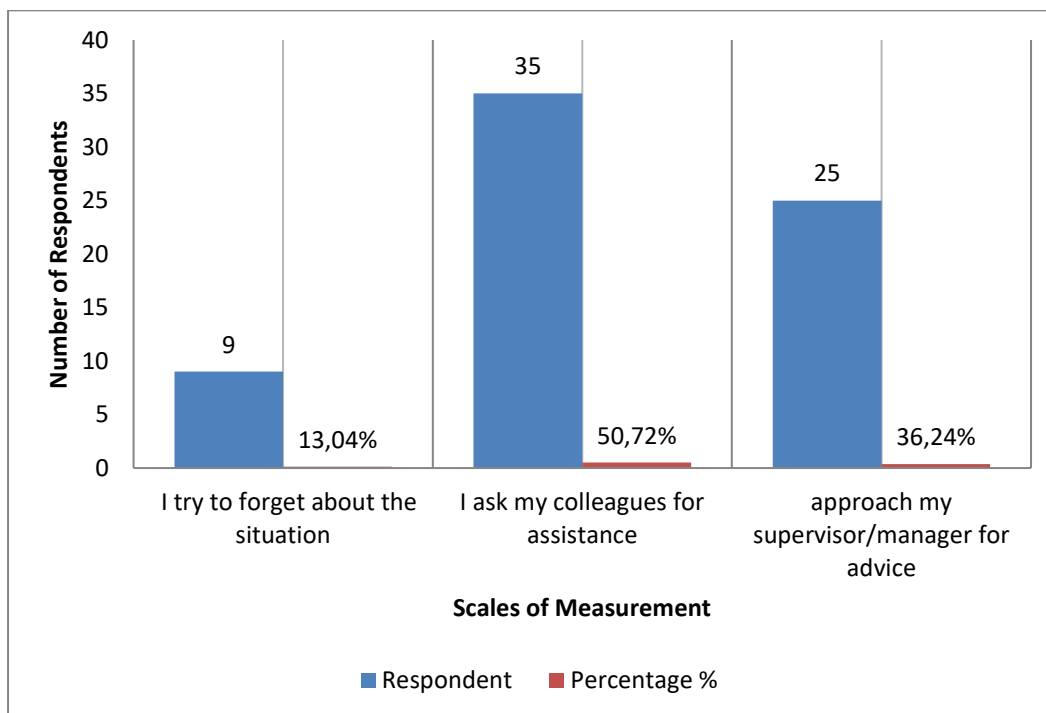
Please tick to indicate which of these coping strategies you have used at work when you experience technology difficulty.

Table 4.20: Coping strategies

Scale	Respondent	Percentage %
I try to forget about the situation	9	13.04%
I ask my colleagues for assistance	35	50.72%
approach my supervisor/manager for advice	25	36.24%
Total	69	100%

Source: Field Survey, 2021

Figure 4.15: Coping strategies



Source: Field survey, 2021

The table and figure above display the responses of participants in regard to the coping

strategies that they use at work when they are experiencing difficulties. (n=9 or 13.04%)

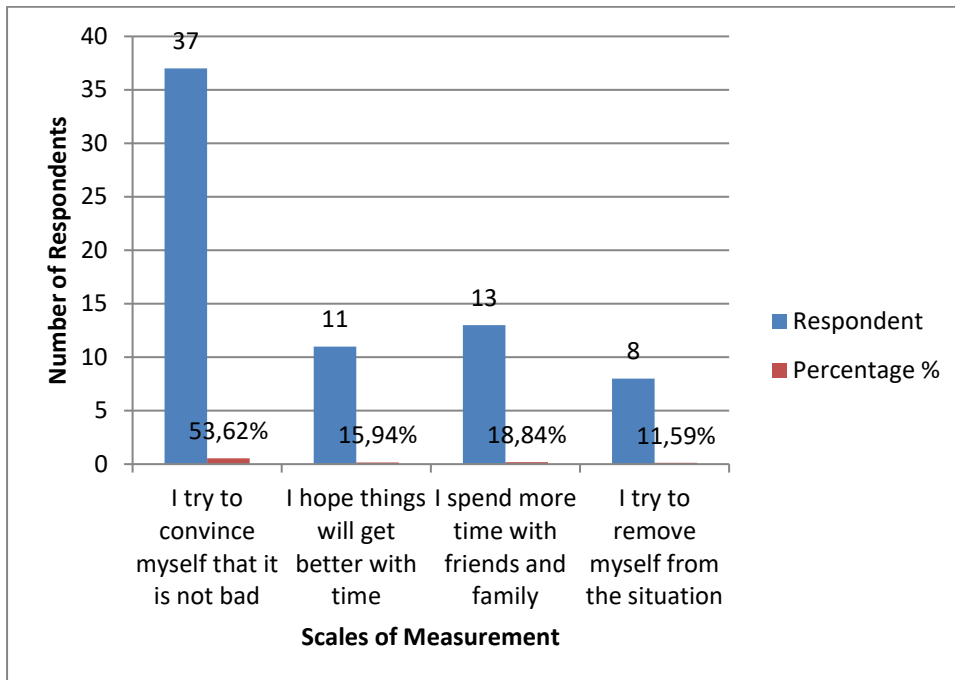
stated that they try to forget about the difficulty, (n= 35 or 50.72%) stated that they ask their colleagues for assistance, (n=25 or 36.24%) stated that they ask their supervisor/manager for advice.

Option: Select the appropriate strategy you adopt in coping with any stress

Table 4.21

Scale	Respondent	Percentage %
I try to convince myself that it is not bad	37	53.62%
I hope things will get better with time	11	15.94%
I spend more time with friends and family	13	18.84%
I try to remove myself from the situation	8	11.59%
Total	69	100%

Figure 4.16



Source: Field Survey, 2021

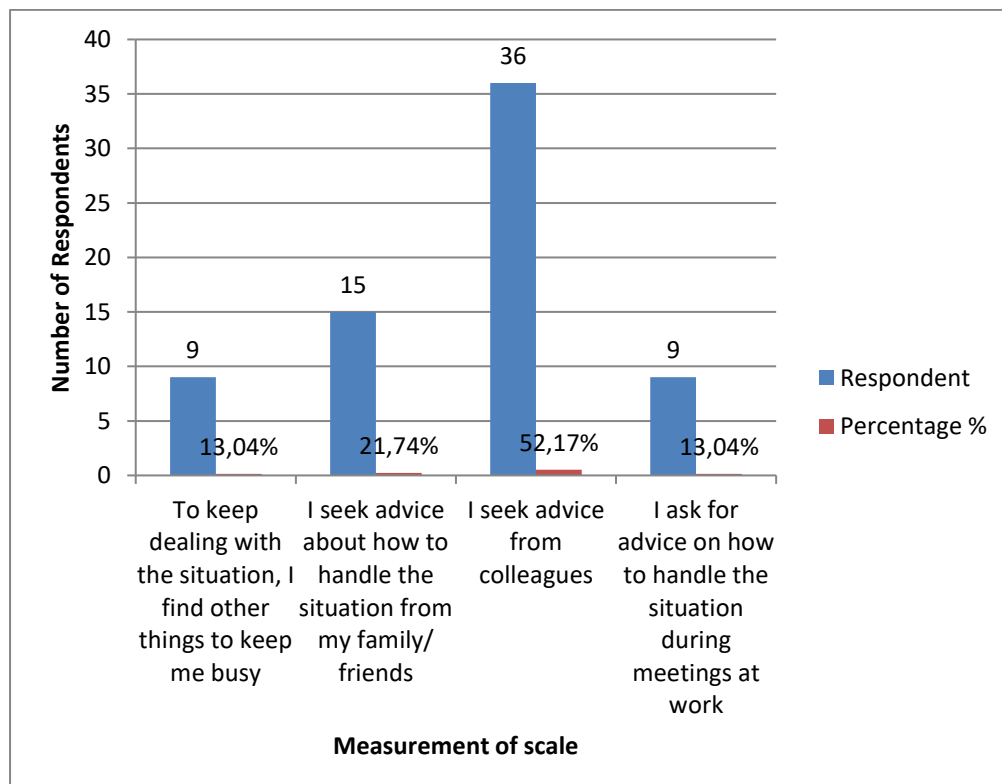
The above table and figure displays the responses from participants regarding the strategies that they apply to deal with any kind of stress. (n=37 or 53.62%) stated that they try to convince themselves that the situation is not that bad, (n=11 or 15.94%) stated that they give themselves hope that things will get better, (n=13 or 18.84%) stated that they spend more time with friends and family in order to forget about the stressful situation, (n=8 or 11.59%) stated that they try to remove themselves from the stressful situation.

Option: Please indicate which of the strategies you use to deal with work stress

Table: 4.22

Scale	Respondent	Percentage %
To keep dealing with the situation, I find other things to keep me busy	9	13.04%
I seek advice about how to handle the situation from my family/ friends	15	21.74%
I seek advice from colleagues	36	52.17%
I ask for advice on how to handle the situation during meetings at work	9	13.04%
Total	69	100%

Figure 4.17



Source: Field survey, 2021

The table and figure above display the responses from respondents on the strategies that they use to deal with work stress. (n=9 or 13, 04%) stated that they find other things to keep them busy, (n=15 or 21.74%) stated that they seek advice from family or friends, (n=36 or 52.17%) stated that they seek advice from colleagues and (n=9 or 13.04%) stated that they ask for advice during work meetings.

4.4.4 Summary of Quantitative Findings

4.4.4.1: How the Quantitative Findings Strengthened the Qualitative Findings

The findings outcomes revealed that, in relative terms, the quantitative data strengthens and supports part of the qualitative findings.

Table 4.23: How the Quantitative Findings Strengthened the Qualitative Findings

Qualitative Findings	Quantitative Findings
Understanding technology	
Lack of proper training on technology	Lack of Technological skills
Lack of infrastructure	Difficulty in understanding technology
I just applied for a job at Nampak I wasn't specific on the job that I wanted to do	Lack of education and development
Difficulty in adapting and transitioning to technology	Complexity of technology and adaptation
Organisational Support	
Qualitative	Quantitative
Support from the colleagues	I ask my colleagues for assistance
Management support	approach my supervisor/manager for advice
Employee Wellness programmes	Employee Wellness programmes
Lack of trust in programmes in place	
Work-family integration	
Inequality	
Gender Inequality	
Social Support	
79	

Qualitative	Quantitative
my colleagues do assist, we are more like a family	I ask for advice on how to handle the situation during meetings at work
it helps to discuss whatever challenges that arise with your colleagues	I seek advice from colleagues
When I encounter a challenge talk to my friends and family	I spend more time with friends and family
Challenges	
Qualitative	Quantitative
it's mainly the issue of training on how to use the actual devices	Sometimes there are defects in product as a result of malfunctioning in the machines
Sometimes there are defects in product as a result of malfunctioning in the machines	Disruption due to machine upgrades

4.4. Highlight of Research Findings

Spencer (2018) argued that women are at greater risk of automation because they hold inferior positions at workplaces. He went further to assert that, it is difficult to automate positions in management, leadership and intellectual work than more traditional and inferior roles. These were all amplified in my field work.

Among the findings, women are significantly experiencing more challenges in order to cope with the ever-changing world of technology in the workplace. Women believe that it is essential that they be granted opportune time to evince that they can develop and put in more worth in the workplace. Women have to put more effort to get same recognition as men in the workplace, despite the challenges that they face of having to strike equilibrium between work-family integration.

Concluding remarks

The purpose of this chapter was to present and analyse the study's findings from the field data collected using the survey questionnaires that were distributed to the employees of Nampak Mobeni Divfood, in a bid to suggest solutions to questions raised by the study as well as to authenticate the proposed theoretical framework. The chapter proffered the findings of qualitative analysis which was collected through online interviews. It further proffered the scientific findings from quantitative analysis of data collected through the use of survey questionnaires that were distributed to the employees of Nampak Mobeni Divfood. The chapter further displayed how quantitative findings strengthened some of the qualitative findings. The next chapter will dwell on the discussion of research findings.

CHAPTER FIVE

Discussion of Research Findings

5.1 Introduction

This chapter discusses the findings that were propounded in chapter four as well as the themes that emerged during the interviews and the surveying process. References will also be drawn on literature and the theories that were discussed in chapter two. Furthermore, this chapter will discuss the impact caused by technology on women, and the coping strategies of women in the changing world of technology. Lastly this chapter will discuss appropriate measures in addressing challenges brought by the introduction of technology on women. The chapter is outlined in three categories based on the research questions.

A comprehensive overview, which shows the combined scientific study findings, and which are the merger of qualitative and quantitative results, providing a consolidated empirical outlook is therefore presented.

5.2 An Overview of the Participants' Interviews and Survey Questionnaires

As indicated in the preceding chapter, a total of 10 qualitative participants participated in the interview process. A total of 60 respondents took part in the survey questionnaires. Interview participants included women and men from various departments from Nampak Mobeni Divfood.

The central point of the study was to investigate the coping strategies of women in the changing world of technology in the workplace. This current chapter is categorised into four sections centered on the study's four research questions.

5.2.1 Presentation of the Consolidated Empirical Research Findings

This paragraph and the table below will proffer a precis amalgamated findings of qualitative and quantitative analysis which was gathered during the course of this study. The codification of findings will be displayed in the table below.

Table 5.1: Consolidated Research Findings

Technological Factor	Organisational Factor	Social Support Factor
Lack of proper training on technology (Qualitative)	Support from the colleagues(qualitative and quantitative)	Support from family and colleagues(qualitative and quantitative)
Lack of infrastructure (qualitative)	Management support(qualitative and quantitative)	It helps to discuss whatever challenges that arise with your colleagues(qualitative quantitative)
Illiteracy (qualitative and quantitative)	Employee Wellness programmes(qualitative)	When I encounter a challenge talk to my friends and family(qualitative)
Difficulty in adapting and transitioning to technology(qualitative)	Lack of trust in programmes in place(qualitative)	I ask for advice on how to handle the situation during meetings at work(quantitative)
Lack of Technological skills(quantitative)	Work-family integration (qualitative)	I seek advice from colleagues(quantitative)
Difficulty in understanding technology (quantitative and qualitative)	Inequality(qualitative)	I spend more time with friends and family(quantitative)
Lack of education and development(quantitative and qualitative)	Gender Inequality(qualitative)	
Complexity of technology and adaptation(quantitative and qualitative)	I ask my colleagues for assistance(quantitative)	
	approach my supervisor/manager for advice(quantitative)	
	Employee Wellness programmes(quantitative)	

Benefits of Technology	Challenges and Difficulties	Risks
It makes things faster (qualitative)	Ever changing technology which makes it difficult to transition or adapt(qualitative)	Job losses(Qualitative)
There is less pressure in the production line(qualitative)	Resistance to change(qualitative)	

Table 5.2 Challenges and Recommendations Raised by Participants/Respondents

1.	Discovered Challenges
	Lack of training and development
	Lack of technological skills
	Ever changing technology which makes it difficult to transition or adapt
	Resistance to change
2.	Recommendations
	Ensure there is constant training of employees
	Communication between staff and supervisors
	Onsite wellness counsellor to assist employees who needs support
	Team buildings and behaviour capacity programmes

The fundamental research findings that emanated from the qualitative and quantitative data can be summed up appropriately. The key themes that materialised under the sub-topic of technological factors were lack a of technological skills, low level of education, and complexity when understanding technology. In the organisational factor, the themes that emerged were the employee wellness programmes, work-family integration, inequality and gender inequality. Themes that emerged under social support were support from family and colleagues.

5.2.2 Discussion of the Consolidated Empirical Research Findings

The overarching aim was to ascertain the objectives of the study by investigating the specific changes brought by the introduction of technology at Nampak Mobeni. The findings of the study displays that a large number of respondents (n25 or 36.23%) strongly agreed that the introduction of technology in the workplace is forcing them to do more work than they could handle as the speed of the machine requires them to be more skilled, which most of the participants stated that they do not have the requisite technological skills.

Buwa (2018); Stuart and Lowman (2016); Scwab (2016) stated that the use of technology in the workplace has a dire impact on women as they are susceptible to be replaced by the machines as a result of the precarious positions that they hold within the workplace. Anner, Fischer-Daly and Maffie (2021) posited that the reluctance to accept technology in African countries is a result of being previously disadvantage in terms of resources and in education.

Dashora (2013) posited that the gender prejudice has created a deep-rooted belief that women lack the ability to handle difficult tasks and are ineffectual when compared to their male peers. Moreover, the study established that women felt that they have to work two times more in order to be recognised as suitable for any vacancy available within their organisation as compared to their male peers. A large number of participants stated that they mostly rely on their colleagues for assistance and emotional support when they encounter challenges at work.

Since the emergence of technology in the workplace, as a result of globalisation, various scholars have discussed its pros as well as its cons. These elements were thoroughly analysed in the review of literature in chapter two. The interviews, as well as the empirical investigations carried out in this research, exhibited that some of the factors and challenges have consequential monumental impacts on the coping strategies of women in the changing world of technology in the workplace, whilst others had lesser impacts. A unified statistical finding, which is a consolidation of qualitative and quantitative data, is systematically presented.

5.3 Investigating the Specific Changes Brought by Technology at Nampak Mobeni.

This subsection elucidates the changes brought by the introduction of technology in the workplace, which is the purpose of research question one. The apprehension of changes of

technology has been highly debated and discussed since the advent of globalisation. Various scholars have argued on the advantages and disadvantages of technology. Especially in the labour force, it has been argued that technology has improved the working conditions. However, some of the scholars argue that the rise of technology in the workplace is leaving women behind (Dauth *et al* ,2017; Grigoli, Koczan, and Tapalova 2018; IMF 2018; World Bank, 2018; WEF, 2018, ILO, 2017, UN, 2017). They all seem to converge in their position that women are at a high risk of losing their jobs as a result of the introduction of technology in the workplace.

The findings in this study show that lack of education, difficulty in understanding technology, technological skills, complexity of technology, and lack of training and development are circumstances that make it difficult to transition the use of technology in the workplace. Other factors that emerged during the study were the lack of trust in the employee wellness programmes, support from colleagues, and work-life integration. Other factors that emerged during the study that were not covered by the questions were inequality and gender inequality. These themes are further discussed below:

5.3.1 Education

The available literature, reviewed in chapter two, showed that, in some cases, low levels of education have a direct correlation in women who experience challenges in understanding technology and adapting to change. During the interview processes, and upon analysing the data collected from Nampak Mobeni, majority of the participants (68.12%) mentioned that they have grade twelve qualifications and only a handful (31.88%) had post matric qualifications such as diploma and degrees. Again, majority of women mentioned that they did not choose the current jobs that they are doing, they just applied for any vacancies available out of desperation, low level of education, family circumstances, or financial background. This corroborates the findings of the studies carried out by (OECD, 2016, 2019; WEF, 2018; ILO, 2017) which posited that the majority of women are concentrated in the lower paying jobs as a result of low levels of education. Taking into consideration, the history of South Africa is based on apartheid and patriarchy. A large number of marginalised number of women were marginalised and were unable to obtain higher level of education, these

factors, in the long run, contributed to the challenge of having women who lack technological skills. Women who are in the age range of 40-55 are the ones who are most affected by the changes brought by the use of technology, and they often find it difficult to cope and adapt to the changes. Furthermore, it is argued that the number of women who are in STEM are very low compared to their male peers.

5.3.2 Difficulty in Understanding Technology

The survey revealed that the majority of the respondents, who come from poverty-stricken backgrounds, lack the technological skills required to earn them better jobs. This negates their ability to reach their full potential capabilities. The meteoric change of technology, which evolves within the blink of an eye, necessitates workers to be inventive and pliable to easily adapt to the changes of fast paced technological work-space. This situation is in sync with World Bank (2017) report where they posited that more than two billion of adults, who are of the working age, lack the literacy and technological skills needed by the job market. Further supporting this claim, OECD (2018) report posited that older workers, who do not have the required skills, are threatened by these changes because, to them, it means that they will be without jobs. The net effect of the above therefore explains why some of the workers experience challenges in understanding and assimilating technology.

5.3.3 Lack of Technological Skills

The review of the literature showed that the automation and digitisation of work creates great changes in the workplace. Women are the ones who are facing a considerable risk of losing their jobs as a result of lack of technological know-how (Annanian and Aubert, 2004; WEF 2018; Schwab, 2016; Stuart and Lowman in fin24; 2016, Buwa, 2018; Weinberg, 2000; Xu and Quaddus, 2009). This implies that those without the technological skills required to operate certain equipment, could find themselves redundant. In support of the claim above, (Czaja *et al* 2006; Lam and Lee, 2006) posits that those that are older in the workplace have minimal assertiveness in using technology effectively. WEF, 2018 posit that women make up a smaller percentage of science and technology-based workers, which cumulatively impedes the growth of the technological sector in South Africa. The literature reviewed in chapter two argued that women are often left behind when it comes to technology, (Annanian and Aubert,

2004) argued that women are substantially affected by automation and digitisation because they are concentrated in lower positions that are precarious. The responses given by participants in the survey ultimately gave credence to the conclusions drawn by the scholars quoted above.

5.3.4 Complexity of Technology

The findings of the study on the complexity of technology, shows that the majority of workers from Nampak Mobeni hold the view that the change in technology is becoming intricate for some of the workers, especially those with low level of technical dexterity, as they find it challenging to adjust. Again, they fear that they will be rendered obsolete by the extensive use of technological machines in their place of work. Heifetz and Linsky (2017) posited that the heightened quest for the highly skilled will ultimately render labourers with low level of skills being redundant and retrenched. The changing nature of work has thus occasioned in a number of workers being replaced with computerised machinery in the workplace WEF (2018). These changes in the workplace require a workforce that is skilled enough to understand technology. Galluch, Grover and Thatcher, (2015); OECD, (2018) state that whilst there is a meteoric speed in the changes of technology in the workplace, women are often left behind by these changes as large number of women are concentrated in the entry level jobs with minimal education backgrounds. Supporting the claim above, Dauth *et al.*, (2017), posited that women who are above the age of 40 are the ones who are facing the tremendous challenge of being replaced by machinery in the workplace. Furthermore, the number of women who are working in high tech environments or in STEM is very low as compared to men. The findings of the study indicated that (n=22 or 31.88%) of the respondents stated that they do not find time to upgrade their skills to understand technology. Some of the respondents stated that they are single parents and after clocking off at work, they go home to do their house chores and to take care of their families which leave them with no time to study.

5.3.5 Lack of Training and Development

Respondents cited a lack of training and development as a significant contributing factor on how workers cope with the challenges, especially those that emanate from the introduction of technology in the workplace. Dauth *et al* (2017); Grigoli, Koczan, and Tapalova (2018); IMF

(2018); World Bank (2018), posit that it is of utmost importance to train women with the necessary skills to avoid redundancy and retrenchments. Supporting this claim, WEF (2018); ILO (2017); UN (2017), in their report, stated that women are lagging behind in science, mathematics and technology disciplines. Hence, it is crucial to train and develop women. According to Acemoglu *et al* (2017) women constitute to about 17 per cent of software engineers and only 20 per cent of software programmers. The research data seems to corroborate the same sentiments on all the assertions stated by scholarly researchers afore stated. A considerable number of respondents fall in the 'Matric' category of academic achievement. Others are single mothers who have a double task of having to attend to house chores after work, hence, they don't have the right ambiance for further education or training. Without education or training, development might never be attained (Toendepi, 2018).

5.4 The Effects of the Introduction of Technology on Women at Nampak Mobeni.

This subsection elucidates the impact of the introduction of technology on women to cope with the ever-changing technological space. This points to the specifics of the research question on the impacts of the introduction of technology on women at Nampak Mobeni.

5.4.1 Work-Family Integration

Various authors have discussed how work-life family integration has an unwelcomed impact on women. Women have to work twice as hard to gain recognition from their managers and organisations. During the interviews, it emerged that women start their day early to prepare for their families before getting to work. This multitasking, coupled with workplace challenges, exacerbates stress that women experience. In the end, the home of the single parent can potentially be uninviting and inadequate to showcase the right psychological framework for the absorption of technical information relating to work. Bagraim and Harrison, 2013 corroborates these findings arguing that multitasking augments psychological anguish and stress.

5.4.2 Coping Strategies of Women in the Changing World of Technology at Nampak Mobeni

A coping strategy refers to a method that a person employs to deal with a difficult situation that they are facing (Coyne, 1981; Dewe, 2001; Folkman and Lazarus, 1984).

The study's findings show that women have to resort to family, friends, and colleagues to cope with the challenges of the workplace. One participant stated that sometimes the production process becomes stressful when some of the products come out of the production line faulty, thereby resulting in warnings from their supervisors. And the only way she can cope is to "go out and cry and come back feeling a bit better". The literature revealed that workers and people, in general, employ various tactics to deal with the challenges or difficulties in life (Coyne, 1981; Dewe, 2001; Folkman and Lazarus, 1984). Respondents stated that each person withstands and copes with work challenges differently. However, there are times where they rely on their colleagues for emotional and work-related support. Respondents also reported that their family plays a pivotal role in giving them emotional support and advice when they encounter work related struggles.

5.5 Examining How Women at Nampak Mobeni Respond to the Changing World of Technology.

5.5.1 Training and Development

The labour market has rapidly changed over the years due to the introduction of technology in the labour market. In this respect, the introduction of machinery did not only change the workplace policies but influenced the world at large (Hampel and Martinsons, 2009). Organisations had to find new ways of strategising to remain competitive in the market, and by advancing machinery and human capital to secure thriving businesses and prosperity (Linden and Dierick, 2019). There are divergent perspectives amongst the workforce as to how they view these changes under different perspectives. There is an aspect that sees technological change positive, with an element of bringing more job opportunities as these machines will need people with different skills sets to operate, which means that more workers will be required to work in those fields (Jaga, Arabandi, Bagraim and Mdlongwa, 2018). The other perspective is that the introduction of machines in the workplace will dictate that organisations hire a workforce with a high level of education and skills to operate intricate automated machinery (Ngo, Tran, Tran, Nguyen, Hoang, Nguyen, and Ho, 2021). Lastly, there is also a perspective that the introduction of automatic machines will render the majority of low skilled workers obsolete and retrenched, as most of the functions in the workplace will be automated (Ngo, et.al., 2021).

It is crucial to contemplate the perspectives of workers, so that employers and employees can be in a better position to tackle such challenges should the need arise. In this respect, it becomes pivotal that companies recognise and acknowledge these changes to proactively come up with training and development plans to upgrade the skills and competencies of their workforce. Linden and Dierick (2019) posit that the introduction of automated machines and technology in the workplace, is supposed to yield a positive result in how employees perform their jobs and maximise production. However, if this process is not acknowledged, the resources are not distributed properly, and it might yield unintended and negative results (Dauda, 2009). Workers are the engine that propels the organisation to greater heights. Employees are the ones who operate the machines in the workplace to maximise productivity. It is, therefore, the important to capacitate the workforce to bring positivity and enthusiasm.

5.5.2 Team Building

Teamwork and social cohesions are crucial in any organisation to activate productivity, efficiency, profitability, harmony, and peace within the workforce. Findings from the data collected, during the interviews and surveys, portrayed that most respondents relied on their colleagues to cope with the challenges. As the data illustrated, there was a proposition by most of the respondents that there should be more team-building activities to strengthen their working relationships, and to identify challenges.

5.5.3 Other Factors that Emerged

As mentioned earlier, there were other factors that emerged during the interviews that did not form part of the research questions. However, participants held strong views about them, hence, indicating that they are crucial. Prominent among them was gender.

5.5.3.1 Gender Inequality

Over the years, women all over the world have always been subjected to marginalisation in all areas of their lives (ILO, 2018). The phenomenon of gender inequality is a persistent challenge even in the age of democracy. Gender inequality suggests that men have a special prerogative over women. ILO (2018); Segalo (2015) posit that closing the gender gap remains a challenge.

Technically, progression of women in the labour market has been noteworthy, even in the departments that were known as male dominated before. However, this does not denote that women are now in the majority, or that the working conditions have become conducive for them. The challenge of gender inequality remains tenacious. Grown (2008) maintains that gender inequality is sometimes not easily recognisable, as it has its roots deeply entrenched in the social construct, as the society believes that it is a normal practice. Power relations between men and women in society remains colossally divaricated. This gender division is firmly fixed in the day-to-day actions but also evident in the workplace. The participants were thus passionate with their views on the subject of gender inequality.

5.6. Concluding remarks

Chapter five presented a comprehensive discussion on the research findings. Additional discussions were also made on themes that were raised by participants. Chapter six presents the summary of the study, conclusions drawn, as well as recommendations that ensued.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

Introduction

The overarching objective of this study was to form an empirical understanding of coping strategies of women in the changing world of technology in the workplace. This could be achieved by investigating the coping strategies that women use in Nampak Mobeni. The preceding chapters above provided a comprehensive discussion of the themes of this research study, and to make a presentation of study findings to contribute to the body of knowledge. In this final chapter, the researcher provides an overview, and highlights the major findings. This will be followed by the conclusion and end off with recommendations.

6.1. Conclusion

The study dealt with the coping strategies of women in the changing world of technology in the workplace. It is evident that although women have entered the labour market in numbers, they lag behind in technological know-how. The introduction of new technology has brought radical changes in the world of work and how work is performed, from manual labour to more digitised and automated workspaces. As a result, a significant number of women find it difficult to cope with the swift evolving speed of technology. As much as the changes brought by technology affect both men and women in the workplace, women are more at risk than their male peers.

The female gender should not be allowed to perpetually serve as an obstacle for their technological advancement. Society must be responsive to their needs, by finding practical ways to assist them to alleviate systemic challenges associated with work.

The following questions set the tone for public discourse:

How can we assist women in a technologically driven workspace to advance their know-how without putting them under undue pressure?

Is it possible to set a quota of employment opportunities aside for women in such situations?

Every woman has the potential to advance to their optimal capacity. Given the systemic disadvantages they have been subjected to over time, society must see it as our responsibility to assist them by whatever means possible, rather than allowing them to be consumed by technological stressors.

6.2 Recommendation and Suggestions for Future Studies

The study paints a relatively bleak picture on how women struggle to cope with work related stresses associated with the introduction of machines in the workplace. The study uncovered that, there are no proper systems in place to prioritise the psychological and emotional aspect of their work. It is therefore the researchers strongest recommendation that, as a matter of urgency, counseling and other emotional support systems must be prioritised at Nampak-Mobeni.

In responding to the challenges that women face in the workplace, the following recommendations are submitted:

- i) Respondents recommended that the company should invest more in the training and development of workers, more especially, the training of women to ensure that they are not lagging behind in technological fields.
- ii) It is further recommended that there should be regular in-house training to improve the skills and efficiency of workers.

Several factors pose a significant hindrance in the growth of women in STEM and other technological spheres in the workplace. Consequently, the recommendation is that subsequent studies should be conducted to unearth further encumbrances that women encounter in the workplace.

Statistics and literature reviewed in this study proved that lack of education, and obnoxious apartheid policies are responsible for widening the development gap against women in some countries, particularly South Africa. It is therefore vital that systems are put in place to address these tendencies.

Furthermore, this study unraveled the challenges that women encounter in the workplace as well as the strategies that they employ to deal with such that is emanating from the use of technology in the workplace. Indeed, the empirical data collected illuminated the challenges. The study took place at Nampak Mobeni Durban. It is recommended that in future, a similar

study is carried out in other companies, who are in the same category, to provide better apprehension of the convolutions of technology in the workplace and the effect it has on women.

This study employed a critical realism approach. Data collection was done through a mixed method to ensure balanced views. Data was collected through the means of online interviews for qualitative, as a result of COVID-19 restrictions, and survey questionnaires were used to collect data for the quantitative aspect. Due to COVID-19 restrictions, the number of participants was restricted. For future studies, the numbers can be increased to ensure a wider sample frame of all key stakeholders that were not captured.

In summary, this study has greatly contributed to providing an in-depth apprehension of the coping strategies of women in the changing world of technology in the workplace. A further study into this area is needed to holistically get a fuller appreciation of the coping strategies of women in other related fields of study.

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