Gordon Institute of Business Science
University of Pretoria

Ethical considerations for employees disrupted by job automation technology.

Neo Chilwane
Student number 19386908
Contact number +27 82 858 6945

A research project submitted to the Gordon Institute of Business Science, University of Pretoria, in partial fulfilment of the requirements for the degree of Master of Business Administration.

29 March 2021

Abstract

The role of job automation technology within the financial services sector has gained prominence recent years. Decision-makers are faced with questions from the external and internal environment relating to the future of work and career outlook of human capital. While the benefits of job automation are undoubtedly a key driver towards adopting this technology, ethical questions on responsible and ethical leadership have been put under a lens so as to understand what this means for employees within the financial sector.

The study explores the ethical considerations made by decision-makers within the financial services sector in South Africa in relation to the employees disrupted by job automation adoption. The findings of this qualitative study were obtained through eighteen semi-structured interviews with decision-makers from the financial services sector and consulting firms with exposure to the financial services industry.

The study found that the intent of job automation technology adoption goals coupled with the predominant mindset of decision makers was influenced the nature of considerations made decision makers. These consideration categories were largely aligned to the extant literature and the study contributed to the business ethics domain by sharing specific considerations made by decision makers in industry.

Communication, transitions services, change management, shared value framing, empowerment through custodianship, an analysis of transferable skills and skills profiling were the main emergent findings found in the study.

Keywords: Key considerations for employees, ethical considerations, job automation technology, robotic process automation.

Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

Neo Chilwane
21 March 2021

Table of contents

List of Figures

List of Tables

Chapter 1 – Research problem formulation

1.1 Introduction and background to the research problem

With the introduction of disruptive financial technology and reduced switching costs for clients, the financial services sector in South Africa (SA) undertook urgent digital transformation. This involved enhancing customer experience, transforming internal processes, working in new ways, and reducing costs through innovation (Coetzee, 2018, 2019; Khanagha, Zadeh, Mihalache, & Volberda, 2018; Vives, 2019). Common technologies adopted by banks include robotic process automation, artificial intelligence and machine learning (Coetzee, 2018; Vives, 2019). These have been termed 'job automation' for the purpose of this study.

Although job automation has changed the way business operates and has served as a strategic intervention tool to better satisfy customer needs and maintain a competitive advantage (Gomber, Kauffman, Parker, & Weber, 2018; Hess, Matt, Wiesböck, & Benlian, 2016; Mhlungu, Chen, & Alkema, 2019), it has also resulted in the unintended consequence of employee displacement and disenfranchised employees (Sampath & Pramod, 2018). In 2018, the financial services industry in South Africa employed an estimated 150 000 people (Alkema, 2018). In 2019, when it adopted job automation technology, it experienced major restructuring (de Villers, 2019).

Digital transformation which includes the automation of jobs, has laid the foundation on how South African banks will need to operate in future; this needs to be aligned to the values of the organisation. The value creation activity of business cannot be viewed separately from the moral obligation to stakeholders (de Gooyert, Rouwette, van Kranenburg, & Freeman, 2017; Vidgen, Hindle, & Randolph, 2020). By introducing new technology to a pre-existing social system of business, inadvertent consequences may arise, such as driving cost efficiencies at the expense of the labour force, or disenfranchising employees who work alongside machines (Sampath & Pramod, 2018).

Job automation is amongst one of the pertinent contributing factors affecting productivity, labour and economic performance within companies. Although the ripple effects of lower employment ratios on income inequality have been a concern, these implications are not driven by technology, but rather the decisions related to adoption (Sampath & Pramod, 2018). Transforming the way in which business

operates elicits a review of the business ethics embedded within companies' strategies in order to align their commercial interests with their societal values, or perhaps allow the business ethics to undergo a transformation of its own to align with the company strategy.

1.2 Research problem

1.2.1 Practical problem

It has been two decades into the fourth industrial revolution and technological unemployment is on the rise, this will have an economic impact on the country. The uptake in the adoption of job automation technology within the financial services sector could create an even greater spike in South Africa's unemployment rate, which was statistically presented as 30.1% in the first quarter of 2020 (Statistics South Africa, 2020). Furthermore, the transforming work environment has brought technological unemployment and human-computer interaction challenges; this enhanced difficulties in adapting to the transformed working environment, in which power shifts have occurred (Sampath & Pramod, 2018). The identified problem is thus the unintended consequences on employees due to the nature of the ethical considerations made when designing job automation technology for adoption.

1.2.2 Theoretical problem

As explored in the available literature, ethics theory is non cohesive. While it is known that new ethical norms are emerging due to the adoption of job automation and new business development (Kaptein, 2017) and while it is also known that the ethical climate of the organisation is dependent on ethical aspects of leadership style, goal congruence (Linder & Foss, 2018) embeddedness of an ethical dimension in operations and an organisational acceptance of moral agency (Belle, 2017; Vidgen et al., 2020). It is not known how South African banks incorporate ethical considerations into their decision to adopt job automation. It is also not known how employees specifically are considered by the ethical considerations of business when adopting job automation. Lastly there is a gap in the literature on the positive and negative implications considered in relation to employees when adopting job automation and how these implications affect the design and roll-out of job automation adoption during the decision-making process.

1.3 Research purpose

The purpose of this study is to provide a deeper understanding of the ethical

considerations for employees when designing and adopting job automation technology. The considerations are made by decision-makers who form part of the planning and design of a firm's job automation adoption strategy. The industry focus of this study will be South Africa's banking industry due to the publicly reported restructuring in major banks in 2019 (de Villers, 2019). Digital strategists and policymakers have an opportunity to design and adopt job automation for both profitable and sustainable growth. The realisation of this opportunity is driven by a broad discussion of which impacts are desirable, as well as a deeper understanding of the ethical considerations that will enable the design and deployment of automation, and the policy decisions that will achieve these desirable impacts.

To achieve the aim of this study, there are two overarching research questions:

- Which ethical considerations were considered by decision-makers in relation to their employees when adopting job automation?
- How do these considerations affect the decision to adopt job automation and the subsequent rollout of job automation technology?

The aim of this study is summarised as follows:

1. Understand the ethical considerations of decision-makers in relation to employees when designing and adopting job automation technology.
2. From the considerations, explore the ethical considerations that have a positive implication on employees when adopting job automation and those that may have a possible negative implication.
3. Of the considerations with a negative implication, determine whether further considerations were made to avoid these negative implications, what they were, and how they influenced the design or decision to rollout the strategy. Of the considerations which were positive, determine how their attributes influenced the design or decision to rollout the strategy.
4. Reflect on the business ethics considerations in relation to employees and the adoption of job automation to establish alignment with organisational goals that give a competitive advantage and compare these business ethics considerations to the traditional business ethics considerations outlined in literature.
5. Consider the business and academic implications of this study.

The insights from this research are aimed at building on current business ethics

literature by understanding the ethical considerations made by business when adopting job automation technology, particularly its effects on employees. The study aims to enhance existing literature with ethical principles from the digital era.

1.4 Significance of research

1.4.1 Practical need for study

Ethical business practices are often secondary to fluctuating business conditions. Conflicting goals can result in prioritising cost efficiencies over labour (Sampath & Pramod, 2018), these decisions should not be taken lightly especially within the financial services industry where human interaction can strengthen customer relationships with the organisation (Coetzee, 2018). The emergence of job automation has changed the pre-existing social customs in the workplace. This warrants a reflection of ethical practices under the new business conditions of job automation adoption.

1.4.2 Theoretical need for study

There is little evidence on the expectations of business when contemplating the ethical considerations of job automation adoption within the fourth industrial revolution. The business ethics theory is not cohesive and the ethical responsibility of business goes beyond legal liability (Belle, 2017; Zeni, Buckley, Mumford, & Grif, 2016). There is a need to understand the ethical considerations that arise from the adoption of job automation in order to enhance current theory with ethical practices that address these new ethical norms (Kaptein, 2017; Vidgen et al., 2020). This study aims to explore this area and develop theory that will build on business ethics in light of the new ethical norms that have resulted from job automation technology.

1.5 Scope of research

This research will focus on the perspective of decision makers charged with the planning, design and adoption of job automation strategy.

The study will not examine the avoidance of job automation adoption due to it displacing employees but will rather explore the ethical considerations contemplated when deciding to adopt job automation. The ethical considerations investigated by the study are in relation to employees as internal stakeholders. Employees in the study have been directly affected by job automation, either through displacement or a change in their roles or activities. For the purpose of this study, decision-makers

are recognised as moral agents collectively responsible for making ethical decisions and putting them into action.

1.6 Conclusion

This study is aimed at contributing to business ethics theory by providing a deeper understanding of the ethical considerations' decision-makers contemplate in relation to the adoption of job automation. This will assist leaders to embed transformed ethical principles within their digital transformation strategies for sustainable growth. The incongruent goals of achieving commercial interests such as competitive advantage while aiming to sufficiently satisfy the moral obligation of business to operate responsibly and promote the social wellbeing of employees inspired the practical need to conduct the study. The unintended consequences on employees due to the nature of ethical considerations made when designing job automation technology for adoption will be investigated the study. The call to action is reflective, as new developments in business emerge, they necessitate a reflection and transformation of ethical practices in order to address the ethical norms and standards that emerge.

Chapter 2 – Literature review

2.1 Introduction

The aim of the literature review is to outline the theoretical basis of the study and provide discourse on the ethical considerations of business on the implications of job automation for employees in South Africa's financial services sector. This chapter broadly comprises two constructs: ethical considerations for employees; and job automation.

The section on ethical considerations for employees explores the nature of ethical decisions made by business. This decision-making is often integrated and does not isolate employees from other stakeholders. Key aspects are then broken down into the moral agency of the organisation, the two broad leadership styles in relation to ethical decision-making, organisational goals, and the 'struggle ethics' element of decision-making. This section concludes with ethical considerations in application, specifically in relation to employees.

The section on job automation provides an understanding of job automation within the context of the study, as well as the adoption of job automation technology in the financial services sector. The ethics of the adoption of job automation are investigated alongside the implications this adoption has on employees.

The chapter concludes with a theoretical investigation of the nature of ethical considerations for business towards employees when adopting job automation technology and explores various theories and models that contribute to understanding these considerations.

2.2 Ethical considerations for employees

2.2.1 Concept of ethics

The concept of ethics is best described as any action that averts substantial harm to others, especially when presented with an opportunity to do so to advance personal gains (Belle, 2017). The theory on business ethics varies, however, aims to provide guidance on what can be considered morally right, legally transparent and socially acceptable when involved in the human activity of providing goods and services for trade (Belle, 2017; Zeni et al., 2016). By identifying a set of practices and procedures that serve as a point of reference when certain circumstances arise, an ethical framework provides stabilisation for organisational behaviour (Belle, 2017).

2.2.2 *Organisational moral agency*

The idea that an organisation should be viewed as a moral agent capable of making ethical decisions and putting them into action has been a controversial topic in academic literature. Arguments against the idea defend the notion by emphasising that the purpose of business is to provide goods and services for trade while maximising shareholder value (Belle, 2017; Scharding, 2018) and thus the creation of goals and actions that do not resonate with this purpose are outside the scope of business. The argument that moral agency is the role of an individual and cannot be placed as a corporate responsibility is dismantled by Orts who puts forth that although it is ideal that the moral responsibility be placed on individuals, the lawful recognition of an organisation as a legal person makes a case for moral agency at a firm level (Mcleod, Payne, & Evert, 2016; Scharding, 2018).

The opposing view expands their argument by stating that business is a human activity (Belle, 2017) and advocates this notion by describing the human activity of business operations to involve setting policies, influencing changes in customer behaviour and decision-making which has an impact on society and the environment (Belle, 2017). The source of an organisations moral agency is its collective power to act, making it accountable for its actions and thus evidencing a responsibility to make ethical decisions (Belle, 2017). For the purpose of this study, the moral agency of the organisation shall be recognised both at the individual level as an agent of the collective and at the firm-level. The leadership approach to ethics is based on the mandate of the organisation and the moral agency of leaders is based on their perceived moral obligation to stakeholders (Maak, Pless, & Voegtlin, 2016) and thus comprising of both organisational level factors and individual level influences of ethics.

2.2.3 *Ethical leadership and organisational goals*

Making sense of goals at the organisation level creates a central problem for ethical decision-making (Linder & Foss, 2018). The goals direct efforts, have motivational values for employees and influence the standard of organisational behaviour (Linder & Foss, 2018). Given that the pressure to perform as a responsible business has led to greater assortment of goals which are dependent on the degree of division of labour, the financial stability and industry affiliation of the organisation (Linder & Foss, 2018); the dependence of such factors elicits prioritisation of some goals over others

(Belle, 2017; Linder & Foss, 2018). The leader's responsible leadership style is determined by their value orientation and influences the firm's engagement in corporate social responsibility, this influences the prioritisation of ethics within business (Belle, 2017; Maak et al., 2016). Ethical leadership has a positive influence on the psychological safety climate of the organisation and can thus induce team-level creativity despite interpersonal risks and workplace uncertainty that may be present (Tu, Lu, Choi, & Guo, 2019).

While the presence of multiple goals may cause conflict due to an incongruence among the goals of stakeholder groups, they may also contain complementary effects and be derivatives of a superordinate goal (Linder & Foss, 2018). Given the complexity and prioritisation of multiple goals within the business, the ethical considerations that are taken into account in decision- making are dependent firstly on the ethical climate elicited by leadership and secondly by dependencies on available resources (Linder & Foss, 2018).

2.2.4 Ethical decision making in business

The theory of ethics in the business context is of interest as it influences business behaviour, decisions and outcomes. While ethical practice is guided by theories on business ethics, the theory is seldomly cohesive (Belle, 2017; Mcleod et al., 2016). Ethical practices fall victim of fluctuating business conditions (Belle, 2017; Kaptein, 2017). Such fluctuations create an ethics gap between what ought to be done and what has been done. New ethical norms have emerged during the past decade as a response to new organisational developments (Kaptein, 2017). To prevent an ethics gap from arising, organisations need to maintain current ethics or perhaps adopt and embed new ethical practices to address the ethical norms that have emerged (Kaptein, 2017). This is known as struggle ethics.

Kaptein (2017) postulated that organisations experience an ethics battle that has three objects. The first object is the object of struggle where organisations combat pressures that threaten existing ethical norms. Secondly, new organisational developments such as the emergence of non-human entities (robots) and various forms of artificial intelligence can warrant new ethical norms (Kaptein, 2017; Mansell, Ferguson, Gindis, & Pasternak, 2019) and thus also create opposing forces to adopt ethical practices (Kaptein, 2017). Thirdly, competing value systems within the organisation create conflict on which ethical practice to follow and (Kaptein, 2017).

Kaptein (2017) evidence that struggle ethics is required for organisations to remain ethical as it continuously creates an awareness of ethical norms that change over time.

Belle (2017) stated that the ethos of the organisation should determine the ethical considerations of the organisation, meaning that the organisation should look inwards towards their ethos then outwards towards society (Belle, 2017). By taking an inside-out approach fuelled by enterprise knowledge of self instead of taking an outside-in approach of mere ethical compliance, the organisation and leaders can emulate complementing considerations and thus develop an ethos-driven decision-making process embedded with ethics.

2.2.5 An applied tool of ethical considerations towards employees

Utilitarian ethical corporate action produces greatest good and least harm for all those affected including shareholders, customers, employees and the community (Vidgen et al., 2020). By embedding an ethical dimension into the decision making process (Belle, 2017), value creation can be created without unnecessarily sacrificing stakeholder needs (Vidgen et al., 2020). Vidgen et al. (2020) explored a method to evaluate new opportunities and ethical aspects jointly by enhancing the business analytics methodology with an ethical element to address ethical concerns. The business ethics canvas goes beyond guidelines for ethical practice, could be implemented without having a philosophy background, reflected the normative status of ethical reasoning and could be applied in the real-world to make ethical decisions (Vidgen et al., 2020).

The business ethics canvas allows decision-makers an opportunity to take stock of the stakeholders affected by the new development (or solution) while also assessing their possible implications and severity thereof. Implications are prioritised and the strategies to mitigate or exploit in order of importance are devised (Vidgen et al., 2020). This is a similar process to struggle ethics where four strategies are contemplated in line with the treat. The strategies contemplated during struggle ethics were namely (1) the offensive strategy of eliminating the pressure, (2) escape strategy of avoidance, (3) reconciliation strategy to turn the pressure into an incentive or (4) resistance strategy to face the pressure and not being influenced by the pressure by using controls to reward or punish (Kaptein, 2017).

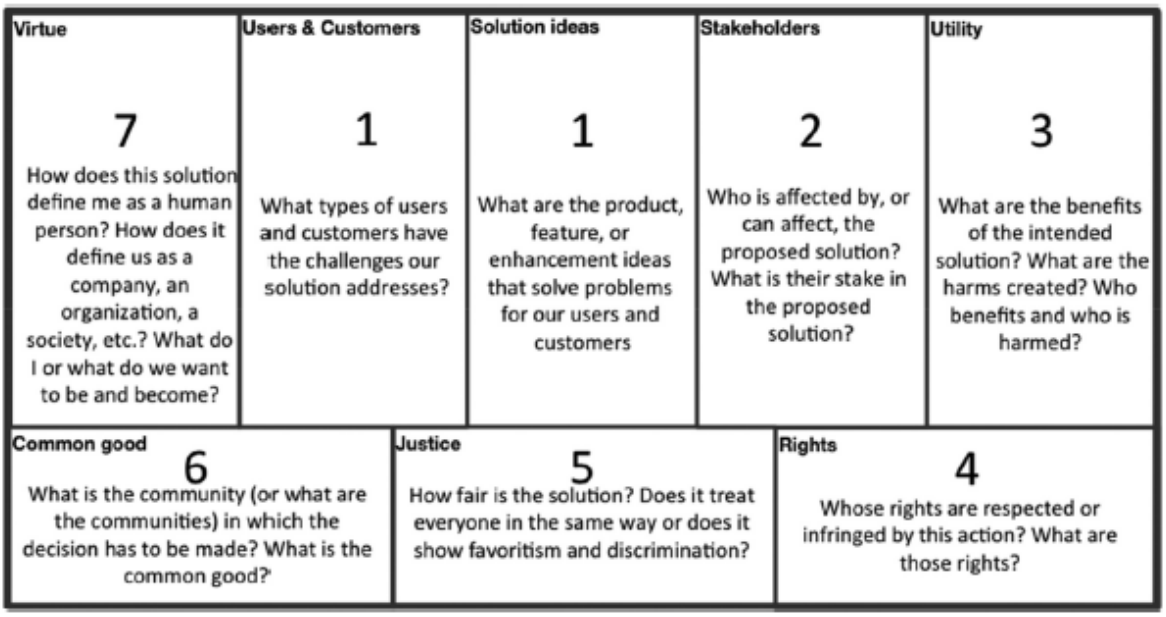


Figure 1: Business ethics canvas (Vidgen, Hindle & Rudolph, 2020, p. 497)

The above depiction illustrates the business ethics canvas template. The ethical exploration nudges decision-makers to define positive and negative opportunities from the new development that may diminish or enhance one or more stakeholders along the ethical dimension (Vidgen et al., 2020). New development participants are then provided with limited number of votes which are used to rank concerns then explore possible solutions to mitigate and exploit in order of priority (Vidgen et al., 2020). Due to the constraints inherent in business, deal-breaker risks are also explored as these are the risks which cannot be responsibly mitigated. The iterative process is conducted for each possible solution within the new development until a value creating and ethically acceptable solution design is reached (Vidgen et al., 2020). Post implementation the monitoring of unintended consequences is continuously conducted.

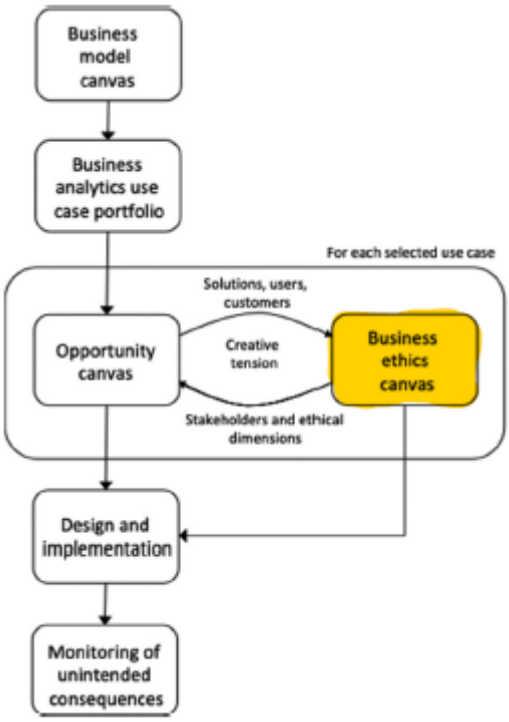


Figure 2: Business analytics model enhanced with business ethics canvas (Vidgen et al., 2020, p. 499)

The result is a business analytics model for a new opportunity or development such as job automation adoption, enhanced with the business ethics canvas as is seen above.

2.3 Job automation

2.3.1 Job automation in the financial services sector

Job automation not only substitutes labour as intended, it also complements labour by creating higher demand for labour through increased output (Autor, 2015). The financial services sector trends are moving towards a customer-centric platform by using information technology (IT) and big data together with highly specialised human capital in order to understand the customer better and provide a seeming-less banking experience (Coetzee, 2018; Vives, 2019). Vives (2019) has found technological leapfrogging in Asia and Africa to extend banking services to previously unbanked segments in the population. The digital revolution has increased the weight of codifiable information through artificial intelligence and machine learning with payment and transaction services being more affected by disruption (Vives, 2019). The move towards digitalisation is through both supply-side factors of cost efficiencies and flexibility of work and demand-side factor of customer expectations and the increased use of smart phones (Coetzee, 2018, 2019; Vives, 2019).

In South Africa, the uptake in job automation adoption has impacted the sales and

client facing environment with introductions and advancements of banking applications and robo-advisers which are expected to become the norm when interacting with clients (Coetzee, 2018). The resulting effect has been the closing down of branches, which can be seen in the table below that depicts branches, automated teller machine (ATM) with the exception of Capitec bank that has a different whose strategy is to create accessibility and simplify banking (Coetzee, 2018). The use of robo-advisers has raised labour concerns given their ability to replace unskilled workers (Coetzee, 2018).

Table 1: The number of branches, automated teller machines and clients for big South African banks (Coetzee, 2018, p.6)

TABLE 1: The number of branches, automated teller machines and clients for the big South African banks.

Bank	Number of branches					Number of ATMs					Number of retail clients†				
	2015	2016	% difference	2017	% difference	2015	2016	% difference	2017	% difference	2015	2016	% difference	2017	% difference
ABSA	784	774	-1	730	-6	9216	8885	-4	8919	+0.4	9.4	8.8	-6	8.7	-2
FNB	723	676	-7	645	-5	4978	4641	-7	4360	-6	7.2	7.7	+7	7.8	+1
Nedbank	1143	786	-31	613	-22	3840	4052	+6	3948	-3	7.4	7.4	0	7.9	+7
Standard Bank	647	641	-1	640	-0.2	5651	5564	-2	5550	-0.3	11.6	11.8	+2	10.6	-10
Capitec Bank	668	720	+8	796	+11	3418	3705	+8	4024	+9	7.3	8.3	+14	9.0	+8

†, Number of clients were measured in millions.

2.3.2 *Ethics of job automation*

Ethical dilemmas of job automation can be viewed from varying angles. The general data protection regulation is an ethical principle which protects the data of users from being transferred across borders or being exploited for other purposes without the users acknowledgement (Vidgen et al., 2020). The design of the job automation systems contains an ethical element where the bias of the tool needs to be avoided, concepts of value design and care design aim to address this issue and instil a machine moral agency (Banks, 2019; Jacobs & Huldtgren, 2018). Human-centred value design of technology aims to address the challenges faced by the user of the technology (Go & Sundar, 2019). New ethical norms affecting stakeholders emerge (Kaptein, 2017) as job automation adoption becomes the norm in the financial services sector (Coetzee, 2018). The varying angles in which ethics can be viewed in relation to job automation can be succinctly put as data protection, tool design and people. Job automation technology design in relation to employees who work alongside job automation and people in relation to employees as internal stakeholders will be the focus of this study.

In Norway, the Nordic model promotes social welfare and there is a greater focus by government to diffuse artificial intelligence and robotics adoption through longer-term policy-making with a collaboration of employer organisations and trade unions (Lloyd

& Payne, 2019). The provision for social rights in cushioning labour market risks drives the collaboration between organisations and trade unions towards a common cause on behalf of the ethical implications of job automation (Lloyd & Payne, 2019). Kim & Scheller-Wolf (2019) suggests that the ethical implications of job automation should not be considered at a government level alone as even in the event that the government is able to contemplate and solve the ethical dilemmas at an institutional level with policy and legislature, corporates are not warranted to create these problems in the first place. The weight of ethical consideration should be carried at both an institutional and organisational level (Kim & Scheller-Wolf, 2019).

While it is true that the ethical dilemmas of job automation can be viewed from various angles, the ethics of job automation aims to cater for the data protection, bias and safety ethical dilemmas through government policy, legislature and organisational policies (Kim & Scheller-Wolf, 2019; Lloyd & Payne, 2019). The ethical dilemmas of new ethical norms that may emerge in the workplace due to job automation or the automation of work operations requires more than policy. Ethos-driven decision making (Belle, 2017), struggle ethics of continuously addressing the ethics gap (Kaptein, 2017) and an embedded ethical dimension in decision making (Vidgen et al., 2020) has been suggested by the literature. As previously stated, these ethical considerations assume a moral agency in the organisation and are dependent on the ethical climate of the organisation and individuals within the organisation as a collective, the success of these ethical practices are not solely dependent on a top-down approach of compliance and policy adherence (Belle, 2017).

2.3.3 Implications of job automation on employees

Job automation adoption has augmented labour with a noticeable change of job polarisation where income has been distributed disproportionately across various levels of skilled and unskilled labour (Autor, 2015; Lloyd & Payne, 2019). Autor (2015) postulated that the trajectory of employment will be influenced by artificial intelligence and robotics and the comparative advantage of machine-human interplay may allow humans to focus on problem solving skills while the machines perform routine based codifiable tasks.

In the midst of the augmentation of labour (Autor, 2015), questions are raised as to how people maintain career confidence in the twenty first century (Skrbiš &

Laughland-booÿ, 2019). The question brought a perspective on employees who have had their job role augmented or have been displaced by job automation. The study found that youth in Australia remained confident and deemed themselves to be adaptable to change. Those who had planned their career or had a flexible career had and outlook of career safety or career malleability. Those who had unknown career paths felt anxiety, self-doubt and a career outlook of insecurity (Skrbiš & Laughland-booÿ, 2019). Given the various outlooks based on the career disposition of employees, employees who survive job automation displacement and need to work alongside the technology could have varying career outlooks which could potentially impact their effectiveness.

The relationship between machines and employees is rapidly evolving (Kim & Scheller-Wolf, 2019). Termed as technological unemployment, the automation of jobs has caused displacement of employees in multiple industries where retrenched personnel are deemed to be unemployed due to technological advancements (Autor, 2015; Kim & Scheller-Wolf, 2019). Job polarisation where the increasing employment demand is found in the higher and lower areas of labour distribution with a reduction in the middle is a trend found to correlate with the increase in job automation adoption (Heyman, 2016). Heyman (2016) found within-firm polarisation and between-firm polarisation and attributed this to the degree of routineness of job tasks and their technological advancements thereof.

While migrating the workforce to higher order jobs such as problem-solving, innovation and creativity is seen to be a comparative advantage of job automation (Autor, 2015), Kim & Scheller-Wolf (2019) posit that the naively automating the workplace could place business at risk of ethical and societal issues especially for those who find themselves technologically unemployed. One such issue being a lack of meaning and purpose in a digital world (Kim & Scheller-Wolf, 2019). Loi (2015), supports this notion by suggesting that the advancement of technological innovation has resulted in the dis-enhancement of humans and can be found objectionable from a moral point of view. The implications of job automation adoption on employees can be placed into two broad categories of technological unemployment (Autor, 2015; Kim & Scheller-Wolf, 2019; Skrbiš & Laughland-booÿ, 2019) and human-technology interaction or collaboration (Banks, 2019).

2.4 Ethical considerations for employees and job automation

2.4.1 *Overview of ethical considerations towards employees in the digital age*

Internalisation, integration and a progressive approach to institutionalising the co-existence of innovation (through job automation and big data) and associated ethical alignment has been considered as an enabling strategy for long-term corporate growth and sustainability by a financial services sector company (Arthur & Owen, 2019).

The considerations for employees affected by the adoption of job automation can be evaluated using the business ethics canvas as this methodology embeds an ethical dimension into the business operations when evaluating a new opportunity (Vidgen et al., 2020) such as job automation adoption. The dimensions labelled by one and two within the ethics canvas template explore the new development, namely the job automation technology to be adopted and all stakeholders affected by it. The third dimension explores the ethical consideration where all stakeholders are considered in terms of the potential positive and negative implications. The considerations are made by all job automation adoption participants, where they can also invite stakeholder representatives to provide a more representative voting structure. This is dependent on the organisational goals and the leader's value orientation (Belle, 2017; Maak et al., 2016). The voting may also be influence by the participants moral compass. Ethos-driven decision making can also be considered here where the organisation assesses or reflects on their ethos as this may influence the ethical considerations that they possess (Belle, 2017). The fourth to the sixth dimension looks at legality and policies and is an extension of the third dimension where the community and fairness is considered. The last dimension is reflective and closes the loop by attempting to understand whether the decisions made are aligned to the firm's ethos and future goals (Belle, 2017; Linder & Foss, 2018).

The entire process aims to identify the ethics gaps between the solution and ethics of the firm by understanding the emerging ethical norms (Kaptein, 2017) created by the new development (in the case of this study, the new development would be the job automation adoption) and addressing them in a way that fulfils value creation, organisational growth and sustainability through considering the ethical aspects of the development (Arthur & Owen, 2019; Kaptein, 2017).

2.4.2 *Summary of what is known and what is not known from literature*

review

From the literature review above, we have found evidences of various factors that affect the ethical considerations which are taken into account during the decision-making process of business. It is **known** that for ethical considerations to take place, the organisation needs to accept themselves as a moral agent capable of making decisions that implicate stakeholders and to thus make ethical decisions (Belle, 2017; Mcleod et al., 2016; Scharding, 2018). It is **known** that the priority and efficacy of the ethical considerations to be made by leaders of the organisation is dependent on the congruence of organisational goals (Linder & Foss, 2018), the leadership style, the moral compass of the leader and the ethos of the organisation (Belle, 2017). Lastly, it is **known** that the organisations that have an embedded ethical dimension in their operations and opportunity canvas are more likely to consider ethical aspects when adopting job automation and thus formulate a solution which will result in growth and sustainability (Kaptein, 2017; Vidgen et al., 2020) that provides a mutual benefit for all stakeholders including employees.

Due to the integrative nature of the ethical considerations evidenced in the literature, what is **not known** is the specific ethical considerations which pertain to employees. What is also **not know** is the possible positive and negative ethical implications found by users of the ethical frameworks explored in the study. These implications could provide insight on not only the antecedents of ethical considerations, but also the outcomes of the ethical considerations and would provide benefits on tailoring the job automation adoption performed in practice as well as provide improvements to future ethical considerations, ethical framework and business ethics theory. The ethical considerations evidenced in the literature review were based on incidences which were not in South Africa. This study will aim to investigate patterns and similarities to the literature findings by researching within the South African financial sector context.

2.4.3 Significance of research

Theory on business ethics is not cohesive. The ethical responsibility of business goes beyond legal liability. Morality is often considered to emanate from an individual's virtues and value systems; to be responsible in business, organisations require a collective virtue system to enact a moral obligation towards stakeholders. There is little evidence on the expectations of business when contemplating the ethical considerations of technology adoption within the fourth industrial revolution. This

study aims to explore this area and develop theory that will build on business ethics reflecting the new ethical norms that have resulted from job automation technology.

There is a struggle to find high-quality (four star) journals that provide empirical evidence on ethical frameworks for dealing with job automation and employees specifically. With the ethics of job automation being a broad topic comprising of data protection, technological bias, safety towards customers and using ethics to advance on sustainability goals there is limited available high-quality literature on the isolated aspect of ethics in relation to employees and job automation.

It has been two decades into the fourth industrial revolution and technological unemployment is on the rise, this will have an economic impact on the country as a whole. To complement this, the workplace environment is facing ethical dilemmas which challenge the status quo where humans and machines need to collaborate at a more integrated level than ever before. The goal of job automation adoption is to enhance customer experience, create a competitive advantage and enable company growth (Gomber et al., 2018; Hess et al., 2016). The long-term effects of this goal can only apply if companies evaluate the job automation adoption strategy holistically by incorporating an ethical dimension into their decision-making. From a theoretical point of view the business ethics point of view, this study aims to build on the theory by incorporating ethical considerations due to the new ethical norms that arise as a result of job automation technology adoption. From a practical point of view, the ethical expectation of business needs to be clarified. Business needs to be alerted on ethical norms that arise and proactive applications of theory to combat the ethical norms.

2.4.4 What can we learn?

Job automation adoption brings business ethics along on the journey as transforming business operations warrant a reflection of current ethical practices. The result is a learning experience on future ethical principles which may need to be applied in relation to employees disrupted by job automation adoption. The potential incongruence of organisational goals will be brought to light by the nature of ethical considerations investigated in the study. This learning can help business align their goals.

2.5 Conclusion

The literature review introduced the concept of ethics and explored various aspects to be contemplating when formulating ethical considerations for the adoption of job automation. The literature went on to explore the nature and implications of job automation in the financial services sector and finally assessed the known and unknowns with regards to this study in order to identify a gap in the literature which promoted the need for this study.

The overview of available theory will be used to detail the research questions in the next chapter. The research questions will use the available literature to investigate ethical considerations for employees within the South African financial services sector context and isolating employees as the only stakeholder under consideration.

Chapter 3 – Research questions

3.1 Introduction

The lack of cohesive ethics theory, context of literature and gaps found in the literature are aimed to be addressed through the outlined research questions within this chapter. The purpose of the research questions is to gain insight into the ethical considerations of business decision-makers in relation to employees when adopting job automation technology. Two overarching questions apply to the study, with sub-questions where applicable.

3.2 Research question 1

Which ethical considerations were considered by decision-makers in relation to their employees when adopting job automation?

This question seeks to explore the key ethical principles that decision-makers consider prior to adopting job automation technology. The response of this ethical question will assist in identifying whether the employees as an internal stakeholder were part of the ethical considerations of leaders (Belle, 2017; Kaptein, 2017; Vidgen et al., 2020). The nature of the considerations will provide insight to the aspects of the ethical climate of the organisation, prioritisation of ethics (in relation to employees) within the organisation and leaders leadership style and moral compass (Belle, 2017; Linder & Foss, 2018; Mcleod et al., 2016).

The sub-question here is: *Which of these considerations had a positive implication on employees, and which had a negative implication on employees?*

This sub-question aims to identify patterns in the ethical considerations of participants and their perception of positive or negative influencing characteristics when deliberating the ethical implications of the adoption of job automation for employees (Kaptein, 2017; Vidgen et al., 2020). The patterns will inform the induction of business ethics theory.

3.3 Research question 2

How do these considerations affect the decision to adopt job automation technology and the subsequent rollout of job automation technology?

Research question 2 seeks to explore the link between ethical considerations and the outcome of the decision-making process. Patterns of positive and negative considerations will be linked to the outcome to further provide insight on the embeddedness of ethical considerations within the organisation (Vidgen et al., 2020). This will also provide insight into the alignment of ethical considerations with organisational goals (Linder & Foss, 2018). The implications of the considerations influences the design and roll-out of the job automation adoption will be evaluated (Autor, 2015; Banks, 2019; Heyman, 2016; Kim & Scheller-Wolf, 2019; Loi, 2015; Skrbiš & Laughland-booÿ, 2019).

3.4 Conclusion

The research questions that the study aims to address have been posed in this chapter. Chapter four outline the research design and methodology to be followed when conducting the study and aiming to answer the mentioned research questions.

Chapter 4 – Research methodology

4.1 Introduction

The fourth chapter details the research methodology used in the study. The study followed a qualitative exploratory approach to understand the ethical considerations for employees when adopting job automation. As indicated in the literature review, the field of study within the context of job automation technology and the financial services sector remains narrow, hence the selection of a research design and method that caters to the exploratory nature of the study. The data was collected through a series of semi-structured interviews with various actors who have been involved in the planning, design, and or implementation of job automation adoption in the financial services sector. Data analysis and categorisation was performed with the use of ATLAS.ti software.

The research design, research method, data sampling, data collection and data analysis is outlined in this chapter. The chapter concludes with quality control and limitations of the research methodology design.

4.2 Research design

The literature review and resulting research questions directed the research design of the study. The literature review revealed a gap in the literature on a less understood concept of ethical considerations to be contemplated given the emerging adoption of job automation. Due to the need to discover (Slayton & Samkian, 2017) the ethical considerations within this context as well as in the context of the South African financial services sector, the exploratory qualitative nature of the research design was deemed appropriate as it allowed previously undiscovered concepts to emerge from the data (Slawinski & Bansal, 2015) and thus provided answers to the “what”, “how” and “why” of the study contemplations as opposed to “how much” or “how many” (McCusker & Gunaydin, 2015).

The chosen philosophy for this study is interpretivism, which is aimed at understanding a concept from the participants perspective. Interpretivism appreciates that participants can have various interpretations and context is taken into consideration (Saunders & Lewis, 2018). The main interest of the researcher is to understand how participants perceive their realities and interpret the social phenomenon surrounding them (Pessoa, Harper, Santos, & da Silva Gracino, 2019).

The research questions of this study were aimed at uncovering the ethical considerations made by decision-makers. Decision-makers are directed by the superordinate organisational goals and moral agency and are influenced by their own moral compass and leadership style (Linder & Foss, 2018). Their perspective was taken into account, thus interpretive techniques enabled the study to provide a deep and rich understanding of issues being investigated (Jonsen, Fendt, & Point, 2018). The natural context of the participant offered contextual understanding to business ethics from the social actors view (Reinecke, Arnold, & Palazzo, 2016).

Qualitative research is the central element of interpretation and mean making studies (Jonsen et al., 2018). The study was conducted using a mono-qualitative method as it placed emphasis on language as opposed to numeric value (Reinecke et al., 2016). The study aimed to understand the ethical considerations of business decision-makers when adopting job automation technology. To gain a deeper understanding, the use of language when interpreting the participants view was key in evidencing the need to undertake a qualitative approach when conducting the study (Jonsen et al., 2018). The overall research questions of which ethical considerations for employees were taken into account when adopting job automation technology? and how did the ethical considerations affect the decision to adopt job automation are qualitative in nature as they seek understanding as opposed to generating a numeric value from a scale per se.

An inductive approach was followed with the aim of building theory on the ethical principles to be considered when undertaking job automation (Reinecke et al., 2016). As ethical norms emerge due to the everchanging nature of business operations, the ethical practices associated with these operations undergo a transformation of their own (Kaptein, 2017; Vidgen et al., 2020). Due to the lack of extant literature on the ethical considerations in relation to employees and job automation adoption, an inductive approach was followed by this study with the aim of building on theory within the business ethics domain.

The purpose of the research design was to enable the discovery of ethical considerations by decision-makers within the South African financial services sector when adopting job automation technology. The ethical considerations being researched were in relation to employees as internal stakeholders. The study used qualitative tools to encourage dialogue (Saunders & Lewis, 2018). The research

design was orchestrated to enable the data collection and analysis to uncover meaning and thus answer the research questions of the study. The aim was to create an enabling environment in the participants natural setting to allow their perspectives to emerge (Slawinski & Bansal, 2015). The exploratory nature of the study aimed to discover information (Saunders & Lewis, 2018) on the ethical considerations when adopting job automation.

The aims of the study can be summarised as firstly understanding the ethical considerations of decision-makers in relation to employees when designing and adopting job automation technology. Secondly, exploring the ethical considerations that have a positive implication on employees when adopting job automation and those that have a negative implication. Thirdly, given the positive and negative implications, determining whether further considerations were made to modify or enhance the design or roll-out of job automation. Fourthly reflecting on business ethics considerations in relation to employees and the adoption of job automation to establish alignment with organisational goals that give a competitive advantage and compare these business ethics considerations to the traditional business ethics considerations outlined in literature. Lastly, considering the business and academic implications of the study

The research strategy was to allow theory to emerge from data collected. Phenomenology is defined as “an approach to research that seeks to describe the essence of a phenomenon by exploring it from the perspective of those who have experienced it” (Neubauer, Witkop, & Varpio, 2019, p. 91). The researcher identified a phenomenon of ethical considerations as the object of human experience within the lifeworld of the selected participants (Creswell, Hanson, Clark, & Morales, 2007; Neubauer et al., 2019).

The aim was to build on theory within the business ethics domain as the literature review found extant literature on ethical considerations for employees disrupted by job automation to be under-developed. Data was collected through interaction with participants at a point in time (Saunders & Lewis, 2018). Due to limited resources and timeline of the research, a commitment to longitudinal study was not feasible thus a cross-sectional time horizon was appropriate. The study collected data by means of in depth, semi-structured interviews conducted via zoom to enable safe interaction during the pandemic. The audio recording functionality on zoom was used

to document the data for analysis.

Predetermined open-ended questions were used by the study to probe the participants while allowing them to provide their perspective on the research topic. The questions were asked in any given order, the researcher adopted a flexible approach, in the event that the participant answered a question before it was asked, the question was omitted and additional questions were asked for clarification and further understanding, this depended on the participants response (Saunders & Lewis, 2018). Semi-structured interviews are useful for generating data which will assist in theory development, evidencing the appropriateness of this technique for this study (Saunders & Lewis, 2018). The researcher maintained an open mind, questioned pre-understanding during data collection and adopted a reflective attitude during the research process.

4.3 Research methodology

4.3.1 Population

Population can be defined as “the complete set of group members” (Saunders & Lewis, 2018, p. 138). The population for this study comprised of decision-makers involved in job automation adoption projects. These personnel were known to have various roles and were involved in the planning, design and or implementation of job automation technology adoption within the South African financial services sector. The South African financial services sector has experienced restructuring due to digital transformation which in most instances led to the public reporting of multiple job losses (de Villers, 2019). This evidences the appropriateness of selecting the South African financial services sector as a suitable sector to understand this ethical concept as multiple job automation initiatives have occurred during recent years (Coetzee, 2018, 2019).

The population targeted for this research included personnel who manage elements within job automation adoption projects, this included lead consultants, managers, and executives who possessed decision making capacity during the planning, design and or implementation phase of the project. The financial services sector is inclusive of registered banks, insurance, investment, and asset management firms. The population is thus inclusive of registered financial services providers regulated and found in the Financial sector conduct authority (FSCA) database (Financial Services Conduct Authority, 2021).

4.3.2 Unit of analysis

The level at which the study was conducted is termed as the unit of analysis (Saunders & Lewis, 2018). Qualitative study enables an understanding of phenomena from the view point of the social actor (Slawinski & Bansal, 2015). The social actors in this context were individuals charged with decision making and involved in the planning, design, and implementation of job automation adoption projects. Phenomenological studies seek several individuals who have a shared lived experience, in line with the research strategy of the study, the unit of analysis was the individual decision maker (Creswell et al., 2007).

4.3.3 Sampling method and research sample size

A research sample is defined as “a sub-group of all group members” (Saunders & Lewis, 2018, p. 138). Non-probability sampling is most appropriate when the researcher cannot obtain a list of the entire population (Saunders & Lewis, 2018). The unit of analysis is at the individual level (job automation adoption decision-maker) and not at the organisation level. The researcher could not obtain the entire list of job automation decision makers within the South African financial services sector and thus non-probability sampling was the most appropriate sampling approach.

A purposive sampling process enlarged by snowball sampling was used to arrange the sample for the study. The sample selected was not representative of the entire population (Saunders & Lewis, 2018) however this method of sampling ensured that the participants pooled for sampling were able to answer the research questions of the study. Purposive sampling is adaptive and iterative (Köhler, 2016).

The criteria for the purposive sample included: (1) Individuals with a job title that is indicative of a job role that conducts decision-making responsibility predominantly in job automation adoption. This title needs to be held within the financial services sector. (2) Individuals who have a lead, management, or executive role experience. (3) Individuals who have experience with decision-making within job-automation adoption projects conducted in the financial services sector (4) Individuals who work for the larger banks (tier one banks) in South Africa will be considered first and the sample base will be complemented with individuals who work at medium (tier two banks) sized banks and individuals from other financial institutions as well as

consulting firms that have assisted South African banks and financial institutions with job automation technology adoption. (5) Participants will be accessed using existing networks, a screening process for the abovementioned criteria will be conducted.

The email address of participants was obtained via request on LinkedIn and other social media platforms using existing networks. Participants were contacted via email for request to participate in the research. Of the participants who accepted, a time and date were arranged via email. Participants were provided with an informed consent to willingly participate and be recorded during the interview. Some participants returned the informed consent and agreed to be recorded during the interview. The participants who did not return the informed consent were informed of consent during the interview and agreed to proceed.

Upon conclusion of the interview, participants were asked for referrals of future participants as part of the snowball sampling technique. Referred participants who accepted to partake in the study were screened prior to arranging an interview date and time via email. In some instances, the identity of the participant was not known by researcher, in this case, the full name was not requested. 2 out of the 18 participants were sourced through snowballing. Confidentiality of all participants was ensured as the interviews were stored without participant specific identifiers, names were removed from the transcriptions and the data was labelled using participation numbers as the identifier for each interview.

A challenge faced by qualitative researchers is convincing their audience that they have collected sufficient high quality data (Reinecke et al., 2016). There is no single objective answer as to the correct number and of interviews and hours deemed as ‘high quality’. Saturation occurs when the collected data does not provide further understanding to the study. An iterative process to allow emergence of understanding was followed (Knapp, 2017). Reaching saturation is important to validate the qualitative study, Ando, Cousins & Young (2014) found the sufficient sample size for thematic analysis within a qualitative study to be 12 interviews as all themes and 92.2% of the codes were generated after 12 interviews had been conducted.

The initial sample size selected for this study was 12 semi-structured interviews which was later increased to provide credence to the study by sourcing more

experienced decision-makers and based on new codes which emerged from the data. After each cycle of interview, the data was collected, transcribed and analysed for codes (Knapp, 2017). By assessing that no new codes emerge from interviews through data analysis, saturation will be confirmed.

The sample consisted of 18 participants, nine from the financial services sector and nine who had consulted within the financial services sector. The job title and positions varied and included: four participants at lead job level (three from consulting and one from financial services), nine participants at managerial level (three from consulting and six from financial services) and five participants at executive level (three from consulting and two from financial services).

4.3.4 Discussion guide

To make theoretical progress within social science disciplines, a sound discussion guide is required (Rammstedt & Bluemke, 2019). The discussion guide was designed to explore and uncover themes from the perspective of the participants with the aim of answering the research question and fulfilling the purpose of the study.

The interview guide was used to guide the discussion when collecting data. The guide was used to probe participants and allow their responses bring to surface data relating to the research questions. In some cases, the participants responses lead to further discussions and which increased depth and meaning was derived from the responses. The researcher used similar questions across participants to allow the similarity and variance in responses across respondents to be comparable when analysing the data. The discussion guide was closely aligned to the literature reviewed in chapter two and the research questions outlined in chapter three (*see annexure A for the discussion guide questions*).

Table 2: Research questions as mapped to discussion guide

Research question	Discussion guide
Research question 1: *Which ethical considerations were considered by decision-makers in relation to their employees when adopting job automation?*	Questions: 2, 3, 4b,4c,4d,5, 6.
Research question 1 (sub question): *Which of these considerations had a positive implication on employees, and*	Questions: 4.

which had a negative implication on employees?	
Research question 3: *How do these considerations affect the decision to adopt job automation technology and the subsequent rollout of job automation technology?*	Questions: 4b,4c,4d,7.

A process of pilot testing was used to validate the reliability of the measurement instrument. Where discrepancies were identified, the discussion guide was amended accordingly to ensure better data extraction. The pilot was conducted with a data analytics manager working at a tier one bank. The discussion guide was seen to be effective with the exception of the following: (1) question nine from the original discussion guide was removed as it questioned the participant on the moral agency of an organisation as opposed to individual experience in line with the study, (2) question four and six were combined and rephrased to enable comprehensibility for the participant.

4.3.5 Data collection

Data was collected using in depth one-on-one semi-structured interviews as an effective technique to gain meaningful insights (Saunders & Lewis, 2018) and aimed to answer the research questions of this qualitative study. The semi-structured nature of the interview gave allowance to guide and prompt the participant within the confinement of the area of interest (Petty, Thomson, & Stew, 2012). The interview questions were structured in a layered approach with background questions preceding the contextual questions related to the participants lived experience, followed by specific questions and clarifications related to the study's research questions.

It's imperative that the researcher is transparent on the amount, timing and extent of data collection (Reinecke et al., 2016). The primary data was collected using 18 semi-structured interviews of decision makers who were involved in job automation technology adoption projects. The participants were sourced through an existing professional network and contacts accessible to the researcher who worked within the South African financial services sector and professional services sector.

Upon acceptance to participate in the study, an interview date and time was

arranged. Participants were requested to e-sign the informed consent in order to partake in the study. Confidentiality was ensured by not storing any data with identifiers for all participants, names were removed from the transcripts and audio was played back to ensure that no full names were mentioned for participants who wanted to remain confidential. The responses and perspectives of the participants were under study and the researcher probed the participant using the discussion guide and listen intently for understanding and further clarifications. Participants were interviewed at a point in time, once-off with no follow up interviews. The interview was recorded using the zoom record functionality. No more than two interviews were conducted per day to enable the researcher time for reflection. After every two interviews, the interviews were transcribed. The data was analysed to assess whether new codes emerge after an interview cycle. Saturation was monitored using the emergence of new codes after an interview cycle.

The predetermined interview questions were constructed in a way that enabled an acceptable interaction time with the participants. Semi-structured interviews can be conducted face to face, telephonically or over the internet and should take approximately 30 to 90 minutes (Petty et al., 2012). The aim of each interview was set at 45 minutes and similar to an average time of previous qualitative studies of a similar nature (Dubru, 2017; Tiekam, 2019). The data gathered from the audio recordings formed the foundation of data which was analysed (Saunders & Lewis, 2018).

The interviews were scheduled in accordance with the participants availability and were conducted over zoom to ensure safety measures were in line with the pandemic guidelines. Data was collected over a span of four months during which 18 participants were interviewed. Where the years of experience was not explicitly indicated in the interview (participant 3), the researcher followed up with the participant for clarification. Where the job position was unclear (participant 16) the researcher clarified with the participants profile on LinkedIn. The participants were categorised by (1) industry either the financial services sector or consulting, (2) job level as either lead, manager or executive and the years of experience were provided to assess the potential richness of insights.

One interview was not initially recorded, and the participant was requested to provide a summary of insights on the record (participant 14). The shortest interview was 21

minutes and the longest interview 89 minutes. The average duration was 39 minutes.

4.3.6 Analysis approach

Clear explanation of analysis design steps and procedures will evidence a high quality study (Jonsen et al., 2018). Category labelling or organisation using coding for qualitative study is uniform (Jonsen et al., 2018). Generally, inductive qualitative research is informed by ordering concepts, themes and aggregating analytical terms (Jonsen et al., 2018).

Preliminary analysis was conducted during the interview process through probing and the adding of clarification questions. The Gioia principles of a guiding research question, flexible and adaptive interview (Pratt, Sonenshein, & Feldman, 2020) such as the semi-structured interview used to collect the data were followed during data collection, the thematic analysis method was used to conduct the post interview analysis. By allowing patterns and themes to emerge from the data, thematic analysis provides theoretical freedom and is a useful research tool that provides a rich and detailed account of the data (Braun & Clarke, 2006). Thematic analysis uncovers patterns and meaning from data. This will enable the interpretation needed to gain a deeper understanding and thus answer the research questions of the study.

The recordings from the interview were transcribed and loaded into ATLAS.ti for the post interview data analysis. During the thematic analysis, the research became familiar with the data by transcribing the interviews after an interview cycle and reading the transcript. Initial ideas were briefly written down. Coding was generated systematically by reading each response, exploring the meaning behind each response and comparing the similarities and differences between each meaning (Sundler, Lindberg, Nilsson, & Palmér, 2019). Open coding was used to avoid forceful categorisation into a pre-existing coding frame (Braun & Clarke, 2006). Codes were organised into code categories which were then further collated to themes (Braun & Clarke, 2006). The definition of the themes described the meanings of the lived experience in the participants actual context (Sundler et al., 2019). The themes were reviewed, refined, clearly defined then reported in the fifth chapter. Transcript quotations were used to support key codes and themes identified.

4.3.7 Quality control

Credibility, transferability, dependability and confirmability are viewed as elements

that ensure the trustworthy methods to improve the quality of qualitative study (Pratt et al., 2020). The notion of credibility examines whether researchers have effectively represented the multitudes of the study (Pratt et al., 2020). Credibility and dependability can aid the rigour or trustworthiness of research and increase quality. Trustworthiness can be used to appraise the rigour of the study (Cypress, 2017).

To evidence credibility, this study transparently details the discussion guide used, data collection and findings extracted from the data analysis. “Forms of …scientific rigour … include respondent or member checking or other forms of triangulation techniques” (Jonsen et al., 2018, p. 50). Triangulation using various data analysis techniques to corroborate codes identified on ATLAS.ti further evidence the credibility of the research. The discussion guide was piloted to ensure that the line of questioning accurately provides data which answered the research questions of the study.

Transferability was a challenge in this study as it followed a qualitative approach within a given context. Purposive sampling to only collect data that answers the research questions, and an iterative process of questioning was used. The question as to whether the findings can be transferred to other groups outside the financial services sector or South Africa were considered. The lack of generalisability in qualitative data due to the small sample sizes that test a niche area of research challenged the quality and limit the research in making broad claims about the implications of the study to practice (Reinecke et al., 2016). The context in which the study was conducted was clearly articulated to be transparent about the transferability of the study.

The data collection recordings and field notes were stored with non-identifiers on an external device to maintain confidentiality of participants. The results were transparently displayed with an accurate account of how the study was conducted within the given context to evidence dependability should the study be replicated in future.

Full documentation of the process, decisions made when analysing data and context in which data was collected with the aim to increase confirmability of the study was reported. Qualitative study has been criticised to contain high levels of bias (Reinecke et al., 2016). The recording and transcription of the research formed the

basis of analysis to limit bias from mental recollection of interview process. Thematic analysis using known methods in the qualitative field of study further reduced the bias as it enabled a systematic process to be followed.

Scholars within the business ethics domain postulate that high-quality qualitative study can be measured by the theoretical contribution, rigorous methods and good writing (Reinecke et al., 2016). A common tension faced by qualitative researchers is the lack of standardised templates present (Reinecke et al., 2016). The purpose of qualitative research is to uncover meaning, build theory and can be used to explore a phenomenon which is not mature in literature content. The existence or use of standardised templates is thus not possible.

4.3.8 Limitations

The study followed a qualitative technique and is thus subject to limitations inherent to qualitative research. The main challenge of qualitative research is that it is not quantifiable or objective when compared to quantitative research (Jonsen et al., 2018; Reinecke et al., 2016). The purpose of qualitative study is to "explore domains and questions where quantitative research would struggle to formulate hypothesis or find sufficient data" (Reinecke et al., 2016, p. 1). To uncover meaning and understand a phenomenon, the perspective of the participants is the main determinant thus quantifiable data is not prioritised. The perspective of the participant is based on their viewpoint and thus a level of bias is inherent in the nature of the study. The viewpoint of the participant is subject to interpretation. The bias is limited through quality controls such as transcription, systematic coding using the thematic analysis method, and transparent field notes.

Lack of replicability is another limitation of the study. Field notes and triangulation aim to reduce the limitation however this limitation exists. The study will not be theoretically generalisable to the full population of the study as a non-probability sampling approach was used. The study was conducted within South Africa and the financial services which excludes other countries and industries. Purposive sampling was used to obtain data which would answer the research question, this further limits the generalisability of the research. Snowballing may limit the number of new codes identified due to the related party connection of participants. This may give a false sense of saturation. To combat the risk, the researcher will specifically note the links between participants and their 'snow balled' counterparts through sequenced

participant numbering to remain aware of possible false saturation. The interviewer does not have any previous training in interviewing which could affect the interviewing process. The study will be conducted while the country is recovering from the pandemic Corona virus and disease (COVID-19), this will affect the interview process which will be on Zoom and not in a field setting due to social distancing practises adhered to in business.

4.3.9 Delimitations

Two out of the 18 participants were sourced through snowball sampling, the limitation on the number of new codes generated was significantly mitigated due to the number of people snowballed in comparison to the total sample size. New codes were also generated with participants who were sourced using snowballing, thus circumventing the risk of induced saturation.

4.3.10 Ethical consideration

Data was collected after ethical clearance was obtained from the Research ethics committee (see annexure B). Each participant was requested to sign an informed consent which requested permission to include the participant in the study and to record the participant (see annexure C). The identity of the participant was kept confidential as no full names were reported in the transcriptions. Non-identifying information such as the participants job title or position, years of experience and organisation type i.e., financial services sector or consulting was reported to indicate suitability of the participant to participate in the study.

Conclusion

Chapter four outlined the research design and research methodology used to formulate the measurement instrument, source participants, collect the data, and systematically analyse the data. The research design and methodology aimed to enable the study to achieve its objective of answering the research questions and uncovering meaningful insight. Chapter five details a description of the participants who participated in the study, the data collected in the field and the analysis of the data thereof.

Chapter 5 – Results

5.1 Introduction

This chapter provides for the key findings obtained from the semi-structured research conducted in the field where 18 participants who held different positions within the financial services and consulting sector. All participants have been involved in a decision-making capacity, either during the planning, design, or implementation phase of job automation adoption with varying degrees of decision-making ranging from the decision to adopt job automation, to the design and the way in which the implementation of job automation is rolled out. Of the 18 participants, nine participants were consulting professionals and the remaining nine participants held experience from the financial services sector. The research questions were formulated inductively from the literature presented in the second chapter and were mapped to the discussion guide for consistency. The key findings are presented as they relate to the research questions which have been articulated in the third chapter.

During the analysis of the data collected, codes were generated, refined, and categorised into groups. The groups informed the themes which emerged from the data and corresponded to the research questions of the study.

This chapter begins with a presentation of the description of participants in the study, followed by a presentation of the results from the qualitative analysis conducted. The results are presented under each research question to which they relate to.

5.2 Description of participants

A total of eighteen interviews were conducted with decision makers who held various job titles and job positions. The names of participants are not disclosed in line with the confidentiality maintained by the researcher. The participants years of experience in technology, job title or job position and industry is disclosed to indicate suitability of participants pertaining to the study. The participants are listed below in the order in which they were interviewed.

Table 3: Participants in order of interviews conducted.

Interviewee	Industry	Job role/ Job position	Years of experience in technology	Interview duration (minutes)
1	Consulting	Lead – data analytics and automation	12	43

2	Consulting	Executive – Data Analytics	13	44	
3	Financial services	Manager – Transactional banking	8	25	
4	Consulting	Manager – Data Analytics	4	30	
5	Financial services	Manager	3	21	
6	Consulting	Senior (Lead) – Data Science	3	50	
7	Financial services	Manager - IT security	6	80	
8	Financial services	Manager - IT audit	7	89	
9	Financial services	Senior analyst - Automation	5	40	
10	Financial services	Manager - Applications	6	51	
11	Consulting	Manager - Technical product owner	1	22	
12	Consulting	Manager - business development	7	38	
13	Consulting	Lead	5	34	
14	Financial services	Manager level -Title (lead automation)	15	13	
15	Consulting	Director	17	31	
16	Financial services	Executive (Head): Automation	10	39	
17	Financial services	Executive – Insights and Analytics	20	22	
18	Consulting	Director – Project design and implementation	30	21	
Total minutes					693
Average time					39

Participants were drawn from a diverse set of job positions and financial service providers. The research sought out participants at tier one banks and global consulting firms, the sample was complemented with participants from tier two banks, other financial service providers such as insurance and asset management firms as well as local consulting firms. As a result, six participants possessed tier one bank experience, five participants possessed global consulting experience, three participants possessed financial services experience and four participants possessed local consulting firm experience. This reflects the balanced view of participants selected to participate in the study.

Participants with technological experience within tier one banks were targeted first

as they are known to have a larger customer base and a larger employee base which increased the uptake in job automation technology as was noted in public media (de Villers, 2019). Automation has been prevalent across industries and more so in the financial services sector due to the threats from disruptors such as fintech companies (Coetzee, 2018; Gomber et al., 2018), hence the sample was complemented with participants with technological experience within tier two banks and other forms of financial services sector companies. The sample was further complemented with participants from the consulting industry who had technological and financial services experience as they had formed part of projects which involved the design, planning and or implementation of job automation within the financial services sector.

Participants possessed a variety of job titles which were not easily comparable, their job level indicated the type of decision-making they were involved in. Generally, the executives were involved in the planning and design of the job automation, the managers and lead consultants were involved in the design and implementation iterations of the job automation in line with the agile methodology adopted for projects of this nature within the financial services sector. The planning, design and implementation phase decisions had implications on employees and thus relevant ethical considerations at each phase were important to uncover meaning from the lived experience of the participants.

Participants with at least three years of experience within the technological area of interest were considered, this was to ensure that participants were knowledgeable about the area of interest and could provide meaningful insights from their lived experience. All participants possessed technological experience of more than three years with the exception of participant 11 who had insights from a charted accountancy and ethics perspective and was thus included for this viewpoint. It is worth noting that 14 of the 18 participants held 5 or more years of experience within technology further evidencing credible and rich insights.

The researcher opened the interview by explaining the intentions of the interview. The term job automation technology was explained, and the researcher reiterated the confidential nature of the interview. Participants were reminded that the study sought to gain insights from their experience within the job automation technology space as it relates to the financial services industry as opposed to specific insights on their respective organisations.

Throughout the interview process, the creation of new codes was tracked for saturation, saturation was achieved at interview 14. Interview 14 was not fully recorded, and the notes taken during the 'non-recorded' parts of the interview were not comprehensive, thus the researcher added an additional participant and identified two new codes during interview 15. The researcher scheduled more interviews. Saturation was then re-approached at interview 17 as no new codes were generated and then confirmed by interview 18. Although no new codes were created, it should be noted that interview 17 and 18 provided rich clarity to previously generated codes, an example being consideration at a board level. The notion of a social profit and loss included in reporting was introduced by participant 15 and rich clarity was added by participant 18 who indicated an interest at a board level on how decisions are impacting employees.

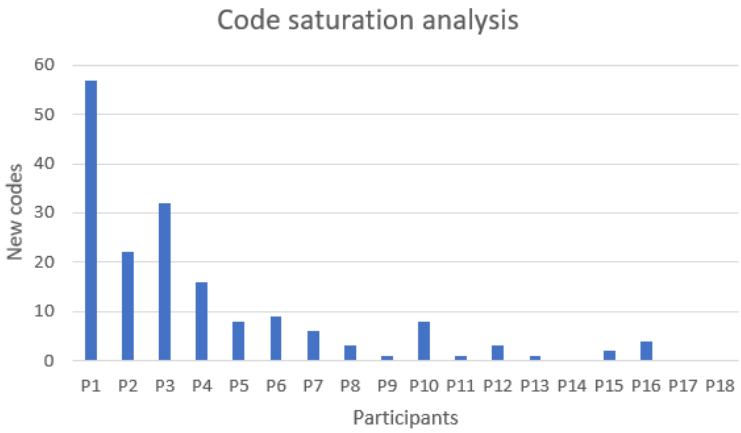


Figure 3: Number of new codes generated (code saturation analysis)

5.3 Interviews, transcripts, and context of results

The duration of the interviews was on average 39 minutes long with the shortest interview being 21 minutes and the longest interview being 89 minutes. Some interviews experienced connectivity issues, however, of the researcher and the participant regained connection and repeated information which was missed during connection. One interview file could not be recovered and thus the researcher contacted the participant to perform a summary interview on the record noting key insights shared. The affected file was in relation to participant 14.

Interviews were transcribed after every second interview was conducted as in some instances, a maximum of two interviews were performed in a day. The transcripts were transcribed using audio to text software and later proofread by the researcher. This enabled the researcher to remain close to the data. Identifying information such

as organisation names, company specific software names and the names of participants were removed from the transcripts. The pilot interview revealed the need to change certain questions within the discussion guide as they caused confusion.

The question related to the organisation (*In what way do organisations serve as a moral agent)* of the participant was removed as the unit of analysis is the individual. The discussion guide was used to guide and prompt the participant. Not all questions were asked in the same way as in certain instances, the question was addressed by the participant in an earlier question.

Thematic analysis does not emphasise frequencies, or numeric value, however in certain instances the number of participants is revealed to evidence a predominance or weight of the shared experience amongst participants. The results shared were as a result of systematic analysis and were selected due to the meaning that was derived from them. Some meanings had differences and similarities; these meanings were both presented. The insights shared were as a results of a common pattern, contrasting view or in other cases an interesting view shared by participants.

5.4 Results: research question 1

Which ethical considerations were considered by decision-makers in relation to their employees when adopting job automation?

The purpose of this research question was to understand the key ethical considerations contemplated by decision-makers in relation to employees when adopting job automation technology. From the data provided, it was evident that the ethical considerations were considered within various contexts.

The sub-question under research question one was:
Which of these considerations had a positive implication on employees, and which had a negative implication on employees?

The purpose of the sub-question to research question one was to identify patterns in the ethical considerations of participants that resulted in positive implications and to identify patterns in the ethical considerations of participants that resulted in negative implications. These patterns would better enrich the considerations as the consequences identified through insights from participants would reveal what worked

and what did not work when adopting job automation technology. The term implication in the context of the study can be understood as a likely outcome. The implications shared by the participants were a combination of actual outcomes witnessed in practice as well as likely outcomes contemplated by the participants in their role as decision-maker when adopting job automation technology.

In reporting on data relating to question one and sub-question one, the researcher included insights from the participants in relation to the implications experienced by the participant within the section of the consideration in which it related to.

5.4.1 The context in which considerations are contemplated.

5.4.1.1 Nature of job automation

Participants revealed the various type of job automation adoption projects prevalent within the financial services sector along with examples of the operations in which the job automation adoption technology sought to either enhance a process, replace an existing process, or create an integration link with other existing processes. Most participants revealed that the job automation adoption projects that they had been exposed to within the financial services sector related to back-end processes.

- Thirteen of the eighteen participants revealed technologies such as robotic process automation (i.e., Ui path, blue prism), aspects of artificial intelligence and machine learning were used to automate back-end processes and or customer onboarding.
- Five of the eighteen participants revealed that technologies such as machine learning and aspects of artificial intelligence were used to introduce chatbots, voice authentication or voice recognition that was either customer facing or used internally within the organisation.
- Three of the eighteen participants and five of the eighteen participants revealed that they were exposed to the development of automated tools for visualisation and reporting respectively and that these were used for data driven decision making, monitoring controls and risk assessments.

  Participant 4: *"…we had something where were building a script to listen to ads and make sure that the ad that was played on the radio is actually the ad that was paid for. So, we had a machine doing that so that. So that was quite an interesting one."*

Participant 6: *"…say the engineer runs into a problem on a situation, rather than picking up a call and calling the call centre to get more clarification or clarity on a certain issue or troubleshooting… {name removed} could just go on his phone and interact with the chat bot and get the problem resolved quicker."*

Participant 12: *"I've done work where we automated processes in the call centre environment where we also use things like voice authentication, you know, and we used what we called assisted robotics."*

The nature of the job automation project was the first context explored to understand whether the type of project had any impact on the employee or whether or whether specific technology within the job automation technology as defined in this research had little to no influence on the employee's duties. The technology employed by participants varied in complexity, however the data obtained confirmed that the automation projects that the participants were exposed to affected employees who previously performed these processes manually, prior to automation. Thus, the type of automation, whether involving robotic process automation, machine learning or artificial intelligence had resulted in the disruption of employees performing the operations prior to automation.

5.4.1.2 The goal of job automation technology

The goal of the job automation was explored to understand the value that the project sought to derive for business upon successful completion. In some instances, there was a need to differentiate between the goal as it pertains to the strategic initiative of the project such as the immediate outcome of the project and the overall goal which was linked to the benefit realisation for the business. The distinction between the various levels of the goal was to be conducted to create ease of interpretation and identify patterns and relationships between the goals shared by participants.

Although the framing of the goals varied between participants, in some instances the essence of the goals was the same. The researcher has represented the results as it relates to the different ways the goals were framed as well as the essence of the goal in line with the phenomenological research strategy applied in the study. Participants revealed the main goals of the automation projects to be mainly (1) to

improve customer experience, (2) save time (reduce backlogs), (3) reduce repetition and (4) improve accuracy. The figure below is a representation of the number of participants who agree on each goal. The numbers presented below indicate that the predominant goal for automation is customer experience and are not a unique indicator as some participants elected to share more than one goal for the automation projects that they had been involved in.

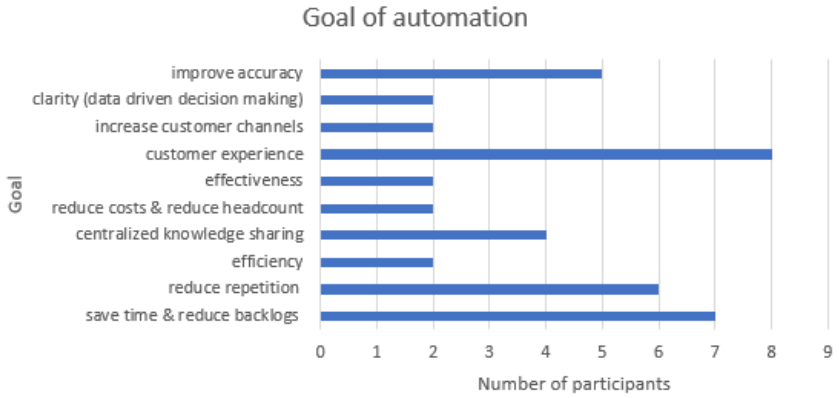


Figure 4: The goal of job automation as framed by the participants.

> Participant 10: *"…So to be do be brutally honest, for the business case to hold water, the single most significant KPI for success would be the headcount…."*
>
> Participant 9: *"I mean service delivery is just one of the biggest things…."*
>
> Participant 14: *"…operations used to receive about 12800 emails a month and yeah, and a month and they will have like a backlog of 29 days…AI solution to read and analyse those emails and reroute them basically to the right team. The people who are actually action so meaning and then we were able to reduce that to in 29 days backlog like 2 hours like 4 hours."*

The essence of the automation was mainly to improve customer experience, in some cases this meant opening new channels which had the potential to increase the customer base, increase revenue and thus grow the business by increasing benefit realisation to the overall business. Through interpretation a link was made between the strategic initiatives and the overall strategy of the business. The relationship is presented below:

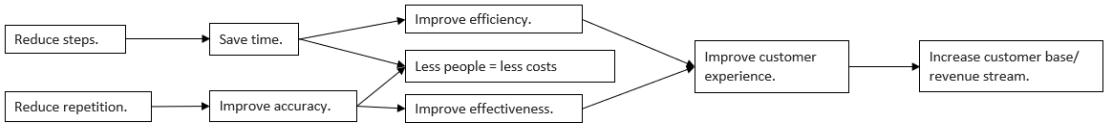


Figure 5: Relationship between the varying goals of job automation.

Reduced costs in the form of headcount reduction were brought up by most participants. There seemed to be contradictory views when comparing views made by various participants as well as views made by the same participant. When comparing views by various participants, some participants viewed a reduction in headcount to be the significant improver in the 'bottom line' as this was the key indicator which improved profits (see participant 14 above). When comparing viewpoints made by the same participant, the view was that although achieving reduced costs was part of the goal of job automation, views were made on repositioning humans to more critical roles or other departments.

> Participant 3: *"…the ultimate goal I think is to reduce costs, that's been the major driver…you know you're spending less so it could be from a headcount perspective to reduce the number of people that you've got doing a certain task and you can allocate them elsewhere."*

The view that employees could focus on more critical tasks, reduce backlogs, and save time was shared by many participants. The idea that the goal of job automation could be to both reduce costs in the form of headcount and reposition employees to perform more value-adding tasks was clarified through interpretation of some of the views expressed by participants. By automating the repetitive tasks, the employees could focus on client interaction, improving customer experience or tasks that required judgement calls or critical thinking which would in turn add more revenue and grow the business further.

> Participant 13: *"to be able to reach all their requests instead of adding more headcount because there was a cost element to this project so given that a lot of these high-volume activities were automatable."*

> Participant 17: *"From a customer perspective we have being talking about omnichannel for a while so omnichannel meaning multiple channels for the customer, and even though that is true we realise that the customer is in fact*

in charge of their destiny and wants to be services where they want to be serviced."

Participant 17: *"…allows us participate more effectively in what we called the shared economy…further value…more revenue streams."*

An interesting observation was introduced by participant 15 who revealed that the main goal was to drive efficiencies and not cost reduction in the form of job loss, job loss was more of a "*knee jerk reaction"* as a response to the economy yet masked under the guise of technological unemployment.

Participant 15: *"weirdly enough is you know it is all about efficiencies, but also what's emerged in those conversations. It's not so much on the cost reduction and that was very surprising for me."*

The goal of the job automation was the second context explored which revealed the varying ways in which the goal for job automation is framed, the flow of logic followed to uncover the essence of the goal indicated a level of consensus in terms of the reason behind automation and uncovered a possible intention beyond the goal in which the automation is being enacted.

When communicating the goal for automation, some participants revealed the competitive landscape in which business operates (*Participant 17: "…customer environment has changed…")* and emphasised this point to indicate the unavoidable existence of job automation within the financial services sector. Within the context of this study, this emphasised the need of careful consideration with regards to employees as the technology is *'here to stay'.*

Most participants referred to the need for leaders to utilise strategic foresight when it came to recent technological developments of job automation.

Participant 1: *"…maybe they knew what was coming through, so they had foresight…"*

Participant 6: *"…need to look into the future and see like 5 years into the future, 5 to 10 years into the future to see the recent developments that are*

happening and try to understand how it would impact their business."

Participant 15: *"… there has to be a level of foresight. There has to be a level of planning and not be reactive, and I think that proactive…."*

In certain instances, the goal appeared to be purely based on the reduction of costs (see participant 11 above) as a tactic to improve the bottom line. A pattern emerged evidencing that the context (goal context) in which the job automation adoption was implemented influenced the nature of considerations made within regards to employees. The difference between how employees 'fit' into the goal to automate and how the goal to automate caters for and enables employees was influenced by whether the goal context was implored due to survival: to reduce costs and improve revenues or due to foresight: to position the company within the future landscape where the customer environment has changed and where customers play a role in influencing the business model of the firm.

The two main intentions beyond the goal of job automation were interpreted to be the intention to survive as a business due to immediate threats presented by the competitive landscape and the intention to realise sustainable benefits that grow the business, increase customer base, and improve revenue streams by leveraging the strategic foresight of leaders. As mentioned earlier, these two intentions may influence the type of considerations made by decision makers when adopting job automation. Considerations were not significantly influenced by the nature of job automation adoption.

5.4.2 Inclination towards including a stakeholder view

All participants mentioned employees as part of the key people deemed as stakeholders of the job automation project. In some instances, the consideration of stakeholders was revealed by how soon the participant started communicating about the employee as an internal stakeholder. When asked about the goal of automation:

Participant 4: "*…our main goal is not to replace people. That's certainly not, you know, something that people want to put on a poster…"*

Participant 18: *"I think you would see that when, especially in the financial services sector, is when they talk about stakeholders It actually goes beyond*

the shareholders."

A predominant pattern was based on emphasis placed on repositioning employees to more value adding work and empowering them by giving them a better purpose within the organisation.

> Participant 18*: "…actually moved some of the staff to value adding customer service functions…"*
>
> Participant 17: *"we found a healthy balance between the monotony of repetitive tasks and making sure that humans work on things that they value."*
>
> Participant 13: *"staff to be able to handle you know more value driving activities."*

In some interviews, participants shared various conflicting goals of the firm that affect various stakeholders and how nurturing the balance between the various pillars proved to be a challenge.

> Participant 7: *"…about six pillars to that strategy one of them is digitisation to say we need to automate manual processes… and then one of the pillars is … called time to market so whilst we're doing this automation we must be the first so you see now it challenges the ethics when yes you have a strategy to digitise things and you want to be the first one, so some of these things sometimes they conflict because for you to ethically you know do a project there's certain corners that you can't cut…"*

The stakeholder view naturally creates tensions as various perspectives are introduced which in certain instances are seen to be at odds with each other. Some participants emphasised the need for this creative tension as it allowed deeper thought and considerations to emerge and shared the assessment of stakeholder impact to be a trait of ethical leadership.

> Participant 5: *"…but then you have to do a cost benefit analysis and cost including human social factors…so that's the ethical part of doing, making sure you do the stakeholder analysis quite seriously and also do an*

environmental and social governance analysis also quite seriously and make sure that you're not just looking at financial costs but also human factor…"

Participant 10: *"psychology at its highest level you get to study like human behaviour at a very, very deep level, and you need those individuals in these boardrooms trust me, you really do need them."*

Participant 16: *"Just being thoughtful and inclusive…"*

The stakeholder view is seen to be a key trait of ethical leadership. Internal stakeholders, namely employees were considered by all participants further stressing their role as being directly affected by the job automation projects. The conflicting goals of the organisation is influenced by the multiple stakeholders of business. The trade-offs enacted by business for the purpose of decision making have been explored in further detail in section 5.5.3.

5.4.3 Ethical considerations made by decision-makers

The intention to survive was brought by immediate threats to the business in the form of disruptors or competitors whose revenue and business model was not laden with a heavy cost burden where there is a risk that more jobs may be lost if the business does not respond to the immediate threat. Through the leveraging of job automation technology, the goal to reduce costs such as full-time employees (FTE) can be seen as a reactive response. In other instances, the reduction of costs in the form of FTE is seen as the most significant measure in 'shifting the dial' and improving the bottom-line. This was indicated by participant 10 who started to question what other measures or metrics could be looked at within the circumstance.

Participant 1: *"So it's really, there is a balance that needs to be done…you don't want your bank to be laggard and having a big cost."*

Participant 10: *"because in some instances you have the unions winning the battle of laying off people, what do you do then, if the ultimate goal is or what ultimately shifts the dial is laying off people what if that is not available at your disposal, what else would you then use as a 'oh we don't have this, but please look at this mr CIO, you can take this to the board'"*

6.2.1.1 Communication when faced with survival

Participants shared considerations to be contemplated in the event that the reduction of headcount is unavoidable. Most participants mentioned the timing of communication to be a crucial ethical consideration made to ensure that decision-makers can control the narrative and manage the fear and uncertainty experienced by employees. Notable perspectives were shared by participant 1, 4, and 8, respectively.

> Participant 1: *"Was it genuine communication or did it start with rumours?"*
>
> Participant 4: *"…open communication and maintaining that trust because they are still your employee until the very last day."*
>
> Participant 8: *"…the right communication within the organisation, communication at the right time is very important within the organisation…"*
>
> Participant 10: *"because this was a covert type of project, it had a code name, you know how these projects go? which is the wrong way to do it! because at the end of the day when you go live, you'll need to come out and say this is what we've been doing, and this is why we've been doing it."*

With regards to timing, participant 15 provided insight on how the considerations to reduce redundancies, cost and headcount were at times outside the scope of the job automation project team as they were handled from a purely human resources perspective. Participant 15 emphasised the need thus, to have these considerations included in the project team in the form of upfront communication and upfront management.

> Participant 15: *"there's an element of one, communication and upfront managing, you know, because people are very concerned when you come in to do work that is around efficiency and productivity right? because their jobs are on the line, so there's always the upfront management of expectations through the process that needs to be done quite well, not only from an HR perspective, from the project perspective from the you know, the overall leadership at that client, so I think that's the one in terms of communication throughout the process and allaying fears."*

The transparency of communication was also a common response made by participants. Participants felt that, at the point when decision-makers needed to communicate, it was important that the communication was open and honest.

> Participant 4: *"open and honest with them and not to blind side them to give them at least opportunities to find other work. You know, while they still may be employed for six months or 12 months, while this is being finalised, you know, they can find other jobs."*

> Participant 10: *"it would be to offer them a way out and by offering them a way out ok I mean, if it's severance packages that you're going to be giving them, do that open and honestly and give them enough time to also digest that this is what's going to happen and it shouldn't be one day they walk in, put your things on this 'crate' it's the end of the road for and then like just because of one email that just went out, I become a villain in a place where just yesterday, I had all the access to all the systems"*

The views expressed by the participants were expressed so passionately, particular in relation to participant 10, who had rich insights to share on the point of headcount reduction. Participant 10 reflected on past experience and indicated what they would have done in hindsight as they had experienced the attrition of employees "play out in the ugliest fashion."

Some participants experienced *negative implications* when failing to communicate effectively with employees on the developments of the job automation technology. Participant 10 experienced the failure of the implemented technology where it was later discovered that the system failed due to the people component and not the technology itself.

> Participant 10: *"…they can really bring down that strategy to its knees if they want to, they can do that to you, so the best strategy is to be open and honest with them…"*

Participant 10 shared they experience on how they were able to circumvent the negative implications experience by considering the perception of employees and

adapting their approach accordingly.

> Participant 10: *"I'll give you a very stupid example when I used to go to the operation centre…I used to strip down the suit and actually wear a t-shirt and jean for the simple reason that when they see you, they shouldn't see you as 'oh here they come with their bags' and you know like an entourage walking down the aisle with their bags… because they pick up on that very quickly and once there's an attitude in the system, trust me, you won't do anything"*

> Participant 10: *"…then you need to have change champions from a people perspective whereby the conversation is with unions, HR and also job impact you need to have a committee or some sort of forum where these discussions and these sentiments from the users are fleshed out, open and honestly because sabotage is something that exists it has happened, I've seen it, and I've seen it play out in the ugliest fashion so the biggest thing that we could have done, mind you, we were the pioneers of doing this at that scale so in hindsight, having those open discussions with the people with HR in the room and change champions and when I say change champions, not people sitting in a fancy office somewhere, it needs to be someone that the ground staff can relate to…"*

In instances where employees who were going to be displaced were required to provide process descriptions to the developers who needed to configure and develop the bots that were going to replace the employees. Careful consideration was required as an ethical dilemma existed where the employees would essentially form part of a process which would deem them redundant. Some participants revealed that due to the nature of the roll-out of the project, the considerations gravitated towards being open, honest, and upfront as the *negative implications* posed a risk to destroy the value aimed to be created by the job automation adoption.

On the topic of severance packages and where employees were 'promised' certain benefits. Participant 10 stressed the need to fulfil the psychological contracts created with employees who would be eventually displaced. In some cases, these employees formed part of the user acceptance testing of the fully automated bot or provided input to the development of the automated process that would eventually replace them, and it was imperative for participant 10 to fulfil promises or at the very least

manage expectations due to the risk of sabotage to the system.

> Participant 10: *"…what you said you would give them, give them, what you can't give them say that up front."*

6.2.1.2 Letting employees go when faced with survival

Participant 4 provided an interesting view in relation to the ethical considerations which relate to employees. Participant indicated that letting people go once they have found employment elsewhere, even if it meant that the company would be assisting the employee to break the notice period of employment would be an ethical aspect to consider as they would be allowing employees to continue being employed, even if it was elsewhere and at a time that was not convenient for the employer.

> Participant 4: *"then also for the company, if they do go down this path and make this decision, I think the other thing would be to, if someone finds a job to not hold them to some sort of notice periods, but to say that you know you have found a job you can go. So not cause them to lose new work because you now holding them for an extra month, but you're going to let go of them after that."*

This view was an interesting perspective as it involved the breaking of one's own conduct in one instance, to be ethical in another instance for the benefit of the employee.

6.2.1.3 Offering recruitment services

Some participants experienced the assistance of employees who had been displaced by job automation technology being assisted by the firm to be placed outside of the firm.

> Participant 15: *"the third one is I've seen at times where you know the individuals are helped in terms of placement, whether it's internally, which would be easier for the organization, but certain clients have opened up services to help the people with placement into other companies as an example, through recruitment you know recruitments etc, helping them update their CVs, helping them with interview skills."*

Participant 11: *"…something else that was on the table that we weren't successful in was we were talking to the businesses around us in the retail park, we wanted to talk to them but the whole covid thing did not help the situation. Is to say that ok do you not have opportunities for any people and some of the people on the exec team reached out to their contacts to see whether their company did not need additional people at the moment. For example, somebody knows someone with a call centre and reached out to see if we can link up employees for them. So, I think it's trying to think of if this person has to go home now, what decisions do they have to make as a starting point and try help guide them..."*

Participant 16: *"It was difficult, so the conversation with HR is that they were prepared to maybe take on the more younger generation and give severance packages to the older guys to say maybe they could be the ones who are people who are left with like 5-8 years to retirement and then they paid them out and stuff like that."*

As an employer whose core operations do not involve recruitment services. The notion of having decision-makers consider assisting displaced employees with future employment opportunities outside the firm, is an interesting and refreshing perspective which has been shared by participants as a trait of ethical leadership and responsible business.

The potential *negative implications* were bias that may exist at a decision-maker level relating to the employees who would be able to absorb retraining opportunities. These may leave the business wanting when highly valuable knowledge capital in the form of older staff is let go.

Participant 16: "*The younger guys were easy to retrain because they're not scared, especially the guys from varsity."*

6.2.1.4 Update attrition estimations during the project

It is imperative that the estimated attrition rates determined at the start of the project are continuously updated while leaders use data driven baselining and observations from the project roll-out to manage expectations accordingly through open communication. Participant 12 expresses this need due to the potential variety

between anticipated and actual level of human intervention with the system and or human interaction with clients. Participant 12 places emphasises on the need to involve human resources in this process as when levels increase or decrease, there will be a direct impact on employees who had initially formed part of the employees to be let go after the full implementation of the project.

> Participant 12: *"…so when we start the project, we obviously have a target you know that we're going to improve the efficiency such that there will be a 40% reduction in in the FTE that's required right point in time, it's a projection, so typically what happens is we want to first implement the change, remember I spoke about the baseline, we want to first implement the change and once we've implemented we give it a bit of time so we can…but you also want to build up data that you can then compare against your baseline so now that you ended, what is the new turnaround times, what are the volumes, have they increased…then you validate against your baseline and even if then indeed you do have that 40% reduction you then start the communication process. Then with the employees of course your HR partners are crucial in that process usually they would lead the process right. The way I've seen it done is it's communicated to affected colleagues that, you know, we have got this situation where there's you know 40% impact and how it's usually done is it's transparent, obviously people know that this is what is happening…"*

Participant 12 interestingly indicated the need to validate estimates with data and to openly communicate with affected parties. The timing of which communication would only be communicated after validation. In the same breadth, participant 12 made mention of the understanding that "*people know that this is happening."* There needs to be a balance between upfront and open communication with understanding the magnitude of the impact using data and facts prior to communication, while nurturing the tensions that rise as rumours loom. This balancing act is communicated by participant 15.

> Participant 15: *"I think in any way in terms of ethical and moral transparency is an element you need to balance as a leader. You can't be open about everything because in a leadership position you kind of have to manage certain things and not communicate everything, because it might, you know, it might be more detrimental, but balancing the ability between what you can*

communicate and when you communicate and how you connect with your teams."

The need to balance what you know, what to share and when is crucial due to possible implications that may result from pre-mature communication with incomplete information.

On the contrary, participant 10 emphasised that sharing even the projected benefits to be realised as soon as possible with the employees was key to gaining their trust. Participant 10 expressed that these 'hidden' communications tend to surface and raise tensions.

> Participant 10: *"it's important for the team when you package the benefits package that benefits in such a way that you always incorporating how they are benefiting in doing their daily job, but do not then try and hide the rand and cent value at the back of what you are benefiting as an organisation because they will quickly get wind of a particular deck or something that quickly says to them, oh, they're actually saving x amount, but when I say I need training to go for course x or if I say I want an increase there, then I'm told there's no money but actually the work that we're doing now is saving the organisation x amount of money"*

Sentiments on communication appear to emphasise timing and what is communicated. There are no hard guidelines which can be interpreted from the data, however, the sentiments suggest the need for the leader to make a judgement call and continuously sense the temperament of employees by remaining visible and engaged.

> Participant 4: *"It's a very difficult discussion as would be any retrenchment, because that's what it is in essence, you are retrenching people."*

Participant 4 shared that the issue of displacement should be considered and treated with the same sensitivity as retrenchment.

Although the threats of disruptors may be present, the mindset of decision-makers who plan, design, and implement job automation adoption with the intent to grow the

business is different from the mindset of survival indicated above, where decision-makers need to stop the bleeding and improve the bottom line through cost reduction.

> Participant 8: *"we going to put them into a different department, and we are willing to train them or to pay for training or whatever they need do, to make sure that they remain within the organization."*

> Participant 18: *"we do not want to put people in the streets we want people to be retrained and redeployed into customer care consultants."*

> Participant 18: *"Fast forward today you would know more and more that boards are starting to raise the issue of ethical impact on people as a key thing. In fact, boards, the companies and boards are now requiring management to report on the impact on people."*

The mindset of decision-makers who had the intent of strategic foresight using job automation technology to grow the business informed the approach taken of decision makers to enact the goal in a way that enabled employees. It should be noted that while the intent of strategic foresight and goals were not to remove staff, participants experienced instances where the employment of job automation technology in the business resulted in an inability to 'save' all jobs and thus creating job loss as an indirect affect.

> Participant 1: *"…and that thing of saying yes, we know that we will lose jobs, ultimately there's some people who will leave, but what if out of 100%...even if I can save 20% of the jobs…"*

> Participant 18: *"whether they retain 100% or not, I don't have the statistics, but their main goal was that no jobs should be lost. They need to retrain and redeploy their people into frontline positions."*

Where job losses were inevitable, the considerations expressed were in line with the considerations explored when contemplating the intent to survive. There was thus no bearing on the type of ethical considerations when job losses are inevitable. It can also be said that the intent to focus on survival, limited decision-makers to think beyond the reduction of costs in the form of headcount as they may have been

focused on self-preservation.

> Participant 2: *"there is a very big self-preservation and almost all selfish sort of nature. It's like as long as I'm doing well, yeah, I'll give my charity here. I'll give my charity there. But at the end of the day, you know what? I got to look out for number one."*

> Participant 16: *"…it's very difficult to justify, especially in the beginning of this type of initiatives, because it was like I'm going to plug in the technology and I'm going to get quick benefits. So, like I said to you, like when I got there, they'd already started with this journey, so I don't know if I mentioned this so that when I joined at {company name removed} at that point, their business case was solely focused on FTEs. FTEs are full time employees, so they were trying to remove people, and I'm like but guys? That shouldn't be your business case…"*

> Participant 2: *"There's a triangle, you got clients people profits. What's the most important… people are, because if you got happy people you have happy clients, if you got happy, clients you will have happy profits…"*

From the sentiments of participant 1 and participant 18, it can be said that the mindset of decision-makers informed the approach followed by the decision-makers when designing, planning, and adopting job automation technology. The perspective introduced by participant 2 was interpreted to reveal the value placed on incorporating employees into the core strategy in order to derive sustainable value.

6.2.1.5 Transferable skills of employees

A common consideration expressed amongst participants was a consideration towards skills profiling and understanding the transferable skills of employees disrupted by job automation.

> Participant 1: *"…let's say we're automating account opening, I have removed the tellers, for example, can we deploy them to…because they now understand the account opening process, though its manual. Those people could actually be the process analysts within the organisation."*

Participant 4: *“How can I get them involved? You know, because it's not just about taking something and then trying to build it, but saying, do I actually have the right skills? Do I have the necessary experience to be able to do these things?”*

Participant 15: *“…we could introduce more into the methodology and not methodology from an automation and methodology, but from an organization, is skills profile of the entire please of the organisation, right? Understanding the skills, soft and hard skills that is required over the next five to ten years. Understanding the base of your employees that you've got and what is their trajectory to get to that, should it take investment from a training perspective, a learning perspective from the organisation that would be responsible business…”*

Most participants indicated that this was aligned to one of the main goals of job automation in section 5.4.1.2. By automating back-end processes, employees were enabled more time to focus on high priority or critical tasks that required judgement thus leveraging the skills that employees possessed and allowing them to perform at their highest potential.

Where participant 1 indicated that employees such as tellers could leverage their knowledge and become process analysts or where participant 10 indicated that branch personnel were transferred to a business analysis role, other participants, such as participant 16, were of the view that in some cases, these employees could not be absorbed into other parts of the business.

Participant 10: *“…with the implementation right, so some of the most positive I'd say you know we took people that have been working in the bank for over 15 years they've been doing the same job for over 15 years, so when we made those individuals robotic operators some, we made business analysts who actually were the ones that were actually getting the information from us, so it was part of the strategy in terms of saying if we're saying we're going to be transitioning people into new roles, we needed to show that on the ground”*

Participant 16: *“If they're in the call centre, where are you going to move them to…”*

Positive implications were realised through allowing employees to employ a mindset where they were in charge. A type of owner manager culture in relation to their own trajectory and career.

The observation was indicative of a possible mindset present within people with decision making ability. The context in which participant 16 expressed that there was no other area to move call centre agents was in light of the participants experience where they were automating within a unit of the organisation and the executive of the unit in question did not want to retrench. This was seen to be a conflict between decision-makers.

> Participant 16: *"when we were trying to automate you would hear the executive say, that I am not going to retrench people even if I have to retrench, I'll retrain them and then move them to another area, but when you look at what other areas are going to move them to."*

Participant 8 also revealed that in his experience the repositioning of employees was driven from the top and that it was an agreement made before-hand as opposed to an after effect as a result of the implemented job automation technology. The executive team were key in making the decision to have a proactive mindset.

> Participant 8: *"…it has a domino effect, if I should put it in that way and the only people that can manage that effect, it's executive management because they know the other things that a person on an operational level wouldn't know even if it's an operational manager the likes of how they earn, the likes of the triple BEE so if they had to get rid of 20 black people how is it going to impact their triple BEE status. It has the other requirements…how important is triple BEE to them and so on and so forth so you know those things, they are the requirements…"*

Positive implications were thus realised from having a centre of excellence that would manage the review of most business cases, including those that involved the adoption of job automation technology. The centre of excellence would review the initiative from a business-wide view and assess the implications at that level. The involvement of the executive also allowed for richer considerations at an

organisational level.

> Participant 8: *"the involvement of sponsors… the executive management is highly important very important and is driven by the centre of excellence…"*

Considerations towards employees are also influenced by the predominant mindset of decision-makers as conflicts in mindsets seem to be prevalent within the business environment. The predominant mindset amongst decision-makers may be an influencing factor in how the job automation affects employees.

Potential *negative implications* noted when raising expectations of training and the repositioning of employees is to ensure that you make promises that you can keep. Participant 10 indicated this when reflecting on how the system failures and sabotage is not only limited to employees who are set to be displaced, but also includes those who are fearful or enraged due to empty promises.

> Participant 10: *"if you say you're going to transition these workers from doing this work to a different type of work, hold on to that promise and do right by the workers and do that, don't say one thing and do the next because believe me, if you think two years is a very long time for you to actually realise a plan or a strategy that you had put down and the people that have 'given' you this money, start coming for the benefits and you don't have those benefits and it's not because of the technology that you put down, actually you're failing because of the people component"*

6.2.1.6 Coaching, purpose, and shared value

An interesting observation made by participants was a movement towards prioritising the coaching element within business with the aim of assisting employees to find purposeful roles within the organisation that are aligned to their personal career goals.

> Participant 2: *"…another thing I noticed is that people are starting to employ coaches in their business, life coaches and what I mean is that they almost like getting them in, you know, to come and talk to their employees and that and they find that the minute you can actually use life coaches and sometimes they do. They just totally about, you know, just understand yourself self-worth*

within the business…"

Participant 8: *"what I'm trying to get to is, they used that development plan to see what is it that you're trying to actually achieve in life and then they help you with that and it might open up opportunities somewhere should…the technology takeover within that space so let's say it's 100 people that were involved and you helped 50 people to refocus and get to another well to the area that that they always wanted…"*

The perspective on coaching shared by participants, reveals ethical considerations made by decision-makers to add value to the life of employees in as much as the employer would want the employees to focus on value-adding activities while the job automation technology performs the menial, repetitive tasks and thereby creating shared value for both the employer and the employee.

6.2.1.7 An ethical perspective on change management and attitude shifts

A strong common theme which emerged from the data was the need to consider change management practices.

Participant 12: *"the biggest lesson has been the change management process and the impact that these projects have on the employees."*

Participant 13: *"in terms of like you know, human resource or change management to help prepare your staff for change as well."*

Participant 16: *"…a big big driver for us, so we hired change management consultants where they do the messaging where we take out the right message across the organization..."*

Participants shared that change management was seen to be a critical influencer on whether the job automation project was a success or not. Within the change management process, ethical elements such as the openness implored when sharing the vision, the nature of communication and level at which you reach out to the employee were noted to be key considerations under change management. Participant 5 shared the same sentiments when asked to comment on ethical leadership.

Participant 5: *"…it's also it's also trying to reach people at their level and not having a blanket approach to everything…"*

Some participants revealed a need to show employees the value of the job automation within their job role and as part of their career, in certain instances, this consideration formed part of the first step towards change management procedures.

Participant 2: *"…the minute you can show somebody that at the end of the day your purpose in life is what you make of it, all of a sudden you see an attitude change and with that attitude change it's so much easier to introduce automation."*

Participant 3: *"…if you're going to introduce this, the people doing the work must have a very clear indication of their future within the organisation…"*

Participant 4: *"…because once people start seeing the value for something, they start using it, and I mean some of our older tools and technologies and then my older I mean it's like a year or two or three years old. It's become second nature, you know for them, now they can't imagine doing their job without them…"*

The attitude shifts considered were in relation to the employees who were disrupted by the job automation technology. Participants agreed that sharing the vision and showing the employees how the new introduction of job automation would change their job for the better was key influencer in employees changing their attitude positively towards the acceptance of job automation technology.

Participants revealed instances where the ethical considerations within the change management process resulted in positive implications on employees. These instances related to engaging the employee, the messaging around the project and sharing the project vision.

Participant 4: "…something we're doing is sharing success stories. You know, to sort of inspires, to say, look what this team did maybe we can do something similar, we have like a standing page in our monthly newsletter where we give

them information, you know with the committee that's run by people from different levels, so it's not a management run committee, it's it has all levels of people and mostly staff actually who are passionate about this to sort of ignite that passion in their fellow staff members to try it to come to us to see it. So, we have all these committees, and we have campaigns that we drive. So, I think it's it's really about staying visible and staying close to people and also like something where we implementing now is to when they plan their audit is to just be a voice to say, listen, have you considered this? Yeah, so just be there and sort of constantly remind them and don't let them forget because once people start seeing the value for something, they start using it."

Positive implications were realised in the form of buy-in, high adoption rates and empowerment under the right change management practices. The *positive implications* were as a result of a pragmatic approach employed by the participants in their role as a decision-maker of job automation adoption. Examples were shared by several participants.

> Participant 4: *"it started with, you know communications which then became like an E learning and then it became like classroom training, where you actually get to physically do examples, try it out, see how it goes, you know…"*

> Participant 16: *"But when you pick them along the journey as well, take them with as well, by doing nice communications. Having those small competitions as well… name the robot, for example, give it a name. Yeah, stuff like that. I mean that was the way to say how can we drive people to be empowered as well to be working with us on those projects yeah."*

Negative implications were observed when change which included the transition of employees was not handled well, even though in certain instances the intention of decision-makers was to retain staff. The uncertainty raised by no communication and environment factors such as publicly reported retrenchments coupled with the fourth industrial revolution can raise tensions and instil fear in employees.

A common pattern noted in line with change management practices was the *negative implication* relating to self-preservation through sabotage of the project as was

reported earlier in this chapter, as well as with regards to the withholding of information. Participants observed the hoarding of information by employees. This was circumvented through sharing the vision and the value of benefits to be realised by both the employee and the organisation.

> Participant 2: *"So they try and keep that information to themselves, meaning that you always need me to be able to pull this report you need me to be able to do this, you need me because you haven't, you haven't transcended what's going to happen to you."*

Another common pattern revealed by the participants was with regards to managing temperaments during the implementation of the project. When asked to advice on their experience with handlings situations where employees worked around the system or did not adopt the technology. Some participants revealed that it was important for decision-makers to manage the balance between continually adapting the system for valid changes suggested by employees through lessons learnt and co-creation with not allowing for employees to be able to complete tasks outside of the system.

> Participant 7: *"we actually meet with the users and they give us their feedback from the 'horse's mouth', we have town halls where we just make sure that when this thing is finally in production, because we're going to decommission the capability of doing things manually once we move into this automated tool then we're not making it impossible for someone to do it manually, right so basically that's how we actually manage… it's investment on training and those feedbacks."*

> Participant 14: *"…so we have like a weekly schedule meeting I call it like a 'lesson learned' for that we basically talk about bots that are in production, mostly those who are in production and what we can learn from them as they're failing, you know sometimes maybe the bot is supposed to be accessing a spreadsheet and move the spreadsheet somewhere and it happens that… so during those sessions that's where we helped to do it, whenever you are thinking about changing something, always think of the bot as a one of your members that you don't really see, like a virtual member that you don't really see every day, so when you change your processes, send an*

email to everyone. You should also send the email to our team so that we can make those changes. We're going to move change folders, the path and stuff like that, change the system the system is going to change as with everyone also let the automation team know so that we can make those changes on weekends, on Monday the bot is able to do what it's supposed to do. So yeah, basically this is just one example, but there are so many of those examples where we have continued learning and then if even if they are worried about something like maybe raising some risk and stuff, some concern, they normally bring them up or just ask all those questions in those sessions…"

The *positive implication* derived would help the benefit realisation process and return a positive return on investment to the firm in line with their goal for job automation adoption.

6.2.1.8 Empower through custodianship

With the prevalence of job automation, there is a decrease in the need for employees to perform routine work or work that is not meaningful and can be automated. The notion of custodianship and framing the change to indicate that the employee would essentially be managing a digital workforce was shared by participants. This empowered employees as not only were they able to enjoy more time to work on high-value engagements, but they also had an oversight role where they were managing these digital employees.

Participant 10: *"you are actually now monitoring a digital workforce doing the work that you used to do, so the amount of power that they had at the time in terms of 'I'm actually controlling 15, 30 of these robots on a Saturday and each and every branch each and every car dealership that is open today is progressing with their car finance because I am sitting here at the comfort of my own home controlling a digital workforce, so that was for me, was one of the best things we could have done for those individuals"*

Participant 6: *"…they will have a companion which will actually help or enhance their experience in their work experience in terms of resolving some of these issues quicker then we in turn improve the customer experience…"*

Participant 6 used words like 'symbiotic' relationship which was interpreted to

indicate the harmony that decision-makers may strive for when augmenting the workforce with job automation technology.

6.2.1.9 Towards an ethical framework

Participants were asked whether an ethical framework was shared during the job automation adoption project. Based on responses, it was evident that the ethics implored were broadly in two categories, (1) the ethics driven by legislature, as well as the ethics which were 'coined' during the interview by both the researcher and some participants as a 'grey' area or (2) 'grey' ethics.

> Participant 1: *"I think ethics are quite tricky in an organisation, except if its legislation, so except if its driven by legislation"*

Many participants shared that although they had not experienced a shared ethical framework, there may have been either a risk management or dedicated task team who would perform an assessment, further evidencing the drive of ethics through either legislature or company policy.

> Participant 5: *"I wouldn't say there's an ethical framework. That's an actual framework, but there's obviously task teams."*

6.2.1.10 Other ethical considerations

A common consideration which was brought up was one relating to data security or the security of client information. Participant 2 shared that decision-makers needed to consider this as part of their consideration for employees, especially during this time where flexible and remote work is prevalent. With this being the 'new normal' the concern for cyber-attacks and security breach is one to be considered when introducing new job automation technology which would be operated by employees remotely. Implications of security proved to be *negative* as remote work introduced end point security concerns due to the low regulation and control that decision-makers may have had on the networks which employees used to connect on work laptops.

> Participant 2: *"I mean with people in lockdown, the kind of cyber-attacks right that went sky high purely because now people were working from home… complacent with their passwords…"*

Future considerations were also shared by participants, one in particular being the consideration on tax. Although not directly related to employees, the possible future direction taken legislature in relation to potential income tax of bots would have an indirect impact on employees and is thus noteworthy for future consideration as it is within the scope of this study.

> Participant 13: *"What happens with taxation, taxation is another thing, because now if you maybe include bots to perform a job, you know, why is there no bot, tax for example?"*

It is worth noting that participants referred to ethical philosophy either directly or indirectly.

> Participant 17: *"Utilitarian in our thinking right, that we may make some sacrifices to save hundreds or thousands of jobs, and I think, and I think it's incumbent on leadership."*

> Participant 5: *"Does it benefit society at large to automate everything and then choose to only automate where it makes sense. So, at a design level for us it makes sense because then we build and design safer, more efficient spaces for human use, but automating paving as an example, yeah, that benefit analysis if we include social factors doesn't really support it at this moment."*

It is interesting to note that although, the direct or indirect reference to ethical philosophy points to utilitarian ethics, tensions may exist between this philosophy and the decision outcome of the job automation technology project, as was previously reported in the inclination towards the stakeholder view. The various views of stakeholders bring along conflicting goals, which may include ensuring that the job automation project yields in a positive return on investment.

> Participant 8: *"…return on investment was a key item that they need…"*

Participant 8 shared they experience and further revealed that although tensions may exist between the conflicting goals of stakeholders. The centre of excellence (COE) performed a big picture analysis and evaluated views from various stakeholder

perspectives. They reviewed the business case to automate, the return on investment, the objective or process to be automated and the parties who would be directly and indirectly impacted by the project thus managing the tensions which exist.

> Participant 8: *"…as part of the centre of excellence, they will do an assessment of how many people are involved if we are automating this process, how many people are we getting rid of, not getting rid of…how many people do we have to reskill, for that matter, what other business areas are lacking…"*

Participants were asked to share their thoughts and or experiences on how one could better manage the balance or conflict between the leader's moral compass and the ethics of the firm.

> Participant 17: *"I would like to think that largely a leader would try to align their own moral and ethical compass with that as an organisation…however, that isn't always the case, but I like to think that largely leaders don't stick around when there's a misalignment between the moral and ethics, but in cases its causing a conflict, I believe that it is incumbent on the leader to show some level of balance in what these positions are…but in the end, leaders are accountable for the outcome of an organisation"*

Technology bias concerns where bias may be configured into the system was shared by participants.

> Participant 13: *"I think the ethical component it's always like driven by the developer, the human that actually implement these solutions because the bots, do what the human programs you know whether it's like RPA or machine learning and all of that. The only way they can account for or monitor that is actually have an oversight committee that that monitors the outputs. So, the explain-ability of these RPA or machine learning outcomes."*

> Participant 13: *"you have to hope that the person developing this solution knows the ethics… it's hard to control for ethics. It's something that you pick up after the fact, like with a crime, everyone knows what to do, but you only*

know it's a crime after the fact…I think it's a retrospective thing that you need to monitor it from two angles, monitoring it as it happens, so you need, the governance or you know ethics committee or you know people in the know how to also be in the loop during the process, which is unfortunately not the practice to be honest, I don't see that quite a lot…"

The views shared by the participants suggest that decision-makers need to consider having more oversight over what the technology is doing. In relation to employees the consideration is focused on the inputs that are placed within the system for learning by developers and suggested approaches include having cross-functional teams who question and interrogate logic shared during development.

Participant 3: *"There's a huge interest from a risk perspective, so you always find the risk and internal auditor quite interested in these processes and a big part of you know the roll out is to ensure that once we have this you know what level of reporting, what level of controls do we have to oversee this, so that's always a big part of it to say listen, not only are we automating this and taking it this way, but you will also have enhanced control and oversight over the system, and you know these are some of the measures that we've put in place from an ethical perspective per say, I think that's potentially something that's been lacking in that I wouldn't necessarily say that there's been a direct peace on ethics"*

5.4.4 Summary of findings: research question 1

The findings related to research question one revealed that the nature of key considerations contemplated by decision-makers were influenced by the intent of the goal of job automation technology and the mindset of the decision-maker. Conflicting stakeholder goals and decision-maker mindsets were present as part of the shared experiences expressed by participants with the predominant mindset which was particularly aligned to the intent of the goal taking precedence.

The positive implications and negative implications revealed implications in relation to employees where in some instances participants and learned from previous experiences and in doing so benefited from considerations which they had reflected on. In other instances, participants shared experiences on elements of job automation projects that faced challenges due to a lack of considerations or

unintended consequences.

5.5 Results: research question 2

How do these considerations affect the decision to adopt job automation technology and the subsequent rollout of job automation technology?

The purpose of this research question is to explore the relationship between the ethical considerations contemplated by participants and the outcomes observed and experienced by participants. The patterns revealed by the considerations and implications were interpreted to provide insight on how the considerations influenced decision-makers to adopt job automation technology as well as shaped the decisions made during the implementation and iterative design of job automation adoption.

As was reported in section 5.4, the competition landscape and intent of the goal and mindset influence the approach followed by decision-makers when adopting the job automation technology. Conflicting goals of stakeholders and the conflicting mindsets of decision makers also have an influence with the predominant mindset having the final influence on which stakeholder goal to prioritise and thus having the final say on the direction of the job automation technology adoption.

5.5.1 Influence of considerations made at planning and initial design phase

Participants shared various levels at which decision making sits for job automation adoption. Participant 14 revealed that decision-making sits at the executive level and can also be driven by the automation team.

> Participant 14: *"So we work closely coupled, our team is the automation team and with business, so we keep in contact, you know whenever there are technologies or new things that they're not even aware, because sometimes they don't know what they don't know. So, like we will present that we're able to do one, two and three and then give an example of what we have done, then they can actually relate …their processes so it's both sides. So sometimes we find out when we are looking at the process their working with the business analyst and process analyst and we realise that some of this process is actually fit for the bot, then when you go and propose that to business, say no, you don't have to do these things so the bot can do it and hand over this path and then business is like 'oh cool' and then it becomes*

like a use case and then we go and deploy, develop… and implemented it."

Participant 16 revealed that the centre of excellence was a key element in the decision to deploy job automation adoption within the organisation and participant 8 concurred.

> Participant 8: *"…that centre of excellence, it's meant to… and approved any automation or any projects or that need to automate processes…"*

> Participant 16: *"My role was to set up a COE, drive the strategy within the group within {company name removed}. Alright basically automate certain processes within our customer experience journey in the call centre department and the rest of the business…"*

Participant 11 revealed that the decision to develop was purely from an executive and IT steer co level.

> Participant 11: *"…the overall decisions are strategy decision around should this be implemented, not was taken at like an at our level which was the IT steer co which then contains the exco team of the company together with the IT team, so that is where the decision was approved to do this. And then there's a technical product owner that specifically looks after this product now, and that deals with the various stakeholders to meet the business day to day decisions."*

During the planning and design phase of the job automation adoption, various participants shared the process in which business cases were either developed or approved.

> Participant 7: *"Firstly business will determine a business case to say this process is cumbersome we need to automate this process right business will say that and then once the if the obtained all the approvals in terms of who will fund the project and what are the timelines, time to market and whatever they need done right it comes to us it has already been approved we don't deal with things that still need to be motivated ok it's things that have been permitted this budget for and businesses have secured the approvals that are*

necessary so it comes to us as something that needs to be actioned"

Although decisions to take on automation projects were taken at various levels based on the various participants' responses, there appeared to be a need for a clear business case and motivation. Participants also mentioned the need for a budget to be approved as well as the return on investment being a critical deciding factor as to whether the business would take on the project.

> Participant 7: *"Firstly business will determine a business case to say this process is cumbersome we need to automate this process… then once they have obtained all the approvals in terms of who will fund the project and what are the timelines, time to market and whatever they need done, it comes to us it has already been approved we don't deal with things that still need to be motivated, it's things that have been permitted… businesses has secured the approvals that are necessary so it comes to us as something that needs to be actioned, we need to look at that risk component of it and to tell that particular vendor to say if you were to build a solution that would be plugged in into our environment these are the terms and conditions these are the things that you need this is how you need to build the solution so that it will be compatible to our own internal systems."*

> Participant 13: *"…the directive that the leader takes, no matter how moral they will try to make a decision, you know it's always does this align? what's the KPI? So, it's always a KPI that drives that behaviour…"*

Considerations at a planning level seemed to be highly driven by the mindset, goal and return on investment. Participants with director or executive level, indicated successful projects to be those that realised benefits in terms of customer experience or efficiencies and cost savings.

> Participant 16: *"…big cost reduction, I mean, we managed to move training from six months to two weeks, which is a big achievement. Ideally, we would want it to be done in three days, but that's just not possible, especially with the range of products that {company name removed} is selling. So, we came to two weeks we piloted it with 15 call centre agents and then obviously it got scaled across all call centre agents within the group which is a success. OK,*

yeah but to save around 40, 50 bar a year {a 'bar' is a million thus the participant refers to cost savings of 40, 50 million in Rands}, which was a big drive for us, which was a big achievement for us."

Participant 16 revealed that leaders needed to understand their overall business strategy and automate in line with that strategy.

Participant 16: *"when you busy putting the business case together and I'll always say to people that, automation is just one aspect of it. When you go to any organization, everyone can introduce a new technology. Hence what I always say to people is that when you do automation, it needs to be an arm of a centralised digital transformation journey within your organisation, because automation is just one key arm of your broader strategy of where you are trying to get to as a company…for us the biggest challenge was that at {company name removed}, the picture wasn't necessarily there at that time. The maturity was not there to say we have a digital strategy, and this is going to be the key focus you get what I'm saying? It was I want to do automation. This is the new hot technology that we're trying to plug in, which was a problem."*

A common theme discovered from the data collected was the need to automate only where necessary. Some participants mentioned that due to the implications this automation had on company resources and employees, leaders needed to understand their business and be realistic with the expectation of outcomes from job automation based on their business.

Participant 2: *"…so the thing is for the job automation is one to make sure that the tasks that are supposed to be automated should be automated. Two to make sure that those tasks also, you know have meaningful information at the end of them, so it's not a question of just capturing data , but it's about making sure that data is put into you know a format that will actually tell a story and help decision-making…"*

Participant 5: *"…we mustn't automate for the sake of automation…"*

Participant 16: *"so they were trying to remove people, and I'm like but guys,*

that shouldn't be your business case, because if you do that then it will never happen. You will never achieve that, there is no way, especially if your processes are very fragmented, there is a lot of hand offs, you still have documents that are handwritten. I mean 95% or let me say 85% of the {removed company name} was handwritten forms, a robot can't read handwritten forms, you need to be realistic…"

Based on the business case, the predominant mindset of leaders who enact job automation technology adoption and the considerations made at a board level as was shared by participant 18 and reported in section 5.4.3.4:

Participant 18: *"Fast forward today you would know more and more that boards are starting to raise the issue of ethical impact on people as a key thing. In fact, boards, the companies and boards are now requiring management to report on the impact on people."*

5.5.2 Influence of considerations made during implementation and iterative design

Participants shared ways in which they circumvented positive and negative implications in order to realise the benefits of the job automation adoption technology and at the same time, raise enriched considerations which would enable the empowerment of employees.

Participant 5 revealed that to circumvent hurdles created a resistance to change which within the teams they had been exposed to. The circumvention included investments to training as well as engaging the employees.

Participant 5: *"to circumvent that, there's a lot of training and a lot of engaging people and time that's required and funds."*

Participant 10 shared that by changing the perception of how employees viewed them and trying to relate with the staff on the ground. The employees were more receptive, and they were thus able to circumvent the negative implications of non-cooperation by operators who were needed to obtain process descriptions for the operations that needed to be automated (see section 5.4.3.1).

Participant 13 emphasised keeping employees in the loop throughout the journey and enabling them to assist with the co-creation and fine-tuning of the job automation tool for benefits to be realised as it was prone to ‘bugs’ that needed fixes.

> Participation 13: *“So a very important piece is keeping them in the loop like directly across developing to distribution...the bots will always have like exceptions you know like system issues or they will face like a scenario that wasn't accounted for in development, so having you know a human in the loop like we always say to monitor how the bot is performing how it's executing on the request, so it allows them to sort of like have an 'employee' underneath them you know, so to speak in inverted commas. So that they can be able to monitor like how much of a load, the exception items that they are able to do, so in some instances, unfortunately because when you have this bot automating a huge, large aspect of that task then you have some employees being shifted out to maybe other business units or they'll be like a cut off in terms of headcount because of the you know, the cost savings. Some businesses choose to do that others you know, one client that I worked with, they were like you know, we are a responsible employer so we won't just do headcount reduction we will rather redeploy the people to other areas, but others will cut down and see that cost saving and use that as a as a means of like you know, cutting FTE’s or employees.”*

In addition to keeping employees in the loop, participant 13 expressed that having employees assist with the co-creation process, helped the development team to not only fine-tune bugs in the system, but to also produce an enhanced process that was the best fit for business, in this case it included a monitoring role for the bot by the employees who would have otherwise be removed from the process. Through considering how they could include employees, the outcome yielded in a dual benefit for both the employee and the business and thus influenced the implementation of the job automation project positively. It is interesting to note the experience shared by participant 13 as it also indicates the mindset of considering staff, retaining staff having a positive influence on the benefits realised.

The sentiments shared by participant 13 were complemented by participant 9 who expressed that it is imperative that decision-makers keep employees in the loop as this reduces uncertainty that they may be facing with regards to the future of their

role and in turn positively influences the successful implementation of the project.

> Participant 9: *"… people would tend to reject things, be it processes or automation, they tend to reject things they don't understand, if you do not understand it, you do not, you not involved in it, it's something that you just at the end, now you just told listen there's this, we've automated this here…we need you to do this, this is how this works, people reject that, but what people are more receptive to is involvement you involve them from the beginning from the planning process get their input… let them understand what parts they will play in this process, but they shouldn't ever be kept in the dark because now, once they then move with this process with you, then they understand the importance of having this process and then they understand the importance of having them play a role in this process and then by the time you done with this process, now you have either this robot or you just have this process that you have automated from start to end, now they know that they fully understand the role that they need to play they fully understand why they need to play that role… but if you just put them at the end, and you just tell them this is this, do that, then best believe that there will be problems there will be issues that you will definitely experience… you start getting questions like why do they need me if they have this robot? why do they need me if they have automated this process, why am I even here? or maybe they're just keeping me here, for god knows what, and then soon I will be out"*

The considerations relating to the controls on the job automation technology system suggest a balance between allowing for iterations and also ensuring that no 'work-arounds' are allowed by the system to ensure that the embedded system is utilised by employees to its full potential.

> Participant 3: *"You need to sort of make sure that if you're looking at process is if you're looking at controls within the system, they don't allow for manual work arounds by the humans"*

5.5.3 Trade-offs in decision-making

The considerations will either play a positive or negative role in whether the leader decides to deploy and job automation adoption. Considerations which were made in isolation appeared to have an overall negative implication on employees and the

considerations made through consultation played a predominantly positive role due to the nature to contemplate and weigh the options, this is especially the case when decisions are made at a multi-level committee or group such as the centre of excellence or whether other groups or divisions are consulted prior to making the decision.

The ability to employ a business lens as is the case in the examples provided by participants will also play a positive role in the decision-making process due to the ability to approach the decision holistically. An example of decisions made in isolation was shared by participant 9 and the experiences where a consultative approach was followed either at planning, design or implementation was shared in sections 5.5.2 and 5.5.3 above.

> Participant 9: *"…because even if you are a person that is building this process and will take into consideration those ethics, but sometimes there might be things that you miss out, so this is why then it is very important that when you build a process, you have a team supporting you that team will come in and then start looking at things like considerations, yes, we have this amazing process but now have you in terms of looking at where the business is at, where the business is going and looking at the company's ethics have you considered abcd? then that's when you start then asking yourself, so those kind of questions but if you're working in silo, if you just working just all alone then you might miss out on such things"*

As a leader, participants also indicated the need to consider the true value of cost cutting as a goal. Participant 16 warned against aiming for quick benefits which would not realise sustainable gain for the business as a whole (the data was shared in section 5.4.3.4).

5.5.4 Summary of findings: research question 2

The findings related to research question two revealed a linkage between the considerations which were considered by participants, the implications faced in relation to employees and the outcomes of decisions made during the planning, design and or implementation phase of the job automation project. Patterns which emerged indicated methods employed by participants to circumvent some of the unintended consequences faced.

5.6 Conclusion

Chapter five explored findings of the research based on research questions formulated through a literature review performed in chapter two and stipulated in chapter three. Patterns emerged from the data suggesting that considerations were considered within a context. Two contexts were initially explored, the context of the varying nature of job automation technology employed within the financial services sector, namely robotic process automation, machine learning and artificial intelligence. The data revealed that the type of technology, while varying in complexity, affected the job role or future of the employees employed.

The second context was the context of the goal where the intent of the goal was interpreted and categorised into two broad categories namely the intent to survive within a competitive environment and the intent to utilise strategic foresight for sustainable growth. The data revealed that the intent of the goal had influence on the type of considerations contemplated by participants.

The key considerations revealed centred around (1) communication, (2) letting people go, (3) assisting employees with recruitment related services externally, (4) reviewing initial attrition estimates, (5) assessing the skills profile of employees to expose transferable skills to be employed elsewhere in the organisation, (6) framing the vision of the project in a way that creates shared value for the employee and the organisation, (7) carefully managing change management initiatives, (8) empowering employees through custodianship.

The key considerations were contrasted with positive and negative implications in relation to employees. The benefits realised through successful adoption of the job automation technology were broadened to include the benefits to employees as a key stakeholder and framed as such to maximise the full potential of the job automation initiative. Where retrenchments were unavoidable, participants emphasised the need to act as responsible and ethical leaders.

These findings are discussed and contrasted with literature in chapter six.

Chapter 6 – Discussion

6.1 Introduction

Chapter six presents a discussion of findings reported in chapter five and contrasts the findings with literature presented in chapter two with the aim of uncovering the unknown phenomenon within the ethics domain and to gain insights on the research problem presented in chapter one.

This chapter will highlight consistencies between findings and literature as well as contribute insights to contribute to the literature found within the ethics domain of knowledge.

6.2 Discussion: research question 1

Which ethical considerations were considered by decision-makers in relation to their employees when adopting job automation?

The purpose of research question one was to gain insights on the key considerations contemplated by decision-makers in relation to employees when adopting job automation technology.

The sub-question under research question one was:
Which of these considerations had a positive implication on employees, and which had a negative implication on employees?

The purpose of the sub-question to research question one was to identify patterns in the ethical considerations of participants that resulted in positive implications and to identify patterns in the ethical considerations of participants that resulted in negative implications with the aim the implications would assist in enriching the considerations and that the consequences identified through insights from participants would reveal what worked and what did not work when adopting job automation technology to further enrich the considerations in relation to employees disrupted by job automation technology.

6.2.1 The context in which considerations are contemplated

The study explored whether the job automation technologies described in the study had affected employees who had previously performed these processes manually. It

was found that employees whose manual processes were augmented with robotic process automation, artificial intelligence or machine learning were affected by the augmentation made to the business process. Regardless of the level of complexity of the job automation technology adopted, employees were affected by the introduction of job automation technology within their work environment.

Autor (2015) maintains this notion by postulating that job automation adoption in the form of artificial intelligence and robotics will have an influence on the trajectory of employment and thus have an implication on employees. All participants in the study shared experience from the perspective of a decision maker enacting job automation adoption technology and concurred this view as they had all been involved in a project that had affected the job role of an employee. Job automation adoption has augmented labour across various levels of skilled and unskilled labour (Autor, 2015; Lloyd & Payne, 2019).

The goal of job automation was the second context explored in the study. The study aimed to understand the value that the project sought to derive for business upon completion. In addition, the study contemplated whether the goal of job automation had any bearing to the nature of considerations contemplated by decision makers in relation to employees. In line with the literature, the study found customer experience to be a common goal for enacting job automation adoption (Gomber et al., 2018; Hess et al., 2016). Most participants agreed with this view and indicated that the improved customer experience would assist the organisation in realising benefits that created sustainable growth.

From the data, the researcher identified patterns suggesting two broad categories of intent behind the goal of automation. The first being the intention to survive as participants felt that the drive towards automating was intricately linked to improving the bottom line which meant reducing the headcount. With the bottom line (profit) being a yearly figure based on performance within a set financial year, coupled with the influx of disruption (Vives, 2019), the intent behind this goal appeared to be that of survival, contrasted with the intent to utilise strategic foresight, improve customer experience and generate sustainable growth over the long term (Arthur & Owen, 2019). The intent of the goal played an influential role in the type of considerations contemplated by decision-makers (Linder & Foss, 2018). After interpretation, the data revealed the view that the intent behind the goal of job automation could be

categorised into two broad categories of survival and strategic foresight.

6.2.2 Inclination towards a stakeholder view

The study found that participants were aware of various stakeholders directly and indirectly impacted by the decisions made to automate jobs as well as the decisions which informed the iterative design process and implementation of the job automation technology adoption. Similarly, participants were of the view that the various stakeholder perspectives created tensions while finding the need to undertake this stakeholder view to be important as it triggered deep thought and was found to be a trait of ethical leadership. Linder and Foss (2018) found that while the multiple goals and perspectives of stakeholders were a cause of conflict due to the incongruence found among the various goals of stakeholders, they may also contain complementary effects that form part of the superordinate goal.

In this light, the research found the mindset of the decision-maker had an influence on the direction of the job automation adoption. Where conflicts arose between the goals of stakeholders and where the various mindsets of decision-makers were conflicted, the predominant mindset created a precedence and thus the job automation adoption goal was aligned more so to the predominant mindset amongst decision-makers.

The mindset of decision-makers who had the intent of strategic foresight using job automation technology to grow the business informed the approach taken by decision makers to enact the goal in a way that enabled employees. Dependence was placed on organisational goals and the leader's value orientation by Belle (2017) and Maak et al. (2016). It should be noted that while the intent of strategic foresight and goals were not to remove staff, participants experienced instances where the employment of job automation technology in the business resulted in an inability to 'save' all jobs and thus creating job loss as an indirect affect. The main difference thus between the approaches taken by mindsets with the intent to survive and mindsets with the intent of strategic foresight was that the latter sought growth and thus creative ways to save jobs whilst the former was in a state of emergency so to speak and thus was focused on the profitability and foreseeability of the organisation.

While participants were in agreement with Kaptein (2017) who vouched for struggle ethics in order for leaders to become aware of the changing ethical norms, Belle

(2017) elected that an organisation (and therefore its leaders) should look inwards towards their ethos and outwards towards society and thus being directed by their internal ethics. The participants of the study shared varying and interesting views on the topic.

While some felt that the organisation's ethics should take precedence over the ethics followed especially as it relates to the ethical code of conduct and legislated stipulations, others felt that there should first exist an alignment between the leader's moral compass and the ethics of the organisation and secondly where there is no alignment, it is incumbent on the leader to be balanced. This proved to be an interesting view as most participants shared both directly and indirectly a view that the ethical considerations should be more in line with utilitarian ethics, meaning that they should reflect the benefits for all which, in this case would mean benefit for all stakeholders involved.

When interpreting the data, the researcher found the notion of 'benefit for all' to be within reason or limited to the objectives of the job automation technology adoption especially where the project was approved under the understanding that it would provide significant savings to the firm. Vidgen et al. (2020) stated that the utilitarian ethical corporate action produced the greatest good and least harm for all including shareholders, employees and customers which supported this view.

Most participants agreed that job automation not only substitutes labour, it complements labour (Autor, 2015) and as such considerations were made to enable harmony between human and machine. The data did not support the notion that highly specialised human capital was required to understand the customer better, participants shared that while skills were a challenge in context of South Africa and that there was a drive to employ those with technical know-how to be able to successfully adopt job automation technology, there was also a drive to assess transferable skills of employees faced with disruptions. Participant 1 for instance shared that tellers, while not highly specialised, could be leveraged for their knowledge capital in business operations and become process analysts.

Vidgen et al. (2020) emphasised the need to have a more representative voting structure when contemplating the ethical considerations, while participants did not make mention of voting structures per se, participant 10 made mention of the need

to have psychologists or human behaviour experts present in board rooms. In addition, some participants shared that the decisions made relating the planning, design and roll-out of the job automation were made with the use of a centre of excellence that was comprised of a representative suite of professionals who considered the impact of the project at hand.

Participants agreed that the ethics within job automation adoption projects were driven by legislature mostly, and that what is required to have an ethos-infused decision in the planning, design and implementation of the job automation technology required more than policy and can often be a grey area. Participants shared how they deliberated on the competing values and made trade-offs in decisions to produce the successful implementation of job automation projects that they were involved in (Belle, 2017; Scharding, 2018).

6.2.3 Ethical considerations made by decision-makers

Broadly the literature indicated that the considerations which were made in in relation to employees were centred around technological unemployment (Autor, 2015; Kim & Scheller-Wolf, 2019; Skrbiš & Laughland-booÿ, 2019) concerns and human-technology interaction (Banks, 2019). Participants confirmed this view as most of the considerations which they had made involved either (1) the repositioning of employees to reduce the technological unemployment, (2) accepting the attrition rates which were unavoidable or inevitable due to the job automation technology introduced, (3) placing controls and introducing practices which ensured positive human-technology interactions that enhanced, and potential of benefits derived from the job automation technology project, (4) and security concerns in relation to employees due to remote work and potential complacency.

The literature was able to provide the various areas to be considered by decision-makers and in some instances, the consideration itself, however, for the most part, a gap remained in the literature with regards to the specific ethical considerations and possible positive and negative implications which could be faced by decision-makers in the financial services sector when adopting job automation technology.

Participants felt that the timing and transparency of communication was important, and they emphasised words such as open and honest communication. Implications shared by participants were in relation to how they had inadequate communication

considerations in earlier projects they had been involved in and how these projects had as a result created further challenges due to the sabotage of employees which placed a risk on benefit realisation sought by the job automation technology. The nature of communication as a consideration towards employees displaced by job automation emerged from the data and indicated that transparent and timely communication was key when transitioning employees displaced by job automation out of the firm. The approach in which decision-makers took when communicating with employees displaced by job automation was a careful consideration made by decision-makers to circumvent sabotage by employees.

Participants shared sentiments that suggesting that decision-makers should break the organisations notice period in order to allow employees to leave as and when they find employment as opposed to holding them to notice periods thus causing them to lose future work. The study found this view to be interesting as it required acting unethically on the one hand in terms of breaching contractual arrangements in order to act ethically on the other hand by enabling employees no longer employable an opportunity to seize opportunities elsewhere. The consideration centred around continuously engaging with employees and allowing them to leave should at a time that suits them should they communicate that they have found work elsewhere.

Participants shared that as a responsible leader, decision-makers could assist in the placement of employees in external firms. One participant shared how the leaders of the firm contacted their network to try and assist employees to find work elsewhere. Participant 15 shared that decision makers should consider offering employees recruitment services to better assist them in placements at external organisations. The notion of having decision-makers consider assisting displaced employees with future employment opportunities outside the firm, is an interesting and refreshing perspective which has been shared by participants as a trait of ethical leadership and responsible business.

The study found decision-makers to be considering the attrition rates estimated initially and continuously updating them in line with project changes. The idea behind this notion was to be sure of the headcount percentages that were to be reduced and to circumvent losing valuable knowledge capital due to incorrect and un-updated attrition estimates.

Participants shared that although they found communication to be a key consideration, balancing what to communicate and when to communicate was a challenge and required the leaders sensing abilities. There were risks expressed on oversharing which increased the anxiety and career outlook uncertainty (Skrbiš & Laughland-booÿ, 2019) should leaders overcommunicate prior to obtaining all the facts and data as well as risks related to rumours and tensions that rise with rumours due to leaders failing to communicate timely and control the narrative. Participants shared experiences relating to covert projects which had code names, to slide decks being circulated with the organisation which shared costs savings information of job automation projects.

Considering the skills which could be transferred to other business units was a key consideration amongst participants. Participants placed emphasis on skills profiling, assessing which skills would be relevant in the future and comparing them to the skills present within the firm, upon which a trajectory of employees could be assessed with investment towards training for employees to prepare both the firm and employees to adapt to the changing competitive landscape (Autor, 2015). The skills profile and trajectory of employees was suggested to be a joint consideration to be made by decision-makers within the firm as well as a public sector or government responsibility. This was suggested by participant 15 and was in line with a study by Kim & Scheller-Wolf (2019) who stated that the ethical implications of job automation were to be considered not only at a government level alone as even in the event that the government is able to contemplate and solve the ethical dilemmas at an institutional level with policy and legislature, but corporates were also not warranted to create these problems in the first place. Scheller-Wolf suggested that the weight of ethical consideration be carried at both an institutional and organisational level (Kim & Scheller-Wolf, 2019).

Considerations towards coaching employees, assisting employees with career development plans and framing the job automation benefits in a way that indicated shared value to be derived by both employees and the organisation were common patterns that emerged from the data. Participants shared that where employees had uncertainty on career outlook and meaning, difficulty to find where they fit within the organisation was prevalent this issue was in line with the literature where a lack of meaning and purpose in a digital world (Kim & Scheller-Wolf, 2019) caused challenges in understanding this fit. Loi (2015), supports this notion by suggesting

that the advancement of technological innovation has resulted in the dis-enhancement of humans and found this to be an objectionable from a moral point of view.

The study found that while the repetitive nature of tasks which were performed by staff were a popular area of job automation due to the degree of repetitiveness (Heyman, 2016) which would in turn cause fear, self-doubt, job uncertainty and anxiety (Skrbiš & Laughland-booÿ, 2019) amongst employees, when employees were shown the value and benefits they were more inclined to cooperate, reduce the need to hoard information and enable business to realise benefits from the job automation adoption.

Some participants shared how the older generation of employees were more likely to receive severance packages due to their lower adaptive nature when compared to the flexibility and adaptability of the younger workforce, these sentiments were shared with the literature. A study by Skrbiš & Laughland-booÿ (2019) found that youth in Australia remained confident and deemed themselves to be adaptable to change.

A common pattern which emerged was the need to consider change management practices when repositioning staff, retrenching, or enabling a human-machine relationship amongst employees. Participants shared considerations towards sharing the vision of the job automation project as this was a key influencer in employees changing their attitude positively towards the acceptance of job automation technology. Positive implications of buy-in, high adoption rates and empowerment under change management considerations were prevalent.

The idea of employee dis-enhancement and circumventing the fears brought by job automation technology was found in the literature. Participants shared how decision-makers could empower the employees to enable a positive relationship. They emphasised the need to consider employee empowerment in the context of ethical considerations and maintaining a balance between listening to employees' concerns raised on various iterations with not allowing employees to work outside of system to be able to realise the maximum potential of benefits of the job automation technology.

Other considerations raised were around security of client data and to consider this

within the context of employees due to the prevalence of remote working. Complacency in passwords and unsecure networks where employees may connect to work laptops accessing information and posing a threat to the firm.

Job automation technology bias was explored, and the participants indicated that though this topic was in its nascent phase, it was a key conversation when adopting job automation as concerns around oversight of the machine learning aspect was sometimes lacking and the bias was something that would be identified after the fact due to the retrospective nature of ethics.

6.2.4 Summary of discussion: research question 1

The experiences shared based by participants can be categorised into the following themes:

Theme 1: Intent behind the goal of automation (Linder & Foss, 2018)

> **Proposition 1:** The intent of the goal of job automation and predominant mindset of the decision makers has an influencing role in the nature of considerations contemplated by decision-makers during job automation.

The study found that the intent behind the goal of automation influenced the type of considerations contemplated by decision-makers, these could be greatly categorised into two categories, namely the intent to survive and the intent to utilise strategic foresight in order to grow the business. Theory supported the influential role that could be placed on the intent of the goal and the leader's mindset in influencing the organisational behaviour (Linder & Foss, 2018).

Theme 2: Inclination towards balancing stakeholder views

> **Proposition 2:** Creative tension exist between the multiple stakeholder viewpoints. It is incumbent on the leader to balance these views.

The study found that while stakeholder views were considered, they sometimes led to incongruent goals which pulled the leader in various directions. Whilst this is the case, it is incumbent on leader to balance these views for the benefit of the organisation (Belle, 2017; Maak et al., 2016).

Theme 3: Considerations in relation to employees

The consideration categories largely align to those found in the literature (Autor, 2015; Banks, 2019; Kim & Scheller-Wolf, 2019; Skrbiš & Laughland-booÿ, 2019). The specific consideration categories were (1) the repositioning of employees to reduce the technological unemployment, (2) accepting the attrition rates which were unavoidable or inevitable due to the job automation technology introduced, (3) placing controls and introducing practices which ensured positive human-technology interactions that enhanced, and potential of benefits derived from the job automation technology project, (4) and security and bias concerns in relation to employees due to remote work, potential complacency and perception blind spots. The specific considerations which aligned with the literature were largely on considerations around repositioning staff, avoiding dis-enhancement of employees and the high degree of automation of repetitive tasks. The nature of communication, how to transition staff out of the firm, updating attrition estimates, change management considerations within the context of ethics and empowering staff through custodianship emerged from the study.

6.3 Discussion: research question 2

How do these considerations affect the decision to adopt job automation technology and the subsequent rollout of job automation technology?

The purpose of research question two was to explore the relationship between the ethical considerations contemplated by participants, the outcomes observed and experienced by participants. The patterns revealed by the considerations and implications were interpreted to provide insight on how the considerations influenced decision-makers to adopt job automation technology as well as shaped the decisions made during the implementation and iterative design of job automation adoption.

6.3.1 Influence of considerations made at planning and initial design phase

Although decisions to take on automation projects were taken at various levels based on the various participants' responses, there appeared to be a need for a clear business case and motivation. Considerations at a planning level seemed to be highly driven by the mindset, goal and return on investment.

A common theme discovered from the data collected was the need to automate only where necessary. Some participants mentioned that due to the implications this automation had on company resources and employees, leaders needed to understand their business and be realistic with the expectation of outcomes from job automation based on their business. Kim & Scheller-Wolf (2019) posit that naively automating the workplace could place business at risk of ethical and create societal issues especially for those who find themselves technologically unemployed. This was supported by the data collected for the study. Being reflective to ensure alignment between the firm's ethos and future goals (Belle, 2017; Linder & Foss, 2018) was a key consideration shared by participants.

6.3.2 Influence of considerations made during implementation and iterative design

The data collected indicated how decision-makers circumvented positive and negative implications in order to realise benefits of job automation technology. The findings were centred around changing the perception of how employees view decision-makers during job automation, communication was reiterated and emphasised as a key consideration based on circumventions made by decision makers. Keeping employees in the loop and managing expectations and lastly, it was incumbent on the leaders to balance the need to iterate and incorporate employee modifications with not allowing employees to work around the system as this was closely related to how benefits could be realised from the investment of job automation technology.

6.3.3 Trade-offs of decision-making

Considerations which were made in isolation (Vidgen et al., 2020) appeared to have an overall negative implication on employees and the considerations made through consultation played a predominantly positive role due to the nature to contemplate and weigh the options, this is especially the case when decisions are made at a multi-level committee or group such as the centre of excellence or whether other groups or divisions are consulted prior to making the decision. The ability to employ a business lens played a positive role in the decision-making process due to the ability to approach the decision holistically. Leaders maintained that it was necessary for them to consider the true value of cost cutting as this impacted the organisation as a whole. Patterns which emerged indicated methods employed by participants to circumvent some of the unintended consequences faced.

6.3.4 Summary of discussion: Research question 2

The experiences shared by participants can be categorised into the following themes:

Theme 1: Automate where necessary (Belle, 2017; Kim & Scheller-Wolf, 2019; Linder & Foss, 2018).

The literature suggests that the discussion around automating jobs requires a combination of reflective consideration and an understanding of the business both as it stands today as well as the direction in which it is going (Belle, 2017; Kim & Scheller-Wolf, 2019; Linder & Foss, 2018). The data concurred this view evidencing that automation which was aligned to the strategic foresight of leaders together with a sense of being realistic based on the maturity level of the organisation and its ability to absorb both change and automation technology was key.

Theme 2: Circumvention tactics.

The data revealed circumvention tactics which enriched the considerations shared by participants. The tactics included thinking about how employees perceive decision-makers, keeping them in the loop during automation projects, fulfilling promises made and lastly balancing the flexibility of iterations and the rigidness of not allowing people to work around the system in order to realise the benefits from the investment made in the job automation technology.

Theme 3: Trade-offs in decision making (Vidgen et al., 2020).

The data revealed that decision-makers should take on a consultative approach and not make decision in silos, centre of excellence (Vidgen et al., 2020) or similar organised structures within the firm allowed for considerations to be weighed from different perspectives. In addition, it was incumbent on the leader to not lose sight on the business-wide view of any strategy and this was no exception to the job automation projects of the firm.

6.4 Conclusion

Chapter six discussed the findings of the study which were reported in chapter five.

These findings were compared with the extant literature from chapter two and assessed for alignment. Where the extant literature did not support the views share or where the extant literature was silent, these findings were noted as having emerged from the data.

The study findings were closely aligned to the extant literature and the data collected was found to enrich insights and thus answering the research question posed by the study.

The following chapter will seek to share key consideration formulated with a combination of findings found in the data and extant literature presented. The recommendations will also be reported in this chapter.

Chapter 7 – Conclusion

7.1 Introduction

The aim of the study was to understand the nature of ethical considerations made by decision makers in relation to employees when enacting job automation technology adoption. The viewpoints of lead, manager's, and executive members from both the financial services sector and consulting were sourced through eighteen semi-structured interviews.

Chapter seven concludes the study and shares a summary of the findings of the study. The key considerations obtained through data collection are expressed in a visual diagram with recommendations provided which are relevant to the academic and business audience. Areas of future study are shared for researchers in the field.

7.2 Research findings

The two research questions explored in the study were namely (1) Which ethical considerations were considered by decision-makers in relation to their employees when adopting job automation? (1b) Which of these considerations had a positive implication on employees through the adoption of job automation, and which had a negative implication? (2) How do these considerations affect the decision to adopt job automation technology and the subsequent rollout of job automation technology?

The exploratory study discovered that the intent behind the goal to enact job automation technology adoption as well as the predominant mindset of decision makers had an influence on the type of ethical considerations made by decision makers. Conflicts in mindset of decision makers were present however the predominant mindset which was also aligned to the intent and goal of job automation adoption took precedence in shaping the nature of ethical considerations. It was incumbent on the leader to balance conflicting goals of stakeholders and allow for creative tension (Kaptein, 2017; Vidgen et al., 2020) as this creative tension enabled deep thought, consideration and multiple views to emerge.

The considerations which emerged from the data and the literature are as follows:
(1) open and honest communication which was transparent and timely, (2) letting people go, (3) assisting employees with recruitment related services externally, (4) reviewing initial attrition estimates, (5) assessing the skills profile of employees to expose transferable skills to be employed elsewhere in the organisation, (6) framing

the vision of the project in a way that creates shared value for the employee and the organisation, (7) carefully managing change management initiatives, (8) empowering employees through custodianship.

The key considerations were contrasted with positive and negative implications in relation to employees. The benefits realised through successful adoption of the job automation technology were broadened to include the benefits to employees as a key stakeholder and framed as such to maximise the full potential of the job automation initiative. Where retrenchments were unavoidable, participants emphasised the need to act as responsible and ethical leaders.

The findings of research question one and two provide insight on the way in which job automation technology is being adopted within the financial services sector to enable responsible business and realise the benefits and financial rewards of the investments made towards job automation adoption.

7.3 Visual diagram of findings

The following visual diagram provides a key ethical considerations guide for decision-makers in relation to employees when adopting job automation technology. The dotted blocks indicate that the intent of the goal behind job automation is not fixed and can be changed through the predominant mindset of decision makers. A growth mindset is likely to formulate goals that intend to utilise strategic foresight whereas a mindset that is fixed on ‘quick wins’ is likely to enact job automation technology that supports goals such as the reduction of headcount to improve the bottom line.

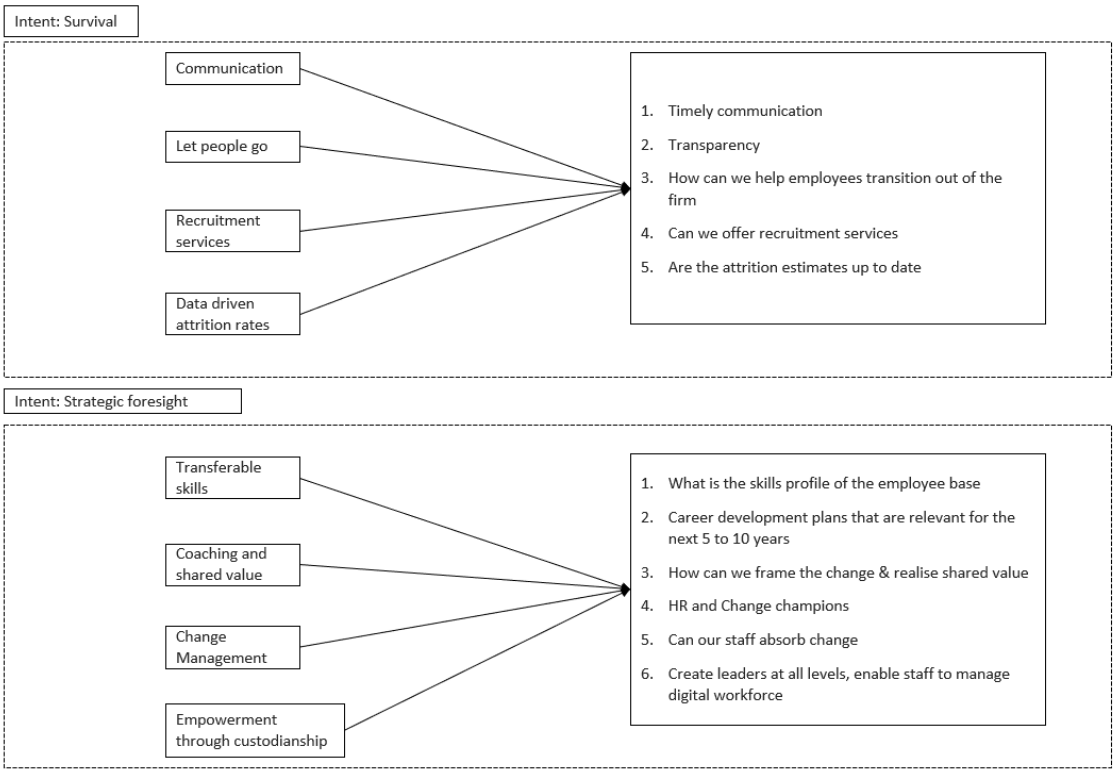


Figure 6: Key ethical consideration in relation to employees disrupted by job automation.

7.4 Implications for business and academia

The research provided the reflective approach and key ethical considerations which were made by decision-makers.

While the consideration categories could also be found in the literature, the insight from participants contributes to the business ethics domain by providing practical ethical considerations which are embedded in the decision-making process. The ethical considerations transcend other domains such as emerging technology, change-management, and human resource management. This indicates a need for the business ethics theory to be enriched with integrative study from other domains. This study has attempted to fulfil that need through the findings reported by the study.

For business, the findings provide a practical guide of key ethical considerations to be made. Further recommendations are that decision makers should automate where necessary and in line with the broader organisational strategy, it is incumbent on the leader to balance the trade-offs of decisions making while also inviting inputs and insights from multiple perspectives.

7.5 Limitations of the study

The study cannot be generalised to a wider population. The sample size was not a representative sample of all decision-makers involved in adopting job automation technology within the financial services sector. The data collected was subject to interpretation by the researcher and the visual diagram is not an exhaustive list of ethical considerations to be made in relation to employees.

7.6 Suggestion for future research

The study explored the ethical considerations made in relation to employees when adopting job automation technology. Ethics is integrative in nature and not all elements of the ethical landscape for job automation adoption were researched in the study. Topics such as AI bias emerged from the data, however due to the scope of this research, they were not explored to their full extent. The topic of robotics and their classification as employees also emerged from the data. Employees were encouraged to view the bots as a digital workforce in which they were custodians of. To this end, there were questions on the responsibility of business with regards to whether bots should attract an income tax as employees were being significantly reduced and replaced with bots.

7.7 Conclusion

The research uncovered key ethical considerations made in practice in relation to employees when adopting job automation technology. A visual diagram depicting the key ethical considerations made was shared to visually reflect these findings. The recommendations to decision-makers to enact job automation technology where necessary and balance the trade-offs of various decisions were shared.

As introduced in chapter one, the main aim of the study was to understand and uncover the key ethical considerations made in relation to decision-makers when adopting job automation technology. The data collected and extant literature allowed for the formulation of a visual diagram which answered research question one of the study. The recommendations shared from data collected in line with circumventions and the balancing act required for leaders helped to enrich the insights shared by the study.

References

Alkema, P. (2018). *The future of banking - a south african perspective*. Leaderex. http://www.leader.co.za/article.aspx?s=6&f=1&a=6945

Ando, H., Cousins, R., & Young, C. (2014). Achieving saturation in thematic analysis : development and refinement of a codebook. *Comprehensive Psychology*, *3*(4), 1–7. https://doi.org/10.2466/03.CP.3.4

Arthur, K. N. A., & Owen, R. (2019). A Micro - ethnographic study of big data - based innovation in the financial services sector : governance , ethics and organisational practices. *Journal of Business Ethics*, *160*(2), 363–375. https://doi.org/10.1007/s10551-019-04203-x

Autor, D. H. (2015). Why are there still so many jobs? the history and future of workplace automation. *The Journal of Economics Perspective*, *29*(3), 3–30. https://doi.org/10.1257/jep.29.3.3

Banks, J. (2019). A perceived moral agency scale : development and validation of a metric for humans and social machines. *Computers in Human Behavior*, *90*, 363–371. https://doi.org/10.1016/j.chb.2018.08.028

Belle, S. M. (2017). Knowledge stewardship as an ethos-driven approach to business ethics. *Journal of Business Ethics*, *142*(1), 83–91. https://doi.org/10.1007/s10551-015-2710-5

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Coetzee, J. (2018). Strategic implications of fintech on south african retail banks. *South African Journal of Economic and Management Sciences*, *21*(1), 1–11. https://doi.org/10.4102/ sajems.v21i1.2455

Coetzee, J. (2019). Risk aversion and the adoption of fintech by south african banks. *African Journal of Business and Economics Research*, *14*(4), 133–153. https://doi.org/10.31920/1750-4562/2019/14n4a6

Creswell, J. W., Hanson, W. E., Clark, V. L. P., & Morales, A. (2007). Qualitative research designs : selection and implementation. *Counselling Psychologist*, *35*(2), 236–264. https://doi.org/10.1177/0011000006287390

Cypress, B. S. (2017). Rigor or reliability and validity in qualitative research : perspectives , strategies , reconceptualization , and recommendations. *Dimensions of Critical Care Nursing*, *36*(4), 253–263. https://doi.org/10.1097/DCC.0000000000000253

de Gooyert, V., Rouwette, E., van Kranenburg, H., & Freeman, E. (2017). Reviewing the role of stakeholders in operational research: a stakeholder theory perspective. *European Journal of Operational Research*, *262*(2), 402–410.

https://doi.org/10.1016/j.ejor.2017.03.079

de Villers, J. (2019, June 25). *Retrenchment tracker: south africa's big corporate job losses in 2019 - so far*. Business Insider South Africa. https://www.businessinsider.co.za/total-number-of-job-losses-south-africa-retrenchment-corporate-job-losses-2019-6

Dubru, R. (2017). *Critical competencies of leaders in the digital transformation of banking in South Africa* [MBA Mini dissertation, University of Pretoria, Pretoria, South Africa]. https://repository.up.ac.za/handle/2263/64841%0A

Financial Services Conduct Authority. (2021). *Authorised financial service providers*. https://www.fsca.co.za/Fais/Search_FSP.htm

Go, E., & Sundar, S. S. (2019). Humanizing chatbots : the effects of visual , identity and conversational cues on humanness perceptions. *Computers in Human Behavior*, *97*, 304–316. https://doi.org/10.1016/j.chb.2019.01.020

Gomber, P., Kauffman, R. J., Parker, C., & Weber, B. W. (2018). On the fintech revolution: interpreting the forces of innovation, disruption, and transformation in financial services. *Journal of Management Information Systems*, *35*(1), 220–265. https://doi.org/10.1080/07421222.2018.1440766

Hess, T., Matt, C., Wiesböck, F., & Benlian, A. (2016). Options for formulating a digital transformation strategy. *MIS Quarterly Executive*, *15*(2), 123–139.

Heyman, F. (2016). Job polarization , job tasks and the role of firms. *Economics Letters*, *145*, 246–251. https://doi.org/10.1016/j.econlet.2016.06.032

Jacobs, N., & Huldtgren, A. (2018). Why value sensitive design needs ethical commitments. *Ethics and Information Technology*, 1–4. https://doi.org/10.1007/s10676-018-9467-3

Jonsen, K., Fendt, J., & Point, S. (2018). Convincing qualitative research : what constitutes persuasive writing ? *Organizational Research Methods*, *21*(1), 30–67. https://doi.org/10.1177/1094428117706533

Kaptein, M. (2017). The battle for business ethics: a struggle theory. *Journal of Business Ethics*, *144*(2), 343–361. https://doi.org/10.1007/s10551-015-2780-4

Khanagha, S., Zadeh, M. T. R., Mihalache, O. R., & Volberda, H. W. (2018). Embracing bewilderment: responding to technological disruption in heterogeneous market environments. *Journal of Management Studies*, *55*(7), 1079–1121. https://doi.org/10.1111/joms.12348

Kim, T. W., & Scheller-Wolf, A. (2019). Technological unemployment , meaning in life , purpose of business , and the future of stakeholders. *Journal of Business Ethics*, *160*(2), 319–337. https://doi.org/10.1007/s10551-019-04205-9

Knapp, M. S. (2017). The practice of designing qualitative research on educational leadership : notes for emerging scholars and practitioner-scholars. *Journal of*

Research on Leadership Education, *12*(1), 26–50. https://doi.org/10.1177/1942775116647365

Köhler, T. (2016). From the editors : on writing up qualitative research in management learning and education. *Academy of Management Learning & Education*, *15*(3), 400–418. https://doi.org/doi.org/10.5465/amle.2016.0275

Linder, S., & Foss, N. J. (2018). Microfoundations of organizational goals : a review and new directions for future research. *International Journals of Management Reviews*, *20*, s39–s62. https://doi.org/10.1111/ijmr.12154

Lloyd, C., & Payne, J. (2019). Rethinking country effects : robotics , AI and work futures in norway and the UK. *New Technology, Work and Employment*, *34*(3), 208–225. https://doi.org/10.1111/ntwe.12149

Loi, M. (2015). Technological unemployment and human disenhancement. *Ethics and Information Technology*, *17*(3), 201–210. https://doi.org/10.1007/s10676-015-9375-8

Maak, T., Pless, N. M., & Voegtlin, C. (2016). Business statesman or shareholder advocate? CEO responsible leadership styles and the micro-foundations of political CSR. *Journal of Management Studies*, *53*(3), 463–493. https://doi.org/10.1111/joms.12195

Mansell, S., Ferguson, J., Gindis, D., & Pasternak, A. (2019). Rethinking corporate agency in business , philosophy , and law. *Journal of Business Ethics*, *154*(4), 893–899. https://doi.org/10.1007/s10551-018-3895-1

McCusker, K., & Gunaydin, S. (2015). Research using qualitative, quantitative or mixed methods and choice based on the research. *Perfusion (United Kingdom)*, *30*(7), 537–542. https://doi.org/10.1177/0267659114559116

Mcleod, M. S., Payne, G. T., & Evert, R. E. (2016). Organizational ethics research : a systematic review of methods and analytical techniques. *Journal of Business Ethics*, *134*(3), 429–443. https://doi.org/10.1007/s10551-014-2436-9

Mhlungu, N. S. M., Chen, J. Y. J., & Alkema, P. (2019). The underlying factors of a successful organisational digital transformation. *South African Journal of Information Management*, *21*(1), a995. https://doi.org/10.4102/sajim.v21i1.995

Neubauer, B. E., Witkop, C. T., & Varpio, L. (2019). How phenomenology can help us learn from the experiences of others. *Perspectives on Medical Education*, *8*(2), 90–97. https://doi.org/10.1007/s40037-019-0509-2

Pessoa, A. S. G., Harper, E., Santos, I. S., & da Silva Gracino, M. C. (2019). Using reflexive interviewing to foster deep understanding of research participants ' perspectives. *International Journal of Qualitative Methods*, *18*, 1–9. https://doi.org/10.1177/1609406918825026

Petty, N. J., Thomson, O. P., & Stew, G. (2012). Ready for a paradigm shift ? part 2 :

introducing qualitative research methodologies and methods. *Manual Therapy*, *17*(5), 378–384. https://doi.org/10.1016/j.math.2012.03.004

Pratt, M. G., Sonenshein, S., & Feldman, M. S. (2020). Moving beyond templates : a bricolage approach to conducting trustworthy qualitative research. *Organizational Research Methods*, 1–28. https://doi.org/10.1177/1094428120927466

Rammstedt, B., & Bluemke, M. (2019). Measurement instruments for the social sciences. *Measurement Instrument for Social Sciences*, *2*(4), 3–5. https://doi.org/10.1186/s42409-018-0003-3

Reinecke, J., Arnold, D. G., & Palazzo, G. (2016). Qualitative methods in business ethics , corporate responsibility , and sustainability. *Business Ethics Quarterly*, *26*(4), xiii–xxii. https://doi.org/10.1017/beq.2016.67

Sampath, M., & Pramod, K. P. (2018). Socially responsible automation: a framework for shaping the future. In *The Bridge*. https://www.nae.edu/200473/Socially-Responsible-Automation-A-Framework-for-Shaping-the-Future

Saunders, M., & Lewis, P. (2018). *Doing research in business and management*. Harlow, UK: Pearson.

Scharding, T. K. (2018). The moral responsibility of firms. *Business Ethics Quarterly*, *28*(4), 506–508. https://doi.org/10.1017/beq.2018.32

Skrbiš, Z., & Laughland-booÿ, J. (2019). Technology , change , and uncertainty : maintaining career confidence in the early 21st century. *New Technology, Work and Employment*, *34*(3), 191–207. https://doi.org/10.1111/ntwe.12151

Slawinski, N., & Bansal, P. (2015). Short on time : intertemporal tensions in business sustainability. *Organization Science*, *26*(2), 531–549. https://doi.org/10.1287/orsc.2014.0960

Slayton, J., & Samkian, A. (2017). Scaffolding learning for practitioner-scholars : the philosophy and design of a qualitative research methods course. *Journal of Research on Leadership Education*, *12*(1), 51–71. https://doi.org/10.1177/1942775116663713

Statistics South Africa. (2020). *Work & labour force*. Stats Sa. https://www.google.com/search?q=unemployment+rate+in+south+africa+2020&rlz=1C1CHZL_enZA835ZA836&oq=unemployment&aqs=chrome.0.69i59j69i57j0l3j69i61l3.3984j0j7&sourceid=chrome&ie=UTF-8

Sundler, A. J., Lindberg, E., Nilsson, C., & Palmér, L. (2019). Qualitative thematic analysis based on descriptive phenomenology. *Nursing Open*, *6*(3), 733–739. https://doi.org/10.1002/nop2.275

Tiekam, A. (2019). *Digital leadership skills that south african leaders need for successful digital transformation* [MBA Mini dissertation, University of Pretoria, Pretoria, South Africa]. https://repository.up.ac.za/handle/2263/74033

Tu, Y., Lu, X., Choi, J. N., & Guo, W. (2019). Ethical leadership and team - level creativity : mediation of psychological safety climate and moderation of supervisor support for creativity. *Journal of Business Ethics*, *159*(2), 551–565. https://doi.org/10.1007/s10551-018-3839-9

Vidgen, R., Hindle, G., & Randolph, I. (2020). Exploring the ethical implications of business analytics with a business ethics canvas. *European Journal of Operational Research*, *281*(3), 491–501. https://doi.org/10.1016/j.ejor.2019.04.036

Vives, X. (2019). Digital disruption in banking. *Annual Review of Financial Economics*, *11*(1), 243–272. https://doi.org/10.1146/annurev-financial-100719-120854

Zeni, T. A., Buckley, M. R., Mumford, M. D., & Grif, J. A. (2016). Making “sense” of ethical decision making. *The Leadership Quartely*, *27*, 838–855. https://doi.org/10.1016/j.leaqua.2016.09.002

Annexure A: Discussion guide

Introduction

Hi, my name is Neo Chilwane, a student in her final year of MBA study at GIBS. Firstly, thank you for the opportunity to provide data to my research. The purpose of this study is to gain an understanding of the ethical considerations made by decision makers in relation to employees when designing and adopting job automation technology. The data collected here will help us understand the type of considerations made and how they differ from the traditional ethical considerations in a business environment.

Before we start, I will be using the term job automation technology frequently, this term covers robotic process automation, artificial intelligence, and machine learning technology.

Automation has been established as a means to reposition a company, gain competitive advantage or even grow the business. My research is trying to understand the decisions made before and during adoption. With the hope to share insights on how to better prepare companies for adoption.

Bank Tier: Tier 1 (Big Bank Part of big five) or Tier 2 (Small to Medium Bank) or Consulting firm

Job Position:

Job Level:

Years of experience with technology:

1. Please briefly explain the automation projects that you have been exposed to. *Provides context on lived experience of participant.*
2. During your past job automation adoption experience, how would you describe the goal of the job automation adoption?
3. Who was affected/impacted by the job automation?
    a. *Rephrased* – Who was deemed a stakeholder of the job automation adoption?
4. What were the implications identified and or experienced at design, panning and or implementation phase of the project?
    a. What were the positive and negative implications *(rephrased - unintended consequences/what could go wrong and what could go*

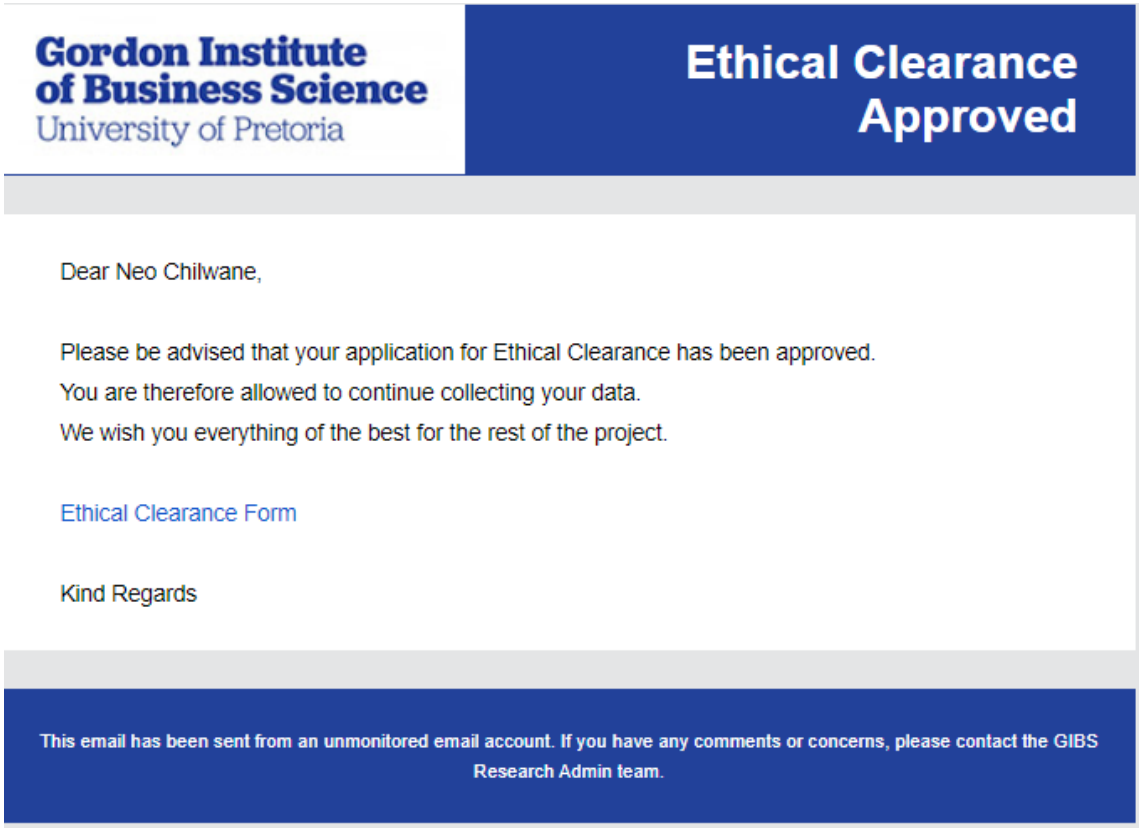
right/ what went wrong, what went right)?

   b. How do you ensure that employees remain empowered when working alongside automation technology?
   c. In instances where it is not possible to keep employees, what is the best ethical way to handle the situation?
   d. How do you embed the ethics of the organisation into the automated system (*Was an optional question to probe further, depending on previous responses*)?

5. How would you describe the ethical framework followed during the planning, design and implementation phase of the job automation adoption?
   a. Would you say it is shared throughout the project team or that there is a dedicated team (i.e., risk management or technical governance) that performs an assessment?
6. What is your understanding of ethical leadership?
   a. In what way do you think leaders can become moral decision-makers within the job automation space or in general?
7. Looking back, would you have done anything differently? Why?
8. Closing Question 1: Is there any other information you think is valuable to the research that you would like to add?

Closing Remarks: Thank you for your time and patience. May you kindly provide me with contact details of any other person who holds a lead or executive role in a bank or consulting firm and has decision-making experience for job automation adoption?

Annexure B: Ethical clearance



Gordon Institute of Business Science
University of Pretoria

Ethical Clearance Approved

Dear Neo Chilwane,

Please be advised that your application for Ethical Clearance has been approved.
You are therefore allowed to continue collecting your data.
We wish you everything of the best for the rest of the project.

Ethical Clearance Form

Kind Regards

This email has been sent from an unmonitored email account. If you have any comments or concerns, please contact the GIBS Research Admin team.

Annexure C: Informed consent

Informed consent letter:

I am currently a student at the University of Pretoria's Gordon Institute of Business Science and completing my research in partial fulfilment of an MBA.

I am conducting research on ethics when adopting job automation technology and am trying to find out more about the ethical considerations made in relation to employees when adopting job automation technology.

Our interview is expected to last about an hour and will help us understand how decision makers embed ethics into their job automation adoption strategy. Please kindly note that the interview will be audio recorded in order to sufficiently capture the data collected and that by signing this form you grant permission to be audio recorded. Your participation is voluntary, and you can withdraw at any time without penalty. All data will be reported without identifiers.

If you have any concerns, please contact my supervisor or me. Our details are provided below.

Researcher name:
Neo Chilwane

Email: 19386908@mygibs.co.za

Phone: +27828586945

Research Supervisor:
Prof Louise Whittaker

Email: WhittakerL@gibs.co.za

Phone: +27824570892

Signature of participant: _____Date: _____

Signature of researcher: _____ Date: _____