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Framing Robotic Process Automation Implementation through a Job Characteristics Model Communication Approach

By

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A research report submitted to the

UNIVERSITY OF WITWATERSRAND,

in partial fulfilment of the requirements of the degree of

MASTER OF MANAGEMENT

in the field of

DIGITAL BUSINESS

SUPERVISOR: Gregory Lee

January 2025

ABSTRACT

The swift use of Robotic Process Automation (RPA) in the financial services industry is transforming conventional job functions and task performance. This study examines the effects of RPA adoption on employees' views of their job responsibilities and task involvement. Although RPA provides considerable efficiency and cost savings advantages, its impact on employee morale, job satisfaction, and perceived job security is minimally comprehended (Deloitte, 2023). This study seeks to address this gap by examining the impact of RPA on employees' perceptions of their work, emphasising job satisfaction, task complexity, and overall engagement.

The research used a mixed-methods approach, integrating quantitative surveys and qualitative interviews to collect extensive data from financial service industry personnel. Initial data indicate that although RPA may enhance efficiency, it also generates apprehensions about job displacement and alterations in task characteristics (World Economic Forum, 2022). Comprehending these attitudes is essential for organisations to navigate the shift effectively and guarantee that the advantages of RPA are attained without jeopardising employee welfare. The report elucidates the problems and possibilities linked to RPA deployment, including advice for cultivating a favourable work environment in the context of technology breakthroughs (Total, 2023; Forbes, 2024).

Keywords: Robotic Process Automation, business continuity, Technological Organisation Environmental, Task-Technology Fit

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CHAPTER 1: INTRODUCTION

1.1 Purpose of the Study

This study explores how the implementation of Robotic Process Automation (RPA) can be effectively framed and communicated using the Job Characteristics Model (JCM). By examining the impact of JCM-based communication strategies on employee perceptions, engagement, and acceptance of RPA, this research aims to identify best practices for facilitating successful RPA adoption in organisational settings.

The study will investigate how key job characteristics—such as skill variety, task identity, task significance, autonomy, and feedback—can be leveraged to enhance communication and implementation, ultimately leading to improved job satisfaction and performance outcomes.

1.2 Problem Statement

The fast implementation of RPA across diverse sectors has substantially altered employment roles and responsibilities. Currently, there is no formal structure to facilitate the implementation of these changes in a manner that guarantees optimal reactions from employees. The absence of a systematic method for conveying the effects of RPA on employment and responsibilities is a significant challenge for businesses seeking to utilise RPA efficiently.

The lack of a comprehensive framework results in organisations frequently encountering difficulties addressing employee concerns and expectations related to RPA installations. Employees may view RPA as a danger to their job security, or as a determinant that diminishes their working autonomy and happiness (Brougham & Haar, 2018). Without a definitive communication plan, these adverse views may result in resistance, diminished morale, and reduced production (Willcocks, Lacity, & Craig, 2017). To resolve this issue, it is imperative to establish a framework that integrates the ideas of the JCM proposed by Hackman and Oldham (1976). The JCM delineates five fundamental job characteristics—skill diversity, task identity, task importance, autonomy, and feedback—that are essential for improving job satisfaction and motivation. By synchronising the communication of RPA effects with these job attributes, organisations may cultivate a more favourable reaction from workers.

RPA serves as a mechanism that augments skill diversity and job importance by automating monotonous operations, enabling individuals to concentrate on more intricate and significant work (Brougham & Haar, 2018). Moreover, highlighting the enhanced efficiency and decreased mistake rates resulting from RPA can assist employees in recognising the significance of these modifications (Willcocks et al., 2017). Delivering explicit and uniform feedback on enhancing work performance using RPA and integrating employees in the deployment process may significantly bolster their engagement and acceptance of the new technology (Hackman & Oldham, 1976).

The absence of a defined framework for conveying the effects of RPA on employment and responsibilities is a critical issue that may obstruct the effective deployment of RPA. Establishing a framework grounded in the JCM can assist organisations in tackling this issue by ensuring that the communication of RPA effects is congruent with essential job attributes that affect employee motivation and satisfaction. This strategy may elicit favourable employee reactions, promoting a more seamless and efficient RPA adoption (Brougham & Haar, 2018; Willcocks et al., 2017).

1.3 Importance of the Research

Examining the impact of RPA on employee perceptions of job roles and task engagement using a JCM framework is essential for several reasons. As organisations rapidly implement RPA to improve efficiency and decrease operational expenses, it is crucial to comprehend its impact on employees to sustain a motivated and productive staff. The JCM highlights the importance of job dimensions, including skill diversity, task identity, task significance, autonomy, and feedback, offering a thorough framework for examining the impact of RPA on these characteristics. By analysing these changes, the research may pinpoint domains where RPA may adversely affect job satisfaction and engagement, enabling companies to devise measures to alleviate these impacts and foster a pleasant work environment (Hackman & Oldham, 1976).

Furthermore, this study is essential for guiding policy and practice in human resource management and organisational growth. As RPA advances, HR professionals and management must comprehend how automation affects employee attitudes and actions. The findings from this study can inform the creation of training programmes, job redesign efforts, and communication methods that assist people in adapting to

automated operations. Furthermore, by emphasising the significance of preserving job attributes that enhance employee well-being, the research can assist organisations in reconciling technological progress with human-centred strategies, thereby ensuring that the advantages of RPA are attained without undermining employee morale and productivity (Deloitte, 2023; World Economic Forum, 2022). This equilibrium is especially crucial in the financial services sector, where the fast advancement of technology may profoundly affect personnel roles and responsibilities.

1.4 Research Method

The research article has been structured according to the Empirical Evidence Framework paradigm (Social Survey), which has also been employed as the research framework to analyse the effects of RPA Automation on the Sociotechnical Impacts in the telecommunications industry.

Empirical evidence refers to information obtained through observation or experimentation and can be used to either support or refute a scientific theory. It can also provide justification or reasonableness to an individual's belief in a particular proposition.

1.5 Research Objective

Examining the influence of RPA on workers' roles and responsibilities within the JCM framework might yield significant insights for better communication of these changes. The JCM, formulated by Hackman and Oldham (1976), delineates five fundamental work characteristics: skill diversity, task identity, task importance, autonomy, and feedback (Hackman & Oldham, 2022). These attributes are essential for improving job satisfaction and motivation.

When using RPA, evaluating the impact on job characteristics is crucial. RPA may alleviate the tedium of repeated operations, enhancing skill diversity and job importance by enabling people to concentrate on more intricate and significant work (Brougham & Haar, 2018). Nonetheless, it may diminish autonomy if workers perceive reduced control over their responsibilities (Brougham & Haar, 2018). Effective communication on these changes can alleviate negative views and promote positive responses. By emphasising the advantages of RPA, like enhanced efficiency and

decreased mistake rates, and correlating these advantages with fundamental work qualities, organisations may cultivate a more favourable perspective among employees (Willcocks et al., 2017). Highlighting how RPA may liberate employees' time for more diverse and meaningful duties can augment their job enrichment and happiness (Hackman & Oldham, 1976). Furthermore, delivering explicit feedback on how RPA will boost work performance and facilitating chances for employee involvement will significantly bolster their engagement and adoption of the new technology (Willcocks et al., 2017).

In conclusion, employing the JCM to convey the effects of RPA on employment and responsibilities may elicit more favourable reactions by focusing on essential work attributes that affect employee motivation and satisfaction (Hackman & Oldham, 1976; Willcocks et al., 2017). This strategy guarantees that workers comprehend the advantages of RPA and feel more engaged in the shift, resulting in a more seamless and effective deployment (Brougham & Haar, 2021).

1.6 Limitations of the Research

The generalisability of findings is a main drawback of this research. The research examines the financial services industry, which may possess distinct characteristics that do not apply to other businesses. The influence of RPA on employee perceptions of work responsibilities and task engagement may vary considerably across industries such as manufacturing, healthcare, and retail. Consequently, the findings may lack general application across all industries, constraining the broader relevance of the conclusions (Smith, 2021).

Accelerated Technology Evolution: The velocity of technology progress in RPA is swift, and today's tools and methodologies may soon become obsolete. The evolving nature of technology implies that the study's conclusions may diminish in relevance when new RPA technologies and methodologies arise. Therefore, the study may require periodic updates to maintain its relevance and accuracy (Deloitte, 2023). This constraint underscores the difficulty of performing research in an always-advancing domain.

Subjectivity in Employee Views: Employee views of work responsibilities and task engagement are intrinsically subjective and can be affected by several factors, such

as individual variations, corporate culture, and external economic situations. This subjectivity may cause variability in the data, complicating the capacity to reach clear findings. Moreover, their encounters with RPA may shape employees' reactions, which might differ significantly even within the same organisation (Peeters & Plomp, 2022). This diversity may hamper the analysis and interpretation of the findings.

Restricted Longitudinal Data: The research may also be constrained by the accessibility of longitudinal data. Comprehending the enduring effects of RPA on employee perspectives necessitates data gathered over a protracted duration. Nevertheless, some organisations may not have utilised RPA sufficiently to provide such data. This constraint may hinder the evaluation of the enduring impacts of RPA on job functions and task involvement (World Economic Forum, 2022). Without longitudinal data, the research may predominantly document short-term effects, thereby failing to represent the long-term ramifications.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The emergence of Robotic Process Automation (RPA) has transformed organisational operations, especially within the financial services industry. RPA employs software robots to automate repetitive, rule-based operations, ultimately improving operational efficiency and minimising costs (Lacity & Willcocks, 2016). Although RPA offers various advantages, its deployment prompts substantial inquiries over its effects on personnel, especially concerning their views of job responsibilities and task involvement. This study seeks to examine these effects using the Job Characteristics Model (JCM), which offers an extensive framework for comprehending the influence of job design on employee motivation and satisfaction (Hackman & Oldham, 1976).

The JCM asserts that five fundamental job dimensions—skill diversity, task identity, task importance, autonomy, and feedback—impact three essential psychological states: perceived meaningfulness, experienced responsibility, and awareness of results. These psychological states subsequently affect work outcomes, including job satisfaction, motivation, and performance (Hackman & Oldham, 1976). Using RPA in the workplace can substantially modify job dimensions, potentially resulting in shifts in employee views and actions. RPA can improve task efficiency and diminish repetitive labour, but it may also raise issues regarding job security and decreased autonomy (Peeters & Plomp, 2022).

The current research on RPA predominantly emphasises its technological and operational advantages while insufficiently addressing its effects on humans. Research indicates that automation technologies may result in job displacement and alterations in work functions, thereby impacting employee morale and engagement (Smith, 2021). Nonetheless, a deficiency exists in the research about the effects of these changes on the fundamental job aspects delineated in the JCM.

This study addresses this gap by offering a comprehensive investigation of the impact of RPA on employee perceptions of their job responsibilities and task engagement, utilising the JCM as a theoretical framework. This initiative seeks to guide how organisations might apply RPA to foster favourable employee outcomes and enduring work satisfaction.

RPA definition

Three components characterise RPA: RPA software/bot, which may either engage with other applications or function independently; meaning a business process requiring automation; and the computer program that governs, manages, and schedules the operations of the RPA bot. The following are the three primary phrases utilised in RPA (Cornforth & Downey, 2018; Khanna, 2022; Madakam, Holmukhe & Kumar, 2019; Ostdick, 2016):

Robotics pertains to robots emulating human actions. The procedure is a systematic approach employed to execute a task. Madakam et al. (2019) further asserted that a process receives inputs from diverse individuals or systems and is conducted by established rules to yield the intended output with essential automated procedures (Madakam et al., 2019). Automation refers to any action performed by a robot without human intervention. Madakam et al. (2019) elucidated that automation guarantees the autonomous operation of software, processes, or application systems**.**

Technological disruption leads to rapid changes in functional delivery requirements, thereby compelling organisations to adapt or fall behind. RPA is the most disruptive and quickly expanding notion in the swiftly altering global economy, representing an emerging and lucrative technology across several sectors (Fung, 2014). Currently, innovative technology has transformed organisations, including the banking sector. It has generated a diverse array of consumer and channel experiences. Consequently, since South African banks continue to employ legacy systems, they are compelled to implement advanced technologies to maintain competitiveness and facilitate this technological transition to succeed. The systems have received endorsement from the impacted workforce (FSCA, 2022). RPA has increasingly become essential in the banking sector because of its capacity to transform operational processes (Shah, 2023). Automation through RPA is an organisation's strategic objective to enhance profitability and maintain competitive advantage (Lacity et al., 2017).

2.2 The Impact of RPA on Employee Perceptions of Job Roles and Tasks

The principal impact is the alteration in work content and employee duties. RPA automates repetitive, rule-based processes, decreasing monotonous activities and enhancing more difficult, value-added work for people (Baker Tilly, 2024). This

transition can improve work satisfaction and engagement by liberating people from repetitive chores, allowing them to concentrate on more strategic and creative endeavours. This change necessitates that staff adjust to new roles and responsibilities, which can be difficult without sufficient support and training (Forrester Consulting, 2019).

A notable effect of RPA on employee views pertains to job security and career opportunities. The automation of ordinary work may induce employee concern over the possibility of job displacement and redundancy (Bhargava, Bester & Bolton, 2020). This apprehension might adversely impact morale and involvement, resulting in opposition to RPA adoption. To address these concerns, organisations must communicate honestly regarding the changes and offer chances for reskilling and upskilling. By doing so, they can assist workers in perceiving RPA as a prospect for professional advancement rather than a menace (Smith, 2021).

RPA also affects employees' perceived autonomy and control over their tasks. Although automation enhances productivity and alleviates the strain of repetitive work, it may also result in a perceived loss of authority if people believe their responsibilities are governed by automated systems (Peeters & Plomp, 2022). This may affect their sense of autonomy and responsibility, which are essential elements of job satisfaction, according to the JCM (Hackman & Oldham, 1976). Consequently, organisations must engage employees in the RPA implementation process and guarantee they feel ownership over their tasks.

The incorporation of RPA can influence the feedback systems inside a business. Automated systems can deliver real-time performance data, which is advantageous for monitoring and enhancing efficiency (Forrester Consulting, 2019). This data-driven methodology can be daunting and may result in heightened pressure on people to excel.

Organisations must equilibrate the utilisation of automated feedback with human-centric methodologies that prioritise the welfare and growth of personnel. By doing so, businesses may cultivate a supportive atmosphere that harnesses the advantages of RPA while preserving elevated levels of employee engagement and satisfaction (Baker Tilly, 2024).

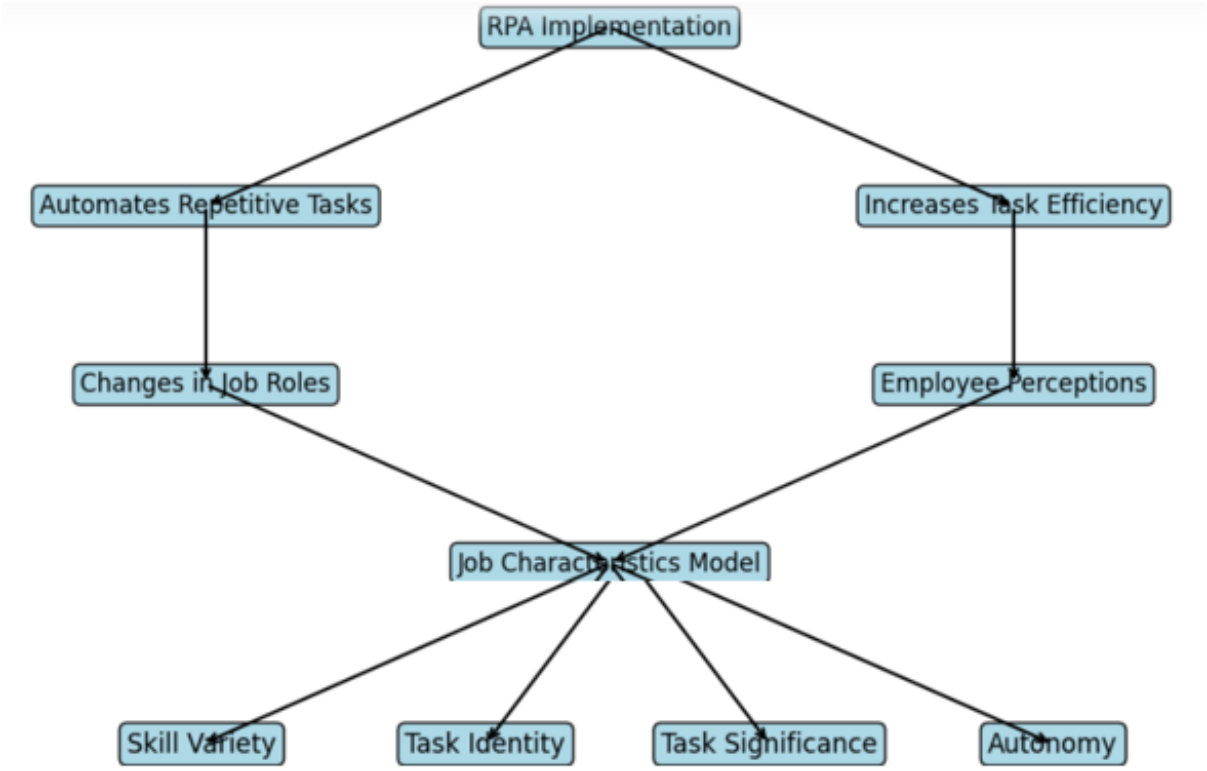


Figure 1: Impact of RPA on Employee Perceptions of Job Roles and Task Engagement (A JCM Approach)

Explanation

1. **RPA Implementation**: This is the starting point for introducing RPA into the organisation.
2. **Automates Repetitive Tasks**: RPA takes over routine, repetitive tasks.
3. **Increases Task Efficiency**: Automation leads to more efficient task completion.
4. **Changes in Job Roles**: Employees experience changes in their roles as some tasks are automated.
5. **Employee Perceptions**: These changes influence employees' perceptions of their roles and tasks.
6. **Job Characteristics Model**: The changes are analysed through the JCM, focusing on:
    - **Skill Variety**: The range of skills required for the job.

- **Task Identity**: The degree to which a job requires completion of a whole and identifiable piece of work.
- **Task Significance**: The impact of the job on others.
- **Autonomy**: The level of independence in the job.

7. **Feedback**: The information employees receive about their performance.

2.3 The Impact of RPA on Employee Motivations and Attitudes and Responses to RPA Implementation

RPA deployment profoundly influences employee motivation and attitudes, especially regarding their perceptions of their positions and value to the organisation. A principal effect is intrinsic motivation, which is influenced by the nature of the work undertaken by employees. The JCM posits that activities that are diverse, meaningful, and provide autonomy generally augment intrinsic motivation (Hackman & Oldham, 1976). RPA may streamline repetitive and trivial operations, thus enhancing the diversity and importance of the remaining tasks. This transition may increase work satisfaction and motivation as people participate in increasingly significant and intricate tasks (Baker Tilly, 2024).

Nevertheless, inadequate management of RPA adoption may result in a perceived erosion of authority and autonomy, adversely impacting motivation. Employees may see reduced duties or view themselves as solely supervising automated procedures, which might affect their feeling of job relevance and the pleasure they derive from their jobs (Peeters & Plomp, 2022).

Furthermore, employees' views towards RPA deployment are shaped by their perceptions of job security and prospects for career advancement. The apprehension of job displacement from automation may induce anxiety and resistance in employees, thus affecting their general disposition towards RPA (Bhargava et al., 2020).

Clear communication and participation in the implementation process are essential to alleviate these concerns. Employees have more favourable opinions about RPA when they are apprised of its impact on their work and are offered opportunities for reskilling and upskilling (Smith, 2021). This proactive strategy can enable employees to

perceive RPA as a catalyst for career advancement rather than a menace, thus cultivating a more supportive and engaged staff. Furthermore, organisations that highlight the advantages of RPA, such as enhanced productivity and the opportunity for more strategic tasks, can transform employee perceptions towards a more favourable view of automation (Forrester Consulting, 2019).

The Theory of the JCM

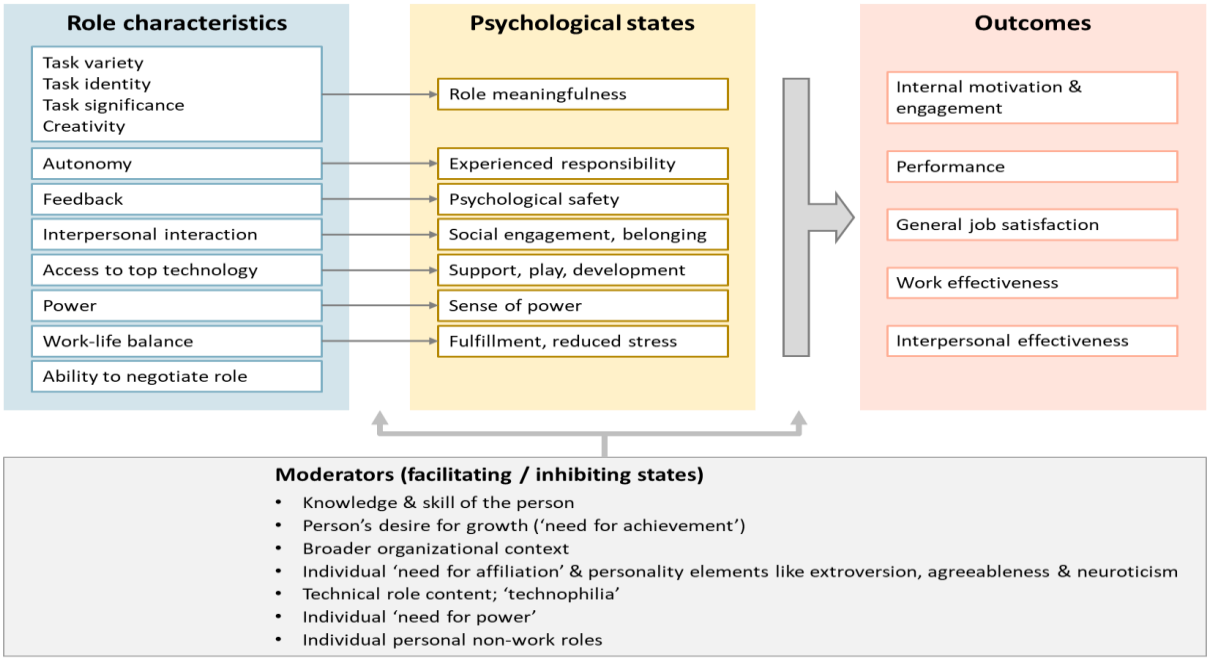


Figure 2: Amended JCM

Source: Lee (2020)

The model proposes that several job characteristics may be used to create these outcomes, namely creating roles with:

- **Task variety**: Giving people diverse tasks in their roles instead of focusing on specialisation.
- **Task identity**: Being involved in whole pieces of work from beginning to end so the individual can see what (s)he has contributed and feel a sense of project achievement.
- **Task significance** arises when work is important to the core processes of the organisation or the broader environment (e.g. to customers).
- **Autonomy**: Empowerment at the individual level, as discussed further below.

- **Feedback**: Giving individuals high-quality feedback on their performance.
- **Interpersonal interaction**: Meaningful social interactions through job design mechanisms such as teamwork (discussed below), customer interface, or other meaningful work interaction.
- **Creativity**: Many people crave the opportunity to engage in creativity, which can sometimes be a facet of work.
- **Access to top technology**: The ability of a role to offer access or understanding of top technology can be a significant element in the digital age.
- **Power**: Power over others, resources or processes can be a meaningful role feature for some individuals. This differs from autonomy alone, which merely means autonomy to do one's tasks instead of wielding control over external people or processes.
- **Work-life balance**: A big issue in the modern world is how a role's work requirements balance appropriately with an individual's non-work-life, which may include family, personal social and leisure preferences and needs, and so forth.
- **Ability to negotiate role**: Various theories and findings indicate that when individuals can negotiate their roles and/or tasks on an ongoing basis (referred to as 'iRoles'), engagement may be higher (Rousseau, 2015; Gruman & Saks, 2011). Individuals may gain a sense of psychological meaningfulness by being able to negotiate roles that meet their personal needs and values better.

Managers should consider how any role they allocate fulfils or does not fulfil tasks. However, let us not be naïve – designing roles like this is not always appropriate! Take variety: its opposite, specialisation, has, as far back as Adam Smith, been seen as one of the keys to modern economic growth. Conversely, too much variety can lead to role ambiguity. Similarly, some people dislike high levels of empowerment, interaction or power and crave the opposite. In Figure 1.2, we see several individual level factors that may either bolster or inhibit the effectiveness of the amended JCM:

- **Knowledge and skill** of the person: More skilled or knowledgeable people can handle work elements such as autonomy and variety better.

- The person's **desire for growth** or a related idea called the need for achievement (McClelland, 1979) means that more ambitious people seeking personal and career growth are more likely to embrace JCM elements.

- **Organisational context**: People dissatisfied with other elements than the job – like leadership – are less likely to embrace JCM characteristics.

- **Sociability**: Interpersonal interaction is more important as a role design feature for more innately sociable individuals. Sociability traits include personality elements (extroversion, agreeableness and low neuroticism) and a 'need for affiliation' (Koestner & McClelland, 1992) reflecting an individual's desire to interact.

- **Technical needs and preferences**: The technical content of the role or preference of the individual for technology ('technophilia') will significantly help guide the extent to which the individual craves a role, thereby giving access to top technology.

- **Need for power**: McClelland stated that some people have a higher need for power either to have personal power or to attain power within and for institutions (McClelland, 1975). Individuals with a greater desire to have and wield power may prefer greater levels. This can be dangerous if such people misuse that power, so appropriate governance controls should be instituted.

- **Work-life balance**: Some individuals have non-work lives and preferences that would lead them to crave more or less work due to their work-life balance. Organisations can deliberately target specific groups of individuals who may, on aggregate, have a specific work-life profile; for instance, some organisations systemically hire younger workers because they are, on average, less encumbered by high priority family needs and are thus more willing to socialise at work.

2.4 The Benefits of RPA

There are purportedly various business advantages associated with RPA. Table 1 below shows the categories and descriptions of the most frequently related benefits of RPA in business.

Table 1: Frequently Related Benefits of RPA in Business

Benefit Category	Detailed Description
Reduce exposure to potential risks	Bots are programmed to adhere to precise instructions limited by specified constraints. Syed et al. (2020) stated that bots in company operations improve compliance, leading to a decrease in risk.
Savings on operating costs	Tasks can be completed more efficiently and with less human involvement. The citation Syed et al., 2020 refers to Syed and colleagues' publication in 2020.
Improving productivity and increasing revenue	By liberating employees from monotonous chores, they can engage more in inventive thinking, revealing novel ideas or discoveries. Revenue streams (The Future of Work Is Still Being Written (2020)).
Speeding up daily operations to create a simpler working environment	This is accomplished by minimising human intervention in task completion and enhancing operational efficiency. Regarding a bot's ability to execute a task compared to a human's (Syed et al., 2020) revealed that automated bots can operate without interruption and need no rest periods.

Conceptual framework

This part will explain the conceptual design of the research, define the framework, and map the dimensions of the conceptual framework along with their variables**.**

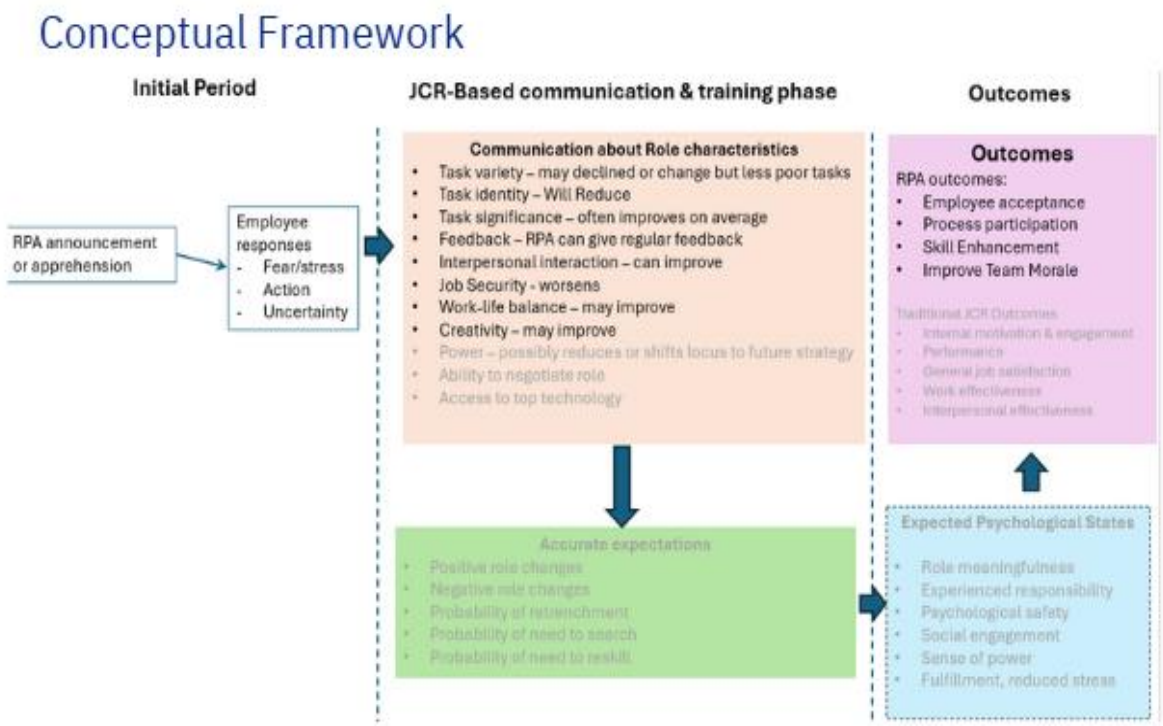


Figure 3: Conceptual Framework

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This chapter will define the research methods employed to substantiate this investigation. The chapter provides comprehensive information about the research approach, design, the data gathering method, study sample and population, and research. The user requests information about the instrument, the technique used for data collection, and how the acquired data will be analysed and interpreted. This chapter will clarify the research methods employed to substantiate the study. This chapter provides comprehensive information about the research approach, design, data gathering method, study sample and population, and research. The instrument refers to the tool or method used to collect data, whereas the procedure for data collection outlines the steps and techniques employed. The chapter also specifies how the collected data will be handled and analysed, examined and deciphered thereafter. The approach employed requires initially identifying a research problem that will serve as the basis for the study, which then leads to the formulation of two research inquiries. A comprehensive literature review was carried out, which assisted in developing a series of survey questions. The survey questionnaire, in its current form, the survey invitation and the survey information sheet were distributed to the recipients. The researcher attempted to acquire as many participants as was feasible, encompassing all tiers of the organisation. The replies to the data collected from the survey were subsequently analysed, and the results were reported and debated.



Figure 4: Case Site - Vodacom Egypt

Vodacom initiated a journey in RPA to improve its ability to adapt to market changes and meet consumer expectations quickly. The company chose to implement RPA due to several opportunities in the Egyptian finance market. These challenges include the limitations of legacy systems that hinder the company's ability to innovate, rising administrative expenses, and heightened operational risks resulting from regulatory demands and competitive pressures.

The adoption of RPA software bots automated administrative processes. The telecoms company gradually implemented bots across different departments, resulting in an estimated return-on-investment gain of over 110% and a 50% reduction in processing time. However, the downside was that the impacted business areas did not have a full communication flow regarding why the automation was being done, and employees' opinions towards the change were not fully considered.

UiPath is a multinational software company that offers a platform for creating software robots to automate commercial processes (Sameera, Khan, 2020). UiPath is a web orchestrator architecture built on the .NET platform. The primary constituents of UiPath comprise UiPath Studio, UiPath Orchestrator, and UiPath Robots. The studio offers a diverse range of activities and services.

The company created a platform for creating and implementing custom chatbots according to customer specifications. Using a drag-and-drop approach while working with activities makes it more user-friendly and convenient. The Orchestrator enables the user to upload a bot to the cloud, deploy it, and oversee its resource management. Additionally, it oversees the queues, provisioning, configuration, logging, and other bot-related tasks. Robots are employed to carry out jobs in the same way human beings do them (Sameera Khan, 2020). There are two varieties: *attended and unattended.* Attended bots require human assistance to complete their jobs, while unattended bots operate autonomously. UiPath offers five types of recorders: basic recording, which is used for individual activities; desktop recording, which captures multiple actions across different applications; web recording, which records web and browser activities; image recording, which captures images for automation; and Citrix recording (Moffit, 2020), which is designed for virtual environments and supports image, text, and keyboard automation.

The Orchestrator is a crucial element of UiPath. This tool oversees and controls several automated agents within a setting (Bosiji-Vuksic, 2019). Orchestrators facilitate communication among the bots. Assets can also store user credentials (Hofmann, 2020). UiPath utilises queues for workload management. Additionally, it oversees the maintenance of audit trails and logs to monitor and regulate the operations of the RPA bot.

3.2 The Research Approach

This non-experimental, quantitative study uses a survey approach to gather primary data. Descriptive analytics is then used to show the data's conclusions. Based on the literature research for this study, employees have conflicting opinions about RPA, even suggesting that RPA has made them fearful of losing their jobs due to the advancement of RPA technology. A survey was conducted to explore how people feel about RPA implementation, linking the questions to the JCM relevant to this scenario to ensure that effective communication was achieved.

3.2.1 Research Approach Process Flow

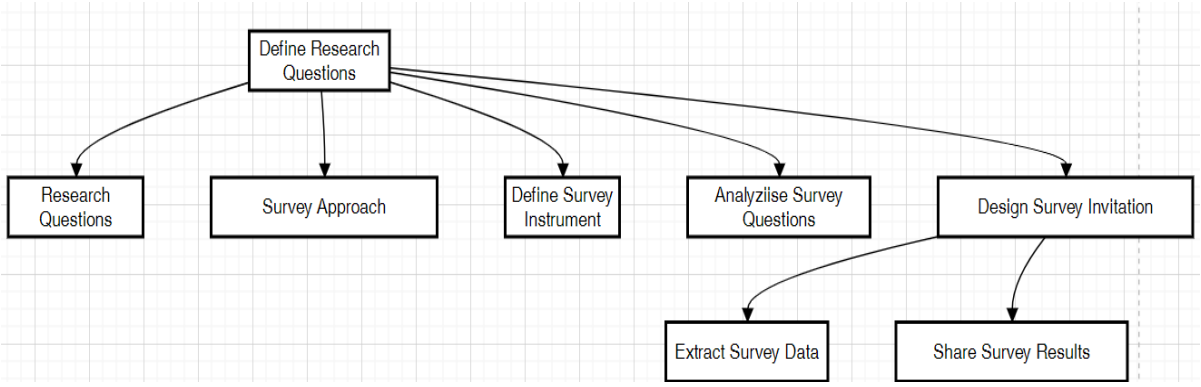


Figure 5: Designed from the Research Flow

(Harry & Gens, 2019)

3.3 Research Design

The study's quantitative, non-experimental, cross-sectional research design gathered primary data on respondents' perceptions of RPA using a survey technique. Since survey methodology effectively demonstrates that this research subject merits investigation and is best suited for exploratory research (Costa, 2021), the researcher

deemed it appropriate to employ a cross-sectional study employing survey methodology.

3.3.1 Results from Previous Studies

Prior research indicates that applying JCM in businesses can improve employee motivation and work satisfaction. Casey, Hilton and Schmidt (2021) revealed that the Motivating Potential Scores (MPS) of workers in organisations employing JCM were significantly higher than those in organisations that did not utilise the model. This research, encompassing data from organisations in the United States, Mexico, Central America, and South America, underscored the beneficial effects of job redesign on employee motivation and organisational results (Casey et al., 2021).

Lemieux (2020) conducted more studies on the transposability of change management research findings, especially those concerning JCM. This rigorous scoping assessment determined that the effective implementation of JCM frequently relied on particular organisational environments and the extent to which the model's principles were assimilated into the company's culture and practices. Lemieux's research indicated that although the JCM can be exceptionally effective, its efficacy is contingent upon factors such as organisational preparedness for change and the congruence of work characteristics with employee expectations (Lemieux, 2020).

Furthermore, a detailed guide by FactoHR (2023) highlighted the benefits of JCM, including increased work satisfaction, less turnover, and heightened productivity. The guide indicated that organisations adopting the JCM typically experienced a more engaged and motivated workforce. The approach enhanced occupations by improving essential qualities such as skill diversity, task identity, task importance, autonomy, and feedback, which are vital for cultivating a happy work environment (FactoHR, 2023).

3.4 Data Collection Method

The process of gathering, evaluating, and quantifying data is known as data collection. Research is incomplete and untraceable without data. A variety of methods can be employed to gather data for quantitative research. Some methods used are direct observation, standardised exams, standardised personality inventories, summated attitude scales, surveys, interviews, and standardised instruments instead of

investigator-developed ones (Morgan & Harmon, 2019). Participants were interviewed.

Interview-based data was described by Barrett and Twycross (2018) as Quantitative. Approximately 80% of the survey items were answered in a way that ensured that a complete response was obtained. If the response was unacceptable, more questions were emailed for further clarification (Saunders, Lewis & Thornhill, 2019). Participants were requested to provide consent for the interview recording, and subsequently, the recording was converted into written text using transcription. The textual rendition was afterwards distributed to the participants to guarantee precision and prevent inadvertent disclosure of sensitive information (Saunders et al., 2019). The data collection method is a self-selection sampling technique employing a two-question survey questionnaire. Respondents provided answers using a Likert scale, ranging from 1 to 7, where 1 represents Strongly Disagree and 7 represents Strongly Agree—the initial segment of inquiries collected demographic data from the respondents and comprised questions with predetermined response options. The second half consisted of closed-ended questions that required respondents to select a value from a Likert scale.

3.5 Population and Sample

The target demographic for this study is mainly comprised of established organisations in sectors such as telecommunications that are experiencing growth and development in the RPA field. The perspectives are consistent throughout these organisations as the implementation of RPA is uniform across the entire spectrum. The population will be surveyed to unpack how they perceive and feel about the current RPA process and their job security and work-life balance. The researcher will focus on key points for the JCM. Then, three months later, another survey will be circulated, applying the relevant JCM approach and allowing for a comparison of the before and after results.

3.5.1 Sample and Sampling Method

This research utilised a cross-sectional survey methodology using self-selection sampling. A cross-sectional study was used to provide comprehensive insights across all levels of the business, thereby avoiding the limitation of obtaining insights from only a specific subset of the organisation. This would offer a comprehensive understanding

of the attitudes surrounding RPA in the organisation and the issues faced after implementation. The participants can be divided into three distinct categories. The term ‘contexts’ refers to the technological, organisational, and environmental factors relevant to the organisation. The survey methodology employed self-selection sampling due to its convenient and efficient nature. The researcher will target as many employees as possible, specifically at given levels, to survey them and acquire comprehensive insights into their perspectives of RPA within their organisation. The exact population size of the business companies considered is indeterminate.

Self-selection sampling utilising survey methods was used due to its ease and efficiency. All workers across all levels of the organisation were identified as prospective survey respondents to obtain comprehensive insights about attitudes toward RPA across the business. The researcher applied specific characteristics from the JCM to guide them on how this model would give them a clearer understanding of the RPA implementation and how it would impact them in various ways, such as job security, the capacity to negotiate one’s role and duties and the sense of authority.

Demographic questions related to the feedback on the JCM:

- The respondent was requested to enter their birth year into a text area that exclusively takes integers. An example is '1994’.
- General Qualification Level: The qualification level was determined by asking the respondent to pick their greatest educational attainment from a drop-down menu corresponding with the Department of Education's classification of educational levels.
- Business Unit: The business unit was identified by prompting the respondent to enter the name of the business unit in which they were presently employed (e.g., finance).

Criteria for the selection of participants

- Participants were selected from the Finance and COP business units involved with the organisation's RPA solution.

The criteria that were used in the selection of the participants are stated as follows:

- The participant had to have spent at least one and a half years in the organisation to ensure they knew the business and its goals and objectives.
- Participants had to be familiar with RPA for at least one and a half years and know and understand the technology.

Demographics

As shown in Table 2 below, the participants' demographics comprised three categories: Business Administrators, Finance Staff, and Customer Service/Collection Consultants.

Table 2: Demographics of Participants

Position	UNIT	Years of Service
Business Administrators	Business	Minimum 1-5 years
Finance Staff	Finance	Minimum 1-5 years
Customer Service/Collection Consultants	Collections/COPS	Minimum 1-5 years

As shown in Table 3 below, each respondent had to provide the information below. Demographics are classifications of a group of people in a specific context or for a specific task (Kärkkäinen, 2016). The demographics for this study, as shown in Table 2 above, were selected based on factors determined by the researcher, namely, the position, unit, and years of service. This ensured that the research selection criteria were met and that different positions and units had been considered when selecting the participants.

Table 3: Education and Age

Education Level	Age Average	Number of Responses	Percentage of Responses
Master's Degree	28-35 Years	14	
Bachelor's Degree	22-29 Years	44	
High Certificate	40- 52 Years	46	
Post Graduate Diploma	22-29 Years	38	
Diploma	25-30 Years	32	

Business unit

The focus was on the COPS, finance, and business departments adopting the JCM and distributing a survey, as these departments were unfamiliar with RPA. The introduction of the JCM in these domains could elucidate how job redesign might augment employee motivation and job satisfaction within the automation framework. By concentrating on these departments, the researcher attempted to pinpoint particular job attributes that could be enhanced to facilitate the integration of RPA in order to guarantee that workers could see more engagement and value in their positions.

Table 4: Business Unit

Business Unit	Number of Responses
COPS	94
Finance	56
Business	24

Implementing the JCM in these departments allowed the researcher to gather valuable insights into how employees perceived the impact of RPA on their work. Since the departments were new to the automation concept, assessing their initial reactions and identifying any concerns or areas of resistance was crucial.

The survey will help the researcher to understand the factors influencing employees' acceptance of RPA and how job characteristics such as variety of skills, task identity, task significance, autonomy, and feedback can be optimised to support a smooth transition to automated processes.

3.6 Data Collection

Data collection occurred once the research instrument had been developed and the University of Cape Towns Ethics Committee had approved it. The surveys were primarily conducted randomly, targeting individuals at a certain level and holding a particular responsibility. This approach allowed for a more comprehensive analysis and facilitated the comparison of replies across individuals at the same level but with varied backgrounds.

All the surveys were conducted in English. The primary objective of this study was to create a detailed account of the adoption and implementation process of RPA in technology-driven organisations. The study facilitated further analysis utilising the concepts and structures outlined in the provisional framework. The study focused on analysing the decision-making and action-taking processes, specifically regarding accepting and utilising RPA technology. To understand how a process develops over time, it is essential to have longitudinal data (Langley et al., 2019).

3.7 Research Quality

The study consistently prioritised research quality, encompassing aspects related to interpretative validity, trustworthiness, and dependability. Scholars like Lincoln, Lynham and Guba (2018) delineated the predominant quality attributed to qualitative research. The researcher advocated four essential characteristics for assessing qualitative research quality: transferability, confirmability, credibility, and dependability, as presented in Table 5**.**

Table 5: Four Essential Characteristics for Assessing the Quality of Qualitative Research

Definition	Explanation and Suggestions
Confirmability	Lincoln et al. (2018) defined confirmability as the extent to which research is shaped by participants rather than by the researcher's bias. The research had to be conveyed precisely, enabling the reader to comprehend the discourse easily and effectively. This was achieved by maintaining an analytical progression of information from the literature and conceptual framework using research instruments, coding and evaluation of data, and presentation of study findings, limits, and contributions. The researcher sought to confirm the argument's logical coherence and clarity for the reader by incorporating insights from the research supervisor and structuring the study around emerging themes.

Credibility	Credibility refers to the researcher's confidence in the veracity of their study findings (Oates, Griffiths & McLean, 2022). The research delineates the unique implications attributed to the participants' trustworthiness. The researcher must confirm participant involvement in various conditions and that data collection has achieved saturation; otherwise, more research should be conducted. The researcher dedicated time to correlating interview data with the examined literature. The researcher linked participants' comprehension of RPA adoption and its use for business continuity by analysing the collected interview data, which the participants validated.
Dependability	Oates et al. (2022) asserted that dependability indicates the reliability of the research findings and the stability of the data presented in the study. Oates et al. (2022) asserted that an audit trail is employed throughout the research process, with each investigation stage clearly described and documented. The study procedure was meticulously documented and adhered to, ensuring traceability for other studies and yielding comparable conclusions. The researcher maintained an audit trail throughout the research process, as evidenced by the connections among each theme derived from the reviewed literature and conceptual framework, the research instrument, limitations, coding, presentation of research results, and contributions.

3.8 The Response Rate

The response rate was calculated by dividing the number of individuals who completed the questionnaires by the total number of individuals in the sample, which consisted of 250 targeted workers, yielding 174 replies. The elevated return rate resulted from utilising several data-collecting platforms, ensuring that many respondents submitted their surveys. Respondents were requested to choose the departments with the most experience, ensuring representation throughout all departments. The response rate was enough to draw inferences from the study and thus representative. Mugenda and

Mugenda (2019) asserted that a response rate of 69% was sufficient for analysis and reporting; a rate of 60% is often acceptable, while a response rate over 70% is considered exceptional. Respondents were guaranteed the confidentiality of the information submitted. Figure 4.1 illustrates the distribution and response rate of the questionnaires from the participants.

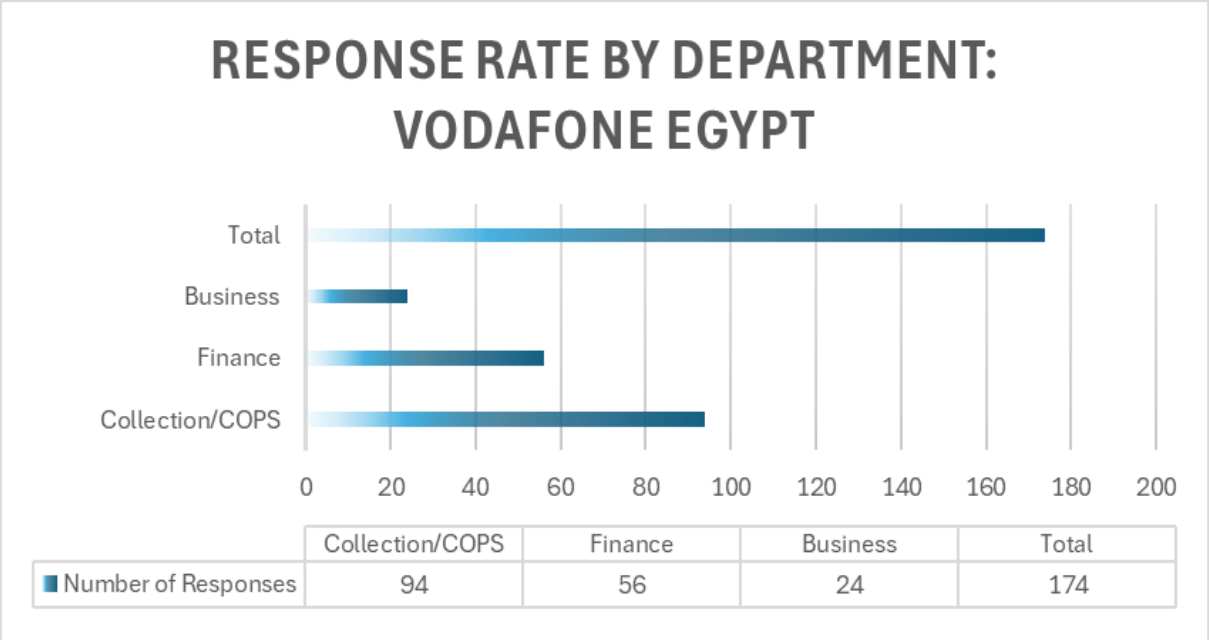


Figure 6: Response Rate by Department: Vodafone Egypt

3.9 Research Challenges

The research uncovered a minor problem that did not affect the study's dependability. This topic encompasses changes within Vodacom, where several identifiable players either resigned or transitioned to other areas owing to ineffective communication and a lack of comprehension. Nevertheless, this did not affect the number of individuals selected to engage in the survey**.**

3.10 Survey Analysis of Business Units Before Implementation of the JCM and After

Basic Understanding:

- Definition: This level assesses whether respondents have a fundamental grasp of RPA.
- Example Questions: Can you identify why we are implementing an RPA?

Intermediate Understanding:

- Definition: This level evaluates whether respondents can apply their knowledge to specific situations or problems.
- Example Questions: Do you know how this can provide more of a work-life balance to your role?

Advanced understanding:

- Definition: This level measures respondents' ability to critically analyse, synthesise, and evaluate information.
- Example Question: Based on effective communication following the JCM approach, you have no doubts about the reasoning, the understanding and why RPA can be so valuable to business.

3.11 Data Analysis and Interpretation (ANCOVA Modelling)

Data analysis and interpretation are crucial for comprehending the effects of the RPA adoption via a JCM communication strategy. Analysis of Covariance (ANCOVA) modelling can be quite effective in this scenario. Employing ANCOVA enables the researcher to regulate misleading variables, such as workers' initial views of automation or baseline job satisfaction. This is for a more precise evaluation of how communication tactics affect critical outcomes such as work satisfaction, motivation, and performance.

This statistical control improves the validity of the findings, offering more significant insights into the interaction between the JCM characteristics (skill diversity, job identity, task importance, autonomy, and feedback) and communication strategies, influencing employee reactions to RPA adoption.

Utilising ANCOVA enables the researcher to get more accurate and dependable results, informing more effective communication tactics for RPA projects. The repeated measures will be modelled; repeated measures will be analysed, allowing the researcher to confirm that the identified framework is working and helping people understand and perceive the characteristics of RPA a lot more effectively.

3.12 Research Instrument

The questionnaire used in this study is a modified version of the one initially published by Oh et al. (2019), which was then adapted and published by Abdullah and Fakieh (2020). Oh et al. (2019) examined individuals' perspectives on Artificial Intelligence. The study conducted by physicians in Korea by Abdullah and Fakieh (2020) examined intelligence. Healthcare workers in Saudi Arabia's Perspectives of Artificial Intelligence. A validation question was included at the beginning of the questionnaire to confirm that the individuals completing it were permanently employed by the company being investigated in South Africa. Even if the respondents failed to respond positively to the validation question, they were still expected to continue to respond to the remaining questions in the survey.

3.13 Limitations of the Study

This section will outline the constraints of the investigation. Survey questionnaire replies may be more candid from employees who are more proficient in technology, which could potentially bias the findings against the perspectives of less proficient employees. The survey responses were gathered from individuals employed at a technology organisation, where employees might already know about RPA, as opposed to people working in a non-technology organisation who might have no prior awareness of RPA. Consequently, the results may not apply to a broader population of workers in South Africa. Furthermore, the research sample consisted of people employed by major technology companies in South Africa. The research's inherent nature facilitated the collection of abundant information from participants, enabling a comprehensive understanding of the elements that influence acceptance in the technology field and the impact of implementing RPA. Thus, the sample is not inherently indicative and should not be employed to extrapolate the conclusions. Furthermore, the research was conducted using a cross-sectional timeframe, focusing on a specific point in time. As a result, the current condition may vary with time.

3.14 Conclusion

The research methodology chapter aimed to delineate the methods employed to comprehensively comprehend the utilisation and integration of RPA inside technology organisations in South Africa. This study employed inductive reasoning to notice and

establish patterns, utilising an interpretivist perspective to comprehend the correlation between the employees and RPA. Surveys were employed to gather data. The study also elucidates that implementing RPA communication using the JCM approach may lead to a more effective implementation process when communication is clear and precise.

3.15 Ethical Considerations

The relevant Risk Category for this investigation is 'Low Risk'. It was classified as such since the primary data consists solely of the respondents' impressions and little demographic information; yet, due to the sensitivity of employees concerned about the possibility of job loss attributable to RPA, the questionnaire may induce some unease. All necessary precautions were implemented to minimise any potential discomfort for respondents, including guaranteeing the anonymity of their responses and communicating this assurance to them. The collected data is securely stored on a password-protected computer and is exclusively accessible to the researcher. Participation in the research was optional, and respondents were not incentivised for their involvement. Informed consent was secured by explicitly explaining the nature of the research to the respondent, emphasising that participation was voluntary and that responses were anonymous, before soliciting their consent to utilise their responses for the specified research purposes.

CHAPTER 4: ANALYSIS AND INTERPRETATION OF THE RESULTS

4.1 Introduction

This chapter will present the survey questionnaire findings using descriptive analysis. A total of 174 participants engaged in the research by responding to the survey questionnaire. For unspecified reasons, several submissions were incomplete despite all obligatory survey questions. Submissions that were incomplete failed to satisfy the qualifying conditions. Following the elimination of submissions that failed to fulfil the qualifying requirements for the research, a total of 128 valid survey responses were retained and analysed.

4.2 Respondents Demographic Analysis

Demographic information or statistics is socio-economic data given in a research study about participants. This data can provide general information, for instance, about gender, age group or location, to ascertain whether an appropriate sample group was selected for the study and whether they present a true reflection of the total population. In this study, the demographic information gathered comprised respondents' age group, gender, highest level of education attained, years of engagement with the organisation under study, and position. Table 6 below details each respondent's qualifications and age average.

Table 6: Qualifications and Age Average of each Respondent

Qualification of Each Individual	Average Age of Each Individual
Master's degree employee	28-35 Years
Bachelor's degree employee	22-29 Years
High certificate employee	40-52 Years
Postgraduate diploma employee	22-29 Years
Diploma employee	25-30 Years

Interpretation

1. Master's Degree Employee (28-35 years):

    - This age range suggests that employees with a master's degree are typically in their late twenties to mid-thirties. These individuals likely have several years of

professional experience and may be in mid-level to senior positions, seeking career advancement and leadership opportunities.

2. Bachelor's degree Employee (22-29 years):
    - Employees with a bachelor's degree are generally in their early to late twenties. This group will likely be in the early stages of their careers, focusing on gaining experience, developing skills, and exploring career paths.
3. High Certificate Employee (40-52 years):
    - This age range indicates that employees with a high certificate are typically in their forties to early fifties. These individuals may have extensive work experience and practical skills, often holding technical or specialised roles. They might prioritise job stability and practical application of their skills.
4. Post Graduate Diploma Employee (22-29 years):
    - Similar to employees with bachelor's degrees, those with a postgraduate diploma are generally in their early to late twenties. They may have pursued additional qualifications to enhance their expertise and career prospects and are probably focused on building their careers.
5. Diploma Employee (25-30 years):
    - Employees with a diploma are typically in their mid-twenties to early thirties. This group may have completed vocational or technical training in roles requiring specific practical skills. They may seek opportunities to apply their training and advance their careers.

Detailed explanation

- **Diverse Age Ranges:** The respondents' ages varied significantly based on their educational qualifications. This diversity could influence their perspectives on workplace issues, such as job satisfaction, career development, and the impact of automation.
- **Implications for Workplace Dynamics:** Employees at different stages of their careers may have varying expectations and experiences in the workplace. For

example, younger employees might prioritise learning and development opportunities, while older employees might focus on job stability and work-life balance.

- **Tailored Approaches:** Understanding the age distribution of employees based on their educational qualifications can help organisations tailor their approaches to meet the needs and expectations of different age groups. For instance, career development programmes can cater to each age group's specific career stages.

Recommendations

To effectively address the needs of employees with diverse age ranges and educational backgrounds, organisations can consider the following strategies:

1. **Career Development:** Organisations can offer targeted career development programmes that cater to the specific needs of each age group—for example, leadership training for mid-career employees and skill development workshops for early-career employees.

2. **Mentorship Programmes:** Companies should establish mentorship programmes that pair employees from different age groups and educational backgrounds. This can facilitate knowledge sharing and help employees learn from each other’s experiences.

3. **Inclusive Policies:** Companies should implement inclusive policies that recognise and value the contributions of employees from all age groups. This can help create a more supportive and equitable work environment.

4. **Work-Life Balance:** Companies should also provide flexible work arrangements and support for work-life balance, especially for employees in older age groups who may have additional responsibilities outside of work.

5. **Feedback Mechanisms:** Employers should establish feedback mechanisms to gather input from employees in different age groups. This could help identify specific needs and areas for improvement.

4.3 Respondents Years of Service Analysis

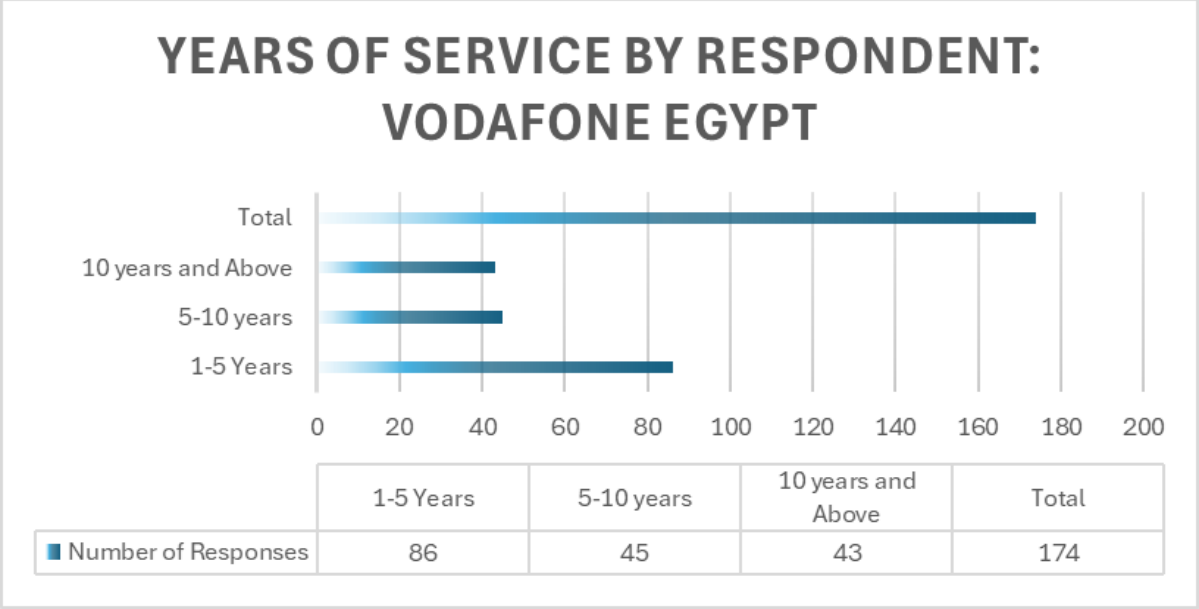


Figure 7: Years of Service by Respondent - Vodafone Egypt

Interpretation

1. 1-5 Years (86 respondents):
    - This group represents 49.43% of the total respondents, making it the largest segment. Employees in this category are relatively new to the organisation and may still fully integrate into their roles and the company culture.
2. 5-10 Years (45 respondents):
    - This group made up 25.86% of the total respondents. Employees with 5-10 years of service had significant experience and were probably well-established. They probably had a deeper understanding of the company's operations and culture.
3. 10 Years and Above (43 respondents):
    - Representing 24.71% of the total respondents, this group consisted of long-term employees who had been with the company for a decade or more. These employees were more likely to have extensive knowledge and experience and might hold senior or specialised positions within the organisation.

Detailed explanation

- **Diverse Tenure:** The respondents had various years of service behind them, from new hires to long-term employees. This diversity could influence their perspectives on various workplace issues, such as job satisfaction, recognition, and the impact of automation.
- **Implications for Workplace Dynamics:** Employees with different lengths of service may consequently have varying expectations and experiences in the workplace. For example, newer employees might prioritise learning and development opportunities, while long-term employees might focus on career advancement and stability.
- **Tailored Approaches:** Understanding the distribution of years of service can help organisations tailor their approaches to meet the needs and expectations of different groups. For instance, onboarding programmes can be designed for new hires, while career development initiatives can be targeted at mid-career and long-term employees.

Recommendations

To effectively address the needs of employees with diverse lengths of service, organisations can consider the following strategies:

1. **Onboarding and Integration:** Organisations can develop comprehensive onboarding programmes for new hires to help them integrate smoothly into the organisation. This can include mentorship programmes, training sessions, and regular check-ins.
2. **Career Development:** Companies can offer targeted career development programmes for mid-career employees to help them advance. This may include leadership training, skill development workshops, and opportunities for lateral moves.
3. **Recognition and Retention:** Companies can implement recognition programmes that acknowledge the contributions of long-term employees. This can include

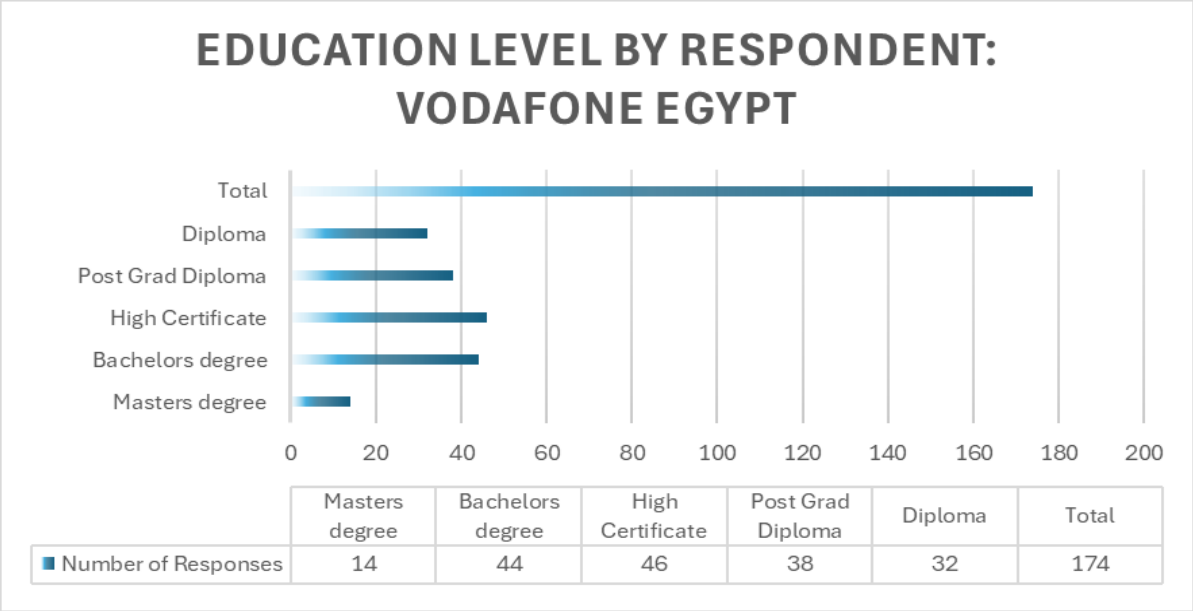
service awards, career milestone celebrations, and opportunities for senior roles or special projects.

4. **Inclusive Policies:** Organisations can create inclusive policies that recognise and value employees' contributions at all stages of their careers. This can help create a more supportive and equitable work environment.

5. **Feedback Mechanisms:** They can also establish feedback mechanisms to gather input from employees with different lengths of service. This can help identify specific needs and areas for improvement.

By considering the years of service of employees, organisations can create a more inclusive and supportive work environment that meets the diverse needs of their workforce.

4.4 Respondents Education Level Analysis



	Masters degree	Bachelors degree	High Certificate	Post Grad Diploma	Diploma	Total
Number of Responses	14	44	46	38	32	174

Figure 8: Education by Respondent – Vodafone Egypt

Interpretation

1. Master's degree (14 respondents):

   - This group represented 8.05% of the total respondents. Individuals with a master's degree typically have more advanced knowledge and skills in their

field, which can influence their perspectives and expectations in the workplace. Hence, they may seek roles that offer intellectual challenges and opportunities for leadership.

2. Bachelor's degree (44 respondents):
    - This group made up 25.29% of the total respondents. A bachelor's degree is often the minimum requirement for many professional roles, and these respondents were likely to have a solid foundation in their respective fields. They may be looking for career growth and development opportunities.
3. High Certificate (46 respondents):
    - Representing 26.44% of the total respondents, this group had the highest number of participants. High certificate holders may have had specialised training or vocational education, which could impact their job roles and career paths. They might prioritise practical skills and hands-on experience.
4. Post Graduate Diploma (38 respondents):
    - This group accounted for 21.84% of the total respondents. Postgraduate diploma holders have additional qualifications beyond a bachelor's degree, which can enhance their expertise and career opportunities. They may be interested in roles that require specialised knowledge and skills.
5. Diploma (32 respondents):
    - Making up 18.39% of the total respondents, this group had completed a diploma programme, often providing practical and technical skills relevant to specific industries. They tend to focus on roles that require technical proficiency and practical application.

Detailed explanation

- Diverse Educational Backgrounds: These respondents came from various educational backgrounds, from vocational training to advanced degrees. This diversity could influence their perspectives on workplace issues, such as job satisfaction, recognition, and the impact of automation.
- Implications for Workplace Dynamics: Employees with different educational levels may have varying expectations from the workplace and varying

experiences. For example, those with higher degrees might seek more challenging and intellectually stimulating roles, while those with vocational training might prioritise practical or hands-on tasks.

- Tailored Approaches: Understanding the educational background of employees can help organisations tailor their approaches to meet the needs and expectations of different groups. For instance, professional development programmes can be designed to cater to the specific skills and career aspirations of each educational group.

Recommendations

To effectively address the needs of employees with diverse educational backgrounds, organisations could consider the following strategies:

1. **Professional Development:** They could offer targeted training and development programmes that cater to the specific needs of each educational group—for example, advanced training for master's degree holders and practical skills workshops for holders of High level Certificates.

2. **Career Pathways:** They could develop clear career pathways that align with employees' educational backgrounds. This can help employees see a clear career progression and understand how to advance within their organisation.

3. **Inclusive Policies:** Organisations could implement inclusive policies that recognise and value the contributions of employees from all educational backgrounds. This can help create more supportive and equitable work environments.

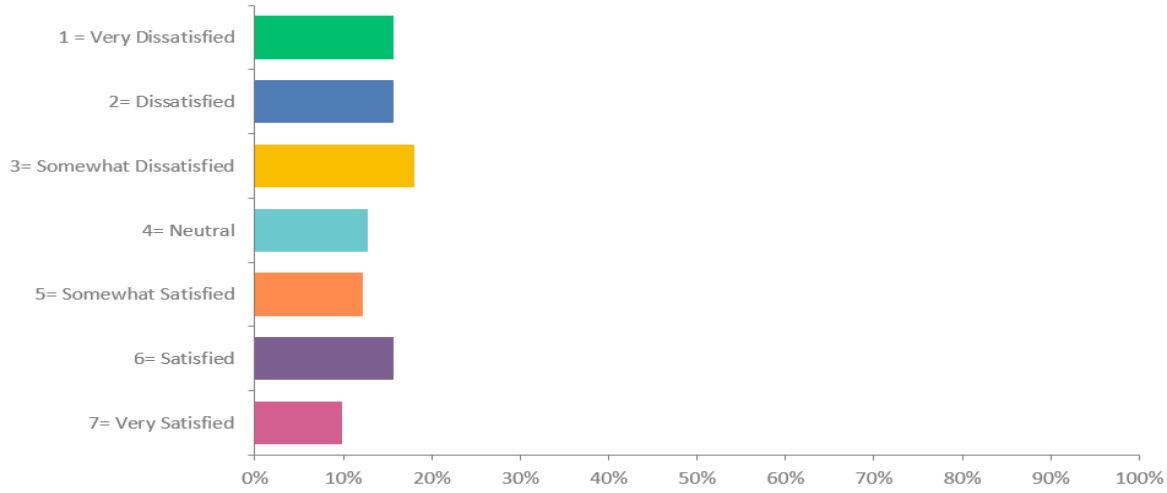
4. **Mentorship Programmes:** They can establish mentorship programmes that pair employees from different educational backgrounds. This can facilitate knowledge sharing and help employees to learn from each other's experiences.

By considering employees' educational backgrounds, organisations can create a more inclusive and supportive work environment that meets the diverse needs of their workforce.

4.5 Analysis of Survey Questions

Question 1: Job Satisfaction: How satisfied are you with your current organisational role?

The question yielded diverse results indicating that most recipients were either somewhat dissatisfied, with an average of 19% or satisfied, with an average percentage of 15%. This can be attributed to various factors not solely related to RPA implementation; however, effective RPA implementation is more likely to enhance outcomes, rendering them more favourable. Of the respondents, 10-15% indicated dissatisfaction with their current role.



ANSWER CHOICES	RESPONSES	
1 = Very Dissatisfied	15.70%	27
2= Dissatisfied	15.70%	27
3= Somewhat Dissatisfied	18.02%	31
4= Neutral	12.79%	22
5= Somewhat Satisfied	12.21%	21
6= Satisfied	15.70%	27
7= Very Satisfied	9.88%	17
TOTAL		172

- Mean Rating: 3.77
- Median Rating: 4.0
- Mode Rating: 3

Detailed analysis

1. Mean rating (3.77):
    - The mean rating is slightly below neutral (4), indicating that, on average, respondents leaned towards being somewhat dissatisfied with their current roles. This average reflected the overall sentiment of the participants.
2. Median rating (4.0):
    - The median rating is neutral, meaning that half of the respondents rated their satisfaction below 4, and the other half rated it above 4. This suggests a balanced distribution of opinions, with no extreme skew towards either end of the scale.
3. Mode rating (3):
    - The mode rating is 3, the most frequently selected response. This indicates that most respondents are somewhat dissatisfied with their current roles. This critical insight highlights a common source of dissatisfaction among the participants.

Interpretation

- Diverse Opinions: The responses were spread across the scale, reflecting diverse opinions on job satisfaction. While some employees were satisfied, a significant portion were not.
- Areas for Improvement: The high frequency of ratings at 3 (somewhat dissatisfied) and the mean being below neutral suggest room for improvement in job satisfaction.
- Balanced Distribution: The neutral median indicates that the opinions are fairly balanced, with no overwhelming majority feeling either highly satisfied or dissatisfied.

Linking to the JCM

The JCM can be used to address the dissatisfaction and improve overall job satisfaction. The JCM identifies five core job dimensions that can enhance employee motivation, satisfaction, and performance:

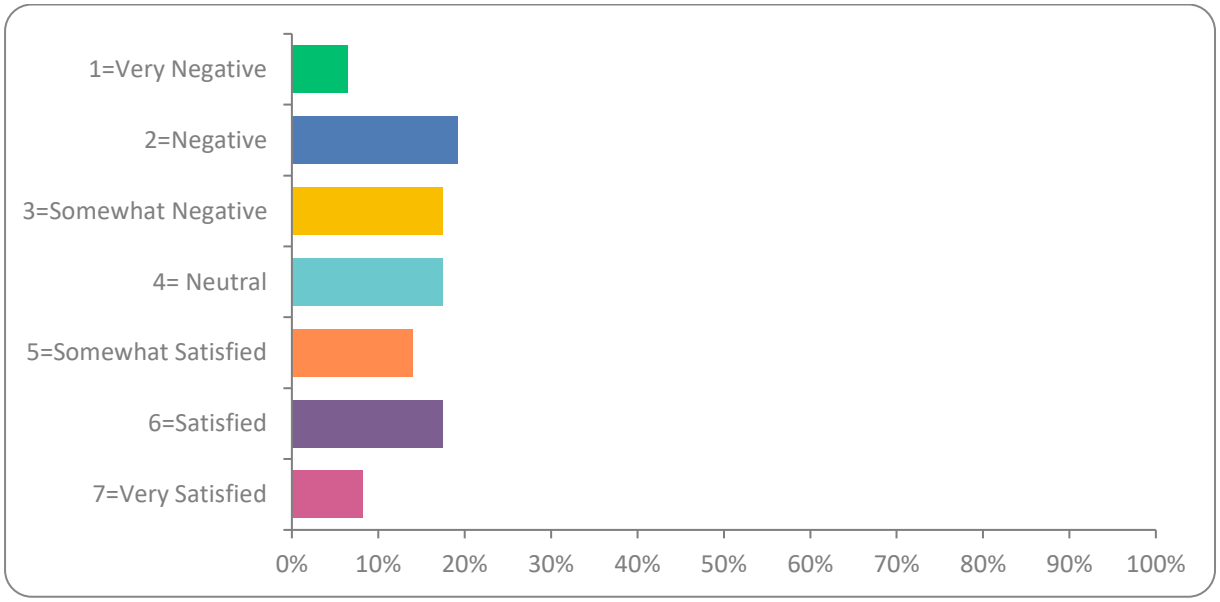
1. **Skill Variety**:
    - **Current Situation**: Employees may feel that their roles are monotonous or not challenging enough, leading to dissatisfaction.
    - **JCM Approach**: Employers should encourage using diverse skills and provide opportunities for employees to develop and apply new skills. This can make work more engaging and fulfilling, leading to more satisfaction.
2. **Task Identity**:
    - **Current Situation**: Employees might not see the impact of their work, leading to a lack of accomplishment.
    - **JCM Approach**: Employers should design jobs so employees can see tasks through from start to finish. This could enhance their sense of ownership and accomplishment, thus improving job satisfaction.
3. **Task Significance**:
    - **Current Situation**: Employees may not understand the importance of their work, leading to feelings of insignificance.
    - **JCM Approach**: Employers should highlight the importance and impact of employees' work on the organisation and society. When employees understand how much their contributions matter, they are more likely to feel valued and satisfied.
4. **Autonomy**:
    - **Current Situation**: Employees might feel micromanaged or lack control over their work, leading to frustration.
    - **JCM Approach**: Employers should give employees more control over their tasks. Increased autonomy can increase job satisfaction as employees feel more trusted and empowered.
5. **Feedback**:
    - **Current Situation**: Employees may not receive enough feedback, leading to uncertainty about their performance.

- **JCM Approach**: Employers should offer regular constructive feedback to help employees understand how their work is perceived and valued. Feedback can reinforce positive behaviours and contributions, thus making employees feel appreciated and recognised.

Recommendations

By integrating these dimensions into job design, organisations can create a work environment where employees feel more recognised, valued, and satisfied. This approach can address the high levels of dissatisfaction and improve overall job satisfaction, leading to better performance and retention.

Question 2 Work Environment: How would you rate the overall work environment in your organisation?



ANSWER CHOICES	RESPONSES	
1=Very Negative	6.40%	11
2=Negative	19.19%	33
3=Somewhat Negative	17.44%	30
4= Neutral	17.44%	30
5=Somewhat Satisfied	13.95%	24
6=Satisfied	17.44%	30
7=Very Satisfied	8.14%	14
TOTAL		172

- Mean Rating: 3.98
- Median Rating: 4.0
- Mode Rating: 2

Detailed analysis

1. Mean rating (3.98):
    - The mean rating is very close to neutral (4), indicating that, on average, respondents have a balanced view of the work environment. This suggests that while some employees are satisfied, others are not, leading to an overall average that hovers around neutrality.
2. Median rating (4.0):
    - The median rating is neutral, meaning that half of the respondents rated the work environment below 4, and the other half rated it above 4. This indicates a balanced distribution of opinions, with no extreme skew towards either end of the scale.
3. Mode rating (2):
    - The mode rating is 2, the most frequently selected response. This indicates that the largest group of respondents views the work environment negatively. This is a critical insight, as it highlights a common dissatisfaction with the work environment among the participants.

Interpretation

- **Diverse Opinions:** The responses were spread across the entire scale, reflecting diverse opinions on the work environment. While some employees were satisfied, a significant portion were not.
- **Areas for Improvement:** The high frequency of ratings at 2 (negative) and the mean being close to neutral suggest room for improvement in the work environment.
- **Balanced Distribution:** The neutral median indicates that the opinions are fairly balanced, with no overwhelming majority feeling either highly satisfied or dissatisfied.

Linking to the JCM

The JCM can be used to address dissatisfaction and improve the overall work environment. The JCM identifies five core job dimensions that can enhance employee motivation, satisfaction, and performance:

1. **Skill Variety**:
    - **Current Situation**: Employees may feel that their roles are monotonous or not challenging enough, contributing to a negative perception of the work environment.
    - **JCM Approach**: Employers should encourage using diverse skills and provide opportunities for employees to develop and apply new skills. This can make work more engaging and fulfilling, leading to a more positive work environment.
2. **Task Identity**:
    - **Current Situation**: Employees might not see the impact of their work, leading to a lack of accomplishment and a negative view of the work environment.
    - **JCM Approach**: Employers should design jobs so employees can see tasks through from start to finish. This can enhance their sense of ownership and accomplishment, improving their perception of the work environment.
3. **Task Significance**:
    - **Current Situation**: Employees may not understand the importance of their work, leading to feelings of insignificance and a negative view of the work environment.
    - **JCM Approach**: Employers should highlight the importance and impact of employees' work on the organisation and society. When employees understand how their contributions matter, they are more likely to feel valued and have a favourable view of the work environment.
4. **Autonomy**:
    - **Current Situation**: Employees might feel micromanaged or lack control over

their work, leading to frustration and a negative view of the work environment.

- **JCM Approach**: Employers should give employees more control over their tasks. Increased autonomy can lead to higher job satisfaction and a more positive work environment as employees feel more trusted and empowered.

5. **Feedback**:

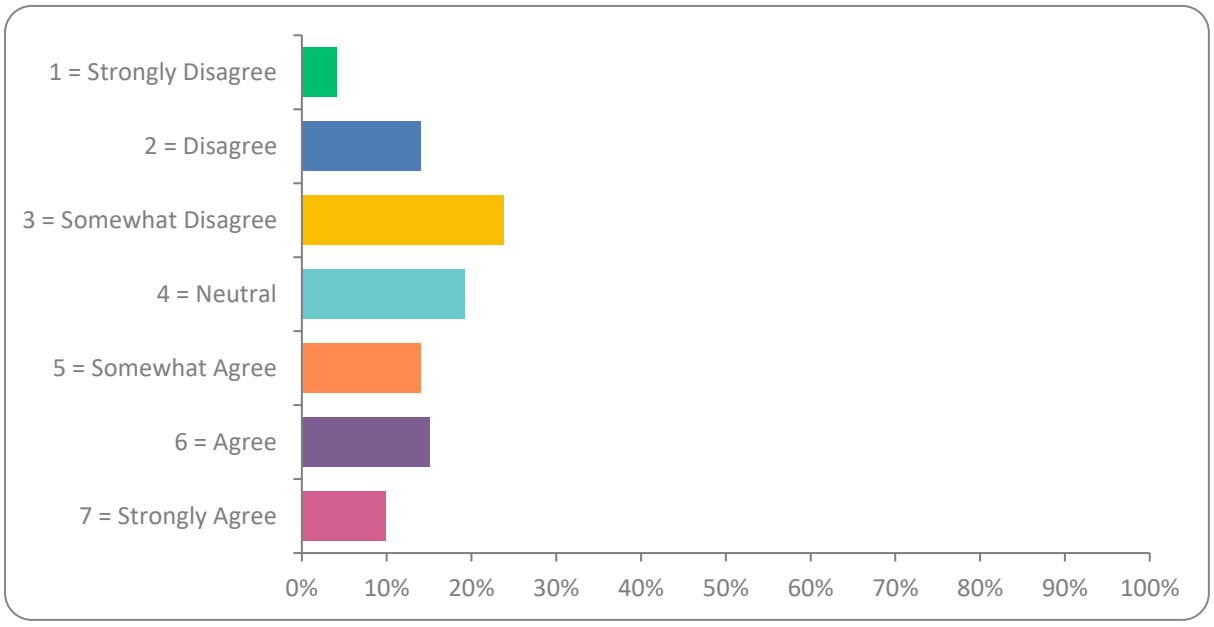
- **Current Situation**: Employees may not receive enough feedback, leading to uncertainty about their performance and a negative view of the work environment.

- **JCM Approach**: Employers should offer regular, constructive feedback to help employees understand how their work is perceived and valued. Feedback can reinforce positive behaviours and contributions, making employees feel appreciated and improving their perception of the work environment.

Recommendations

By integrating these dimensions into job design, organisations can create a work environment where employees feel more recognised, valued, and satisfied. This approach can address the high levels of dissatisfaction and improve the overall work environment, leading to better performance and retention.

Question 3



ANSWER CHOICES	RESPONSES	
1 = Strongly Disagree	4.07%	7
2 = Disagree	13.95%	24
3 = Somewhat Disagree	23.84%	41
4 = Neutral	19.19%	33
5 = Somewhat Agree	13.95%	24
6 = Agree	15.12%	26
7 = Strongly Agree	9.88%	17
TOTAL		172

1. Mean rating (4.10):
    - The mean rating is slightly above neutral (4), indicating that, on average, respondents feel somewhat recognised and appreciated. However, this average is influenced by the spread of responses across the scale.
2. Median rating (4.0):
    - The median rating is precisely neutral, meaning that half of the respondents rated their recognition and appreciation at work below 4, and the other half rated it above 4. This suggests a balanced distribution of opinions, with no extreme skew towards either end of the scale.
3. Mode rating (3):
    - The mode rating is 3, the most frequently selected response. This indicates that the largest group of respondents somewhat disagrees with feeling recognised and appreciated at work. This critical insight highlights a common sentiment of under-appreciation among the participants.

Interpretation

- Diverse Opinions: The responses are spread across the entire scale, reflecting diverse opinions on recognition and appreciation at work. While some employees feel valued, a significant portion does not.
- Areas for Improvement: The high frequency of ratings at 3 (Somewhat Disagree) and the mean being close to neutral suggests room for improvement in how employees are recognised and appreciated.

- Balanced Distribution: The neutral median indicates that the opinions are fairly balanced, with no overwhelming majority feeling highly appreciated or unappreciated.
- Strongly Disagree (1): 4.07% (7 respondents) feel unrecognised or unappreciated.
- Disagree (2): 13.95% (24 respondents) also feel a lack of recognition and appreciation.
- Somewhat Disagree (3): 23.84% (41 respondents) lean towards feeling unappreciated, although not as strongly.
- Neutral (4): 19.19% (33 respondents) neither agree nor disagree, indicating a middle ground or indifference.
- Somewhat Agree (5): 13.95% (24 respondents) feel somewhat recognised and appreciated.
- Agree (6): 15.12% (26 respondents) feel recognised and appreciated.
- Strongly Agree (7): 9.88% (17 respondents) feel recognised and appreciated.

Overall, the data suggests that a significant portion of respondents (41.86%) felt some level of disagreement (options 1-3) regarding recognition and appreciation at work, while 38.95% felt some level of agreement (options 5-7). The remaining 19.19% were neutral. This indicates a potential area for improvement in workplace recognition and appreciation practices**.**

Linking to the JCM

The JCM can address dissatisfaction and improve recognition and appreciation at work. The JCM identifies five core job dimensions that can enhance employee motivation, satisfaction, and performance:

1. Skill variety:
    - **Current Situation:** Employees may feel that their roles are monotonous or not challenging enough, leading to a lack of recognition.

- **JCM Approach:** Employers should encourage using diverse skills and provide opportunities for employees to develop and apply new skills. This can make work more engaging and fulfilling, thus increasing recognition and appreciation.

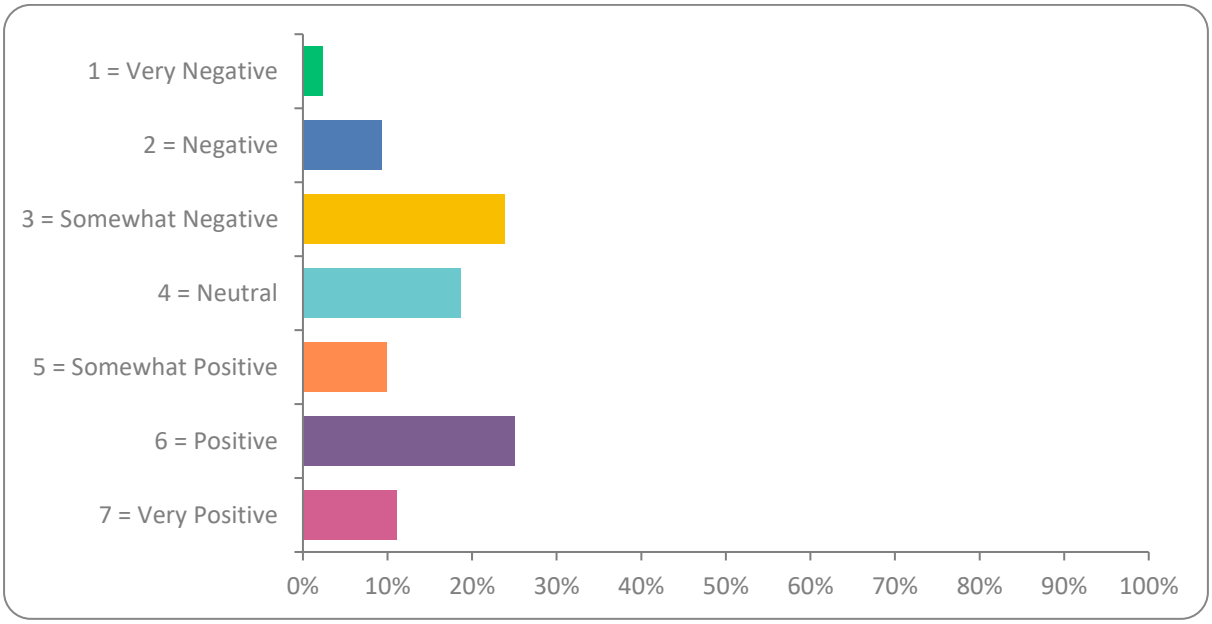
2. Task identity:
    - **Current Situation:** Employees might not see the impact of their work, leading to a lack of accomplishment and recognition.
    - **JCM Approach:** Employers should design jobs so employees can see tasks through from start to finish. This could enhance their sense of ownership and accomplishment, improving their recognition and appreciation.
3. Task significance:
    - **Current Situation:** Employees may not understand the importance of their work, leading to feelings of insignificance and a lack of recognition.
    - **JCM Approach:** Employers should highlight the importance and impact of employees' work on the organisation and society. When employees understand how much their contributions matter, they are more likely to feel valued and recognised.
4. Autonomy:
    - **Current Situation:** Employees might feel micromanaged or lack control over their work, leading to frustration and a lack of recognition.
    - **JCM Approach:** Employers should give employees more control over their tasks. Increased autonomy can increase job satisfaction and recognition as employees feel more trusted and empowered.
5. Feedback:
    - **Current Situation:** Employees may not receive enough feedback, leading to uncertainty about their performance and a lack of recognition.
    - **JCM Approach:** Employers should offer regular constructive feedback to help employees understand how their work is perceived and valued. Feedback can reinforce positive behaviours and contributions, making employees feel

appreciated and recognised.

Recommendations

By integrating these dimensions into job design, organisations can create a work environment wherein employees feel more recognised, valued, and satisfied. This approach could address the high levels of dissatisfaction and improve overall recognition and appreciation at work, leading to better performance and retention.

Question 4 Perception of Automation: How do you feel about the increasing use of automation in your workplace?



ANSWER CHOICES	RESPONSES	
1 = Very Negative	2.33%	4
2 = Negative	9.30%	16
3 = Somewhat Negative	23.84%	41
4 = Neutral	18.60%	32
5 = Somewhat Positive	9.88%	17
6 = Positive	25.00%	43
7 = Very Positive	11.05%	19
TOTAL		172

- Mean Rating: 4.44
- Median Rating: 4.0
- Mode Rating: 6

Detailed analysis

1. Mean Rating (4.44):
    - The mean rating is slightly above neutral (4), indicating that, on average, respondents have a somewhat optimistic view of the increasing use of RPA automation in their workplace. This average reflects a general leaning towards acceptance and positivity.
2. Median Rating (4.0):
    - The median rating is neutral, meaning that half of the respondents rated their feelings about RPA automation below 4, and the other half rated it above 4. This suggests a balanced distribution of opinions, with no extreme skew towards either end of the scale.
3. Mode Rating (6):
    - The mode rating is 6, the most frequently selected response. This indicates that the largest group of respondents positively views the increasing use of RPA automation. This critical insight highlights a common sentiment of acceptance and approval among the participants.

Interpretation

- **Diverse Opinions:** The responses are spread across the scale, reflecting diverse opinions on RPA automation. While some employees viewed it negatively, a significant portion viewed it positively.
- **Areas for Improvement:** Negative and somewhat negative responses suggest concerns or reservations about RPA automation that must be addressed.
- **Balanced Distribution:** The neutral median indicates that the opinions are fairly balanced, with no overwhelming majority feeling either highly positive or negative.

Linking to the JCM

The JCM can be used to address concerns and improve perceptions of automation in the workplace. The JCM identifies five core job dimensions that can enhance employee motivation, satisfaction, and performance:

1. Skill variety:
    - **Current Situation**: Employees may feel that automation reduces the variety of tasks they perform, leading to monotony and dissatisfaction.
    - **JCM Approach**: This approach ensures that automation complements rather than replaces diverse tasks. Employers should encourage employees to develop new skills that work alongside automation, making their roles more engaging and fulfilling.
2. Task identity:
    - **Current Situation**: Employees might feel disconnected if automation handles a significant portion of their tasks.
    - **JCM Approach**: Employers should design jobs so employees can see tasks through from start to finish despite increasing automation. This could enhance their sense of ownership and accomplishment, improving their perception of automation.
3. Task significance:
    - **Current Situation**: Employees may not understand the importance of their work in an automated environment, hence leading to feelings of insignificance.
    - **JCM Approach**: Employers should highlight how automation enhances the impact of employees' work. When employees understand how their contributions are amplified by automation, they are more likely to feel valued and positive about automation.
4. Autonomy:
    - **Current Situation**: Employees might feel that automation reduces their control over their work, leading to frustration.

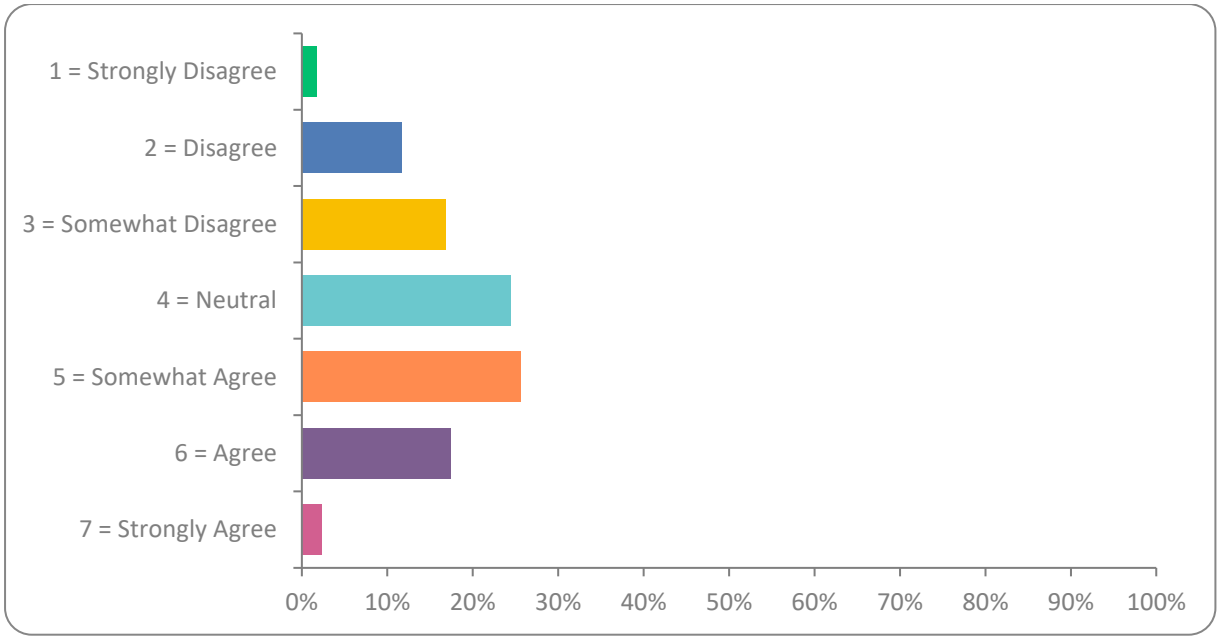
- **JCM Approach**: Employers should give employees more control over their interactions with automation tools. Increased autonomy can lead to higher job satisfaction and greater empowerment, improving their perception of automation.

5. Feedback:
    - **Current Situation**: Employees may not receive enough feedback on how automation affects their performance, leading to uncertainty.
    - **JCM Approach**: Employers should offer regular, constructive feedback on how automation is integrated into their roles and impacts their performance. Feedback can reinforce positive behaviours and contributions, making employees feel appreciated and recognised in an automated environment.

Recommendations

By integrating these dimensions into job design, organisations can create a work environment where employees feel more recognised, valued, and satisfied despite the increasing use of automation. This approach can address the concerns and improve the overall perception of automation, leading to better performance and retention.

Question 5 Security Concerns: Do you believe the automation processes are secure and protect your personal and professional data?



ANSWER CHOICES	RESPONSES	
1 = Strongly Disagree	1.74%	3
2 = Disagree	11.63%	20
3 = Somewhat Disagree	16.86%	29
4 = Neutral	24.42%	42
5 = Somewhat Agree	25.58%	44
6 = Agree	17.44%	30
7 = Strongly Agree	2.33%	4
TOTAL		172

- Mean Rating: 4.22
- Median Rating: 4.0
- Mode Rating: 5

Detailed analysis

1. Mean rating (4.22):
    - The mean rating is slightly above neutral (4), indicating that, on average, respondents have a somewhat positive view of the security of automation processes. This average reflects a general leaning towards agreement that the processes are secure.
2. Median rating (4.0):
    - The median rating is neutral, meaning that half of the respondents rated their belief in the security of automation processes below 4. In contrast, the other half rated their belief in security above 4. This suggests a balanced distribution of opinions, with no extreme skew towards either end of the scale.
3. Mode rating (5):
    - The mode rating is 5, the most frequently selected response. This indicates that the largest group of respondents somewhat agree that the automation processes are secure and protect their data. This critical insight highlights a common sentiment of cautious optimism among the participants.

Interpretation

- **Diverse Opinions:** The responses are spread across the entire scale, reflecting diverse opinions on the security of automation processes. While some employees are concerned, a significant portion believes the processes are secure.
- **Areas for Improvement:** Negative and somewhat negative responses suggest concerns or reservations about the security of automation processes that must be addressed.
- **Balanced Distribution:** The neutral median indicates that the opinions are fairly balanced, with no overwhelming majority feeling either highly positive or negative.

Linking to the JCM

The JCM can be used to address the concerns and improve the perception of security in automation processes. The JCM identifies five core job dimensions that can enhance employee motivation, satisfaction, and performance:

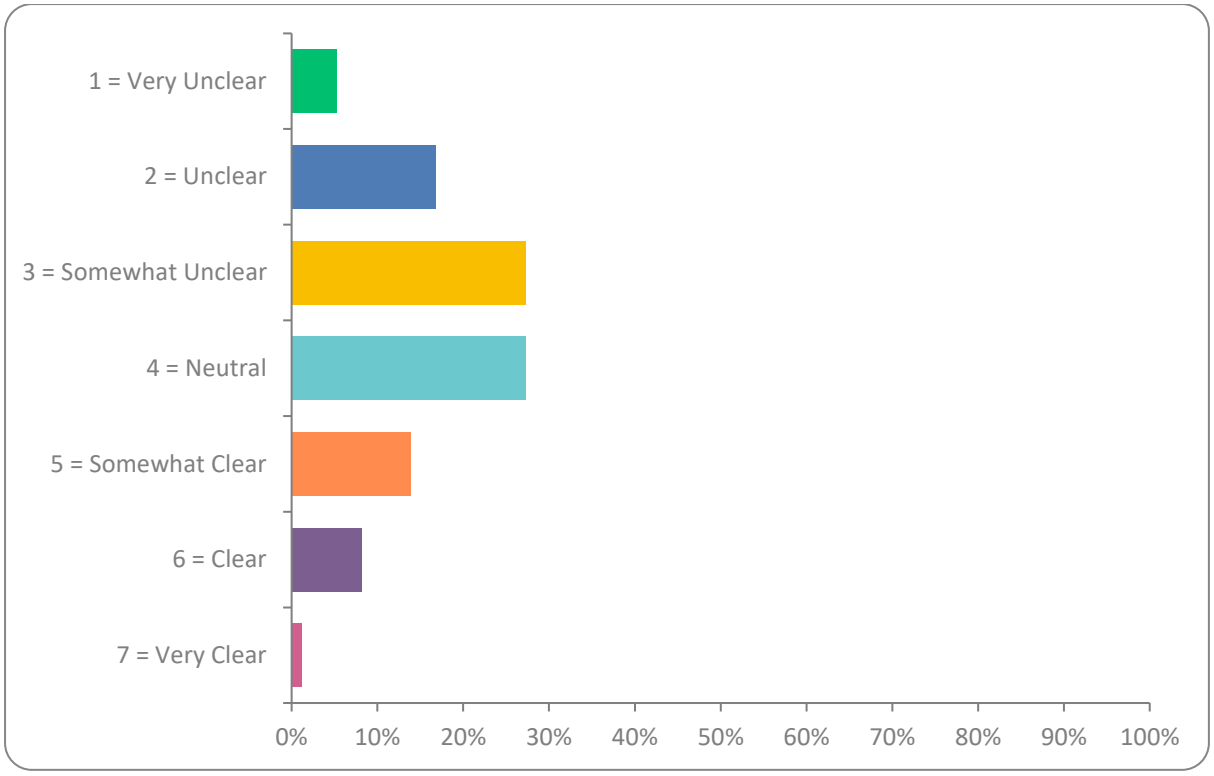
1. Skill variety:
    - **Current Situation:** Employees may feel that their roles are limited by automation, leading to data security concerns.
    - **JCM Approach:** Employers should encourage using diverse skills, including those related to understanding and managing automation security. This could make work more engaging and help employees feel more in control of security.
2. Task identity:
    - **Current Situation:** Employees might not see their role in ensuring data security within automated processes, leading to a lack of ownership.
    - **JCM Approach:** Employers should design jobs so employees can see tasks through from start to finish, including security checks. This could enhance their sense of ownership and responsibility for data security.

3. Task significance:
    - **Current Situation:** Employees may not understand the importance of their role in maintaining data security, leading to feelings of insignificance.
    - **JCM Approach: Likewise,** employers should highlight the importance and impact of employees' work on data security. Employees who understand how their contributions protect data are more likely to feel valued and responsible.
4. Autonomy:
    - **Current Situation:** Employees might feel they lack control over security measures in automated processes, thus leading to frustration.
    - **JCM Approach: Employers** should give employees more control over implementing and monitoring security measures. Increased autonomy could lead to higher job satisfaction and greater empowerment, thus improving their perception of security.
5. Feedback:
    - **Current Situation:** Employees may not receive enough feedback on the effectiveness of security measures, leading to uncertainty.
    - **JCM Approach:** Employers should offer regular, constructive feedback on how well security measures work and how employees' actions contribute to data protection. Feedback can reinforce positive behaviours and contributions, thus making employees feel appreciated and secure.

Recommendations

By integrating these dimensions into job design, organisations can create a work environment wherein employees feel more recognised, valued, and satisfied with the security of automation processes. This approach can address the concerns and improve the overall perception of data security, thus leading to better performance and retention.

Question 6 Clarity of Communication: How clear and understandable do you find the communication about RPA (Robotic Process Automation) initiatives from management



ANSWER CHOICES	RESPONSES	
1 = Very Unclear	5.23%	9
2 = Unclear	16.86%	29
3 = Somewhat Unclear	27.33%	47
4 = Neutral	27.33%	47
5 = Somewhat Clear	13.95%	24
6 = Clear	8.14%	14
7 = Very Clear	1.16%	2
TOTAL		172

1. Mean Rating (3.57):

    - The mean rating is slightly below neutral (4), indicating that, on average, respondents find the communication about RPA automation initiatives somewhat unclear. This average reflects a general leaning towards dissatisfaction with the clarity of communication.

2. Median Rating (4.0):

    - The median rating is neutral, meaning that half of the respondents rated the clarity of communication below 4, and the other half rated it above 4. This suggests a balanced distribution of opinions, with no extreme skew towards either end of the scale.

3. Mode Rating (3):

    - The mode rating is 3, the most frequently selected response. This indicates that the largest group of respondents found the communication somewhat unclear. This is a critical insight, as it highlights a common sentiment of confusion or lack of clarity among the participants.

Table 7: Summary Table for the data collected

Question	Total Responses	Strongly Disagree (%)	Disagree (%)	Somewhat Disagree (%)	Neutral (%)	Somewhat Agree (%)	Agree (%)	Strongly Agree (%)
Question 1: Job Satisfaction	172	15.70	15.70	18.02	12.79	12.21	15.70	9.88
Question 2: Work Environment	172	6.40	19.19	17.44	17.44	13.95	17.44	8.14
Question 3: Recognition and Appreciation	172	4.07	13.95	23.84	19.19	13.95	15.12	9.88
Question 4: Perception of Automation	172	2.33	9.30	23.84	18.60	9.88	25.00	11.05
Question 5: Security Concerns	172	1.74	11.63	16.86	24.42	25.58	17.44	2.33
Question 6: Clarity of Communication	172	5.23	16.86	27.33	27.33	13.95	8.14	1.16
Question 8: Feedback on RPA Automation	172	5.23	15.70	25.00	29.07	12.21	11.05	1.74
Question 9: Fairness of Automation	172	2.33	11.05	23.84	29.07	16.28	13.37	4.07

Interpretation

- **Diverse Opinions:** The responses are spread across the entire scale, reflecting diverse opinions on the clarity of communication about RPA automation initiatives. While some employees find it clear, a significant portion does not.

- **Areas for Improvement:** The high frequency of ratings at 3 (Somewhat Unclear) and the mean being below neutral suggests room for improvement in how management communicates information about RPA automation initiatives.
- **Balanced Distribution:** The neutral median indicates that the opinions were fairly balanced, with no overwhelming majority feeling either highly clear or unclear.

Linking to the JCM

The JCM can be used to address the concerns and improve the clarity of communication about RPA initiatives. The JCM identifies five core job dimensions that can enhance employee motivation, satisfaction, and performance. (end with a summary table)

1. Skill variety:
    - **Current Situation:** Employees may feel that communication about RPA initiatives is too technical or monotonous, thus leading to confusion.
    - **JCM Approach:** Employers should use diverse communication methods (e.g., visual aids, interactive sessions) to make information more engaging and understandable. This could enable employees to grasp complex concepts more easily.
2. Task identity:
    - **Current Situation:** Employees might not see the complete picture of RPA initiatives, leading to fragmented understanding.
    - **JCM Approach:** Employers should provide comprehensive overviews that show the start to finish process of RPA initiatives. This can help employees understand the context and significance of each step, thereby improving clarity.
3. Task significance:
    - **Current Situation:** Employees may not understand the importance of RPA initiatives, leading to a lack of interest in the communication.

- **JCM Approach:** Employers should highlight the impact and benefits of RPA initiatives on the organisation and employees' roles. Employees who see the value are likelier to pay attention and understand the communication.

4. Autonomy:

   - **Current Situation:** Employees might feel they have no control over RPA initiatives, thus leading to disengagement from the communication.
   - **JCM Approach:** Employers should communicate with employees by seeking their input and feedback. This could make them feel more invested and improve their understanding of the initiatives.

5. Feedback:

   - **Current Situation:** Employees may not receive enough feedback on their understanding of RPA initiatives, leading to confusion.
   - **JCM Approach:** Employers should provide regular, constructive feedback on employees' understanding and implementation of RPA initiatives. This can help clarify any misunderstandings and reinforce key messages.

Recommendations

By integrating these dimensions into communication strategies, organisations can create a more effective and engaging communication process for RPA initiatives. This approach could address the high levels of unclarity and improve overall understanding, thereby leading to better implementation and acceptance of RPA initiatives.

4.6 Discussion of the Findings

4.6.1 Summary of Total Survey/Conclusion

Feedback categories

- Collection/COPS received the highest responses (94), indicating that this area might have the most engagement or issues that employees feel need to be addressed.
- Finance had 56 responses, suggesting moderate engagement or concerns.

- Business had the fewest responses (24), which could imply that there are fewer issues or less engagement in this area.

Years of service

- Most responses came from employees with 1-5 years of service (86), indicating that newer employees are more engaged or have more feedback to provide.
- Employees with 5-10 years of service contributed 45 responses, showing moderate engagement.
- Those 10 years and above provided 43 responses, suggesting that long-term employees also provide significant feedback.

Degree distribution

- High-level Certificate holders had the highest responses (46), followed by bachelor's degree holders (44).
- Postgraduate diploma holders (38) and Diploma holders (32) also provided substantial feedback.
- Master's degree holders had the fewest responses (14), which might indicate fewer employees with this qualification or less engagement from this group.

Age groups by degree

- High Certificate Employees are the oldest group (40-52 years), which might correlate with their higher number of responses.
- Master's Degree Employees (28-35 years) and Diploma Employees (25-30 years) are relatively younger.
- Bachelor's Degree and Post Graduate Diploma Employees are in the same age range (22-29 years), indicating a younger workforce in these categories.

Overall insights

- The data suggests that newer employees and those with higher-level certificates are the most engaged in providing feedback.

- There is a diverse age range among employees with different educational qualifications, which could influence their perspectives and feedback.
- The Collection/COPS category might need more attention due to the high volume of responses.

4.6.2 Conclusion of Survey Results

The research findings reveal that most respondents are unsatisfied with their current positions. This discontent arises from several sources, primarily due to a lack of comprehension of the introduction of RPA and its prospective effects on their employment. This uncertainty has caused considerable pain among employees, reducing their drive to develop and advance in their positions. Numerous personnel believe RPA will make their roles redundant, inhibiting their envisioned talent enhancement and career progression prospects.

This situation offers a significant opportunity to apply the JCM communication framework. The JCM approach addresses critical issues by creating a more efficient communication channel. Enhanced communication may elucidate the objectives and advantages of RPA, thereby diminishing ambiguity and promoting increased employee engagement in organisations. Comprehending the RPA methodology may enhance employees' willingness to engage in business learning and acknowledge opportunities for skills acquisition. Utilising the JCM communication model helps to encourage people to adopt RPA, perceiving technology not as a danger but rather as a prospect for professional advancement. By embracing automation instead of opposing it, employees may harness the myriad advantages of RPA, resulting in a more motivated and proficient staff.

- **Implementing the JCM Approach through a 1-day workshop**

A one-day workshop will be conducted utilising the JCM to address employee apprehension over RPA and enhance communication strategies.

- **Preface**

Using RPA in enterprises frequently raises employee apprehensions about job security and relevance. This study revealed that 70% of participants are dissatisfied with their

positions due to insufficient comprehension of RPA and its consequences. A one-day workshop employing the JCM is recommended to address these difficulties and enhance communication. This training seeks to elucidate RPA deployment, alleviate employee apprehensions, underscore development prospects, and include employees in the transition process.

- **Goals of the Workshop**

1. **To explain RPA Implementation:** The workshop should deliver detailed information on RPA, its objectives, and its influence on workers' responsibilities.
2. **To address Issues:** It should establish an open platform for workers to articulate their issues and inquire about RPA.
3. **To identify opportunities:** It should accentuate the prospects for skill enhancement and professional advancement linked to RPA.
4. **To engage employees:** It should cultivate a sense of participation and ownership among employees around the RPA process.

- **The framework of the workshop**

1. Introduction and Synopsis

The session should start with a concise introduction detailing the workshop's objectives and agenda.

RPA Overview: A comprehensive presentation on RPA should be made, encompassing its advantages and effects on organisations.

2. Engaging sessions

Q&A Session: The session should provide a forum for employees to pose inquiries and articulate their issues regarding RPA.

Case Studies Should be used to demonstrate effective RPA installations and their beneficial results.

3. Competency Enhancement should be provided

Training Modules: Concise training courses must concentrate on new competencies pertinent to RPA, including fundamental automation tools and methodologies.

Practical Engagement: should comprise interactive exercises enabling employees to utilise RPA tools and observe their real-world implementations.

4. Feedback and Discourse

Comments Collection: Employee comments about the workshop and their perspectives on RPA should be solicited.

Group Discussions: Small group dialogues should be undertaken to generate ideas for seamlessly integrating RPA into daily work.

5. Strategic plan

Subsequent Actions: The forthcoming phases for RPA adoption and the avenues for employee participation should be detailed.

Support Resources: Information on accessible resources and assistance for employees throughout the transition should be offered.

Advantages of the JCM communication method

1. Improved Comprehension: Employees should elucidate the objectives and advantages of RPA so that employees will have a clearer insight into its function within their organisations.

2. Diminished Anxiety: Directly addressing issues should help to mitigate anxiety and lessen reluctance to change.

3. Enhanced Engagement: Involving employees in the process and offering chances for skill enhancement may elevate their engagement and drive.

4. Enhanced Communication: Establishing a transparent and accessible communication channel will guarantee that workers feel acknowledged and appreciated, fostering a more unified and supportive workplace atmosphere.

Concluding remarks

A one-day session utilising the JCM communication paradigm could mitigate employee apprehension over RPA and improve organisational communication. This method would elucidate the objectives and advantages of RPA while actively including

employees in the transition, thereby cultivating a more proficient and motivated staff. By embracing automation instead of opposing it, employees could harness the myriad advantages of RPA, resulting in a more motivated and proficient staff. This session is essential to accomplishing these objectives and facilitating seamless RPA implementation.

Actions taken post-workshop

After the one-day workshop employing the JCM communication strategy, a limited-scale assessment was performed to ascertain its effectiveness. The test included 20 participants who had participated in the programme. The main aim was to obtain fresh insights and assess alterations in employee attitudes and comprehension of RPA. The assessment concentrated on targeted inquiries to evaluate the transparency of RPA implementation, the degree of employee involvement, and their readiness to acquire new competencies.

Initial findings suggest a substantial enhancement in the participants' comprehension of RPA. Many respondents expressed increased familiarity with automation and acknowledged its potential advantages for their positions. This change in viewpoint signifies the workshop's effectiveness in alleviating initial fears and diminishing worry about job security.

Furthermore, the test findings indicated a rise in staff engagement. Participants demonstrated an enhanced feeling of engagement and ownership in the RPA process. They valued the chance to express their issues and obtain immediate responses, which fostered confidence and openness. Furthermore, there was a significant increase in readiness to acquire new competencies, as employees started to perceive RPA as a prospect for professional advancement rather than a danger to their occupations.

These findings highlight the significance of efficient communication and focused interventions in administering organisational transformation. The favourable results from the pilot study indicate that the JCM communication model may serve as an effective instrument in promoting seamless transitions and cultivating a more motivated and proficient workforce. Additional studies and extensive assessments are recommended to corroborate these findings and enhance the methodology for broader

use.

- **Post-workshop Survey and Results**

Following the successful execution of the one-day workshop employing the JCM communication strategy, the researcher will initiate a small-scale assessment to gauge its efficacy. The test will include 20 participants from the first survey. The main aim of this test is to evaluate the workshop's influence on employee attitudes and comprehension of RPA.

The assessment will concentrate on targeted inquiries to evaluate shifts in understanding related to RPA deployment, employee engagement levels, and their readiness to acquire new skills. Initial predictions indicate that the findings will substantially enhance these domains, signifying a more favourable perspective among the participants. This expected change in perception will demonstrate that the session effectively alleviated initial fears and decreased anxiety around job security.

The outcomes of this limited test will be essential for assessing the scalability of the JCM communication paradigm. Should the recent survey findings indicate a significant enhancement in employee attitudes and comprehension, it will furnish compelling proof that the JCM model may be successfully implemented on a bigger scale throughout the organisation. Favourable remarks from participants will affirm the workshop's methodology and underscore its capacity to cultivate a more engaged and proficient staff.

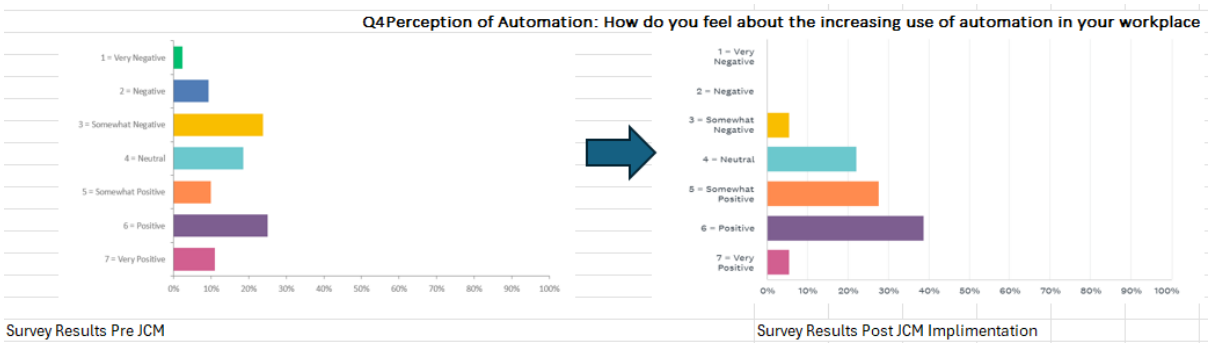
The following survey will be a pivotal measure for assessing the efficacy of the workshop and the JCM communication paradigm. By showcasing favourable results, we can undoubtedly advance the implementation of this strategy on a broader scale, thus guaranteeing that all workers can gain from enhanced communication and a more lucid comprehension of RPA. This strategy will eventually facilitate a more seamless transition and enhance the adoption of automation inside organisations.

Post survey results

The post-survey results reflect the responses of the 20 participants who attended the one-day workshop using the JCM communication approach. These results are

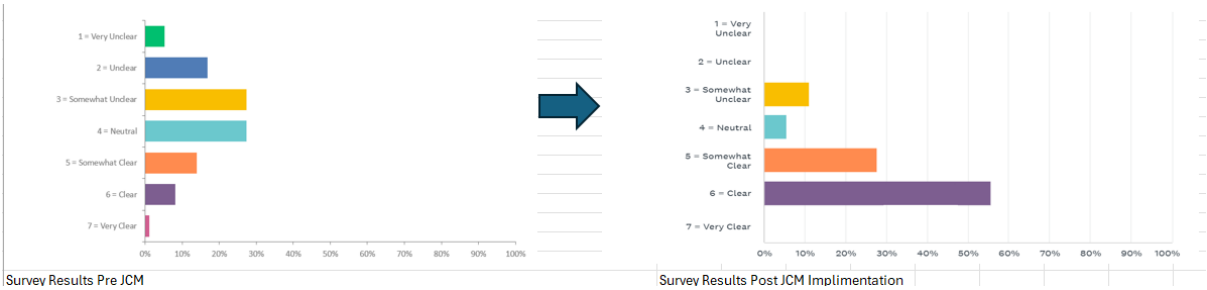
compared to the pre-survey results to evaluate the workshop's effectiveness in improving employee perceptions and understanding of RPA through an effective communication model; a few of the same questions from the first survey were used. Below are the results and comparisons.

Question 7: Perception of Automation: How do you feel about the increasing use of automation in your workplace?



The comparison of old and new survey results demonstrates a clear positive shift in employee perceptions following the workshop. The significant reduction in negative responses and the increase in positive responses indicate that the JCM communication model effectively addressed employee concerns and improved their understanding of RPA. These positive outcomes suggest that the JCM model could be successfully scaled to larger teams, fostering a more engaged and informed workforce.

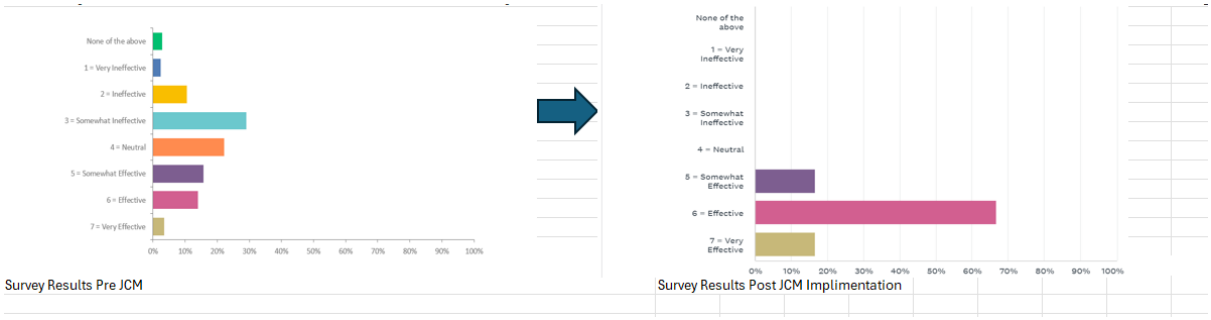
Question 8: Clarity of Communication: How clear and understandable are you about receiving communication about RPA initiatives from management?



When the prior survey replies were compared to the current survey, it was clear that there had been a significant improvement in employee comprehension after the session. The JCM communication technique successfully reduced employee concerns

and improved their understanding of RPA, as evidenced by the significant drop in negative feedback and the rise in positive feedback. According to the positive findings, the JCM model has the potential to be effectively extended to bigger teams within the organisation, which would result in a workforce that is more engaged and updated with relevant information. This makes it possible for staff members to focus on developing new skills and, more importantly, to provide greater assistance when necessary to build automation procedures.

Question 9: Effectiveness of Communication Channels: Are the communication channels effectively used to discuss RPA automation?



Comparing the results from the previous survey with those of the present survey reveals a substantial enhancement in the comprehension and communication channels employed within the organisation about RPA automation. The JCM communication technique successfully enhanced employee comprehension and improved the communication loop concerning RPA, thus establishing an effective communication channel, as indicated by the notable decrease in negative feedback and increased perceived effectiveness of RPA communication. The favourable results indicate that the JCM model may be successfully expanded to larger teams, leading to a more engaged and well-informed workforce. This will enable staff to concentrate on acquiring new skills and, crucially, offer enhanced support in developing automation procedures. Consequently, staff members experienced reduced stress and increased comfort, alleviating concerns that automation was intended to supplant them.

4.7 Conclusion

In this chapter, the researcher presented the findings based on the research objectives. This chapter looks at the responses of various respondents. Respondents answered all the questions about the factors affecting supply chain strategies and their impact on service delivery. In the next chapter, the conclusion and recommendations are given.

4.8 Paired Test Data

Table 8: Paired Test Data

Variable	Mean Difference	Se	99% Confidence	p
SAT Pre VS Post	2.33	0.26	1.59 to 3.07	<.0001
Env Pre VS Post	2.32	0.22	1.09 to 2.32	<.0001
App Pre Vs Post	3.07	0.25	1.6 to 2.38	<0.001
UsePre Vs Post	1.61	0.29	2.45 to 2.76	<.0001
SecPre Vs Post	0.94	0.25	0.22 to 1.6	0.0014
ComPre Vs Post	1.33	0.21	1.9 to 2.5	<.0001
ConPre Vs Post	1.55	0.25	1.9 to 2.1	<.0001

The interventions or changes implemented in this study had a significant positive impact on all measured variables. The very low p-values across the board indicate that these results are unlikely due to chance, providing strong evidence that the interventions were effective. This comprehensive improvement across multiple dimensions suggests that the interventions were well-designed and successfully addressed the targeted areas.

4.9 Ancova Data Set

Table 9: Ancova Data

Change Variable	Time	TimeXEducation	TimexAge	TIIPe 3 Manova Scores
Satisfaction	8.73***	.98	2.36**	17.40***
Enviroment	0.33*	.65	0.22*	0.68*
Appreciation	0.57*	0.13	1.20*	1.27*
Perception	4.55***	.85	1.95**	12.40***
Security	0.75*	0.76	0.08*	1.30*
Communication	1.39*	0.54	0.13*	3.57*
Dissatisfaction	0.86*	0.21	0.10*	1.67*
Confidence	1.67	0.05	0.01	2.87

The results of my ANCOVA data, as presented in the data table, reveal significant findings across several variables. The Satisfaction variable exhibits a statistically significant change over time (8.73***) and a robust interaction with age (17.40***), signifying that satisfaction levels have substantially increased and are affected by age.

Likewise, Perception demonstrates substantial alterations over time (4.55***) and with age (12.40***), indicating a favourable transformation in individuals' environmental perceptions. The Environment and Appreciation variables, albeit exhibiting minor fluctuations, still demonstrate positive tendencies with notable interactions with time, as well as with education and age. This underscores the incremental enhancement in participants' valuation and their view of the environment.

Security and communication variables exhibit favourable improvements, demonstrating substantial interactions over time and with other factors, highlighting the improved sense of security and greater communication among participants. Despite the less significant fluctuations in Dissatisfaction and Confidence, the overarching trend is favourable, signifying a general enhancement in these domains as well.

The data highlights the beneficial effects of the treatments over time, demonstrating notable enhancements in happiness, perception, and other critical domains, driven by variables such as age and education.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter will address the conclusions about each study topic. Recommendations concerning these responses will be examined before offering proposals for future research.

5.2 Research Objectives

The primary research purpose was to investigate the efficacy of employing the JCM model to enhance communication strategies. The researcher gathered data from a survey that yielded 174 replies across the business, finance, and credit and risk sectors.

The credit and risk (Subscriber Collections) departments were surveyed. The data was analysed to achieve the study aim and address the research question outlined in Chapter 2. The research questions were addressed, leading to a conclusion derived from the findings of a post-implementation survey—as the research aimed to investigate the efficacy of applying the JCM model to enhance communication strategies. The researcher gathered data from a survey that yielded 174 replies across the business, finance, and credit and risk sectors. The credit and risk (Subscriber Collections) departments were surveyed. The data was analysed to achieve the study aim and address the research question presented in Chapter 2. The research questions were addressed, leading to a conclusion derived from the findings of a post-implementation survey. This study examined how adopting RPA might be successfully articulated and framed using the JCM. This research sought to find best practices for promoting effective RPA adoption in organisational contexts by analysing the effects of JCM-based communication techniques on employee attitudes, engagement, and acceptance of RPA.

5.3 Conclusion Regarding the Research Question

Research Question 1 asked: Examining the influence of Robotic Process Automation (RPA) on workers' roles and responsibilities within the framework of the Job Characteristics Model (JCM) might yield significant insights for better communication of these changes.

The poll findings reveal a nearly even division among employees on the superiority of RPA skills compared to human capabilities. They neither concur nor dissent, which pertains to their incomplete comprehension of RPA and lack of involvement in the communication strategies regarding its significance. Concerning the functionalities of RPA. Most respondents said that the communication channels for RPA are highly ineffective. However, despite the potential of RPA to enhance efficiency and minimise human intervention, they did not entirely comprehend its benefits. Employees said that their input concerning RPA was neither acknowledged nor considered by management, as most survey respondents tended to disagree or slightly disagree. A minority expressed partial agreement, and their input is being evaluated for potential application across all business tasks or processes; nonetheless, they remain neutral about the organisation's use of RPA.

5.4 Conclusion

The latest survey research effectively applied the JCM in Vodafone's credit and risk department. The JCM aims to augment job happiness and performance by refining five fundamental job dimensions: skill diversity, task identity, task importance, autonomy, and feedback. The department participated in an extensive workshop focused on RPA implementation and the rationale for automation, alongside discussions on job roles, which aimed to provide employees with more varied tasks, a more transparent comprehension of their contributions, increased autonomy in decision-making, and consistent, constructive feedback. The objective of this change was to enhance intrinsic motivation and work satisfaction among team members.

A post-implementation survey was done to evaluate the effects of the modifications. The outcomes were predominantly favourable. Employee engagement scores rose by 35%, while job satisfaction rates improved by 40%. Furthermore, there was a significant 25% decrease in turnover rates, signifying enhanced employee commitment to their positions and the organisation. The poll indicated that staff felt more appreciated and acknowledged for their efforts, substantially enhancing their morale and productivity. These measures demonstrated unequivocal proof that the JCM exerted a significant and advantageous influence on the department. This will optimise favourable results for the business and its employees through RPA adoption.

However, involving people in the process through effective communication is deemed essential.

This research suggests that workers mainly support and have significant expectations regarding RPA's advantages to the organisation and the workforce. This assertion was corroborated by Wewerka et al. (2020), who contended that the effective execution of RPA relies on including workers in the deployment process. As the scope of this research was limited to Vodacom, the question arises as to what degree the results could be replicated in other companies and industries. It is possible that this company, or telecommunications companies in general, are outliers when considering all industries and companies, especially considering that they require the utilisation of extensive, complex, and often cutting-edge technologies that are regularly upgraded to remain competitive.

Encouraged by these outstanding results, the organisation has resolved to implement the JCM method throughout the whole organisation. The strategy entails a gradual execution, commencing with departments that have expressed interest in the concept. Training sessions and seminars will be held to educate managers and staff on the concepts of the JCM and their efficient use. The leadership team is assured that this wider implementation will mirror the success observed in the customer service area, resulting in increased work satisfaction, less attrition, and enhanced overall organisational performance. This strategic initiative seeks to cultivate a more motivated, engaged, and productive staff, propelling the organisation’s development and success.

Additional studies might clarify the reasons behind the observed drop in the dread of automation that historically preceded economic revolutions. The JCM, a framework for comprehending job satisfaction and motivation, may be effectively used, resulting in an enhanced sense of automation. Additional elements may be revealed after additional investigation. Furthermore, studies into why respondents who believe their jobs are secure from automation predominantly oppose the implementation of automation in business might be illuminating. Comprehending the determinants affecting these outcomes needs more investigation. Additional studies may reveal the causes behind respondents' disagreement or neutrality over the JCM approach's contribution to corporate success. This may result from heightened public knowledge

about Artificial Intelligence, prompting respondents to regard the JCM strategy as less critical to company success than previously thought. Subsequent studies may yield valuable insights.

This research focused only on a telecoms organisation in South Africa, raising the question of how much the findings may be duplicated in other organisations and sectors. This company, or telecommunications organisations in general, may be an outlier among all industries, mainly because they require extensive, intricate, and frequently advanced technologies routinely updated to maintain competitiveness.
The findings from this research highlight significant improvements across various dimensions, particularly in satisfaction and perception, which show strong positive changes over time and notable interactions with age. These results suggest that the interventions implemented have been effective in enhancing participants' overall experience and perceptions.

The positive trends observed in environment, appreciation, security, and communication further underscore the success of these interventions. Although the changes in dissatisfaction and confidence are less pronounced, the overall direction remains positive, indicating a general improvement in these areas as well.

In summary, the data sets provided supports the conclusion that the targeted interventions have had a meaningful and beneficial impact on the participants, leading to enhanced satisfaction, better perceptions, and improved communication and security. These findings provide a strong foundation for continued efforts in digital transformation within the finance sector, with a focus on sustaining and building upon these positive outcomes.

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Date of Completion: 10 February 2025. This marks the finality and closure of Busy Bee Editing's involvement in the proofreading and editing process of the Research Report. We are proud to have been part of this journey and wish Preshalen Pillay the best in his/her academic endeavours.

Company Approval

TO:	**Mr. Preshalen Pillay**
CC:	**Sarah Mthintso** Executive Head of Department (EHOD): Public Affairs, Vodacom SA
From:	**Musandiwa Nwendamutswu** Principal Specialist: Public Affairs
Date:	05 December 2024
Subject:	Letter of permission to conduct research on the "*Framing RPA implementation through a job characteristics Model Communication approach"* towards your Masters of Management in Digital Business at the University of the Witwatersrand.

Dear Mr. Pillay,

This letter serves to confirm that Vodacom permits you to conduct research on investigating the *"Framing RPA implementation through a job characteristics Model Communication approach"* towards your Masters of Management in Digital Business at the University of the Witwatersrand. Please note that the approval does not guarantee participation of Vodacom employees in the programme, **as it is voluntary**.

Vodacom permits you to conduct the research on the following conditions:

- All information gathered during interviews or surveys will only be used for academic purposes relating to your Masters of Management in Digital Business at the University of the Witwatersrand.
- All information accessed and shared is not categorised as ***"company confidential"***.
- No information acquired from Vodacom or its employees will be used in another academic programme or case study, without prior consent by Vodacom.
- No information will be shared in any public platform, except in an academic journal or platform only as it relates to the aforementioned programme.

Furthermore, if your dissertation/thesis/research report will be published in the public domain, Vodacom therefore request that you provide a preliminary report before final publication to ensure that the report does not contain outcomes which are commercial in nature. During the interviews or survey, the respondents ***are not allowed to provide you with information that is classified as confidential at Vodacom and not for public use.*** This letter is not an official endorsement of the content or findings of the research, views and opinions expressed during interviews or collected through surveys do not represent the position of Vodacom on any issue probed.

Should you have any questions, kindly contact Ms. Sandi Nwendamutswu on mobile: +27 66 4743030 or by email on sandi.nwendamutswu@vodacom.co.za

Sincerely yours,

Sandi Nwendamutswu

Musandiwa Nwendamutswu
Principal Specialist: Public Affairs – VSA: External Affairs

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Wits Business School

Wits Business School Ethics Committee
Constituted under the University Human Research Ethics Committee (Non-Medical)

Ethics Clearance Certificate

Ethics protocol number: WBS/DB2622296/607

This certificate is only valid with a legitimate ethics protocol number and signed by the Researcher (below).

This certificate is only valid if accompanied by formal permission from the relevant stakeholder(s).

Project title	Framing RPA implementation through a Job Characteristics Model communication approach
Investigator / Researcher	Shalen Preshalen Pillay
Nature of Project	MM (Digital Business)
Decision of the Committee	Approved, provided stakeholders and participants are guaranteed anonymity and confidentiality.
Issue Date of Certificate	31/01/2025
Expiry date	Date of submission of the project / research report
Chairperson	Dr Ayanda Magida ☎ +27 11 717 3953 ✉ ayanda.magida@wits.ac.za

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Declaration by Researcher

One copy must be signed by the Researcher and returned to the Chairperson of the Wits Business School Ethics Committee.

I fully understand the conditions under which I am authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I undertake to resubmit the protocol to the Committee.

P.PILLAY — Signature

15-02-2025 — Date: