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THE IMPACT OF ORGANISATIONAL GOVERNANCE ON TEAM AUTONOMY IN LARGE-SCALE AGILE PROJECTS

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A research report submitted to the Faculty of Commerce, Law, and Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Management in the field of Digital Business

November 2023

Declaration

I, Bridgette Sebueng Dhlamini, declare that this research article is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Management in Digital Business at the Graduate School of Business Administration, University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Bridgette Sebueng Dhlamini

Signed at Johannesburg

On the 09 November 2023

Abstract

Traditional software development methods have proven to be ineffective for large-scale projects in the current digital era. This, as well as the complexities of large-scale projects, has exacerbated the need for more and more organisations to adopt agile project methodologies for large-scale projects to keep up with the fast-paced technology landscape. The adoption of agile methodologies can only work if it is supported by organisational structures that enable agile to be effective. These include governance structures and organisational culture that enable continuous rapid delivery of quality software. Team autonomy is key in enabling fast-paced delivery, and there should be alignment between the organisational governance structures and the autonomy of project teams. It is not clear as to what level of autonomy should be afforded to project teams, at the same time ensuring that the project receives the right level of oversight. The research followed a qualitative research approach, and 10 participants who had experience working on agile projects in one of the big banks in South Africa were interviewed. The study found that the lack of team autonomy in large-scale agile projects was due to the organisation's little to no tolerance for risk and the blaming culture. To change this, the organisation needs to cultivate a learning culture that will allow project teams to learn and grow through their mistakes.

Keywords

Agile, Culture, Governance, Large-scale, Learning, Team Autonomy

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Dedication

I dedicate this report to my mother and husband, who supported me throughout this journey. This journey would not have been possible without your love and support.

To my amazing husband, Michael Dhlamini, thank you for believing in me and seeing the best in me even when I had nothing to offer. Thank you for giving me a stable and peaceful home that allowed me to focus on my studies with ease.

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List of Acronyms

DAD	Disciplined Agile Delivery
ICT	Information and Communication Technology
IT	Information Technology
LeSS	Large-Scale Scrum
RACI	Responsible, Accountable, Consulted, and Informed
SAFe	Scaled Agile Framework

Chapter 1: Introduction

1.1. Background to the Study

Technology projects within organisations are becoming bigger as technology adoption around the globe is growing at a rapid speed. As a result, more and more organisations are involved in large-scale Information Technology (IT) projects to survive and meet customer demands in the digital age. Organisations have always associated large-scale projects with the traditional approach of project management, with clearly defined roles and governance processes (Moe et al., 2021). There are a number of traditional software development methods, such as the spiral approach, and evolutionary approach, and the most common one is the waterfall methodology (Al-Saqqa et al., 2020). This traditional approach is known as the waterfall methodology. It uses a sequential stages model for software development and requires detailed designs of software before development can commence (Hariyanto et al., 2022; Mahadevan et al., 2015). This method was preferred by most organisations as they claim it allows them to plan and prepare in advance and keep the software quality under control (Pujawan et al., 2022).

This methodology was inherited from the construction and hardware manufacturing strategies in the 1970s and was found by organisations to be effective in controlling project costs and schedules (Malik et al., 2021). Although the method has been adopted and successfully implemented by many software development organisations, its founder had criticised it as a “flawed software development method that’s vulnerable due to its shortcoming” (McCormick, 2012, p. 3). Some of the waterfall methodology’s shortcomings are the lack of flexibility in software development, a plan-driven approach to projects, lengthy delivery timelines, and focus on processes rather than stakeholder value (Fagarasan et al., 2021). Due to its linear approach, system faults and problems are only identified at the testing stage, resulting in the project taking very long to be delivered (Alharthi & Khayyat, 2022).

Large-scale projects often involve several stakeholders, internal and external, in the organisation. These stakeholders need to be aligned to meet organisational strategic objectives. Furthermore, the large nature of the projects implies that should anything go wrong with the project, the impact on the organisation and the project stakeholders

will be immense. For this reason, organisations have governance structures in place to oversee the implementation of projects, minimise their failure, and, most importantly, monitor the associated costs. Most of the existing governance structures within organisations are aligned with the traditional approach of project management and can frustrate project teams when applied to other project methods and can cost more money and time (El Khatib et al., 2022). However, large-scale projects do not always stick to the original plan, as systems grow in complexity when projects evolve (Moe et al., 2021), making it difficult for project teams to stick to the fixed scope as expected in waterfall projects.

Research has shown that by the time projects are delivered using the traditional project methodology, user requirements have either changed or are no longer relevant. Furthermore, traditional project management methods are seldom able to achieve the required level of innovation to create new exciting features that would attract new customer markets (Malik et al., 2021). Some researchers maintain that adopting a hybrid approach of combining waterfall and agile methodologies may be feasible, as project teams can retain the waterfall benefits and take advantage of the agile benefits (Marques et al., 2023). The agile methodology was developed to deal with some of the challenges experienced with the traditional project management method and accelerate the delivery of projects by allowing iterative development and continuous feedback (Raj & Sinha, 2020). Agile methodology can be described as software development methods that deliver software in iterations, placing focus on people and communication (Kumar & Bhatia, 2012). It outlines a culture that is welcoming to changes in stakeholder requirements at any stage in the project (Wafa et al., 2022)

The growing adoption of agile methodologies by scaling organisations has been attributed to organisations finding new ways of authority distribution amongst project teams and organisational management (Moe et al., 2021). Some of the roles that managers traditionally perform in traditional project management methods are distributed amongst team members within the project, thus promoting team autonomy, flexibility, and project delivery speed. The main characteristics of agile teams considered for this research involve team autonomy, flexibility, team co-location, and speed (Lugnet et al., 2021). This study will focus on the team autonomy characteristic of agile teams. Team autonomy refers to the individuals within teams having the power

to make decisions concerning their work allocation, activities performed, stakeholder engagement, and conflict resolution (Moe et al., 2019). Malik et al. (2021) define autonomy as an employee or team member's ability to complete a task how they see fit. Autonomy and employee empowerment have been attributed to employee motivation and job satisfaction improvements, thereby increasing productivity and innovation (Ochoa Pacheco et al., 2023).

1.2. Purpose of the Study

This study aims to understand the impact of organisational governance on team autonomy in large-scale agile Information and Communication Technology (ICT) projects. A qualitative research approach was used, wherein participants were interviewed within a team involved in large-scale agile ICT projects in one of the South African banks. The qualitative approach is chosen for this research to gather a worldview understanding of agile team frustrations concerning autonomy and organisational governance.

1.3. Context of the Study

Business needs for IT are increasing at an alarming speed as business units are trying to keep up with digital trends. This poses a problem for IT divisions as they are not able to keep up with IT demands from business units at the speed required. This has resulted in the adoption of shadow IT by business units to try and close the gap. Shadow IT can be defined as the use of IT related hardware, software, and cloud services by business departments or individuals without the involvement or approval of the IT department (Haber & Carmeli, 2023; Kopper & Westner, 2016). The use of shadow IT in organisations has been linked to a number of risks that may harm the organisation's data and reputation (Kirvan, 2021). Adopting the agile methodology is one of the most effective ways to enable IT to meet ever-changing business IT needs at the speed required (Mokhtar & Khayyat, 2022). The agile methodology enables the development and delivery of software into small iterations that businesses can start using while other features are being developed, thus, enabling speedy delivery, fewer

failures, improved customer satisfaction, and, most importantly, learning (Ben-Zahia et al., 2022).

A learning organisation is one with a strategy that contains and supports constant learning and growth (Senge, 1990). Researchers claim that becoming a learning organisation guarantees organisations' success in the long term (Acevedo & Diaz-Molina, 2023).

At learning organisation has five key traits (Senge, 1990):

- System thinking (Learning culture) –every employee's voice counts; peers' opinions are valued and always leave room for innovation. Research has found that when employees spend more time within a learning organsation, they adopt a learning culture and gain more confidence in sharing their knowledge (Atiku et al., 2022).
- Personal mastery (Continuous learning) – have a forward-thinking mindset and apply your knowledge to practice.
- Mental models (Room for innovation) – the organisation must be accommodating to risks that may occur as part of learning to allow employees to learn from mistakes and continually improve.
- Shared vision (Forward-thinking leadership) – senior management should set examples for their teams, be willing to challenge assumptions, and encourage self-reflection. Leadership that tends to cling to old learnings and traditional processes and procedures limits the organisation's possibility of change (Crnogaj et al., 2022)
- Team learning (Knowledge sharing) – collaboration and knowledge sharing should be at the centre of each learning team. Leaning is said to have a positive impact on the organisation's existing employee confidence and engagement and attracts potential employees to the organisation (Imron & Indiyati, 2022).

The identified organisation is one of the biggest banks in South Africa. The bank has adopted the hybrid working mode, and as a result, there has been a very high demand for IT projects to be implemented to support the working mode. The bank has put initiatives in place to adopt the agile methodology in order to meet high business needs. However, the adoption of the methodology has not taken off as anticipated.

The bank has a strong sense of governance and well-defined governance processes that must be strictly adhered to. The bank's leadership is responsible for taking most decisions by managing through committees and forums, which require detailed documents outlining the full scope of the work that will be carried out before any approvals can be granted, which can take months. This leaves little to no room for project teams to determine what works best in order for them to deliver to business timeously. This is not sustainable as it hinders the speedy delivery of IT services to business units.

The bank's project management style does not support the adoption of agile methodologies and is not enabling agile team effectiveness. Hackman studied the basics of team effectiveness, which resulted in him creating a model for team effectiveness, which he maintains determines a team's success. This model gives organisational leaders a basic set of elements to consider and systematically address if they want to succeed in empowering their teams (Malik et al., 2021).

Hackman stated that the following five conditions, as depicted in Figure 1.1, have to be satisfied for a team to be effective (De Meuse, 2009).

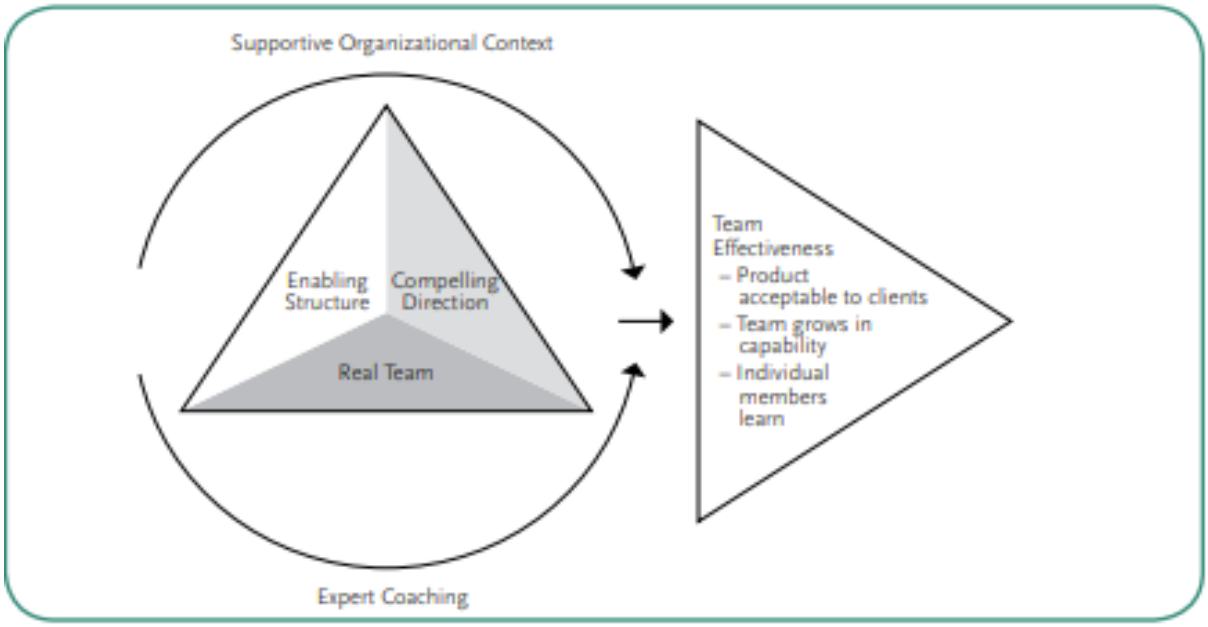


Figure 1.1: Conditions of team effectiveness

Source: (Hackman, 2002).

It starts with a supportive organisational context to establish whether the organisation is willing to give the team the right environment that will enable them to succeed. The team should receive adequate support for training, information access, and resources. Secondly, enabling structures which could be the level of cross-functionality within teams, whether the team has the right people, tasks, and agreements to enable teamwork. After that, a determination should be made as to what extent the team is a real team. A real team must have stability, tasks to be fulfilled, clear boundaries, and clearly assigned authority to make decisions. In addition, the team should provide a compelling direction that focuses on what needs to be ultimately achieved. Finally, expert coaching is critical in driving the development of a team, assisting the team in dealing with any issues that may arise, and helping the team set direction (De Meuse, 2009).

1.4. Research Problem

Researchers argue that the agile project methodology leaves little room for project oversight by parties external to the project, as agile was originally created for teams that are co-located and have the authority to make decisions about what and when to deliver (Strode, 2014; Talby & Dubinsky, 2009). Large-scale projects involve several stakeholders who are not located in the same area or company and several stakeholders with differing interests, which creates a challenge for the implementation of the agile methodology. It is believed that non-co-located lack the effectiveness that co-located teams have (Schmidt & Gutfreund, 2022). Furthermore, these projects require oversight as they have a big impact on the relevant organisations and often cost hundreds of millions or billions. Yet agile promotes autonomy in that individuals within agile projects should self-manage and self-organise to deliver cost-effective, quality products with speed instead of focusing on detailed documentation and processes (Zasa et al., 2021). Researchers maintain that in order to respond effectively to a world that is rapidly changing, organisations should adopt agile practices (Rosser, 2023).

Much research has been done on the use of agile methodology on projects and the adoption of the agile methodology by project teams. However, little is known about the

application of the agile methodology on large-scale projects and the impact that organisational governance structures have on team autonomy. This study aims to assess and analyse the existing literature on the use of agile methodologies on large-scale projects and how governance structures within organisations impact team autonomy. A qualitative methodology will be applied to gather data from individuals involved in large-scale agile projects.

The study's findings are intended to assist organisational leaders in working with agile teams to find a balance between governance and agile teams' autonomy.

1.5. Research Objectives

Main research objective: To assess the challenges with team autonomy in large-scale agile projects.
Sub-objective 1: To assess the aspects of organisational governance impacting team autonomy.
Sub-objective 2: To assess management support for team autonomy in large-scale agile projects.
Sub-objective 3: To assess how to balance governance and team autonomy in large-scale agile projects.

1.6. Significance of the Study

There are limited studies currently addressing the impact of Organisational governance structures on agile team autonomy in large-scale ICT projects in a South African context. Future areas recommended for study by recent literature are around finding how management support and agile team challenges can be addressed to enable successful large-scale agile projects within organisations. This study will contribute to the body of knowledge by analysing the impact of governance structures on team autonomy in agile projects. Furthermore, limited recent studies have been conducted on international organisations around team autonomy in agile projects: "Finding the sweet spot for organisational control and team autonomy in large-scale agile software development" (Moe et al., 2021, p. 100) is one study that was recently conducted in

Finland and the recommendations thereof were that further studies should be conducted to gain an understanding of how governance and team autonomy can be aligned.

This study contributes to the body of knowledge by assessing the efficiency of the theory around the level of governance applied to large-scale agile projects and its impact on team autonomy.

The study further aims to assist leaders in large-scale organisations to understand the impact of governance structures on team autonomy and how they can assist agile teams to be more autonomous yet contribute to the overall organisational strategy. Theoretically, the study contributes to the limited literature about the impact of organisational governance structure on teams involved in large-scale agile projects.

1.7. Delimitations of the Study

The study is limited to large-scale agile ICT projects in South Africa.

1.7.1. In Scope

- Review of agile practices within the organisation.
- Review of the decision-making structure of the organisation for agile projects.
- Review of people's involvement in decision-making for agile projects.
- Review of information available for project teams.

1.7.2. Out of Scope

- Other banking organisations.
- Other non-agile project team dynamics.

1.8. Definition of Key Terms

Table 1.1: Definition of key terms

Term	Definition
Agile	An incremental and iterative approach that allows flexibility to change requirements and development according to customer needs (Almeida & Espinheira, 2021; Sharma et al., 2012).
Large-scale projects	Projects involve several stakeholders with various influences on the project timelines and deliverables (Lu et al., 2014).
Governance	A controlled environment within which projects should function (Bekker & Steyn, 2009; El Khatib et al., 2022).
Autonomy	The empowerment of project team members to make decisions concerning how they perform their work, even if such decisions may result in financial implications for the organisation (Moe et al., 2019).

1.9. Assumptions

The assumptions made herein are that the organisation has previously used agile project methodology in large-scale projects. Another assumption is that the organisation's governance processes and procedures were applied when executing the projects. The final assumption is that the project involved external organisations.

1.10. Chapter Outline

This research report is outlined as follows:

Chapter 1 covers the purpose of the study, outlines the context in which the study is carried out, defines the problem being addressed in this report, and the objectives and significance of the study. The chapter also defines the terms used in this chapter and the assumptions made regarding the study.

Chapter 2 outlines the literature review conducted for the use of agile methodologies on large-scale projects and the impact of organisational governance on the autonomy of teams involved in large-scale agile projects.

Chapter 3 defines the methodology applied to gather information around the use of agile methodologies on large-scale projects.

Chapter 4 presents the findings of the study based on the data collected. The steps followed to collect and validate the data are outlined herein.

Chapter 5 discusses the findings of the analysed data, reviews the research questions in Chapter 1 and the hypothesis made in Chapter 2, and provides reasons where the hypothesis is not supported.

Chapter 6 presents the study's conclusion, outlines the study's implications on research, and makes recommendations for future research.

Chapter 2: Literature Review

2.1. Introduction

Technology projects are becoming increasingly large as global adoption increases. Traditional project management methods, such as waterfall methodology, have limitations such as lack of flexibility, plan-driven approach, and long delivery timelines. Agile methodology, on the other hand, focuses on iterative development and continuous feedback, allowing teams to make decisions about work allocation, activities, stakeholder engagement, and conflict resolution. This approach promotes team autonomy, flexibility, team co-location, and speed, allowing for better project delivery and increased productivity.

The study aims to understand the impact of organisational governance on team autonomy in large-scale agile ICT projects. A qualitative research approach will be used to interview participants within a team involved in large-scale agile ICT projects in a South African bank. The bank has implemented initiatives to adopt an agile methodology to meet high business needs, but the adoption has not been as successful. The bank's strong sense of governance and well-defined processes hinder the speedy delivery of IT services to business units. The bank's project management style does not support agile methodologies and enable agile team effectiveness.

Hackman's model for team effectiveness consists of five conditions: a supportive organisational context, adequate support for training, information access and resources, enabling structures, stability, clear boundaries, and authority to make decisions. Large-scale projects involve multiple stakeholders and require oversight, but agile promotes autonomy. This study aims to assess the challenges with team autonomy in large-scale agile projects, assess the aspects of organisational governance impacting team autonomy, assess management support for team autonomy in large-scale agile projects, and assess how to balance governance and team autonomy in large-scale agile projects. The study is limited to large-scale agile ICT projects in South Africa. It aims to assist leaders in understanding the impact of governance structures on team autonomy and how they can assist agile teams to be more autonomous while contributing to the overall organisational strategy.

This chapter begins with an overview of the study's theoretical framework. Thereafter, the chapter examines organisational governance, Large scale projects, Agile Theory, and characteristics of the Agile Methodology. Next, the chapter considers prior studies before presenting the study propositions. Finally, a summary is presented to synthesise the chapter.

2.2. Theoretical Framework

A theoretical framework provides the basis for this study's formulation (Levonen, 2021). This paper adopts Hackman and Oldham's job characteristics model, which maintains that employee motivation is influenced by the nature of the task or job that an employee is expected to carry out (Tang & Do, 2019).

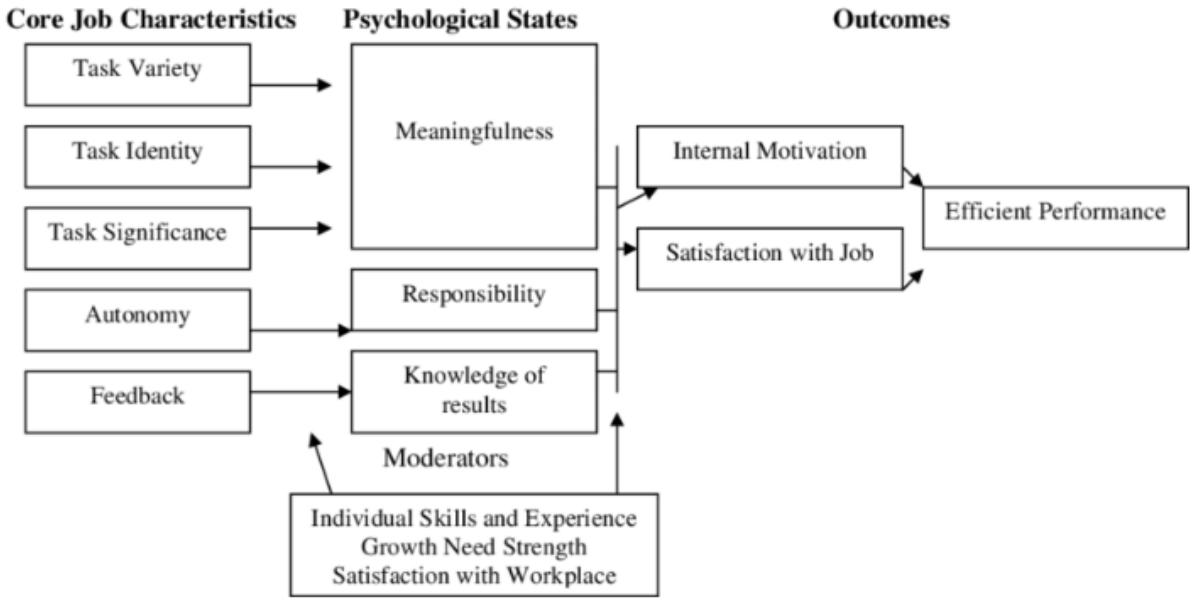


Figure 2.1: Hackman and Oldham's Job Characteristics

Per Figure 2.1, the model outlines five core job characteristics that can be used to determine job satisfaction (Ali et al., 2014):

- Task variety is the extent to which the job or task requires a variety of skills and talents that can be acquired over time. This has proven to improve job meaningfulness for employees.

- Autonomy refers to the degree to which the job enables freedom of an employee to complete their task, such as scheduling, organising, and working out the best way to get the job done.
- Task identity is whether there is a clearly defined path or process to complete a task that will lead to a tangible outcome.
- Task Significance is the degree to which the task or job has a significant impact and adds value to the organisation of impacted stakeholders.
- Job Feeback is where the employee is kept informed about the effectiveness of their performance.

The theory further states that the five core job characteristics have an impact on three critical psychological states of the employee (Serhan & Tsangari, 2022):

- Experienced meaningfulness of the work occurs when there are greater demands on the employee's skills and the task is of high importance to the organisation. This is linked to the core job characteristics of skill variety, task identity, and task significance.
- Experienced responsibility for the outcomes of the work is linked to the autonomy factor of the core job characteristics. This is experienced by the employee when they are responsible for performing their tasks how they see fit.
- Knowledge of the results of the work associated with the feedback from job core job characteristics. This can be achieved by getting feedback from relevant parties about the job being performed by the employee.

In addition, the three psychological states have an impact on four personal and work-related outcomes of employees. The higher the critical psychological states, the more positive the personal and work outcomes will be (Taylor, 2015):

- Internal work motivation, the more the employee feels that their work is significant and challenging, the higher the work motivation.
- When the employee feels comfortable with their management and team members, satisfaction with the work will be high.
- Absenteeism and turnover are generally low when employees are satisfied with their work tasks and environment.

- Quality work performance is high when an employee constantly works to improve their skills and efforts.

However, the limitations of this model are the moderators. Hackman and Oldham acknowledge that not every employee requires a challenging job and developed three moderators that affect how employees respond to job enrichment. Organisational leaders should consider moderators when enriching jobs (Taylor, 2015):

- Strength describes the degree to which the employee desires the need for autonomy, learning, and personal accomplishment at work.
- Knowledge and skill refer to the extent to which the employee's capabilities fulfil the job's demands. Employees are happier if their knowledge and skills can fulfil the job demands.
- Context satisfaction is the degree to which employees are satisfied with other aspects of their job, such as salary, line managers, and working conditions.

A study conducted by Blanz (2017) investigated the job satisfaction of employees within the social work industry against the core variables of the job characteristics models. The results revealed that all the variables of the model correlated positively with job satisfaction. In the study, the correlation between psychological state and job satisfaction was higher, implying that the psychological states of employees enabled the effect of job characteristics.

In another study conducted in a Napal IT company for information technology professionals, it was found that job characteristics positively impacted employee job satisfaction and organisational commitment. This study also indicated that knowledge employees preferred autonomy in how they complete their tasks from start to end (Saud, 2020). This implies that the more skilled an employee is, the more they are confident to make decisions about their work.

A study conducted at Bangladesh Universities to assess the job satisfaction of young faculty members revealed that task variety, autonomy, and feedback substantially impact job satisfaction. Autonomy was the most persuasive factor in the there job satisfaction characteristics (Karim & Rahman, 2020).

Contrary to the above, a study conducted in the South African hospitality industry, where the retention of millennial employees was a challenge, revealed that autonomy and task identity were the factors that did not contribute to job satisfaction and motivation. The study revealed that millennial employees in the hospitality industry preferred to be guided on what to do and how it should be done. This was attributed to the labour-intensive nature of the industry, long hours, and hectic work schedules, which did not leave room for personal development (Seqhobane & Kokt, 2021). This supports Hackman's moderators that skills and knowledge influence the employee's desire for a challenging job. In this case, employees may not desire autonomy as they do not feel knowledgeable and skilled enough to handle the challenges.

It may not always be possible to eliminate all limiting moderators because some roles in the team have to be part of the project irrespective of their feelings toward their work. Some key roles, such as Architects and Specialist Developers, cannot be substituted with inexperienced individuals.

2.3. Overview of Concepts

2.3.1. Organisational Governance

Organisational governance is the deployment of instruments and mechanisms to influence the organisation's employees and stakeholders to contribute to the overall growth of the organisation (El Khatib et al., 2022). Organisational Governance provides a framework from which decisions affecting the organisation and managerial activities are formulated based on transparency, accountability, and well-outlined roles (Too & Weaver, 2014). Governance structures can be formal or informal. Commercial practices and corporate regulations inform the formal structures, and the informal structures arise from cultural norms within the organisation (Klein et al., 2019). The above findings indicate that behavioural norms, which are part of the organisational culture, influence governance. It is, therefore, valuable to deal with the individual's mindset where governance practices are involved.

Governance applies at different levels within the organisation, the strategic governance level (Government, parliament), middle executive level (ministries and agencies), and operational level (Information and Communication Technology). The level of control at

the operational level is very limited and often prescribed by the executive level (Lappi et al., 2019). ICT project management falls within the category of operational-level governance, which is inherently limited. This implies that ICT project teams cannot have complete autonomy when dealing with projects and need to work with executives to have a common understanding of the overall organisational governance. Project governance outlines project objectives, resource allocation and monitoring the progress of the project (Fareed & Su, 2022). Project management is concerned with ensuring that projects meet their business case and are delivered on time, within scope and budget (Asgarkhani, 2013; ul Musawir et al., 2019).

Researchers argue that most ICT projects are not in alignment with the organisation's overall strategy. Hence proper governance in project management is required to ensure that value is derived from projects (Too & Weaver, 2014). This supports the need for organisations to look at adopting other governance practices that will allow project oversight and quick decision-making, such as Agile governance. Agile governance entails the implementation of practices that enable quick responses. This governance practice has been in existence for many years, and its adoption was exacerbated by the Covid-19 pandemic, which forced organisations to adjust (Janssen & Van der Voort, 2020) quickly.

2.3.2. Large-Scale Projects

Large-scale projects typically involve hundreds of geographically dispersed professionals (Almeida & Espinheira, 2021). Traditionally the best approach identified for large-scale projects was the conventional project management methods which involved a top-down approach with outlined governance and control structures (Moe et al., 2019). The traditional approach to project management has proven to be ineffective as large-scale projects can be complex, and as they evolve, reprioritisation and changes in scope may be required to ensure alignment with changing customer needs. To manage the complexities, organisations have adopted agile methodologies to allow flexibility, cost-saving, and speed of delivery (Moe et al., 2019). However, the application of agile practices to large-scale projects poses challenges to organisations

as it has been found that agile practices are often only applied in project teams and not throughout the entire organisation (Almeida & Espinheira, 2021).

2.3.3. Agile Theory Overview

Agile was first introduced in 2001 to improve project team collaboration, improve software development and meet ever-changing customer needs (Russo, 2021). The claims made by professionals who initiated the agile methodologies were that agile reduced the risk associated with software development (Almeida & Espinheira, 2021). Unlike traditional software development methods, such as the waterfall method, the agile methodology prioritises project team stakeholders and collaboration instead of processes and procedures (Zasa et al., 2021). The agile manifesto was based on four values that prioritised: “individuals and interactions over processes and tools, working software over comprehensive documentation, customer collaboration over contract negotiation, and responding to change over following a plan” (Almeida & Espinheira, 2021, p. 16).

The twelve principles listed below emerged from the agile manifesto (Kakar, 2023):

- Iteratively deliver useful software early to enrich customer satisfaction.
- Enable flexibility by accepting changes to requirements throughout the development lifecycle.
- Provide immediate value through the frequent provision of quality software.
- Close daily collaboration between business stakeholders and software development teams.
- Enrich communication through in-person collaboration.
- Provide an environment that will encourage project team motivation, support their needs, and trust the team to complete the job.
- The delivery of working software measures progress.
- Teams should be able to maintain a sustainable and continuous pace in software delivery.
- Maintain excellence through continuous improvement.
- Strive for simplicity and minimise waste.

- Self-organise to enable corporation.
- Constantly adapt to changing conditions.

Initially, agile methods were tried and tested on small projects and proved to be successful. The success of agile on small projects influenced the desire of project teams to apply agile methods on large-scale projects (Mordi & Schoop, 2021). Researchers argue that large-scale projects are struggling to implement agile-only projects due to the large nature of the project involving disparate stakeholders and the level of governance applied to such projects. Agile methodologies have been criticised for neglecting project documentation as it is of a lesser priority and for inaccuracies in project costs and time due to task reprioritisation and scope additions (Reiff & Schlegel, 2022). Contrary to the finding by Reiff and Schlegel (2022), other researchers maintain that the agile approach is one of the best approaches as it is all about improvement, therefore “if anything can be better, it must be improved” through feedback and learning (Alsharari et al., 2023, p. 2).

The challenges that organisations face with the implementation of agile on large-scale projects gave rise to the conception of several agile frameworks, such as Scaled Agile Framework (SAFe), Large Scale Scrum (LeSS), Disciplined Agile Delivery (DAD), etc. to supplement the existing agile methodology (Almeida & Espinheira, 2021).

2.3.4. An Overview of Agile Methodologies

Common agile methods that have been adopted by companies across the world for large-scale projects are Disciplined Agile Delivery (DAD), Scaled Agile Framework (SAFe), and Large-Scale Scrum (LeSS) (Russo, 2021). Research has shown that the South African software projects use the same agile methods for large scale projects as the rest of the world. (Joseph, et al., 2016).

2.3.4.1. Disciplined Agile Delivery

DAD was developed to supplement the SCRUM method to meet the entire project delivery value chain, from initiation to operations and support (Almeida & Espinheira,

2021). Teams that adopt this framework focus on implementing quality software that will deliver financial value to the organisation rather than on processes and procedures (Khoza & Marnewick, 2021). Furthermore, the framework allows flexibility in terms of role allocation depending on the team size. Teams using this framework can assume more than one role on the project, one being the primary role and the other a secondary role based on project needs (Almeida & Espinheira, 2021). The explored literature indicates that the DAD framework supports team autonomy as its focus is on the "people first" approach, allowing teams to assume more than one role in the project, thereby promoting learning and decision-making amongst team members. Unlike the SAFe framework, DAD does not focus on processes and procedures. However, with the large nature and different team locations, this may be risky as there can be team misalignment without proper controls.

2.3.4.2. Scaled Agile Framework

SAFe is an agile development framework designed for large-scale agile project environments and the most adopted framework for large-scale agile projects (Almeida & Espinheira, 2021). It has been adopted by large organisations in the information and technology sector, such as Intel, Cisco, and Hewlett-Packard (Levonen, 2021). This framework is a combination of the scrum, lean and agile frameworks and guides how the practices and principles of these frameworks should be applied (Almeida & Espinheira, 2021). Researchers argue that SAFe provides a structured approach to projects and leaves little room for team flexibility (Moe et al., 2019). This framework is more focused on the application of processes and procedures than DAD and LeSS. This is in contravention of the intended purpose of agile as it was developed to limit structured control and empower the team to be in control of projects and allow flexibility. Furthermore, researchers maintain that large scale requires a high level of coordination and oversight as the work by each team is influenced by input from other teams (Moe et al., 2019).

2.3.4.3. Large-Scale Scrum

This framework was created to support the application of scrum in large-scale agile projects with project teams based in different locations. It outlines the changes organisations require to formulate cross-functional teams to enable project success (Almeida & Espinheira, 2021). The LeSS framework is a lighter version of SAFe that focuses on transparency and ongoing improvement and focuses on individuals and collaboration rather than processes and tools (Levonen, 2021).

2.3.5. Characteristics of the Agile Methodology

Team autonomy, team co-location, development speed, and flexibility were some of the characteristics around which agile was developed (Lugnet et al., 2021).

2.3.5.1. Team Autonomy

Autonomous teams can be defined as a self-arranging group of employees to complete a set of tasks (Romford, 2021). Autonomy refers to the level of independence employees feel in scheduling their work and how it should be done; without trust, autonomy cannot be enabled (Hankendi, 2021). In support of the statement above, researchers maintain that the following are the five critical skills that should be present to successfully build autonomous teams (Dames, 2021):

- Trust and respect among team members and knowing when to ask for help.
- Effective communication skills can express one's needs, express and defend one's perspective and give and receive feedback.
- Strong relationships ensure that the right people are involved and give their input.
- A clear target of what the team is working towards.
- Team members must have confidence in their ability to get the job done.

Team autonomy entails the empowerment of project team members to make decisions concerning how they perform their work. Organisations' empowerment of project team members entails that organisations are willing to accept losses that may be incurred

due to decisions taken by individuals in agile project teams on behalf of the organisation (Moe et al., 2019). In agile projects, team members are given the authority to plan and schedule project activities as they see fit. Management will be responsible for managing team dynamics and making resources available when required while allowing team members full control of stakeholder management and creating an environment where mistakes are accepted and treated as lessons (Lugnet et al., 2021).

Today's projects are growing in complexity requiring the use of multidisciplinary teams that are geographically dispersed, which makes it unlikely to have a single individual possessing all the necessary skills and knowledge to carry the entire project team (Scott-Young et al., 2019). Autonomy requires multi-skilled individuals with the right skills to make decisions in their respective areas of expertise and substitute for one another when needed. Although autonomy has been found to positively influence team performance by enhancing their confidence and level of accountability, it is still unclear as to the level of autonomy that project teams should be afforded (Moe et al., 2021). In large-scale projects, some level of control will be required due to the level of complexity and high costs of large-scale projects and the level of impact on organisations should the project fail.

2.3.5.2. Team Co-location

Team co-location refers to instances where project team members are in the same office, ideally in the same office where they can meet regularly in-person to collaborate. With the adoption of digitisation, companies are adopting new mechanisms for teams to coordinate, making it easy for teams in different geographical areas to collaborate as required (Moe et al., 2019). Team co-location aims to ensure that teams can have short meetings when required to plan, reprioritise, and assign project activities without following formal processes.

2.3.5.3. Speed

Organisations are faced with fast-paced changes in technology and customer needs. This exacerbated the adoption of the agile methodology since it claims to shorten the delivery time of quality products at a lower cost compared to traditional methods such as the waterfall method (Mishra et al., 2021). Researchers claim that the biggest motivator for businesses to adopt the agile methodology is to close the gap between customer needs and evolving technology (Lugnet et al., 2021). For organisations to succeed in the digital age, they need to act with speed to keep abreast of competition.

2.3.5.4. Flexibility

Agile was formulated to accommodate changes in user requirements, reprioritisations in development, and adjustments in projects (Raj & Sinha, 2020). Agile allows users to add new features to the development and developers to alter coding as the need arises (Khan et al., 2021). Development emanates from the overall strategic goal where the design of the system is not detailed (Lugnet et al., 2021). Teams need to be willing to explore and make assumptions when working on agile projects.

2.4. Prior Studies

There are very limited studies conducted on organisational governance and team autonomy in large-scale agile projects. Several studies have been done around the challenges of scaling agile in South African organisations. However, no study has been conducted on the impact of organisational governance on team autonomy in South Africa.

2.4.1. Prior Studies on Team Autonomy in Agile Projects

Moe et al. (2022) conducted a study on finding the right balance between organisational governance and team autonomy. They applied Hackman's classification of unit authority to study two international large-scale software organisations in the

telecom domain, and the findings were that team autonomy was impacted by the need to align with the organisational strategy. They further found that the implementation of a top-down management approach impacted team autonomy negatively and that the one possible mechanism to improve team autonomy was the bottom-up approach. This study, however, had limitations in that it was only limited to two organisations in the telecoms space in one country and future recommendations were made to carry out a similar study in other industries and other countries.

In another study by Moe et al. (2019) titled Team Autonomy in Large-scale Agile, they conducted a case study on three large-scale projects to identify barriers to team autonomy in large-scale projects. The findings revealed that management did not include team members when making decisions, and teams often did not know the project's overall organisational goal. The study recommended that future studies focus on other factors impacting team autonomy in large-scale agile projects.

2.4.2. Prior Studies on Project Team Challenges in Agile Projects

A study conducted by Khoza and Marnewick (2021) titled 'Challenges and success factors of scaled agile adoption – A South African perspective' applied quantitative methods to uncover the critical success factors and challenges of scaling agile from a South African perspective. They found that lack of top management support was the most critical challenge for agile teams. Another finding was that the SAFe framework posed a lot of complexities for agile teams due to its structured approach. This study recommended that the scrum or scum framework be adopted due to its benefits of allowing flexibility. Future studies recommend finding how to improve top management's understanding of scaled agile.

In a study undertaken by Pawlak (2021), where they analysed the challenges and success factors on organisations' path to agile transformation, they found that the major challenge experienced by organisations in the implementation of agile methods was the overall management of agile projects. They recommended that organisations invest in change management initiatives well in time and work on changing the individual mindset to prepare their employees for agile transformation.

The quantitative study by Mishra et al. (2021), 'Organisational issues in embracing Agile methods,' gathered data from 52 agile software companies varying in size and found that the organisational culture, lack of management support, and large organisational sizes were some of the factors contributing to the issues organisations are facing with the adoption of agile methods. The future research recommended from this article is the study around the relationship between organisational culture and agile methods adoption.

2.4.3. Proposition 1: Lack of Team Autonomy Negatively Impacts Agile Project Success

Team autonomy is said to boost individual confidence and overall performance (Moe et al., 2021). Similarly, a lack of autonomy will have opposite outcomes of poor performance and reduced employee confidence. Agile project teams are often frustrated by the red tape that comes with governance processes and procedures within organisations, as it hinders flexibility and speed when delivering agile projects. Agile frameworks are not centred around adherence to processes and procedures but rather focus on delivering working end products, customer satisfaction, and adding value to the organisation (Khoza & Marnewick, 2021). Management should therefore afford teams some authority to make decisions provided that it is within the boundaries of the overall organisational governance and that teams have the right expertise to make such decisions.

2.4.4. Proposition 2: Lack of Management Support Negatively Impacts Team Autonomy in Agile Projects

Organisational culture is one of the elements that inform organisations' governance structures and processes. Often, organisations with a strong control culture struggle to adopt agile methods (Klein et al., 2019). To succeed in the adoption of agile methods, organisations start by changing the culture at the senior management level to allow teams to self-organise and self-manage. Agile should not only be applied at the project level but should be applied throughout the entire organisation (Lugnet et al., 2021).

2.4.5. Proposition 3: There is a Lack of Alignment Between Organisational Governance and Team Autonomy in Large-Scale Agile Projects

Although some level of governance should rightfully be applied to large-scale agile projects, executive-level management should work together with agile project team members to reach common ground and establish the areas that allow team autonomy. ICT projects fall within the operational governance level with limited authority and are expected to carry out projects that meet the strategy of the organisation. Yet, executives make decisions regarding the management of the organisation without consulting the relevant individuals involved in executing those projects (Lappi et al., 2019).

2.5. Chapter Summary

This study examines the impact of organisational governance on team autonomy in large-scale agile ICT projects in a South African bank. The study uses a qualitative research approach to interview participants within a team involved in large-scale agile projects. The bank's strong sense of governance and well-defined processes hinder the speedy delivery of IT services to business units. Hackman's model for team effectiveness consists of five conditions: a supportive organisational context, adequate support for training, information access and resources, enabling structures, stability, clear boundaries, and authority to make decisions.

The study adopts Hackman and Oldham's job characteristics model, which outlines five core job characteristics that determine job satisfaction. These characteristics impact three critical psychological states of employees: experienced meaningfulness of the work, experienced responsibility for the outcomes of the work, and knowledge of the work results. The study also identifies three moderators that affect how employees respond to job enrichment: strength, knowledge and skill, and context satisfaction.

Organisational governance is the deployment of instruments and mechanisms to influence the organisation's employees and stakeholders to contribute to the overall goal of the organisation. The study aims to assist leaders in understanding the impact of governance structures on team autonomy and how they can assist agile teams to be more autonomous while contributing to the overall organisational strategy. Organisational Governance is a framework that focuses on transparency, accountability, and well-outlined roles within an organisation. It applies at different levels within the organisation, such as strategic, middle executive, and operational levels. ICT project management falls within this category, and ensuring that projects align with the organisation's overall strategy is crucial. Proper governance in project management is essential to ensure value is derived from projects.

Large-scale projects often involve hundreds of professionals geographically dispersed, and traditional project management methods have proven ineffective. Agile methodologies, introduced in 2001, prioritise project team stakeholders and collaboration over processes and procedures. The AgileManifesto outlines twelve principles: iteratively deliver useful software early, enable flexibility, provide immediate value through quality software, close daily collaboration between business stakeholders and software development teams, enrich communication through in-person collaboration, provide an environment that encourages project team motivation, support their needs, and trust the team to complete the job.

Several agile frameworks have been adopted by companies for large-scale projects, such as DAD, SAFe, and LeSS. DAD supports team autonomy and allows flexibility in role allocation depending on team size. SAFe is an agile development framework designed for large-scale agile project environments and is adopted by large organisations in the information and technology sector. Researchers argue that SAFe provides a structured approach to projects, leaving little room for team flexibility. This framework is more focused on processes and procedures than DAD and LeSS, contrary to Agile's intended purpose.

LeSS is a lighter version of SAFe that focuses on transparency and ongoing improvement. Agile methodology has several characteristics, including team autonomy, team co-location, development speed, and flexibility. Team autonomy involves the empowerment of project team members to make decisions about their

work. Team co-location allows teams to collaborate in the same office, while speed is crucial for organisations to stay competitive in the digital age. Flexibility is essential for agile projects, as it accommodates changes in user requirements, reprioritisations, and adjustments.

However, there are limited studies on organisational governance and team autonomy in large-scale agile projects. Previous studies have found that team autonomy is impacted by aligning with organisational strategy and bottom-up management approaches. Future research should focus on other factors impacting team autonomy in large-scale agile projects. The study suggests adopting the scrum framework for flexibility and improving top management's understanding of scaled agile. Challenges faced in implementing agile methods include overall project management, organisational culture, lack of management support, and large organisational sizes.

Lack of team autonomy negatively impacts project success, and management support is crucial. Agile should be applied throughout the entire organisation, and alignment between organisational governance and team autonomy is needed in large-scale agile projects.

The reviewed literature suggests that there is still misalignment between the governance applied at the organisational level and that required in agile teams. Management support, organisational culture, and multiple agile teams' alignment are some of the factors that impact team autonomy in agile projects. Project teams and organisations need to know which agile framework to apply for each project based on the type of project, the project size, the level of complexity, and the appropriate level of autonomy required. Furthermore, organisations and project teams should leverage the strengths of the various frameworks by combining elements of various frameworks to suit their project and the organisation's requirements.

2.5.1. Proposition 1

Lack of team autonomy negatively impacts agile project success.

2.5.2. Proposition 2

Lack of management support negatively impacts team autonomy in agile projects.

2.5.3. Proposition 3

There is a lack of alignment between Organisational governance and team autonomy in large-scale agile projects.

Chapter 3: Research Methodology

3.1. Introduction

The study examines the impact of organisational governance on team autonomy in large-scale agile ICT projects. It focuses on a South African bank's adoption of agile methodology, aiming to assess challenges, governance aspects, management support, and balance governance and team autonomy. The research aims to help leaders understand the impact of governance structures on team autonomy and contribute to overall organisational strategy.

This chapter outlines the research approach, research design, data collection methods, population sampling, research instrument, data collection procedure, data analysis strategies and interpretation, limitations to the study, quality assurance, and ethical considerations.

3.2. Research Approach

This research adopted a qualitative approach because the study intended to gain a world view of the participants, including their interpretations of their organisation's governance practices. The qualitative research approach emphasises the collection of theories. It allows the interpretations of how individuals view their surroundings, unlike the quantitative method, which focuses on testing theories and views social realities as an external factor (Bryman, 2012).

The qualitative approach was chosen for this study as the study intends to gain an in-depth understanding of the participants' experiences, feelings, and opinions, understand the motivations for certain actions, and gain an understanding of the relationships between senior managers and project agile project teams and derive meaning from them, which cannot be captured with those quantitative methods. In his study, Weil (2017, p. 123) highlighted the advantages of qualitative methods as providing the ability to "capture the context, describe experiences, identify motives, highlight relationships and identify risk factors".

The assumption for this research was that the participants had sufficient experience working on large-scale agile projects in a specific organisation.

3.3. Research Design

The research design that was adopted in this study is the case study method, where a structured interview was conducted with participants involved in large-scale agile projects in the organisation. The study carried out an inductive approach to analyse the relationship between theory and the view of participants. An interview questionnaire adapted from Moe et al. (2021) was applied to this research.

A case study is defined as the investigation of groups or individuals to understand and analyse their variables, structures, forms, and interactions (Starman, 2013). Case studies have prevailed due to their ability to unearth narrative and ground breaking theoretical insights (Welch et al., 2020). Other qualitative research designs were considered, such as the experimental and cross-sectional designs. However, the choice for the case study design is influenced by the advantages of generating new theories. There is limited theory available around the impact of organisational governance on team autonomy in large-scale agile projects. Another motivation for the selection of the case study design is the uncovering of additional information that might not be anticipated for the research. These motivations are supported by Krusenvik (2016) where the author outlines the advantages of case studies as providing the ability to provide data about real-life issues, obtain relevant and detailed data, uncover the unknown, and gather an understanding of complex social phenomena (Krusenvik, 2016).

3.4. Data Collection Methods

Data was collected through interviews using online technology platforms such as Microsoft Teams. Formal meeting invitations with the link to the online platform were sent to the identified participants, and participants were requested to confirm their availability to attend the interview session. Online technology platforms provided the

ability to record the interview sessions for future reference. Furthermore, with the hybrid working mode, participants were able to attend the interview without creating any inconvenience to their personal space.

3.5. Population and Sample

3.5.1. Population

The population for this research consisted of individuals who are currently working or have previously worked on large-scale agile ICT projects in the organisation. The identification of the individuals was based on the premise that they would have been exposed to agile principles and methods, and it was anticipated that the findings would be accurate. The population further included the roles of the participants in the project. All roles are employed within the ICT department.

3.5.2. Sample and Sampling Method

The study interviewed 10 participants in the organisation; see Table 3.1. The identified participants were profiled based on the roles they occupied in the project. The critical case purposive sampling approach was applied as the research aimed to interview participants who have been exposed to or are currently working on large-scale agile ICT projects. Purposive sampling allows the researcher to only target participants that are pertinent to their research questions, the researcher relies on their discretion to choose study participants (Obilor, 2023).

Table 3.1: List of participants

Participant ID	Role
P1	Robotic Process Automation Manager
P2	Junior Business Analyst

Participant ID	Role
P3	Functional Specialist/Business Analyst
P4	Senior Business Analyst
P5	System Test Analyst
P6	Programme Manager
P7	Customer Service Manager/ Business Relationship Manager
P8	Lead Business Analyst
P9	System Test Analyst
P10	Business Relationship Manager/ Lead Business Analyst

Another sampling approach that was applied is the snowballing technique in cases where the identified participants recommend other relevant participants who were not initially identified (Obilor, 2023).

3.6. The Research Instrument

An interview guide was used to collect data from identified participants, and the interviews were carried out using a Microsoft Teams online platform. The choice of the online platform was informed by the ways of work adopted by the organisation currently, where individuals had options to work from anywhere. With the online interview, individuals were not required to change their daily routine or expected to travel to participate in the interview.

The interview guide consisted of semi-structured questions that were grouped into two parts. The first part focused on introductory questions seeking to understand the individual's role and perception of the organisation. The second part of the interview guide was focused on the decision-making process in projects and the organisation.

This was grouped into four themes: structure, people, information, and practices. The interview guide was adapted from Moe et al. (2021).

3.7. Procedure for Data Collection

Primary data was collected from identified participants through semi-structured open-ended interviews. Permission was requested from the departmental head, which was followed by a request for participant details containing participants' project roles and contact details from project and programme managers in the organisation. The identified participants were sent online meeting invitations and followed by telephone calls to minimise non-responses. The email invitation sample is attached in Appendix B. Consent forms, as attached in Appendix C. The interview guide attached in Appendix A was attached to the meeting invitation, and participants were requested to complete the consent form and email it to the interviewer. The identification of the interviewees was kept confidential, and the interview recordings and transcriptions were downloaded to the researcher's personal computer and backed up on Microsoft One Drive. The transcription was done with Microsoft Teams, which only the researcher and participant have access to, and the transcripted data was cleaned up for analysis by the interviewer.

3.8. Data Analysis Strategies and Interpretation

A thematic analysis approach was used for analysing data collected from participants. The thematic analysis allows the identification, analysis, and reporting of patterns within collected data in a meaningful way (Scharp & Sanders, 2018). This research aimed to understand the elements of organisational governance that impact team autonomy. The identification of patterns from participants' responses provided meaningful data for analysis. The transcribed interview data was imported into the Nvivo data analysis software, coded, and analysed, and themes were developed based on the identified codes.

The thematic analysis followed the six-step approach, see Figure 3.1.

The researcher used description-focused coding to avoid biases in the data, where relevant statements and responses that addressed the research objectives were identified, extracted, and labelled as codes. The codes were then categorised into themes based on their similarities or relatedness. The themes were then mapped and extracted from Nvivo for reporting.

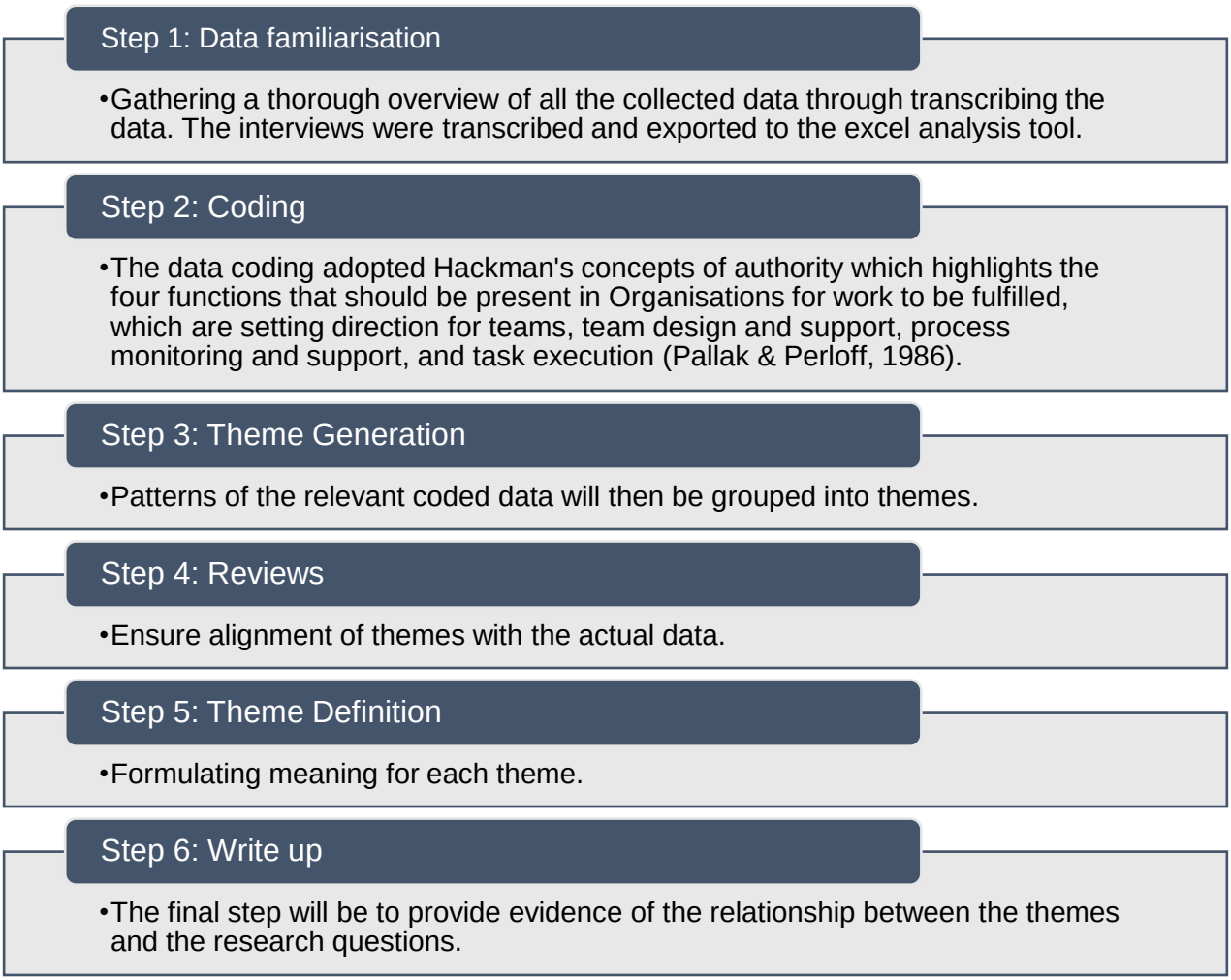


Figure 3.1: Steps for thematic analysis

Source: (Scharp & Sanders, 2018).

3.9. Limitations of the Study

There are some limitations to the qualitative research approach, some of which are the smaller size of the sample, which may affect generalisability, challenges with the analysis and interpretation of the collected data, and the amount of time required to analyse the cases (Rahman, 1998). These limitations were mitigated by selecting relevant participants, preparing well-structured interview guides, proper planning, and time management.

Furthermore, the case study design method has been criticised as it poses challenges. Generalisations cannot be made based on individual opinions; general knowledge carries more value than practical knowledge (Starman, 2013). Contrary to the claims by Starman (2013), this study aims to add to the limited theory that is available. Furthermore, the interview questionnaire has been adapted from similar interviews that were conducted in other companies.

3.10. Quality Assurance

Quality assurance on data is important in giving the consumers of the data confidence that the data is credible and can be trusted (Morse, 2015). Research trustworthiness can be validated by assessing the data's transferability, credibility, dependability, and confirmability. (Nowell et al., 2017).

3.10.1. Transferability

This is the extent to which the research findings can be transferred to other contexts (Nowell et al., 2017). The outcomes of this research may be transferred to other organisations that are scaling Agile within South Africa or other countries.

3.10.2. Credibility

Credibility refers to the reliance which can be placed on the data by other researchers (Morse, 2015). The credibility of this research was supported by the consistency of the approach with similar research previously conducted and using the interview adopted from similar research.

3.10.3. Dependability and Confirmability

Dependability and confirmability are recognised through data that is documented in a clear, logical, and traceable manner and clearly demonstrates the researchers' findings derived from the data and how conclusions were reached (Nowell et al., 2017). The detailed description of the methodology that was applied for this research accounts for dependability and confirmability. The methodology that was adopted for this research allowed a critical analysis of the findings. The themed interview guide also provided a mechanism to structure the collected data.

3.11. Ethical Considerations

To ensure alignment with ethical compliance, the following considerations were made (Arifin, 2018):

- *Anonymity:* The specific organisation and related participants were anonymised.
- *Ethical clearance:* University clearance was sought before the commencement of any data collection.
- *Protection of personal information:* The personal information of participants was protected.
- *Confidentiality:* Any other organisational information not related to the study was not disclosed.
- *No harm or offence inflicted on participating individuals or organisations:* Any organisational information that may threaten the organisation's reputation was not disclosed.

- *Approval from the Head of Department:* The relevant approvals were granted before the commencement of the interviews.
- *Informed consent:* All participants were asked to confirm their consent to participate in the study by signing the consent form.

3.12. Chapter Summary

This research adopted a qualitative approach to gain a world view of participants' interpretations of their organisation's governance practices. The case study design was adopted, involving structured interviews with participants involved in large-scale agile projects. The study used an inductive approach to analyse the relationship between theory and participants' views. An interview questionnaire was applied, and the population consisted of individuals working or having previously worked on large-scale agile ICT projects in the organisation. The sample consisted of 10 participants, profiled based on their roles in the project. The research instrument was an interview guide, and the study was conducted using Microsoft Teams online platform.

Primary data was collected through semi-structured open-ended interviews, with consent forms and transcripts kept confidential. Thematic analysis was used to identify patterns within collected data, and themes were developed based on identified codes. Thematic analysis followed the six-step approach, avoiding biases.

Limitations of the study include the need for quality assurance, ethical considerations, and a proposed schedule and timeline. The study aims to provide valuable insights into the impact of organisational governance on team autonomy and the role of the ICT department in shaping organisational governance practices. Qualitative research has limitations, such as sample size, data analysis, and time management. However, this study addresses these issues by selecting relevant participants, preparing well-structured interviews, and adjusting the interview questionnaire. Quality assurance, transferability, credibility, dependability, and confirmability are crucial for ensuring trustworthiness.

The methodology and themed interview guide allowed for critical analysis and data structure. Ethical considerations included anonymity, ethical clearance, personal

information protection, confidentiality, no harm or offence, approval from the Head of the Department, and informed consent.

Chapter 4. Presentation of Results

4.1 Introduction

This research investigates organisational governance's influence on team autonomy in the context of large-scale agile information and communication technology (ICT) projects. This study centres around the implementation of agile methodology by a South African bank. Its objective is to evaluate the obstacles encountered, governance considerations, the level of management support, and the delicate equilibrium between governance and team autonomy. This study aims to provide leaders with a comprehensive understanding of the influence of governance structures on team autonomy, thereby making a valuable contribution to the broader organisational strategy.

This chapter presents the findings of the study. The results are based on interviews with a targeted population of 10 participants who are currently or previously involved in agile projects in the identified organisation. At the time of the survey, the organisation had adopted a hybrid mode of working where most employees were working from home, although some were still involved in agile projects. The findings of the study were used to derive the most pertinent and common themes that surfaced through the use of the Nvivo Data Analysis Software. The process highlighted keywords, phrases, and feelings of employees. The data was collected using the methodology outlined in Chapter 3 of this research report, and the research questions that participants were asked to respond to are outlined in the interview guide attached in Appendix A.

4.2 Description of the Sample

A total of 10 participants were interviewed, and all their responses were usable. The availability informed this number of participants provided by the programme and project managers, as the organisation is still mainly using the waterfall methodology. External service providers did all system development work.

A list of the participants, their respective positions, duration in the organisation, and the decisions they are involved in are listed in Table 4.1 below. Snowballing and

purposive sampling were used to identify and select the ten individuals across the Information and Communications Technology Department that participated in the interview. These participants were suitable for the research as they had the appropriate roles, skills, and exposure to large-scale agile projects.

Table 4.1: Participant demographic list

Participant ID	Roles	Duration in Organisation	Decisions
P1	Robotic Process Automation Manager	>2 Years	Operating model formulation, Resource Management, Resource allocation
P2	Junior Business Analyst	>2 Years	Business Analysis related artefacts
P3	Functional Specialist	>5 Years	Project document completion and signoff
P4	Senior Business Analyst	<2 Years	Outlining project approach, outlining key deliverables, and delivery dates
P5	System Test Analyst	<2 Years	Development of test strategies, plans, and cases
P6	Programme Manager	>10 Years	Facilitate decision making, provide motivations for decisions to be taken
P7	Customer Service Manager	>5 Years	Project budgets, providing strategic direction, implementation of the developed software
P8	Lead Business Analyst	>5 Years	Business Analysis(BA) related activities, methodologies, and practices to be adopted. BA governance, resource allocation
P9	System Test Analyst	<2 Years	Development of test strategies, plans, and cases
P10	Business Relationship Manager	>10 Years	Aligning business demands with strategy, getting the required approvals, and resource allocation for Business Analysts

The selection of these participants enabled the researcher to gain a perspective of different professionals involved in large-scale agile projects in the identified organisation. All interviews were conducted online and recorded via Microsoft Teams. The participants were specifically from the ICT department in the identified organisation.

The selection of the organisation was based on the premise that there have been a lot of initiatives within the organisation to promote the use of the agile methodology within the organisation as ICT has been struggling to meet business demands at the speed that business requires. This resulted in abandoned projects due to changing business needs changed while the projects were still underway.

4.3 Findings

The purpose of the study was to address the following objectives:

Main research objective: To assess the challenges with team autonomy in large-scale agile projects.

Sub-objective 1: To assess the aspects of organisational governance impacting team autonomy.

Sub-objective 2: To assess management support for team autonomy in large-scale agile projects.

Sub-objective 3: To assess how to balance governance and team autonomy in large-scale agile projects.

The interview started with introductory questions that sought to understand the roles and decisions that each participant was involved in. All the participants shared the roles and decisions they were involved in. Half of the participants were in leadership roles and were responsible for managing a team and had responsibilities in the projects, and the other half were middle to junior level.

4.3.1. Key Enablers of Efficiency in the Organisation

Before addressing the research objectives, the researcher examined the participants' perception of the organisation by asking them what they thought were the key enablers of efficiency.

Most participants saw relationships with stakeholders, openness, work-life balance, and hybrid working mode as some of the efficiency enablers within the organisation. Some of the participants indicated that the organisation's governance processes were one of the enablers of efficiency. They indicated they had the right gatekeepers to make the necessary decisions and ensure policy adherence. These were highlighted in the statements below:

"The bank has a very keen sense of governance, probably the strongest I've ever seen in my career. They have well-defined policies and procedures to ensure compliance."

"I think for me personally is the governance, and I think we got it right from a governance perspective in terms of the gatekeepers of the solutions that we provide to business."

4.3.2. Key Obstacles to Efficiency in the Organisation

While some participants felt that the governance processes were well-defined, these processes seemed to be a source of frustration for most participants. Other participants felt that there are too many governance steps, resulting in decisions taking too long and business stakeholders resorting to doing projects on their own without the involvement of ICT. This is reflected in their responses to the question asking them what the key obstacles to efficiency were.

"Where it becomes difficult is where someone might resist and wants to be heavily involved, nitpicking every decision and plan and every timeline and all of that. That can make it quite difficult, especially if it's somebody that's not always involved."

“I think the workflow design in a way that too many people are involved with the decision makings or it’s too many approvals that we need, you know to complete this certain process.”

“The organisation in itself is very risk-averse, and that causes a blocker.”

“I think we take too long when it comes to responding to the needs of business, and I think there are a lot of governance steps that have to be followed, and we are not agile in those.”

The responses from the participants were themed to address the research objectives stated above.

4.3.3. Aspects of Organisational Governance Impacting Team Autonomy

The interview guide had a number of questions aimed at finding out what participants thought were aspects within the organisation that impacted team autonomy. To meet this objective, the researcher investigated the participants’ processes and procedures for decision-making, who is involved in the decisions and how those decisions are taken, and whether they thought all the processes and roles were adding value.

Figure 4.1 illustrates the evolving themes presented in the results.

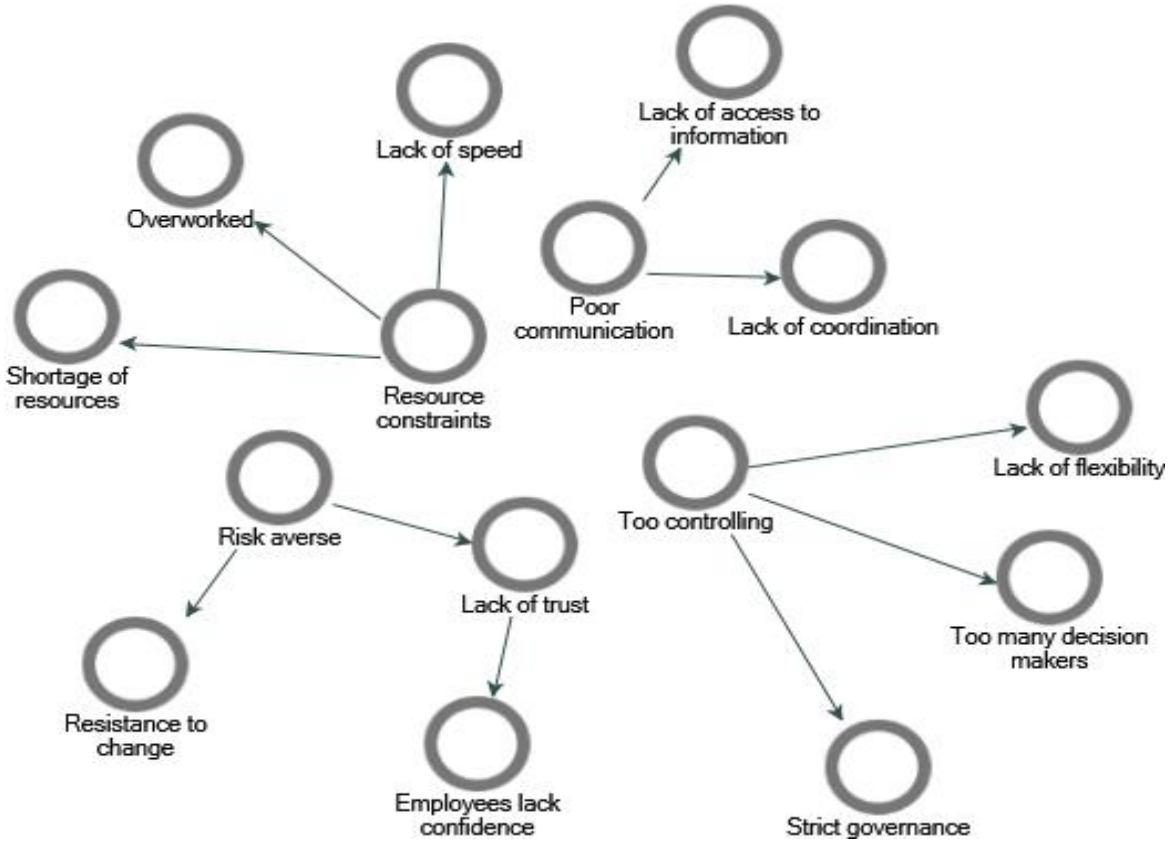


Figure 4.1: Thematic analysis of aspects affecting team autonomy

4.3.3.1. Level of Control in the Organisation

The first theme that came up was that the organisation was too controlling. Participants indicated that the governance was too strict in that all approvals had to be granted before they could proceed to the project's next stage, thereby creating delays. They shared that there were too many decision-makers and that the organisation should find ways to minimise the number of steps taken to get final approval. The other contributor was the lack of flexibility in that committee and forum members have fixed dates when they come together to make decisions and are not flexible enough to adopt other means that will allow faster decision-making. The statements below represent some of the sentiments expressed by participants:

"There are all these committees, you know, for everything. I sometimes think that they should be scaled down to a few decision-makers to make the decisions."

"I think there are a lot of governance steps that have to be followed. There's a lot of gatekeepers before you do something or before you can move to the next level."

"Some decisions need to be made within the steering community and all those forums. Yeah, I can say there are a lot of forums and a lot of committees that need to make decisions."

"You find that there are too many hands in the cookie jar or something, and that just gets confusing."

"My goal is not necessarily to have perfect documents because I can sit with perfect documentation and still with an unhappy customer."

"You are empowered, but then the leadership doesn't necessarily subscribe to that type of approach."

Participants appreciate that although all decisions that need to be made are intended for the good of the organisation, they are not working for stakeholder satisfaction and are hindering speedy project delivery.

4.3.3.2. Organisation's Attitude Towards Risk

The second theme that emerged was the organisation being risk averse. Participants indicated that management is comfortable giving control only when things go right, and as soon as things go wrong, they start blaming and reverting to the control and command mode of operation. Participants expressed that the organisation has a blaming culture, in that employees are afraid of being blamed for making mistakes and would rather get a decision from a collective. Some of the comments expressing the participant's sentiments are stated below.

"It's just that, as I said to my previous point, well then when things go wrong, it is precisely these very same committees that would want to take that control away because they believe this project that we've given them too much autonomy and they are doing their own thing."

"When the going gets tough, especially on the project, and things don't necessarily go as planned, we go back to our default mode of operation, which will be command and control. So we tend to revert to what we know best, and now leadership kind of says, well, things are failing because, you know, and maybe we've given too much

autonomy, and I've seen some of these things playing out to say, maybe we should be, managing by committees as has always been the case in the past."

"So I think they can take some of these decisions. I think the way the organisation is; I think the reason why people don't want to take those decisions is the blaming culture. If things go wrong, then they will be blamed."

"I'm not empowered because each and everything I should go to a boss to tick the box or to tell you how to do it. Sometimes you feel like your decision or your innovative ideas are undermined because now you have to go to someone else, then you have to go to another person to get the go-ahead."

4.3.3.3. Resource Constraints

Resource constraints were also sighted as a blocker. Participants indicated that resources would be assigned to projects in most instances and still be expected to run day-to-day operations. The focus would be on the day-to-day operational needs more than on projects. They shared that this impacts the quality of decision-making in that there is a lack of participation in projects and poor decision-making as input is not received from all relevant resources required for the project to work. This ultimately impacts senior management's trust in team members' capabilities to be autonomous, as it is mostly perceived as incompetence. Similarly, not having the right people involved in projects well in time leads to project delays and project teams taking too long to respond to the needs of business stakeholders. These are reflected in the sentiments below.

"You find that people are swamped, you know, they're stretched too much to the point that they can't give their all on these other tasks. Then some people perceive that the person is incompetent or is not capable of doing this work because now the person doesn't have much time to apply their mind."

"We are not necessarily doing that prioritisation and classification properly, and we tend to have more projects on our plates than what we have resources to actually deliver on those."

"For me, it's resources. I think from an ICT structural point of view, from a resources capability point of view, we haven't got it right yet whereby you find the same resources are involved in business as usual, and they are also involved in projects."

"And I think we take too long when it comes to responding to the needs from business, and then you find instances where business wants to do things on their own."

"At my level, I'm comfortable that if we are called upon to make decisions, we are making the right decisions, but then it's always that the next layer, and when things get to that point, it's key decisions that need to be made, but I don't see that happening as often as it should be and as consistent as it should be and that leads to other problems like delays on projects and morale going down and all sorts of other things."

4.3.3.4. Communication

Another significant theme that was raised was poor communication. Participants indicated that in order to make timeous and accurate decisions, they required access to updated information. They shared that information was not communicated in time to the right people and that it was not easy to find information as they relied on other people to share that information. Participants stated that poor communication also led to duplication of efforts as there was no coordination and prioritisation of activities. These are reflected in the statements below.

"I think our biggest struggle within the bank is around every man wants his own empire."

"I think I've seen instances where whoever shouts the loudest gets their projects or initiatives prioritised."

"There is a duplication of things coming through."

"I should think the information is there, but in most cases, we lack visibility of information."

"But if you are not included in the project early enough, you may not have all the required information to make decisions."

4.3.4. Current State of Management Support for Team Autonomy

The second research objective sought to uncover the perceptions of participants concerning management support for team autonomy. The interview guide included a number of questions that were targeted at gathering the participants' perceptions of the current state of management support for team autonomy. The responses indicated that there was a positive relationship and support between participants and their immediate managers. However, the misalignment seemed to be at the senior management level. Figure 4.2 highlights some of the themes that were developed based on the participant's responses.

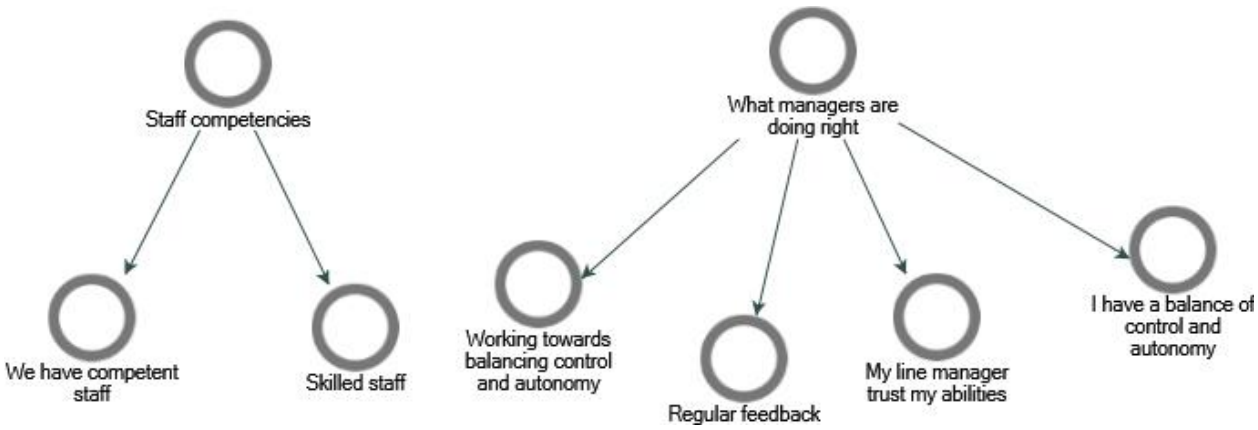


Figure 4.2: Management support to enable team efficiency

4.3.4.1. Staff Competency

Staff competency was highlighted as one of the support elements that management provided to their staff. Staff indicated that the organisation ensures that its recruitment processes enable the recruitment of some of the best professionals in the industry. They also indicated that there is a culture of excellence within the bank, where employees strive to complete their tasks with excellence. Constant performance feedback from their line managers was seen as an enabler for staff competency, as staff members know where and how they are performing. The statements below describe the participants' views.

"The way people work, they do work with a certain level of excellence, you know, so the culture, I think, is important there. That culture of excellence could also be an enabler."

"We've got the right level of competency."

"We do have guys that are competent enough to make, you know, decisions that would sort of, uh, enable or allow us to move quicker on, yeah, within the project side."

"Senior management maturity around project and program management."

4.3.4.2. What Management is Doing Right

The second theme was what management is doing right. Participants indicated that there was a level of trust between them and their immediate managers. However, the problem seemed to be at the very top. These responses indicated that there is willingness from some line managers to empower their teams. However, this is not aligned and implemented across the organisation, as some participants indicated that their managers want to be involved and approve everything they do. Some felt that the organisation is working towards establishing a balance. These sentiments were shared by participants who have been in the organisation for more than five years, stating that there has been some improvement in the past couple of years. This is highlighted in the sentiments below.

"I think we're learning. I think we're making a lot of mistakes in that learning given where we are coming from as a very conservative command and control-driven type of organisation to a point where now we want to give some of the autonomy to the right places in our governance structures."

"I think as an institution, we are not there from an autonomy point of view as yet because we are more on the control side, to be honest with you, and that is why you find that some of the programs or the projects take longer it's because of the governance, but I've seen some slight changes in the five years I've been in the bank."

One participant indicated that he had a bit more autonomy in his area and attributed it to the fact that his area was still new to the organisation. There weren't enough skills in the organisation to control his area.

"Look, I think that there is a bit of a balance because in my area, we are fairly new within the organisation, and I certainly think that I have a little bit more autonomy, but

what I don't know is whether that autonomy is around the skill set required to do what we do. Whether that is different from the rest of the organisation."

Regular feedback from line managers was also sighted as an enabler. Participants felt that knowing how you are performing helps in identifying areas where development is required.

"And also, I think, performance rating and motivation from line managers and project managers, you know, it's good and helps us to improve on what I'm doing well to continue doing that."

4.3.5. How to Balance Governance and Team Autonomy in Large-Scale Agile Projects

The third research sub-objective sought to uncover participants' ideas on what the organisation can do to balance governance and team autonomy. To address this objective, participants were asked to share their thoughts on what they think the organisation can do to improve decision-making in terms of speed, information input, and people. Four themes were developed based on participants' responses. Figure 4.3 below highlights the themes that were developed based on the participant's responses.

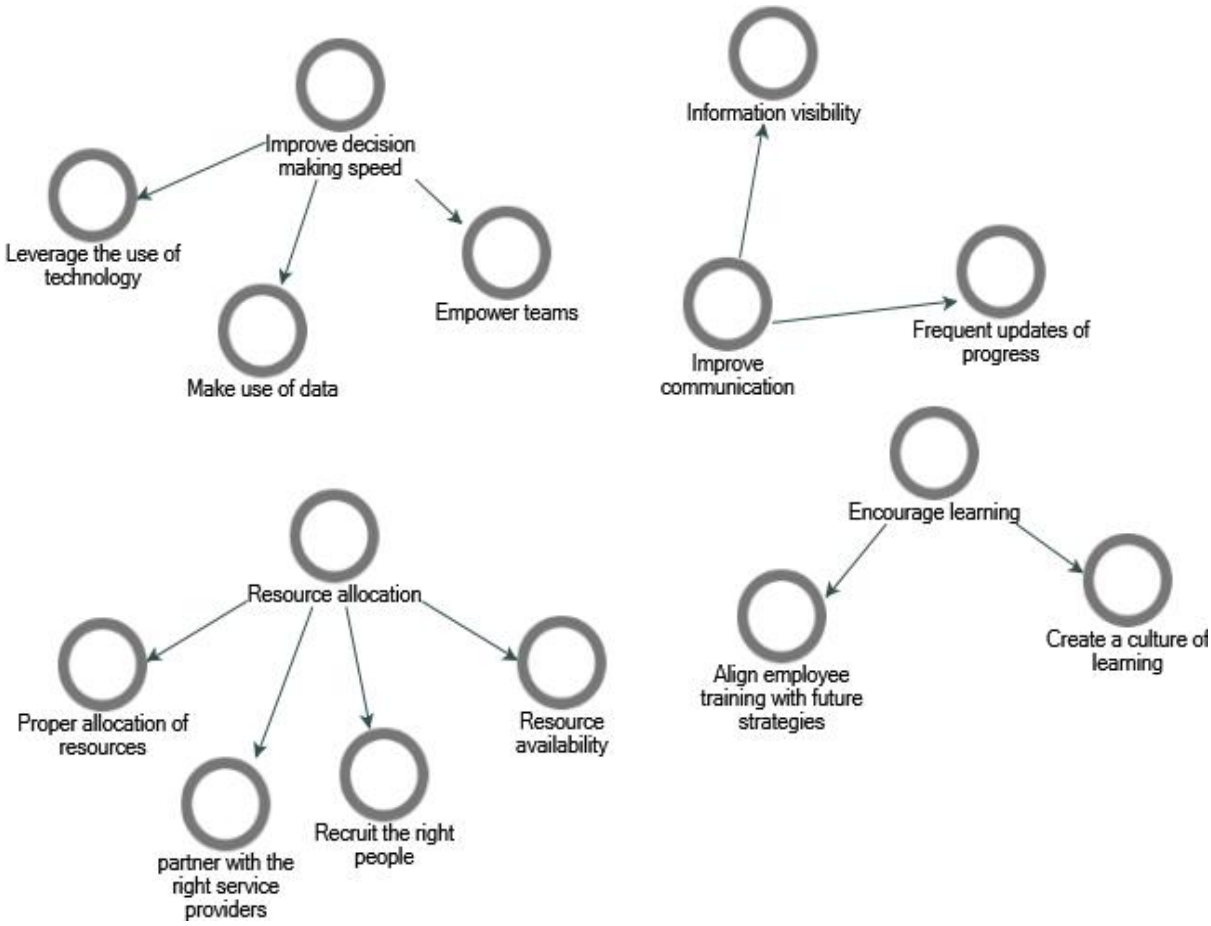


Figure 4.3: Themes on balancing control and autonomy

4.3.5.1. Improve Decision-Making Speed

The organisation's Decision-making processes were identified as one of the most pertinent stumbling blocks to team autonomy. Participants shared that they were not empowered to make all necessary decisions to deliver projects at the speed that business required. Yet acknowledged that as project teams, they could not be given all the autonomy with no control. There has to be some level of oversight from senior management. Participants also highlighted that management could improve decision-making through leveraging the use of technology and making use of data, knowing where the data is, and how to use that data to make timeous decisions, as expressed in the statement below:

"It starts with our data. For me that if you want to make better decisions, you need to actually know where your data is. Understanding where the data resides and what is

contained in the data can actually, in my opinion, minimise or simplify our environment, which means it can simplify our decision making."

"I think the use of technology could actually enable the bank to do more with less."

Participants also shared that empowering teams to make some of the decisions made in forums and committees can positively impact decision-making speed. This is highlighted in the sentiments below.

"Give the knowledge workers the autonomy to make the decisions. Then the speed will be there."

"They need to buy into what the project team believes in and give a strategic direction based on the different forums that they play in."

"I mean, we have people that are senior and well-informed, so I think they are capable of making some of those decisions."

"Senior management also having faith and believing in their subordinates that they can make better decisions."

4.3.5.2. Resource Allocation

Another theme that was developed based on participants' sentiments was resource allocation. Participants affirmed that allocating the right resources to projects well in time will benefit projects in that all the necessary roles will be part of the decisions required for the success of the project. In order to ensure that the right people are involved in the project, participants suggested the use of responsible, accountable, consulted and informed (RACI) tools like the RACI matrix to ensure that the project is properly resourced. These are highlighted in the statement below.

"I just think that over time as we are beginning to maybe be more disciplined around also assigning autonomy, we should also look at whether the right amount of stakeholders are involved and not more, not less. So upfront, as a cross-functional team or a project that is supposed to deliver a piece of work, we have to be clear as to

that framework of who's accountable, who's responsible, and all of those. So that we can be effective in our decision-making."

"I think making sure that the people that need to make those decisions are available."

"Getting the right people around the table helps in decision-making much quicker."

"The quicker you get the right people around the table."

4.3.5.3. Improve Communication

Many participants felt strongly that the organisation needs to make improvements in communication and information visibility. They shared that there was no central repository where they could access pertinent information and instead had to rely on others to share that information which is not consistent in the organisation. They highlighted that the organisation's standard operating procedures were not made visible and accessible for all relevant stakeholders to see, resulting in delays, duplication of efforts, and misalignment. These are shared in the sentiments below.

"Find ways to share knowledge and collaborate more."

"Sharing information about what others are doing instead of always having to ask for progress will help to ensure that we align our tasks and eliminate unnecessary delays."

"And I think there is definitely an opportunity to make your process transparent so people can actually, in terms of governance, people know what to do. Then you might not find a lot of audit findings as a result of people not knowing."

"Maybe on information, I think to reduce working in silos even within ICT, we don't share much information."

"Maybe we should have maybe a central storage where everyone can be directed if you want the information to help with decision-making."

"Internal Wikipedia and the likes where information is stored and it's there for everybody to read as standard operating procedures are well defined and well understood."

"The information and procedures should be made visible and should be accessible instead of relying on information that's in somebody else's head."

4.3.5.4. Encourage Learning

Essentially, participants articulated that the organisation should create a culture of learning. Allow employees to take calculated risks and make mistakes with the comfort that they will be backed up and not be blamed, as that creates fear, and employees would rather play safe by not taking any decisions. The statements below highlight some of the participants' responses.

"And maybe empowerment if maybe you think you feel that the person is lacking somewhere, then encourage development."

"It also goes back to the skill people, being skilled people, being informed."

"If the culture changes, then it will assist people to be willing to make those decisions as well because even if you give them power, they would be like, you know what if things go wrong?" Is it a culture that will encourage people to make their own decisions or not? And to say even if you make a wrong decision, it's part of learning."

"People must not be scared of being nailed for when they make mistakes. There must be room for mistakes as well."

4.4. Chapter Summary

The study focuses on the challenges with team autonomy in large-scale agile projects in an organisation. The research was conducted through interviews with 10 participants who were involved in various roles and decisions within the organisation. The organisation adopted a hybrid mode of working, with most employees working from home. The findings were used to derive the most pertinent and common themes through the use of Nvivo Data Analysis Software. The research was conducted using snowballing and purposive sampling, with the participants selected from the Information and Communications Technology Department.

The main research objective was to assess the challenges with team autonomy in large-scale agile projects. Key enablers of efficiency included relationships with stakeholders, openness, work-life balance, and a hybrid mode of working. The organisation's governance processes were also identified as key enablers of efficiency. However, key obstacles to efficiency included the organisation being too controlling, having too many decision-makers, and a lack of flexibility in decision-making. The study aimed to identify the most pertinent and common themes through the use of Nvivo Data Analysis Software.

The study reveals that the organisation is risk-averse, with management giving control only when things go right and blaming employees for mistakes. This blaming culture can hinder speedy project delivery and lead to a lack of participation in projects. Resource constraints also hinder decision-making, with most resources being assigned to projects and expected to run day-to-day operations. Poor communication also contributes to delays and incompetence in decision-making.

The current state of management support for team autonomy is positive, with a positive relationship between participants and their immediate managers. However, misalignment seems to be at the senior management level. Staff competency is a key support element, with the organisation ensuring recruitment processes enable the recruitment of top professionals and a culture of excellence within the bank. The study aimed to understand the role of performance feedback from line managers in enabling staff competency and promoting a culture of excellence. Participants believed that a culture of excellence could also be an enabler for staff competency and that the right level of competency was present. However, the organisation's management was not aligned and implemented across the organisation. Some participants felt that there had been some improvement in the past few years, but they still made mistakes in learning.

The research sub-objective sought to uncover ideas on how to balance governance and team autonomy in large-scale agile projects. Four themes were developed based on participants' responses:

1. Improve decision-making speed: Participants identified that decision-making processes in the organisation were not empowered to make all necessary decisions to deliver projects at the speed required. However, senior

management could improve decision-making by leveraging technology and data. Empowering teams to make decisions in forums and committees can positively impact decision-making speed. A central storage for information can help decision-making.

2. Improve resource allocation: Participants affirmed that allocating the right resources to projects well in time will benefit projects. They suggested using RACI tools like the RACI matrix to ensure proper resource allocation.
3. Improve communication: Many participants felt that the organisation needed to make improvements in communication and information visibility. They highlighted the lack of a central repository for accessing pertinent information and the need for more consistent information sharing. Sharing information about others' progress can align tasks and eliminate delays. Transparency in processes can help ensure governance.
4. Encourage learning: Encouraging learning and empowerment can help employees make calculated risks and mistakes. Encouraging learning and allowing mistakes are part of learning.

These findings are discussed and analysed in Chapter 5 of this report.

Chapter 5: Discussion of Results

5.1. Introduction

The research investigates the relationship between organisational governance and team autonomy in large-scale agile ICT initiatives. It centres on the adoption of agile methodology by a South African bank and seeks to evaluate challenges, governance aspects, management support, and the balance between governance and team autonomy. The objective of the research is to assist leaders in comprehending the impact of governance structures on team autonomy and contributing to organisational strategy as a whole.

This chapter provides a discussion of the research findings stipulated in Chapter 4 in relation to Hackman and Oldham's Job Characteristics framework and the research objectives, which were identified from the literature and used to provide a frame of reference for this study. The key learnings from Chapter 2 of this research report have been integrated with the key findings from the semi-structured interviews to generate a synthesis of the findings. The views of participants sought to uncover their perceptions on the current state of management control and support towards team autonomy in large-scale agile projects and provide ideas on how to balance control and autonomy for large-scale agile project teams.

5.2. Objective 1: To Assess the Aspects of Organisational Governance Impacting Team Autonomy

This objective aimed to determine and assess the aspects of organisational governance impacting team autonomy in large-scale agile projects.

5.2.1. Level of Control in the Organisation

The literature points out that the purpose of organisational governance is to provide a framework from which decisions affecting the organisation and managerial activities

are formulated and helps with outlining roles and levels of accountability (El Khatib et al., 2022). According to Klein et al. (2019), organisational practices and cultural norms inform governance structures through stakeholder engagement within organisations. Once the structures are formalised, they may resist change and require renegotiation to change. The Covid-19 pandemic has proven that many organisations had the ability to adjust to changes quickly, as it left organisations no choice but to adapt. This saw a lot of organisations move from traditional governance methods to other methods that enabled quick decision-making and response to changes, such as agile and adaptive governance methods (Janssen & Van der Voort, 2020).

Researchers state that projects require some level of oversight and that all control cannot be given to the project teams (Too & Weaver, 2014). Yet the principles of agile are based on organisation leaders trusting agile teams to complete the job and encouraging them to trust in their abilities to deliver what is required of them (Kakar, 2023).

The data collected from participants revealed that the organisation was “too controlling”. Participants indicated that there were too many committees and forums for all project-related decisions. This could indicate a lack of trust in individuals’ abilities to make the right decisions, resulting in all the committees where decisions have to be made by a collective. Participants’ sentiments about the lack of flexibility in decision-making support the claim by Klein et al. (2019), stating that once governance structures have been formalised, they may be resistant to change. The risk-averse nature of the organisation may be a contributing factor to the organisation’s resolution to manage by committees.

Hackman and Oldham’s job characteristic framework advocates that autonomy is one of the core job characteristics that should be present to influence employee motivation (Ali et al., 2014). It further maintains that the core job characteristics impact the psychological state of employees. Autonomy directly impacts the state of responsibility that an employee feels towards their job, which in turn impacts the performance outcomes (Taylor, 2015).

The responses collated from participants indicated that there were too many decision-makers and too many boxes that must be ticked before they could proceed to the next

phase. This supports Hackman and Oldhams's assertions that autonomy is one of the core job characteristics that should be present to influence employee motivation and the psychological state of employees. Similarly, the absence of autonomy, as it is in the case of the bank, would have the opposite impact on employee motivation. The lack of autonomy has been sighted by participants as a stumbling block to team effectiveness.

5.2.2. Resource Constraints

Contrary to Hackman and Oldham's claims, task variety is a core job characteristic that enables job satisfaction and employee motivation (Taylor, 2015). Participants sighted task variety as one of the aspects negatively impacting the quality of decisions made by team members. This statement (*"For me, it's resources. I think from an ICT structural point of view, from a resources capability point of view, we haven't got it right yet whereby you find the same resources are involved in the business as usual, and they are also involved in projects.")* articulates the sentiment. This may be due to the speed of delivery expected in agile projects and large projects, where team members are expected to maintain constant engagements with many stakeholders.

The agile principles of close daily collaboration between team members and teams' ability to maintain a continuous pace in software delivery (Kakar, 2023) support this statement. If team members are involved in other operational responsibilities, they cannot provide the required effort, availability, and commitment to the project. Although agile practices support task variety, they should be within the context of the project (Mordi & Schoop, 2021).

5.2.3. Risk Averse

Affording teams autonomy entails that the organisation is willing to accept any losses that may occur resulting from the decisions taken by team members in agile projects (Moe et al., 2019). This entails that the organisation should have room for mistakes and see them as lessons that will enable their employees to grow (Lugnet et al., 2021).

The agile philosophy about improvement, “if anything can be better, it must be improved”, advocates that teams should fail fast, learn faster, and improve (Alsharari et al., 2023, p. 2). Without failure, the opportunity for project teams to learn is limited and inhibits growth and the opportunity to improve continuously.

Contrary to the above, participants indicated that senior management is comfortable with giving autonomy only when things go right, and should things go wrong, they start blaming and revert to the default mode of operation, which is control and command. This results in employees lack of unwillingness to make decisions because they fear being blamed when things go wrong. The bank’s attitude toward risk can also be seen in the management style where committees take decisions. This may be intended to minimise the possibility of wrong decisions being taken that may result in losses for the organisation.

The responses from participants support Hackman and Oldham’s job characteristic of feedback. Feedback entails keeping the employee informed about their performance on the allocated task (Ali et al., 2014). This, in turn, will have an impact on the psychological state of the employee, which will impact employee motivation. In the case of the bank, participants indicated that they often get blamed if things go wrong and are not supported and guided to do better in the future. This is an indication of negative feedback received from senior management and, in turn, had a negative outcome: a lack of confidence to make decisions because they fear making mistakes and being blamed.

A study conducted in the hospitality rebranding project is proof that when management stops blaming and works with project teams to find solutions, the impact on team performance and motivation will be positive. A study which was conducted by Wang et al. (2019) in the hospitality industry during a hotel rebranding project found that employees’ confidence in their performance improved, and they effectively identified solutions to specific problems without fear of being blamed. This was achieved because managers provided constructive feedback on employee performance and worked with employees to try and find solutions to improve on what went wrong instead of blaming them.

5.2.4. Poor Communication

Some of the principles that agile is centred around are (Kakar, 2023):

- Close daily collaboration among project team members
- Enriched communication through in-person collaboration
- Continuous improvement through feedback and learning

This entails that communication is key in enabling agile project teams to succeed. The large nature of the project with teams in dispersed geographical locations makes the need for communication even more pertinent, as teams need to know where they are in the project.

Responses collated indicate that there is no alignment to the theory above. Participants sighted lack of access to up-to-date information as a stumbling block that had a huge impact on the quality of decisions they made and resulted in duplication of efforts as they did not have a view of what others were working on. This may be the reason there is duplication of efforts and employees being overworked and experiencing burnout unnecessarily.

Participants also indicated that communication is not sent to the right people on time. For software development teams, communication includes regular feedback about system performance from stakeholders that is pertinent in enabling continuous improvement of the software. This is not aligned with Hackman and Oldham's job characteristic of feedback. Lack of feedback about system performance will result in the team not knowing which areas need improvement and may result in continued stakeholder dissatisfaction.

In summary, sub-objective one has been met as the aspects impacting team autonomy within the bank have been uncovered and assessed. The findings above further prove that Proposition 1 is true.

5.3. Objective 2: To Assess Management Support for Team Autonomy in Large-Scale Agile Projects

This objective was intended to assess the state of management support for team autonomy in the bank and uncover whether there is willingness from management to support project teams.

5.3.1. Staff Competencies

The agile philosophy supports excellence through continuous improvement and learning (Alsharari et al., 2023). This implies that team members involved in agile projects should be willing to learn and continuously improve their skills. Agile methodologies further require multiskilled team members who can assume more than one role in the project and promote learning (Almeida & Espinheira, 2021).

In their model, Hackman and Oldham maintain that there are moderators that should be considered by management that will affect how employees respond to job enrichment. One of the moderators is knowledge and skills, which refers to the extent to which the employee's capabilities can fulfil the demands of the job (Taylor, 2015).

The responses are compared with the theory above. They indicated that management ensured that they recruited some of the best professionals in the industry. They also highlighted a culture of excellence where employees strive to give their best in everything they do. These could positively impact project performance as team members will have the right competence level and strive for excellence in completing their work and making the required decisions. Furthermore, their level of knowledge and skills may positively influence the moderator of knowledge and skills, which may positively impact how they respond to job enrichment.

5.3.2. What Management is Doing Right

Hackman's model for team effectiveness states that five conditions must exist for team effectiveness. It starts with a supportive organisational context, providing an

environment that will enable the team to succeed. Secondly, enabling structures which could be the level of cross-functionality within teams. After that, a determination should be made as to what extent the team is a real team. In addition, the team should provide a compelling direction that focuses on what needs to be ultimately achieved. Finally, expert coaching is critical in driving the development of a team (De Meuse, 2009).

The responses align with the theory above, as participants saw the management by committees as a hindrance to team efficiency and created delays in decision-making. Moreover, they indicated that most of the decisions taken by committees could be assigned to project teams. Responses also indicated that management had attempted to give project teams autonomy, but those were quickly reversed as soon as errors were made. This may be due to the organisation's absence of a learning culture. According to Senge (1990), organisations must be willing to accept mistakes to learn and continually improve.

Furthermore, Hackman and Oldham’s job characteristic model maintains that the context satisfaction moderator influences an employee’s desire for job enrichment. Context satisfaction refers to the relationships with immediate supervisors and the quality of supervision (Taylor, 2015). If the employee has a positive relationship with the supervisor and the quality of supervision received from the supervisor is positive, the impact on the employee’s desire for job enrichment will be positive.

The collated data supports this theory. The majority of participants sighted a level of trust between them and their line managers and their willingness to empower their teams. However, the problem seemed to be at the top. This gives them the confidence that their managers believe in their abilities, and that makes them feel empowered. The responses suggest that individual managers could have a willingness and trust to support team autonomy; however, it is not communicated and promoted across the organisation. This could be because of the “blaming culture” in the organisation and resistance to change by some managers who would rather manage by committees.

In summary, sub-objective two has been met as the uncovering and assessment of management support toward team autonomy was completed. The findings above further prove that Proposition 2 is true.

5.4. Objective 3: To Assess How to Balance Governance and Team Autonomy in Large-Scale Agile Projects

The third research sub-objective sought to uncover participants' ideas on what the organisation can do to balance governance and team autonomy.

5.4.1. Improve Decision-Making Speed

Literature around agile values and principles promotes flexibility, interactions over following processes, simplicity, and constant adaptations (Kakar, 2023). Agility is centred around the fast delivery of working software in small iterations (Reiff & Schlegel, 2022). This entails that for agile project teams to deliver fast, decision-making should occur at the speed required to enable progress. Agile encourages team autonomy as one of the characteristics enabling agile team effectiveness (Lugnet et al., 2021).

Contrary to the above literature, participants indicated that the lack of flexibility in decisions has been a major challenge that creates delays in projects. They indicated that current decision-making structures require detailed documentation that can take months to complete before approval is granted, and all approvals should be attained from all relevant committees before moving to the next phase. This may be one of the reasons business resort to shadow IT, which enables them to deliver software faster without the red tape of IT. The prevalence of shadow IT may be reduced if IT delivers to business stakeholders timeously.

The job characteristics model by Hackman and Oldham also mentions autonomy as one of the job characteristics that should be present to enrich jobs. The presence of autonomy positively impacts responsibility, which in turn produces improved performance. It also states the moderators of individual skills and experience should be sufficient for the job and that the individuals should possess the strength to desire growth. Another characteristic is task significance; if employees know that they are trusted to perform tasks that will deliver value to the organisation, they will be motivated by the job (Ali et al., 2014).

The responses from the collected data indicate that employees have a desire for autonomy and task significance. Their responses also indicate that they possess the required moderators for job enrichment. This is indicated in their sentiments of advocating for knowledge workers to be given autonomy, stating that they have well-informed team members capable of making decisions and need management to trust their capabilities and provide access to data to enhance the quality of their decisions.

5.4.2. Resource Allocation

The literature states that enabling structures is one of the conditions that should be present to enable team effectiveness (Hackman, 2002). Enabling structures refer to the team having the right people, tasks, and agreement in place. This entails that when resources are allocated to the project, management should ensure that they have the right skills and knowledge for the tasks assigned to them. Management should consider the moderators that affect how employees respond to job enrichment when allocating employees to project teams. They should ensure that the employees allocated have the willingness to be involved in those projects.

Responses are in alignment with the theory above. The participants expressed that getting the right people involved at the right time can lead to positive outcomes. Assigning employees who are not fit for the project could lead to an increase in errors, delays in delivery, and frustration for the team and the individuals.

5.4.3. Improve Communication

The theory states that collaboration is one of the building blocks of agile teams. For agile teams to be effective, they must collaborate daily and get regular feedback, enabling them to continuously make improvements (Kakar, 2023). This may imply that for large-scale agile projects where teams are geographically dispersed, it may not always be possible to have inContact collaboration sessions, and the flexibility of team members to adopt other modes of communication will be key. The Covid-19 pandemic

accelerated organisations' adoption of digital technologies, enabling team collaboration to occur from anywhere (Janssen & Van der Voort, 2020).

This is aligned with the feedback job characteristic model by Hackman and Oldham, which maintains that knowing the results of one's performance will positively impact the overall outcome (Ali et al., 2014).

The collected data from participants support the theory above. They expressed that frequent progress updates and having information available on demand will add value to team performance and help them improve where there is a need. They also stated that it would reduce duplication of efforts which would reduce burnout of team members.

5.4.4. Encourage Learning

Senge (1990) outlined five key traits of learning organisations: a learning culture, continuous learning, room for innovation, forward-thinking leadership, and knowledge sharing. He advocates that learning is the only way for organisations and employees to grow. Organisations should change their attitude towards risk and mistakes as they will be part of learning (Senge, 1990).

The gathered responses are fully aligned with the theory above. Participants stated that management should align employee training with the organisation's future strategy. This aligns with the trait of forward-thinking leaders. They also advocated for the creation of a learning culture where they have room to take calculated risks.

Creating a learning culture will probably positively affect the moderators for job characteristics because it will encourage employees to learn without fear of being blamed for mistakes. This will, in turn, benefit the organisation as the quality of work produced will be improved when more and more employees are encouraged to learn.

Another benefit for the organisation will likely be the improved adoption of agile and its practices, as the change in mindset will enable flexibility and the speed required to effectively deliver software to business stakeholders and, in turn, improve stakeholder satisfaction.

In summary, sub-objective three has been met as participants received input on balancing governance and team autonomy in large-scale agile projects. The findings above further prove that Proposition 3 is true.

5.5. Chapter Summary

This study aims to assess the aspects of organisational governance impacting team autonomy in large-scale agile projects. The research findings reveal that the organisation is too controlling, with too many committees and forums for project-related decisions. This lack of autonomy has been viewed as a stumbling block to team effectiveness.

Resource constraints, such as task variety, negatively impact the quality of decisions made by team members. Task variety is a core job characteristic that enables job satisfaction and employee motivation. However, it may be negatively impacted by the speed of delivery and the large size of the projects.

Risk-averse management is comfortable with giving autonomy only when things go right, leading to employees' lack of willingness to make decisions. The bank's attitude toward risk can also be seen in the management style where committees take decisions.

Feedback, which entails keeping employees informed about their performance, has an impact on employee motivation. In the hospitality rebranding project, participants reported that negative feedback received from senior management led to a lack of confidence in making decisions. By balancing control and autonomy, organisations can improve team performance and motivation in large-scale agile projects. A study conducted by Wang et al. (2019) in the hospitality industry found that employees' confidence in their performance improved, and they identified solutions to specific problems without fear of being blamed. However, poor communication and lack of access to up-to-date information hindered the quality of decisions and resulted in duplication of efforts. Communication was not sent to the right people on time, which is not aligned with Hackman and Oldham's job characteristic of feedback.

The study also assessed management support for team autonomy in large-scale agile projects. Staff competencies, such as knowledge and skills, were identified as moderators that management should consider. Hackman's model for team effectiveness states that five conditions must exist: supportive organisational context, enabling structures, compelling direction, and expert coaching.

The results showed that management by committees hindered team efficiency and created delays in decision-making. Context satisfaction, which refers to the relationships with immediate supervisors and the quality of supervision, was also a moderator of job enrichment. However, there was a lack of trust between managers and their line managers, which could be due to the "blaming culture" in the organisation and resistance to change.

The study also sought to assess balancing governance and team autonomy in large-scale agile projects. The lack of flexibility in decision-making has been a major challenge, as current decision-making structures require detailed documentation and approvals from all relevant committees. This may lead to shadow IT, which enables faster software delivery without red tape. The job characteristics model by Hackman and Oldham emphasises the importance of autonomy, task significance, and enabling structures for job enrichment. Employees desire autonomy and task significance, and management should trust their capabilities and provide access to data to enhance decision-making.

Enabling structures ensures the right people, tasks, and agreements are allocated, ensuring team effectiveness. Improved communication is crucial for agile teams, and the Covid-19 pandemic has accelerated the adoption of digital technologies. Frequent progress updates and information available on demand contribute to team performance and reduce burnout. Encouraging learning is essential for organisational growth, and management should align employee training with the organisation's future strategy. A learning culture encourages employees to learn without fear of blame, improving work quality and adopting agile practices. The findings in this study are aligned to other research conducted in the South African financial landscape, which found that the leadership style in South African financial organisations where surveys were conducted is still predominantly authoritative and task-focused, with change only identified in smaller pockets (Havenga, et al., 2019). While most South African financial

organisations claim to have adopted some agile practices, they have not truly embraced the agile mindset and have simply put an agile label on waterfall practices due to lack of management support (Khoza & Marnewick, 2021).

Chapter 6: Conclusion and Recommendation

6.1. Introduction

The study aimed to understand the impact of organisational governance on team autonomy in large-scale agile ICT projects. The research used a qualitative research approach to interview participants in a South African bank's large-scale agile ICT projects. The bank's strong governance and well-defined processes hinder the speedy delivery of IT services. Hackman's model for team effectiveness consists of five conditions: supportive organisational context, adequate support for training, information access, resources, enabling structures, stability, clear boundaries, and authority to make decisions (Taylor, 2015). The study aimed to assess challenges with team autonomy, organisational governance, management support, and how to balance governance and team autonomy in large-scale agile projects.

The reviewed literature indicated that there is still a misalignment between organisational governance and the governance requirements of agile teams. In agile initiatives, management support, organisational culture, and the alignment of multiple agile teams are factors that influence team autonomy (Dames, 2021). Project teams and organisations must understand which agile framework to apply to each project based on the project type, project scale, complexity level, and required autonomy level (Russo, 2021). In addition, organisations and project teams should leverage the assets of the various frameworks by combining elements of multiple frameworks to meet the needs of the project and the organisation.

A number of themes were developed from the pertinent issues brought up by participants. From the data that was collected, management support was the critical element in enabling most of the issues that teams were facing in projects. There is a need for management to reduce control and allow teams to be empowered. Leaders are required to be willing to take calculated risks that will encourage learning for both senior management and project teams. This will positively impact team morale and confidence and, in return, boost team performance.

It is evident from the responses outlined in Chapter 4 that there have been some improvements in the organisation's control structure over the past couple of years,

although not significant enough to produce tangible results. This reveals that there is willingness from management and employees to transform. However, it seems to not be working. Participants highlighted that not having access to important information, being overworked, not having the project properly resourced, and not receiving communication consistently have a negative impact on the quality of the decisions taken by project teams. They admitted that a prerequisite to effective decision-making was the allocation and availability of adequately skilled resources, access to information, and management support in driving the culture change within the organisation.

Stakeholder satisfaction should be at the centre of every service organisation or department. Service providers should place themselves in positions where they are able to deliver required services at the time that stakeholders want them in order to add value to stakeholders (Ben-Zahia et al., 2022). The data collected indicate that traditional governance practices such as management by committees, command, and control, being risk averse, etc., ought to be challenged and new learnings enabled to succeed in the digital era. The findings of the study demonstrate that management support is key in enabling team autonomy in large-scale agile projects.

The purpose of this chapter is to outline the critical areas that ought to be addressed by the organisation. The objectives that this study aimed to achieve will be addressed by summarising the outcomes of the study in relation to the research questions. The conclusions will follow this and, finally, recommendations for the organisations to be able to maintain a balance of control and team autonomy and recommendations for future research.

6.2. Research Objective 1 Conclusion

The first proposition for this research was that lack of team autonomy negatively impacts agile project success. The interview questionnaire contained a number of questions to understand the views of the participants pertaining to this proposition.

The findings revealed that the organisation is risk averse, which has led to implementing strict and inflexible governance structures of managing through

committees. These governance structures have been the major cause of project delays, resulting in business stakeholders losing interest in projects and relying on shadow IT to meet their needs. Management needs to encourage risk-taking in order to increase the adoption of agile methodologies for large-scale projects. In cases where decisions cannot be assigned to project teams, management should adopt other means to enable speedy decision-making.

There is also a lack of trust in the teams' abilities to complete tasks independently from management. It is evident from the responses that the organisation recruits some of the best professionals there is in the market, which is a contributing factor to the culture of excellence established in the organisation. Management should be forward-thinking in identifying gaps in skills and teams' abilities and working with teams to close those gaps. In cases where gaps cannot be closed, strategic partnerships can be created with appropriate vendors who share the same vision with the organisation.

The above can only be achieved through effective communication. It is evident that the lack of communication in the organisation is a major contributor to the misalignments between management and project teams. For communication to be effective, it must not only be top-down. It must also allow bottom-up communication to enable management to understand project team frustrations and adapt accordingly.

It can therefore be concluded that lack of team autonomy negatively impacts agile project success, which proves proposition 1 to be true and fulfils sub-objective 1 of assessing the aspects of organisational governance impacting team autonomy.

6.3. Research Objective 2 Conclusion

The second proposition for this research was that lack of management support negatively impacts team autonomy in agile projects.

The majority of participants are getting support from their immediate manager for empowerment and autonomy. There is also willingness from senior management to afford teams some level of autonomy. However, the risk-averse nature of the organisation makes it difficult to deal with mistakes when they occur. Management

should place efforts into finding ways to accommodate risks. There have been attempts by senior management to let go of some of the control over the years. This proves that there is willingness from employees and management at all levels to adapt to the agile ways of working and afford teams the autonomy required to be efficient. The problem seems to be with the overall governance structures.

It can be concluded that a lack of senior management negatively impacts team autonomy in agile projects. However, other factors such as governance structures, organisational culture, and attitude towards risk contribute to the negative impact. This proves proposition 2 to be true and fulfils sub-objective 2, to assess management support for team autonomy in large-scale agile projects.

6.4. Research Objective 3 Conclusion

The last proposition for this research is that there is a lack of alignment between organisational governance and team autonomy in large-scale agile projects.

Agile is centred around speed, flexibility, communication, skilled resources, and continuous learning (Moe et al., 2019). The absence of these elements in the organisation will result in project team frustrations and failure to deliver quality projects to stakeholders.

Decision-making speed is hampered by a lack of flexibility in how governance structures are set up and how decisions are taken, taking away the speed required for agile project teams to be effective. Agile cannot only be applied at the project level; it must be applied throughout the organisation to ensure alignment.

Although the organisation prides itself on excellence and appointing some of the best in the industry, it does not imply that every employee will have all the skills and knowledge required for any project. The findings reveal that they are not allocating always allocating the right people with the skills suitable for specific projects. Management should allow teams to self-organise in order to ensure that people with the right skills and knowledge are involved in projects.

Communication was brought up a lot as a major stumbling block to team efficiency. It is the premise from which decisions are made, and efforts are dedicated. Without effective communication, efforts will be directed to areas that will not add any value, feedback will not be communicated to the right people, and this will hinder continuous improvement and customer satisfaction.

To remain relevant in the digital era, organisations ought to adopt a new mindset that will enable them to unlearn what used to work and learn new ways of doing things. It starts with management creating an environment that will encourage learning, treating mistakes as lessons, and refraining from blaming employees for mistakes (Almeida & Espinheira, 2021).

Therefore, there is a lack of alignment between Organisational governance and team autonomy in large-scale agile projects. This proves proposition 3 to be true and fulfils sub-objective 3, to assess how to balance governance and team autonomy in large-scale agile projects.

6.5. Recommendations

The central issue, based on the findings of this research, is the absence of a learning culture. Unless the organisation's management cultivates a path for learning, most of the issues experienced in the organisation will not be resolved. Management should create a culture that encourages willingness from employees to participate in projects without fear of failure, thereby resolving the resource allocation issues as teams will be self-organising based on their strengths. That learning should be applied from senior management to the lowest levels. Senior management must be willing to learn new ways to share management responsibilities, be okay with mistakes that may occur in the learning process, and work with teams to find the best way to avoid repeating the same mistakes and instill a culture of learning in employees.

The organisation needs to improve communication and make information visible and accessible to ensure that it reaches all relevant stakeholders. Management needs to know what should be communicated, to whom, how, and when. The traditional email communication method is not always effective. With the hybrid working mode, the

organisation should look into using other communication methods such as WhatsApp groups and Microsoft Teams portal to share important information.

6.6. Limitations

The research population was limited to available individuals who have been or were currently involved in agile projects within the organisation. All other employees and service providers were excluded. Participants did not include any development team members, as service providers carried out all the development work.

Other participants within the organisation indicated that although they did take part in agile projects, they were not involved long enough to have an opinion. Some indicated that they didn't really think the organisation was agile. Even though some projects were intended to be agile, the organisation's structures made it impossible.

6.7. Suggestions for Future Work

To fully understand the impact of organisational governance on team autonomy in large-scale agile projects, more studies should be repeated in other organisations that have fully adopted the agile methodology.

Should the study be repeated, including senior management and having a separate set of questions targeted at senior management would be beneficial. Future studies should also include questionnaires for service providers in cases where service providers were part of the development team.

In conclusion, a combination of qualitative and quantitative research methods could also be beneficial for a study of this nature in large organisations, as it will allow the extraction of rich insights from participants as well as generalising relevant data.

6.8. Study Summary

This study aimed to assess the impact of organisational governance on team autonomy in large-scale agile projects. The findings revealed that a lack of team autonomy negatively impacts agile project success. The organisation's risk-averse nature led to strict governance structures, causing delays and stakeholder disinterest. Management should encourage risk-taking and close gaps in skills and abilities. Effective communication is crucial for addressing these issues.

Lack of management support also negatively impacts team autonomy, with employees and management willing to adapt to agile methods. The lack of alignment between organisational governance and team autonomy in large-scale agile projects leads to project team frustrations and failure to deliver quality projects. The lack of flexibility in governance structures hinders decision-making speed in large-scale agile projects. Organisations must allow teams to self-organise and allocate the right people with the right skills and knowledge to ensure alignment. Effective communication is crucial for team efficiency and continuous improvement.

To remain relevant in the digital era, organisations should adopt a learning culture and improve communication methods like WhatsApp groups and Microsoft Teams portals. The research population was limited to employees and service providers, and further studies should include senior management and service providers. Combining qualitative and quantitative research methods can provide valuable insights and generalise relevant data.

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Appendix A: Interview Guide

Research interview guide

Part A: Introductory questions:

- What is your role in the Organisation?
- Which decisions are you involved in?
- What do you think are the current key enablers (today) of efficiency in the Organisation?
- What do you think are the key current obstacles to efficiency in the Organisation?
- How would you describe the balance of control and autonomy?

Part B: Questions about the decision-making processes:

Structure

- Who do you coordinate your activities with?
- Who is involved in decisions you are responsible for?
- Are such decisions taken in different arenas (by different people)?
- Are similar decisions taken in remote sites as well? Is this done independently or in a coordinated fashion?
- How are decisions (taken in different arenas and/or in different sites) aligned? What happens if they are not aligned?
- How are conflicting priorities handled?

People

- Are decisions taken without informing people that should have been involved?
- Are all necessary roles involved in the decision-making? Anyone missing?

- Are there too many people involved in the decision-making process? Any redundancy?
- Are people from remote sites involved in decision-making?
- (if applicable) Can teams make these decisions, and if so, under which circumstances (team maturity, team composition)?

Information

- Do you have enough information to make the decisions?
- Do you receive any input when making decisions?
- Do you reach out to the remote sites when information is needed?

Practices

- How can decision-making be improved (speed, information input, people)?

Appendix B: Formal Email Invitation

Good day {Partipant name}

I’m conducting research titled **THE IMPACT OF ORGANISATIONAL GOVERNANCE ON TEAM AUTONOMY IN LARGE-SCALE AGILE PROJECTS** for my Master’s degree. Your name was selected because of your involvement in one of the Agile projects implemented in the Organisation. The interview will take 20 to 30 minutes of your time. I have attached the consent form and questionnaire for reference.

Regards

Bridgette Dhlamini

Appendix C: Consent Form

Consent Form to participate in this study 24 May 2023

Title: **The Impact of Organisational Governance on Team Autonomy in Large-Scale Agile Projects.**

I, _____ (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits, and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).

I am aware that the findings of this study will be processed into a research report, journal publications, and/or conference proceedings but that my participation will be kept confidential unless otherwise specified.

I agree to the recording of the <insert specific data collection method.

I have received a signed copy of the informed consent agreement.

Participant Name & Surname…… (please print)

Participant Signature……..Date……

Researcher's Name & Surname……(please print)

Researcher's signature……..Date……

Appendix D: Ethics Clearance Approval

Graduate School of Business Administration
University of the Witwatersrand, Johannesburg

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

Ethics Clearance Certificate

Ethics protocol number: WBS/DB2506313/706
This certificate is only valid with a legitimate ethics protocol number and signed by the Researcher (belo

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

Project title	The impact of governance on team autonomy in large-scale agile projects
Investigator / Researcher	Mrs Bridgette Dhlamini
Nature of Project	MM (Digital Business)
Decision of the Committee	Approved, provided stakeholders and participants are guaranteed confidentialty.
Issue Date of Certificate	2023-02-18
Expiry date	Date of submission of the project / research report
Chairperson	Dr Pius Oba ☎ +27 11 717 3976 +27 82 733 6587 pius.oba@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.

Signature

21/02/2023
Date: