Factors facilitating the successful implementation of a Time and Attendance system at Transnet Freight Rail in South Africa

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ABSTRACT

Time and Attendance system implementation happens in most organisations at one point or another; these bring about changes that are necessary to propel the organisation forward and consequently, when implementing this type of change, an organisation will certainly face challenges. It is therefore critical that in implementation of these systems, organisations deal with these encounters accordingly, to ensure that these changes are not only successful but also sustainable, particularly a system implementation, such as a time and attendance system.

This research report identified factors that facilitated the successful implementation of a time and attendance system from a line manager's and general employee's perspective. The researcher conducted themed content analysis with responses and observations collected from 15 semi-structured interviews conducted on eight line managers and seven employees of a Transnet Freight Rail depot in Ermelo. The researcher established and explored common factors that respondents believe facilitated the successful implementation of time and attendance system, having interpreted and understood these factors, the researcher then categorised and prioritised the factors according to respondents' perceptions of what contributed most to the success of the system implementation.

The findings from the research indicated that amongst other factors, reduction in absenteeism as a desired outcome was influenced by consistent communication, and leadership commitment and these were deemed factors that contributed to the successful implementation of the time and attendance system. The second cluster of important factors identified were benefits to organisation, training provided, support processes and procedures. The other five factors are also discussed in the study.

The key message from this research study is that organisations need to focus on driving these key factors identified to enable successful change when implementing systems.

DECLARATION

I, Mary Cecilia Lovinga, declare that this research report 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 Business Administration at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Mary Cecilia Lovinga

Signed at --

On the ----------------------- day of --------------------------------------- 2017

DEDICATION

This research is dedicated to Sadie Puleng Makoa Lovinga.

Puleng, I hope that I have made you proud as a daughter in everything that I do and will continue to do in the future. You are a pillar of strength not only to me but to all of your family; you have dedicated your life to the community through your teachings. You are a wonderful mother to me, I owe everything that I have achieved to you, and I love and appreciate you immensely. You have taught me the value of hard work, perseverance and prayer. I thank you for your prayers, support and unconditional love. Your values and selflessness I can only wish rubs off on me. I thank you from the bottom of my heart; without you this would not have been possible. You are an amazing woman of God, may God continue to bless you. I love and appreciate you. Thank you.

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Most importantly I would like to thank God Almighty for giving me knowledge and guidance, for answering my prayers, for giving me strength to soldier on especially during those times when I considered giving up. God has been my guiding light as I hurdled through all the obstacles of this research work. Thank you father God.

My family, Tshiamo and Hareaipha, thank you for their unflagging love, support and understanding, particularly at times when I could not be present at home. Your love and affection in the process of my producing this research is greatly appreciated.

To my mother, father and brothers, thank you for the love, support, encouragement and prayers day and night that enabled me to complete my research.

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- My colleagues at Transnet Freight Rail, for standing in for me when I was not around, going the extra mile to support me deliver on my commitments to the organisation. Your understanding in my many times of need means a lot to me, I appreciate you.

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1. CHAPTER 1: INTRODUCTION

1.1 The purpose of the research

The purpose of this research is to identify and explore factors that facilitate the successful implementation of a time and attendance system aimed at reducing absenteeism and promoting on-time behaviour at Transnet Freight Rail.

1.2 Context of the Research

The Freight transportation system in South Africa has developed significantly since its humble beginnings in the 1800s. Transnet State Owned Company (SOC) has played a major role in the South African economy and that of other African states, through its rail infrastructure and harbours within the country for imports and exports ("History of Transnet," 2014).

Transnet Freight Rail (TFR) is currently the biggest division of Transnet State Owned Company (SOC). TFR specialises in freight transportation; it is the largest heavy hauler railway in Africa. According to ("Overview of Transnet Freight Rail," 2015) the organisation has in excess of 40 000 employees spread throughout South Africa, its current rail network extends from South Africa into the sub-Saharan region and constitutes up to 80% of the rail infrastructure in Africa ("Overview of Transnet Freight Rail," 2015). TFR ("Overview of Transnet Freight Rail," 2015) is active in 17 African countries and has positioned itself well to drive the South African economy's competitiveness, through maintaining its profitability, and thus ensuring sustainability of the freight railway business in the future ("Overview of Transnet Freight Rail," 2015).

1.2.1 Transnet Freight Rail Coal Business Unit

In 2012, TFR ("History of Transnet," 2014) changed from regionally focused operating model and structure to a commodity focused business model, in the new model TFR is organised into six business units: Coal, Agriculture and Bulk Liquids (ABL), Steel and Cement (SAC), Mineral Mining and Chrome (MMC), Iron Ore and Manganese (IOM) and Container and Automotive (CAB) businesses (“History of Transnet,” 2014).

The research was conducted in the Coal Business Unit, one of TFR’s six business units. The coal business unit is a significant contributor to TFR’s profitability. Overall the Coal Business contributes 48% of the revenue generated by TRF (“History of Transnet,” 2014). The business unit is projected to deliver a minimum 94.9 million tons per financial year and of that 94.9mt envisaged, 76mt is from Export Coal and 18.9mt from Domestic Coal (“History of Transnet,” 2014). TFR provides all the necessary resources, including state of the art modern rail technology to ensure that the Coal BU can deliver the required average weekly tempo of 1.6 million tons of Export coal and 420 000 tons of Domestic Coal (“History of Transnet,” 2014).

The Coal Business unit’s commitment to transporting coal has seen it being dubbed South Africa’s black gold; this pledge is in line with TFR’s long term strategy of migrating freight transportation from road to rail (“History of Transnet,” 2014; Transnet, 2014). The business unit’s responsibility is to export considerable quantities of coal and to yield billions in foreign exchange using the Richards Bay Coal Terminal (RBCT). The business unit also plays a vital role in the domestic coal sector, by transporting coal locally, not only for Eskom, but other industries as well for all-purpose electricity generation in South Africa (“History of Transnet,” 2014; Transnet, 2014).

1.2.2 Coal business unit’s Ermelo Depot

At the formulation of the Coal business unit in 2012, the unit experienced high levels of absenteeism, loss of tonnage volumes, employee disengagement, high overtime costs and operational inefficiencies (Lovinga, 2016). In 2014, a business transformation programme was initiated to turn optimise the Coal business unit, a decision was taken by TFR executive committee to implement a biometric time and attendance system at one of the depots in Coal, Ermelo depot. According to Momoh, Roy, and Shehab (2010) this is appropriate for organisations seeking benefits of integration and best practices in information systems, and there is an increasing number of businesses implementing IT systems to support processes across the organisation.

Ermelo depot deemed the problem child of Coal Business Unit, had been characterised by high rates of absenteeism, low rates of on-time train departures, low rates of on-time train arrivals, high overtime claims and payments, high numbers of train cancellations, low employee productivity, high revenue losses, low staff morale and high employee disengagement (Lovinga, 2016). The research only focused its exploration on the absenteeism problem because the change in behaviour and consequently the reduction in absenteeism can directly be attributed to the time and attendance system implementation (Lovinga, 2016).

1.3 Absenteeism in organisations

South Africa in recent years has seen a major slip in its rankings of global competitiveness and this is largely credited to the 5% increase in absenteeism since 2001 as reported by Pickworth (2013). The escalating rate of absenteeism has had a negative impact on the country’s economy. This is supported by the findings of Occupational Care South Africa (OCSA) and Statistics South Africa submission that the economy loses approximately 12-16 billion per annum as result of absent workers (Sikhosana, 2014).

Blau and Boal (1987) described absenteeism as voluntary non-attendance of work, without a valid reason; that absenteeism can mean either habitual evasion of work, or wilful absence; that it does not include involuntary absence due to valid reasons such accidents or sickness. In the context of Transnet Freight Rail Ermelo depot, absenteeism is defined as all-encompassing and not only limited to when an employee does not arrive for work. It includes employees arriving or leaving early, employees doing private business during working hours, taking extended breaks whether it be lunch, tea, or personal breaks. All unexplained absence from workstations is classified as part of absenteeism (Blau & Boal, 1987). Implementing a biometric time and attendance system in a large, labour intensive, highly unionised operational culture requires an intensive change management approach to ensure that the implementation is successful and sustainable.

1.4 Implementing time and attendance systems

According to Shang and Su (2004), enterprise systems implementations are interweaved into business processes, of which activities and behaviours of organisations are deeply rooted. Several organisations have paid the price for not taking into account transition difficulties in their rush to implement enterprise systems (Shang & Su, 2004). Thus, implementation of a system of this nature in the TFR Ermelo environment will require a fundamental shift in behaviour of all key stakeholders, and this can be facilitated by enforcing good management practices and following a change management process to enable the process. There needed to be a proper process of implementation in place to make the system implementation successful.

Momoh et al. (2010) highlighted the high rates of failure in system implementations, such as time and attendance, concluding that less than 10 per cent of ERP implementations are successful. Adel (2001) corroborates the high rates of failure, indicating that ERP failure remain high in the 67%-90% range. 35% of ERP implementations are cancelled, 65% result in costs and scheduling overruns averaging 178% and 230% respectively. Adel (2001) mentions that 70% of these type of implementations fail to deliver anticipated benefits. Momoh et al. (2010) attribute the high rate of failure in this to:

- lack of change management,
- lack of commitment from top management,
- lack of adequate training at all levels both management and employees,
- poor understanding of impact of implementing ERP,
- inadequate understanding of business requirements before implementations.

1.5 Challenges managing of system implementation change in organisations

Kotter and Schlesinger (1979) accentuate that most change interventions do fail; that it is not uncommon for organisations' change implementation efforts to be complete failures, for some change efforts to be successful, for most change efforts encounter problems, for some implementation of changes to take longer than anticipated and desired, often all this leads to decline in staff morale, it consumes a great deal of time for management and can be emotionally taxing as found by (Kotter & Schlesinger, 1979). The implementation of this T&A system at Ermelo depot was likely to encounter the same difficulties most changes encounter. The project was initiated in 2005, but as one line managers who had been in TFR for more than 30 years said *"this project is getting a long service award, there has been talk about it in the organisation for ten years now".*

Adel (2001) notes that one of the key problems in ERP projects is that there is too much focus on the technical and financial aspects of the project and the consideration of non-technical aspects such as people is neglected; many systems implementations fail due to organisational and social factors rather than technical factors.

According to Nohria and Beer (2000), irrespective of some individual success, change implementation remains difficult and few organisations manage the process as precisely as they need to. Most initiatives that are aimed at installing new technology, downsizing, restructuring, or attempting to change corporate culture, have had low rates of success. The truth is that about 70% of all change initiatives fail (Nohria & Beer, 2000).

Sirkin, Keenan, and Jackson (2005) highlight that in the recent past, many change management specialists have focused on the people aspect of change, the softer issues such as culture, leadership, and motivation, but addressing only these aspects in isolation is not sufficient when implementing projects, because soft factors do not directly influence the outcomes of many change programmes. In fact, their research shows that change programmes fail to initialise when the hard factors are neglected (Sirkin et al., 2005).

Failed change efforts are commonly blamed on inadequate competence if managing change, this poor management in turn, drives organisations to search and select best fit change management solutions (Griffith, 2001). Transnet Freight Rail change management methodology of choice is PROSCI Change Management methodology; it applies three phases for successful change implementation. According to PROSCI, the first part of change in Phase one is **preparing for change**, getting ready, doing a situational analysis and establishing change management requirements for projects. The second phase is **managing change,** focuses on creating five plans

(Communication, Resistance management, Training, Coaching and Sponsorship) that help individuals transition and these are integrated into the overall project plan. Then the third phase is **reinforcing change,** this assists project teams to ensure that changes are sustained by developing and using measures and mechanisms to make change stick and new ways of working to be celebrated (Prosci, 2007).

1.6 Problem Statement

The research problem is that little is known about factors that enable successful implementation of a time and attendance system aimed at reducing absenteeism in a large, labour intensive organisation.

1.7 Significance of the research

The research is significant in how it addresses the limitation found in current literature; there is abundant collected works focusing on factors that enable successful implementation of systems, but insufficient research has been done to identity factors that facilitate successful implementation of a time and attendance system, particularly in a large South African railway that is labour intensive and highly unionised.

The purpose of this research was to identify the key factors that facilitate the successful implementation of a time and attendance system. The study furthermore identifies factors that distinctly focus on a South African railway organisation; this is significant as it can in the future be used by other railway organisations throughout Africa as a base for their time and attendance type system implementations to guide them in making them successful.

The research will also guide other current and future similar organisations, CEO's, CIO's , Business Transformation Consultants and any other key stakeholders, as they will now understand what facilitates successful implement of a time and attendance system. They can now have a process to follow and know which factors to focus on to ensure successful implementation.

In addition the results will also add value to academia. The successful implementation of a time and attendance system is a critical organisational success factor, failure can result in organisation bankruptcy due to its high cost nature. It has not been researched at great length in South Africa or regionally. This research can form a base for understanding important factors in relation to time and attendance, and may prove a significant sounding board in future academic research.

It is envisioned that the research will provide valuable input to the systems implementation fraternity in their quest for effective system implementation approaches, and also the research can guide similar state owned enterprises on how to implement time and attendance systems to curb absenteeism, using change management principles.

The research seeks to establish what factors of the system implementation approach contributed to the success of the change process, thus the system implementation. The analysis determines how the expected reduction in absenteeism, the change in employee behaviour through the system implementation occurred at Ermelo depot.

This research is important because it demonstrates how change management techniques can impact and contribute to the successful implementation of systems in organisations. It is expected that this research will contribute to the body of knowledge on business strategy, change management, absenteeism management and time and attendance system implementation.

1.8 Delimitations of the research

- The research was limited in that it concentrated on a specific geographical region in the Mpumalanga Province of South Africa, at a Transnet depot in Ermelo.

- The sampling in this research was focused only on full time employees based at the Ermelo depot of TFR (excluding fixed term contractors). There was no limitations of respondents' participation provided they are full time employees, based in the Ermelo depot, and were in the employment of TFR when the Time and Attendance project was implemented at the depot.

- The research was conducted in Ermelo, Mpumalanga but is applicable to other TFR depots in South Africa.

- There were no specific selection criteria for participants; they were not selected based on the job level, length of employment, gender, ethnicity, etc. All employees were able to participate in the study.

1.9 Definitions of terms

Bargaining Unit – a selected group of employees, who are being represented by the same bargaining agents and are covered by the same collective agreements

Coal Business unit – the segment of TFR business that focuses on Coal transportation

Depot – railway work areas, used for all train duties, it consists of multiple operational sites within a specified geographical area in close proximity to each other.

1.10 Assumptions

The following assumptions underpinned the research conducted:

- The assumption that the researcher made it clear that the respondents in this research are free to speak openly, honestly and without fear of prejudice, in addition that the environment was conducive and free of intimidation.
- That the respondents who provided insights and views into the system implementation are representatives of the Ermelo depot in which they operate.
- An assumption was also made that that the recognised labour unions in TFR provided their members (employees in bargaining unit) the necessary mandate so they were able to provide responses on the implementation.
- The researcher was consistent throughout the research interview process, and accurate and thorough in taking notes during the interview. Should this have not been the case, data could have been compromised.

2. CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The literature reviews aims to outline the literature used to derive the question against which the research was conducted.

The review of literature is aimed at outlining the collected works used to develop the question against which this research was directed. This part of the research covers the literature review on key elements relevant to the research.

The first section starts with an analysis on absenteeism that includes what affects absenteeism, the cost of absenteeism, and impact of absenteeism on the organisation. The second section focuses on automated time and attendance systems as a method of curbing absenteeism, and the last section explores the use of change management approaches to enable the required behaviour change in organisations.

2.2 Absenteeism

The topic of implementing a time and attendance system aimed at reducing overtime in a large, labour intensive organisation cannot be properly addressed without a review of literature on absenteeism as it is a problem for many organisations.

A review of the literature on absenteeism was deemed appropriate and relevant as the researcher aimed to understand what key factors facilitate successful implementation of a system aimed at reducing absenteeism.

2.2.1 Defining Absenteeism

Martocchio and Jimeno (2003) refers to absenteeism as a term to reference unscheduled employee absence from workplace. Martocchio and Jimeno (2003) also defined absenteeism as a person's inability to be bodily present at an agreed place and period, while the social expectation is that the person will be there (Martocchio & Harrison, 1993).

2.2.2 Absenteeism in organisations

Organisations experience absenteeism as a diverse and complex phenomenon; McShane (1984) describes absenteeism as a common cold among human resource management problems, as widespread, often taken for granted, and without a cure universally.

Absence is a common issue that can be found in the workplace where employees fail to report to work or to remain at work as scheduled (Hartman, 2013).

Cristofoli, Turrini, and Valotti (2011) introduce a framework that supports the notion that absenteeism in workplaces is linked to a multitude of factors associated with personal and individual qualities of employees, workplace type and characteristics of the organisation, environmental and context factors in the communities in which the organisations operate and where employees reside (Cristofoli et al., 2011).

Cristofoli et al. (2011) also argue that nonattendance is not a simple phenomenon, that merely depends on simple controllable conditions (like the existence of control and management tools or even the use of performance related pay systems), in fact, it is a widespread challenge resulting from organisational circumstances, females' economic and social positions or the old-fashioned roles in homes and families (these lead to increased time off work).

2.2.3 Causes of absenteeism

Absenteeism literature has predominantly been fixated on predictors of absenteeism behaviour, because of the consequences employee absence has on efficiencies and productivity of organisation (Cristofoli et al., 2011).

Kocakülâh, Kelley, Mitchell, and Ruggieri (2011) found that shift work and compressed work schedules lead to increased absenteeism. The TFR Ermelo depot is a twenty-four operation which necessitates shift working.

Another factor of influence is older employees who are more subjected to ill health (and this has a negative impact on civil servants' attendance rates). Cristofoli et al. (2011) also demonstrate non-attendance to be as a result of some monetary and traditional topographies within settings where organisations function, specifically in government institutions, such as TFR, a state owned enterprise.

Government employees tend to be eager to work and maybe, even intensify the production of organisations where the public is deemed to be more in control and are highly participative. Cristofoli et al. (2011) emphasise that other cultures view absenteeism as a justified reaction when it comes to job dissatisfaction, even though some governments have values that efficiently demand work presence irrespective of the employee's job satisfaction levels.

Gellatly (1995) found that employees with longer tenure, who on average were older, were absent more than employees with shorter tenure. He found that employees who exhibited greater emotional attachment and identified more with, and were involved in, organisations are less likely to be absent from work.

Absenteeism in some cases are legitimate, from personal injuries to family issues, but most absenteeism can be directly attributed to other factors, such as poor work environments, or lack of commitment to jobs by employees.

2.2.4 Factors influencing absenteeism

Working groups react differently to inequity in organisations; the assortment in responses can be directly linked to the inclination of workers to develop (either understanding or rejection) of group absence customs (Johns & Nicholson, 1982). In the context of TFR, absenteeism rate are high in train movement personnel than administration office based personnel.

According to Kocakulah, Kelley, Mitchell, and Ruggieri (2016), allowing workers to have input in decisions affecting their jobs, increasing the responsibilities where appropriate, makes the jobs more interesting and increases workers' productivity. Ultimately, increasing job satisfaction, which is an important factor in decreasing absenteeism.

Torre, Pelagatti, and Solari (2015) found that a relationship exists between external and internal pay ratios and levels of absenteeism. On external pay, it showed that the higher the pay ratio, the lower the absenteeism, and when it came to internal pay, the research showed that where pay differentials favour blue collar employees, there are low absenteeism levels, but when pay differentials favour white collar employees, the absenteeism tend to be high (Torre et al., 2015).

When it comes to external pay ratios, the results of the research by Torre et al. (2015) showed a negative relationship in comparison to external inequality and levels of absenteeism (Torre et al., 2015).

According to Mayfield and Mayfield (2009), the use of motivating language by managers can significantly reduce employee absenteeism. Although not necessarily direct or indirect in its effect on employee absenteeism, the impact of motivational leaders' speeches is meaningfully mediated through employee attendance attitudes.

Punnett, Greenidge, and Ramsey (2007) argued that when employees are committed and loyal, they feel responsible to their employer and organisation, and as a result, they do not want to be absent because of the probable negative impact on the employer and organisation as a whole. This finding was corroborated by Martocchio and Jimeno (2003) that employees who are highly committed to the organisation and identify with that company are less likely to be absent from work because they view this as a possible endangering of their membership in the organisation.

Johns (1994) discovers that employees normally do not report the exact extent of their absence for their own benefit, which shows that employees know that non-attendance is a behaviour with which they do not want to be associated.

2.2.5 Cost and impacts of absenteeism in organisation

According to Martocchio and Jimeno (2003), excessive absenteeism can have an extremely negative impact on an organisation's operations and ultimately affect its profitably adversely. The Occupational Care South Africa stated absenteeism is costing the economy of South Africa between 12 billion and 16 billion Rand annually (Hartman, 2013).

According to Johnson (2009), the absenteeism rate in South African mining companies is 3.1 per cent, 2.8 per cent in the medical industry, 2.7 per cent for government employees and 1.7 per cent for financial services sector.

Johnson (2009) calculates absenteeism rate by dividing the number of days absent by the number of days supposed to be worked. Most South African companies have an absenteeism rate of between 2.0 per cent and 9.0 per cent, which is over an adequate limit.

2.2.6 How organisations can reduce absenteeism rates

Cristofoli et al. (2011) suggest that there are policy recommendations to be taken into account in countering the absenteeism problem, suggesting that procedure tools be modified, depending on the particular environmental and social setting. The emphasis is on the importance of localising exact and logical absence policies as these would be more effective in countering absenteeism than national policies.

2.2.7 Conclusion

Martocchio and Jimeno (2003) highlight the limitations of focusing on absence primarily as an individual behaviour and suggest that absenteeism rather be viewed as a collective phenomenon.

Kocakülâh et al. (2011) believe that an organisation that is more aware of its issues related to employee absenteeism, is more likely to be successful in implementing strategies to reduce related costs and increase productivity.

The literature review on absenteeism emphasises the importance of understating the factors that lead to absenteeism, the type of absenteeism, how to manage absenteeism in organisations. Following this, researcher would therefore expect to see some of these factors come through as key factors in successful implementation of a system to reduce absenteeism.

2.3 Change Management as systems implementation enabler

The literature review on successful implementation of a time and attendance system expands and builds onto some of the elements discussed in the previous section. The review aims to develop an understanding and appreciation of change management as an enabler for successful system implementation, as well as to identify factors that contribute to success. One can then presume that factors that contribute to successful change management similarly then result in making system implementation successful.

2.3.1 What is change management

Kotter (1996) describes change management as a set of basic tools or structures aimed at keeping change efforts under control, its goal being to reduce effects and disruptions of the change.

Change management is defined by Sande (2008) as a repeatable process, and a way of avoiding common mistakes that happen during the change process, such as denial, resistance, or fear. Sande (2008) describes it as a tool to increase the likelihood that people will transition successfully.

Prosci (2007) defines change management as the discipline that guides how organisations prepare, equip and support individuals to successfully adopt change in order to drive organisational success by providing a structured approach for supporting the individuals in organisations to move from their own current states to their own future states.

Organisational change has intricate variations and complexities, and this recognition has led to the emergence of various change management models in business (Oakland & Tanner, 2007).

2.3.2 Why change implementation fails in organisation

According to Oakland and Tanner (2007), most of the major organisational change programmes require huge investments in energy, time and resources, but ultimately still fail to meet expectations, and these failures can be attributed to various aspects: Burnes (2003) highlights the importance of those leading change projects to have the skills, competencies and aptitude to implement change management guidelines.

Although most organisations recognise that change does not happen overnight, it is still a difficult transition to make for most, because of the difficulty of persuading a group of people to accept new ways of working, and the frustration that comes with the time some people take in adapting to new states (Edmonds, 2011).

Change programmes often fail because of poor management: poor planning, monitoring and control, lack of resources and know-how, and incompatible corporate policies and practices (Gill, 2002).

Poor change management practices can hurt the change being implemented and have detrimental effects of future change initiatives. Bordia, Restubog, Jimmieson, and Irmer (2011)'s research shows that the amount of previous change can also have consequences for current changes related attitudes.

Most of the tools purporting to help organisations manage change fall short because they neglect the dynamics of personal and organisational transition that have impact on the outcome of any change effort (Bridges & Mitchell, 2000).

Gill (2002) found that change initiatives fail due to poor planning, monitoring and control, that they tend focus more on the objective that the steps and process involved, that these change efforts, at best, often lack resources, knowledge and skills. Also adding to this, are corporate policies and practices that do not change and become inconsistent with what strategies for change are aimed at (Gill, 2002).

The process of change that is marred by lack of communication or inconsistent messages results in misunderstandings that lead to rumours and this demoralises people who then lack commitment to change. Lack of commitment to change is often due to not establishing a beneficial need for change (Gill, 2002).

Top management do not show their commitment to change with a display of unequivocal acceptance of ownership and responsibility to the success of change initiatives, and are not willing to invest in resources and taking tough decisions when necessary (Gill, 2002).

Burnes (2003) argues that middle management have to be empowered to enable them to improve the power of their role in managing change, notwithstanding its in-built difficulty and struggle. He further asserts that disempowered managers will continue to struggle and fail in the interstitial role of change.

Kotter (1996) highlights the significance of empowering employees to be able to act to get rid of difficulties during change, to change systems that undermine the vision, that can take risks, implement new ideas that are innovative. One of the major impediments to change identified by Cervone (2013) is people lacking an understanding of the context of their work.

2.3.3 Change management models

2.3.1.1 Bridges' Transition Theory

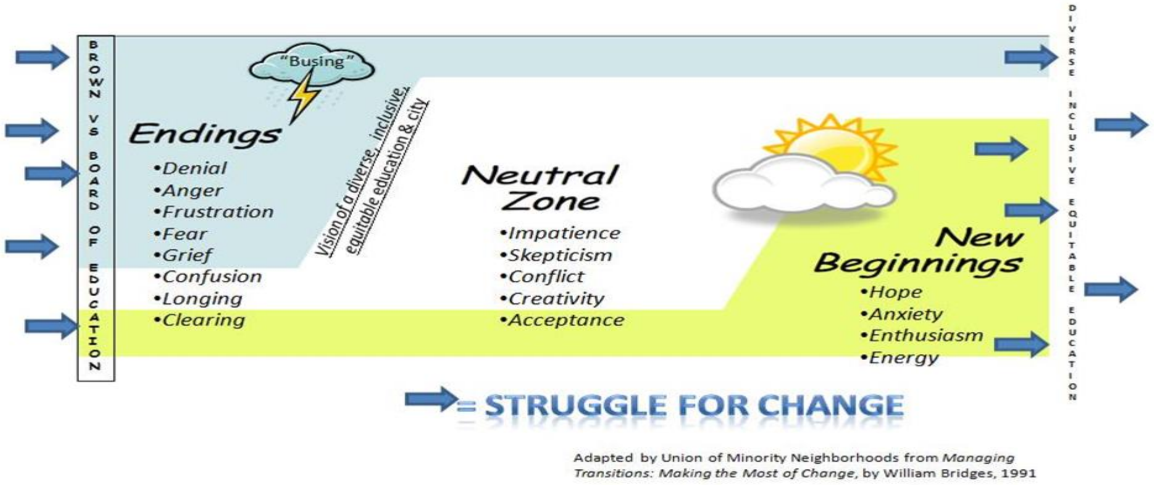


Figure 1: Bridges' Transition Model

Source: (Bridges & Mitchell, 2000)

The Bridges' Model (Bridges & Mitchell, 2000) depicted in Figure 1 largely focuses on transition and is not limited to change. The model highlights subtle differences of transition and change, transition is more internal and change is external and tends to happen to people without their realising it. According to Bridges and Mitchell (2000), transition is what happens to people while going through change, transition is more long term and change is instant.

Bridge’s Model follows these three main phases:

Phase 1 is the Ending, Losing and Letting Go phase

This phase is often marked by resistance and emotional distress as people are first introduced to change; the model proposes people accept the end of the old to be able to accept new beginnings (Bridges & Mitchell, 2000).

Phase 2 is the Neutral Zone

In this phase of the process, there is a lot of impatience, confusion and uncertainty; the stage serves as a passage for the old and the new, people still operating in the past, but trying to adjust to the future. The neutral zone allows for innovation, renewal and creativity (Bridges & Mitchell, 2000).

Phase 3 is the New Beginning

At this stage, people are beginning to embrace change and its importance is understood. New skills are built to reach fresh objectives, employees begin to see change as beneficial, there are high levels of energy, renewed commitment and zest for learning (Bridges & Mitchell, 2000).

2.3.1.2 GE Change accelerator Model

The GE Change model shown in Figure 2 was a commission by Jack Welsh, when he tasked Steven Kerr, to scour the industry and academia for the best change management practices and bring back to General Electric a toolkit that is easy to implement (Von Der Linn, 2009).

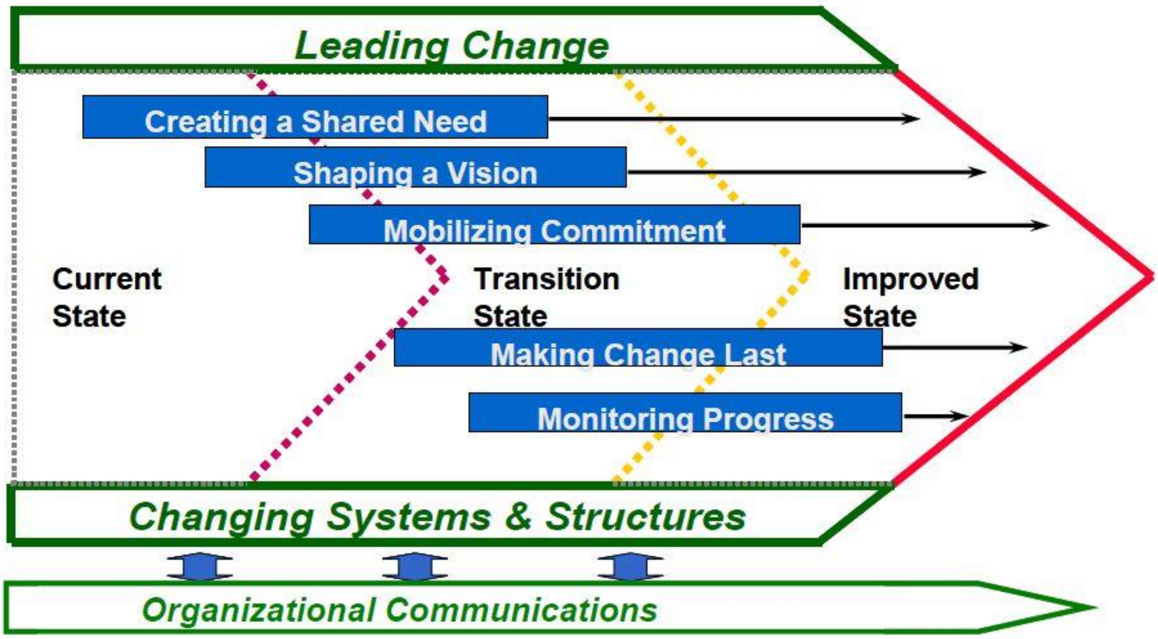


Figure 2: GE Change Accelerator Model

Source: (Von Der Linn, 2009)

The Change Acceleration Process is as follows (Von Der Linn, 2009):

- **Leading Change**

At the beginning is Leading Change, this can be done through authentic and committed leadership, and must be present throughout the duration of the change initiative - this is imperative for success.

- **Creating A Shared Need**

The must be a compelling reason for change, the need for change must be greater than the resistance, the need must resonate with all stakeholders, not only the leadership.

- **Shaping A Vision**

The vision must be widely shared and understood by all, the leadership must ensure that they articulate a clear and legitimate vision of the 'To-Be' world, after the change is implemented. The end state behavioural terms must be clear; this is critical to the success of any change.

- **Mobilising Commitment**

The change initiative must be executed using leadership support, present a compelling business case, and a vision for the end state to influence and build momentum, leveraging off early adopters.

- **Making Change Last**

Changes made need to be permanent, by leveraging early wins, taking lessons learned from pilot sites, and transferring best practice to a broader rollout.

- **Monitoring process**

Putting a plan in place for measuring progress of the change initiatives, how you will know that you are making progress, setting benchmarks.

- **Changing systems and structures**

Current systems and structures designed to support the current state of business must change to support the future state to ensure sustainability, and prevent the business from reverting to the old ways (Von Der Linn, 2009).

2.3.1.3 McKinsey 7'S Change Model

The Mckinsey 7's Model presented in Figure 3 can effectively be applied in many situations, and is also commonly used to facilitate organisational change (Jurevicius, 2013). According to Jurevicius (2013), the model shows how the seven elements of Structure, Strategy, Staff, Style, Systems and Shared values can be aligned to accomplish organisational efficiency. The seven aspects are interconnect and change in area that need change in other aspects to function effectively (Jurevicius, 2013).

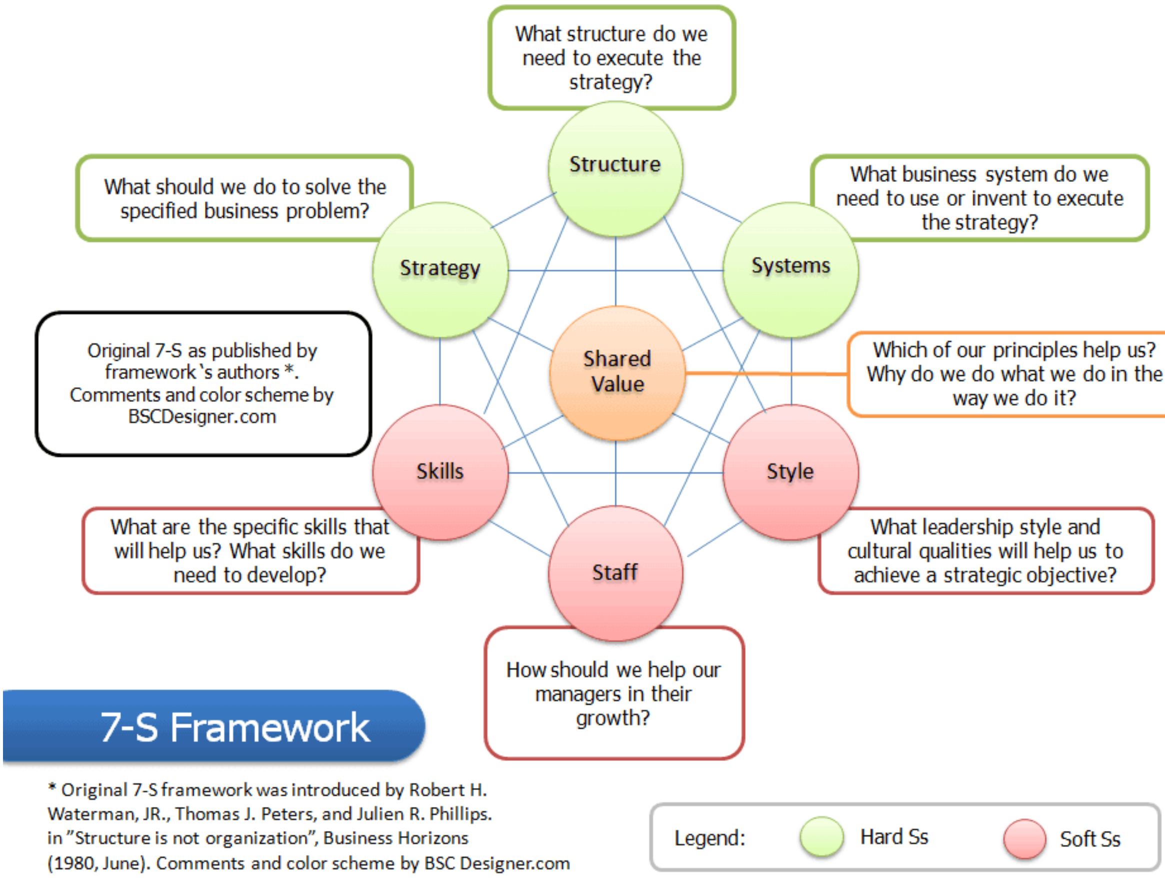


Figure 3: Mckinsey 7S Change Model

Jurevicius (2013) further explains that the way the model is shaped emphasises the interconnectedness of the components and seven areas are divided into Soft S's and Hard S's. The 7S's model can be used for change management, as follows:

Step 1. The identification of misaligned areas

The aim of this step is to identify 7S elements in organisations and analyse whether the alignment of each element to another is effective.

Step 2. Determining organisational design that is optimal

The second step is to assist top management in organisations to find the most suitable organisational design that needs to be achieved, in that way goal setting ad actions plans are easier to achieve for organisations.

Step 3. Deciding what changes should be made where

In this step, the organisation puts an action plan in place, detailing which areas need realignment and what process will be followed.

Step 4. Making changes that are necessary

Well implemented changes are important at all stages of the change process, for the change effects to be positive.

Step 5. Review the 7S on a continuous basis

The elements of the 7S models need on-going refining as these are changing constantly.

2.3.1.4 Kotter 8 Steps Model

According to Kotter (1996), the eights steps are as follows depicted in Figure 4:

First Step is to create a sense of urgency, crafting and using a significant opportunity to excite people to buy in to change their organisation.

Second step is building a guiding coalition, assembling a group of powerful energetic people to lead and support the change effort through collaboration.

Third step is forming a strategic vision and initiatives to steer the change effort and develop strategic initiatives to achieve the organisational vision.

Fourth step is enlisting a volunteer army, a large force of people who are willing and ready to drive the required change.

Fifth step is enabling action to remove barriers by changing systems that pose threats to achieving the vision.

Sixth step is generating short term wins by consistently tracking, evaluating and celebrating small accomplishments in correlation with results.

Seventh step is sustaining acceleration using increasing change system credibility, promote employees implementing the vision, and reinvigorate the process with new projects and themes.

Eighth step is institutionalising change through articulation of connections of new behaviours and organisational success

Figure 4: Kotter 8 Step Change Model

Source: Kotter (1996)

2.3.1.5 Prosci ADKAR Methodology

According to Hiatt (2006), the ADKAR change model shown in Figure 5 is a goal orientated tool that makes it possible for change management teams to use focused steps or activities that are aligned to goals to be achieved. Managers can make use of this ADKAR tool to identify gaps in the process of managing change by ensuring that employees are trained in preparation for change. The model is effective when used for:

- Providing support and help to employees going through the process of transition while management is underway
- Diagnosing and treating resistance that comes from employees during change
- Coming up with an efficient and successful plan for personal and professional development of personnel going through changes during the change process

The word ADKAR is an abbreviation for (Hiatt, 2006):

- **Awareness** of the need and requirement for change
- **Desire** to get buy in for the change and participation in the change
- **Knowledge** of how to make the change happen
- **Ability** to, on a consistent basis, incorporate change
- **Reinforcement** to ensure that change sticks through sustained implementation

There are several benefits in using the ADKAR model (Hiatt, 2006):

- Model has capability to identify and evaluate causes for implemented changes and expected business benefits that were previously unachievable and could not be sustained
- Tool enables users to break changes into smaller parts and to find out points where changes will not be as operational as intended
- Model also covers the business element of transformation and the people element of transformation (Hiatt, 2006)

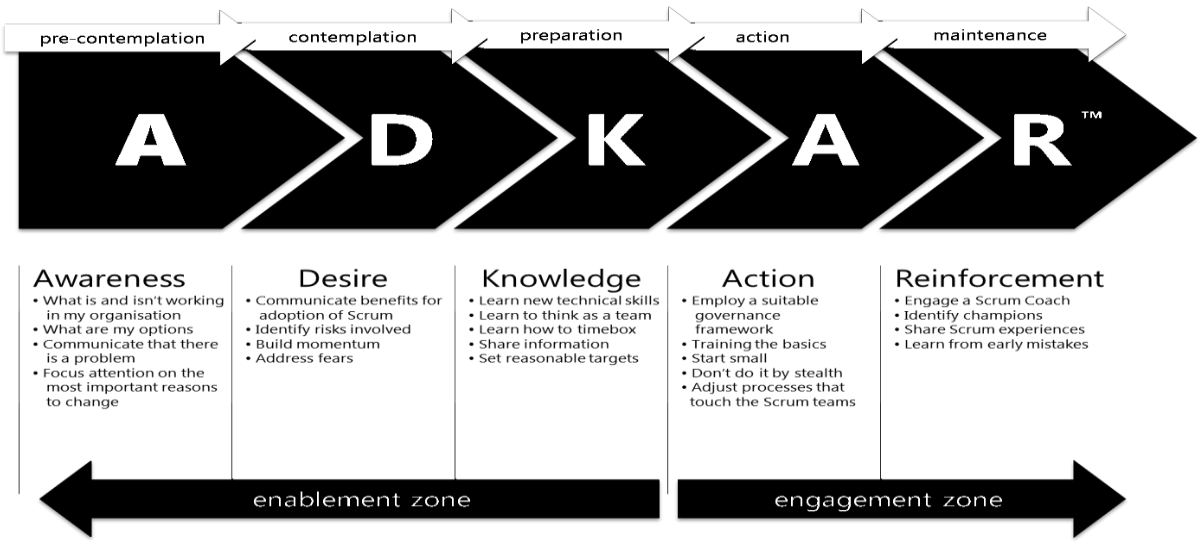


Figure 5: Prosci ADKAR Model

2.3.4 Integrated Comparisons of change models

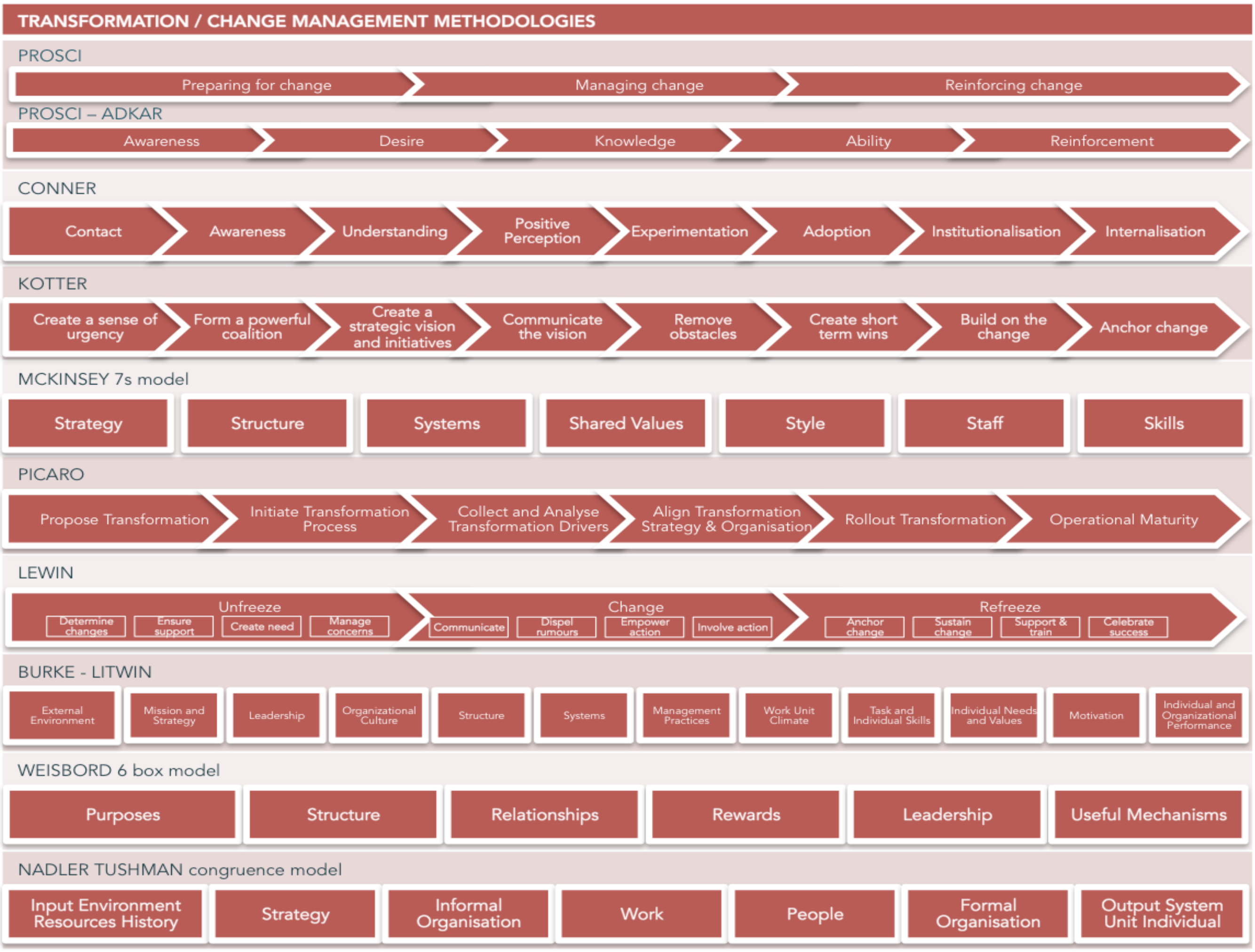


Figure 6: Comparison of Integrated Change Models

Figure 6 illustrates the various change management models that exist, and that are used by diverse organisations at different phases of implementing change. There are common elements in these various models, such as the requirement to prepare the environment for change, aligning leadership and managing impacted stakeholders throughout the change process. There are however as depicted in the integrated model in Figure 6, some unique elements that other change process have. TFR specifically adopted the use of the PROSCI change model for its ability to manage change at both organisational level and individual level.

According to Venkateswaran (2014), the challenge with using the Kotter model when implementing systems such as time and attendance in a blue collar environment is that at times the purpose and vision of the change may be misaligned to employee behavioural changes necessary to create a sense of urgency and mind-set shift. The

Kotter model is also limited in this context as it views change as a linear process which it is not. Guiding a coalition assumes cooperation at leadership levels which is not necessarily correct and these result in problems in the model (Venkateswaran 2014).

The change management models are many and some are more effective than others. What is common throughout all the models is that there are three main phases. The first phase being before change is implemented, second is during the change process and thirdly, is the post change implementation phase, and the majority of change models are characterised by these stages.

2.3.5 Conclusion on Change management

Kazmi and Naarananoja (2013) identify change management as a key strategy that needs to be adopted by organisations implementing ERP systems to ensure they meet corporate goals. Kazmi and Naarananoja (2013) argue that ERP implementation come with new ways of working and people adapting to this change from the traditional way is a must.

According to Aladwani (2001), to overcome change resistance by users, top management must study the needs of users and understand the points of resistance, top management must also deal with the situation using appropriate strategies that introduce an ERP type of system implementation successfully, and most importantly, they need to constantly evaluate the status of the change process (Aladwani, 2001).

Aladwani (2001) also highlights the significance of using a performance system to monitor change management efforts to enable top management to ensure that change management strategies, workers' anxiety, and resistance to ERP are under control. The status evaluation provides feedback information to top management in dynamic manner; for it to be useful, the feedback must be on time, accurate, and systematic, and top management must take appropriate action (Aladwani, 2001).

Successful ERP implementation requires matching appropriate strategies with the appropriate stage to overcome resistance sources (habits and perceived risks) effectively.

ERP implementation can only be accomplished when senior management is totally committed to the initiative. Management commitment and support is the ultimate strategy that will secure the necessary conditions for successfully introducing the change brought by ERP into the organisation (Aladwani, 2001).

One effective communication strategy is to inform potential users of the benefits of ERP. Top management, in the same way, can create more effective awareness for the ERP system by communicating its benefits to the workers (Aladwani, 2001).

Aladwani (2001) supports that training is a good opportunity to assist users to adjust to changes being introduced and helps with building positive attitudes towards system implementation, then further attests that training provides hands-on experience for users, users tend to appreciate the attributes, quality and potential benefits of the system more when they have undergone training.

2.4 Time and attendance system implementation

Many organisations are faced with the monotonous task of keeping track of their employees and this is a tedious exercise, to help with this duty, businesses are turning to digital time and attendance systems to automatically track employees and compute the data (Brooks, 2016). According to Brooks (2016), at their most basic, the time and attendances systems enable employees to clock in and out electronically, but they do have other features such as:

- Tracking mobile employees via geo-location and geo-fencing,
- Providing real time data on who is on duty, who is not, who was late, and who is nearing overtime,
- Providing managers and businesses with detailed employee data.

The most significant benefit of time and attendance systems is the elimination of manual time cards, and thus reducing the human error factor, as all the data is collected electronically.

Explaining ERP in relation to time and attendance systems is that like time and attendance, ERP software automates core corporate activities, such as manufacturing, human resource, finance, and supply chain management, by incorporating best practices to facilitate rapid decision-making, cost reductions, and greater managerial control (Holland & Light, 1999).

2.4.1 Business rationale for implementing time and attendance.

The business environment of today with the high degree of employee mobility necessitates keeping accurate tracking of employee time and attendance; adding to this burden is the complications of monitoring employee benefit, employment regulations, overtime guidelines; all these are exacerbating the need for accurate maintenance of time and attendance records (Perler & Tartaglia, 2001).

Hartman (2013) highlights the importance of addressing absenteeism in an holistic manner and that businesses can benefit from the use of available technology to establish a culture of productivity and loyalty by effectively managing employee absence (Hartman, 2013).

In today's competitive business environment, keeping accurate track of employee time and attendance and reducing fraud relating to employee payroll records has become an absolute necessity. Unfortunately, maintaining such records and tracking employee time accurately is very time-consuming, costly, unpleasant, and an often unmanageable task (Perler & Tartaglia, 2001).

The use of technology in managing absenteeism can, with its intelligent reports, enable management to observe trends and concerns in certain areas, then management can intervene and implement solutions to problems identified (Hartman, 2013).

Additionally, for larger organisations, it is simply impossible to track employee time and attendance records manually and extremely difficult, at best, to recognise and positively identify employees by relying solely upon sight and sound. Accordingly, the use of automated identifications systems to automate personal recognition is on the rise (Perler & Tartaglia, 2001).

According to Hartman (2013), management of employee absence is critical for the sustainability of any business, even though the use of an electronic solution can be of great advantage, line managers are still expected to take ownership in making sure that policies are adhered to and employee wellness in both finance and health are being considered in the overall absenteeism management process (Hartman, 2013).

2.4.2 Disadvantages of time and attendance systems

Organisation can suffer significant losses because employees can fraudulently punch time clocks for absent associates “buddy punching”. This can result in substantial inaccuracies in data and can constitute financial loss to the organisation (Perler & Tartaglia, 2001).

The attempt by many organisations to track employees time and attendance records through time clock and punch card orientated systems with password, security cards and other forms of identification for employees, have proven largely ineffective in reducing employee fraud, largely, because of their inability to correlate the people using the card, key or password accurately (Perler & Tartaglia, 2001).

Other devices include the person actually authorised to use the device using it. Additionally, the issuance and upkeep of security cards, keys, passwords, and other forms of identification is a very time-consuming and costly endeavour for an organisation. Furthermore, employees often forget passwords and/ or misplace security badges, keys and other forms of identification, requiring the issuance of replacements. The resulting additional administrative costs can be quite substantial.

A reliable, user friendly, biometric-based, time and attendance system for providing error-free personal identification, while simultaneously creating a secure audit trail of events to eliminate the potential for employee fraud, time-theft, or unauthorised access is desirable.

2.4.3 Implementation of Time and Attendance System in Transnet

The system was implemented as part of a change intervention aimed at reducing absenteeism; the purpose was to automate the recording of employee arrivals and departures. The system now records electronically a previously manual process, where employees would sign in and out in a book. This provides the necessary audit trail for managers to effectively manage absenteeism. This was based on the fact that line mangers did not exactly have factual reports of when employees came in and out, and managers were not managing absenteeism. The system is a monitoring tool that can facilitate the behavioural change required in line managers.

Approximately 90 per cent of ERP implementations are late or over budget, which may be due to poor cost and schedule estimations or changes in project scope rather than project management failures. ERP implementation can reap enormous benefits for successful companies—or it can be disastrous for organisations that fail to manage the implementation process (Holland & Light, 1999).

It is important, as emphasised in literature, to ensure change sustainability that systems and processes are introduced systematically; it is imperative at the end of change programmes that people do things differently, that there is a change in behaviour that impacts the culture in the organisation (Oakland & Tanner, 2007). At the end of most change programmes, there is a need for people to do things differently. The final insight relates to the change to the behaviour of the people.

Change management programmes are not always able to fully provide the knowledge required for adoption and users often face challenges of integrating aspects of systems (Sasidharan, 2015) into day-to-day processes.

2.4.4 Time and Attendance rationale

Many organisations currently employ automated systems for tracking employee time and attendance, and automatically generating payroll information. The time and attendance data entered into the system for payroll computation purposes inherently includes information indicative of potential disciplinary problems (Bonner & Hartman, 1998). The first step in effectively managing change introduced by IT is to identify and evaluate the attitudes of individual users and influential groups (Adel, 2001).

2.5 Conclusion on Literature Review

According to K. M. Cresswell, Bates, and Sheikh (2013), one of the key factors of successful systems implementation is training; they attribute the success to increased satisfaction by users who have been properly trained, and this subsequently increases utilisation of such a system. The study further highlights that training needs to closely simulate the actual working environment and be practical, and emphasises that different individuals will have different training needs, some may need more training than others and all this needs to be factored in if the system implementation is to be successful (K. M. Cresswell et al., 2013).

K. Cresswell, Morrison, Crowe, Robertson, and Sheikh (2011) emphasise the need for continuous communication to key local individuals capable of being boundary spanners, using employee engagement models that recognise points of engagement, and behaviour drivers for different groups of users, to enable successful system implementations.

Zhong Liu and Seddon (2009) found evidence that suggests that change management, training, job redesign and communication is necessary to facilitate successful implementation of systems.

This is corroborated by Finney and Corbett (2007) in their research where they found change management training, to be a very important and significant part of ERP implementation; they highlight the importance of having a communication plan, motivating the team and managing cultural change brought on by system implementations. Dezdar and Sulaiman (2009) also attest to the importance of change management critical success factors for successful system implementation, include user training and education, enterprise wide communication and cooperation, top management support and commitment.

2.5.1 Research question

To restate the research question formulated subsequent to the literature review is:

- What factors facilitate the successful implementation of a time and attendance in a large labour intensive organisation?

3. CHAPTER 3: RESEARCH METHODOLOGY

The research objective was to identify and explore factors that facilitate successful implementation of a time and attendance system aimed at reducing absenteeism in a large, labour intensive South African organisation.

The methodology selected for the proposed research was qualitative, an exploratory approach was deemed suitable for this study as it enabled the researcher to get an understanding of the feelings, values, and perceptions that influence employee behaviours (Mack, Woodsong, MacQueen, Guest, & Namey, 2005) in relation to factors that can facilitate the successful implementation of a Time and Attendance system at Ermelo depot, and the research developed a ranking of these factors.

As recommended by Vaismoradi et al. (2013), the researcher had to first familiarise themselves with the research data, by reading, and re-reading the data and then noted the initial ideas; then started collating the ideas into factors and gathered all data relating to each theme; then the researcher analysed specifics of each factor and developed clear definitions for each of the factors. The researcher was careful not only to use the frequent occurrence of a theme as an indicator for importance, and used their broad understanding of the context and observations of what influences the stories of the research respondents.

According to Vaismoradi, Turunen, and Bondas (2013), thematic analysis involves searching and identifying the common thread extending across the entire set of interviews.

3.1 Using Qualitative Research Methodology

Qualitative research methodology is particularly suitable because, according to Mack. et al (2005), it enables the researcher to get an understanding of the feelings, values, and perceptions that are underlying and influencing employee behaviours

(Mack et al., 2005) in relation to the change intervention implementing the Time and Attendance system at Ermelo depot.

This methodology is especially helpful and relevant in this type of exploratory context where everything is not necessarily well defined:

- To allow the researcher to explore in a qualitative format the perceptions and views by impacted parties who may not necessarily be able to articulate them well.
- To assist the researcher to break down the complexity of this feedback into smaller manageable parts.
- To allow for inclusion of context and business environment that can be observed during interviews and documented by way of side notes by the researcher while on site collecting data.

Ahmmed (2015) highlights a shortfall of qualitative methods in that require a lot of planning and careful thought to ensure the results are as accurate as possible. He further asserts that this type of data cannot be mathematically analysed in a comprehensive way as quantitative results can be analysed.

3.2 Research Design

The methodology approach used for the research was the use of semi-structured in-depth interviews. According to Mack et al. (2005), the use of in-depth interviews is optimal when collecting data where respondents' perspectives, experiences are being explored, particularly on sensitive issues. The intention was for the researcher to elicit respondents' perspectives as to which key factors facilitated the successful implementation of a time and attendance system in their environment.

The interview process consisted of 15 TFR full time employees based at Ermelo Depot. The interviews were recorded and recordings used to confirm the confirming notes taken and kept for analysis and report writing. The researcher made use of an interview schedule during the research.

The recording was used where necessary for back up purposes when the researcher needed to return to or review the interview in greater detail on a specific comment or statements made by respondents.

The researcher made use of the semi-structured interview format and asked open-ended questions, as recommended by Mack et al. (2005); this enabled the researcher to obtain responses that were meaningful and salient to the respondent, the responses were unanticipated by the researcher and rich and explanatory in nature. This approach ensured that respondents openly and willing shared their opinions and observations on what factors they viewed as having contributed to the successful implementation of the time and attendance system.

The researcher ensured that there was explicit consideration for the requirements and fears of the participants, and the researcher created a trust relationship with the participants as advocated in Mack et al. (2005) by using a balanced approach based on established principles and standards of ethical research.

In preparation for the interviews, the researcher conducted a pilot test to check if there was any refinement of research questions needed; this was conducted on a target audience similar to the respondents in the actual research as recommended by Turner (2010).

This approach afforded the researcher the opportunity to be flexible when probing initial responses from participants; the researcher was able to ask clarification questions by probing. The researcher, through careful listening to participants' responses, involved them in line with their personalities and communication preference styles through the use of probes; this ensured that they were elaborate when they provided their responses (Mack et al., 2005).

There is however, a noted downside to this methodology, in that it provided qualitative information and interpretation thereof may be deemed subjective and open to interpreter bias (Mack et al., 2005).

The researcher used her facilitation experience to ensure that the unstructured nature of the interviews did not result in bias, inappropriate questions, the researcher did not allow respondents to talk about irrelevant and inconsequential issues; this could have resulted in difficulty when coding and analysing data.

3.3 Population and sampling

The researcher's research objectives and the characteristics of the research population (such as size and diversity) was used to determine which and how many people were selected (Mack et al., 2005).

3.3.1 Case Site

The case site for this research was Ermelo depot of Transnet Freight Rail, the depot is in the Coal Business Unit located in the eastern region of South Africa. Ermelo depot services mainly mines exporting Coal through Richardsbay and Maputo port terminals, it is largely responsible for loading coal from the mines and transporting it down to the ports for vessel loading. Ermelo depot runs a twenty four hour operations with train drivers and assistants working shifts, it is a labour intensive depot, with a high staff turnover due to its geographic location and nature of work. The depot is classified as an execution depot.

3.3.2 Population

The population in this research involved any Transnet Freight Rail Ermelo depot employees; there were no limitations to participation based on age, gender, job level, work experience, or tenure. However, it was critical that potential respondents were in the employment of the organisation throughout the implementation period of the time and attendance system. The researcher confirmed the tenure of respondents prior to continuing with the interviews. Line managers and general employees were interviewed.

3.3.3 Sample and sampling method

A sample of 15 TFR employees was drawn from the population. The researcher ensured that the sample was representative of both line managers and general employees. A table with the composition of the potential respondents is provided in the table below:

Table 1: Sample for semi-structured interviews

Semi-structured Interviews sample	
Line Managers (Level F-D)	8
Bargaining Unit Employees (Level G and below))	7
Total sample of respondents	**15**

Line managers in the context of this study refers to middle management to senior management, and general employees refers to low level employees within the organisation. The management are not part of the recognised labour union while general employees belong to a labour unions. The TFR employees who participated in the research were all based at Ermelo depot, and the researcher travelled to Ermelo to minimise possible disruptions to the operations and time away from workstations for respondents. The researcher made use of convenience sampling and involved the most accessible respondents; that way it was least costly in terms of time, effort, and money for the researcher (Marshall, 1996).

Convenience sampling proved better than random sampling as the latter is only effective when generalising results of populations, but not effective in developing understanding of issues relating to human behaviour (Marshall, 1996).

3.4 The research instrument

The researcher conducted face-to-face semi-structured interviews using the interview schedule (see Appendix A).

The interview started with the researcher introducing herself to the respondents, then the researcher provided respondents with a brief background to the research and the objectives thereof. The respondents were then allowed to discuss the implementation of the time and attendance system in their depot, they provided their perspectives on what they viewed as factors that contributed to the successful implementation, a few probe questions were introduced by the researcher where deemed necessary, where there was a need to get deeper understanding of the respondents' perspective or in cases where the respondent's response did not provide enough detail on certain perceptions. Based on the responses, the researcher then identified factors that respondents perceived to have contributed to the successful implementation of the time and attendance system at Ermelo depot, and then categorised these in order of importance based on the frequency of mentions and how they were mentioned,

A sample of the actual research instrument is provided in the Appendix (Refer Appendix A).

3.5 Procedure for data collection

- The researcher first requested approval to conduct interviews from the Project Sponsor (General Manger Human Capital) as the process owner.
- Then, upon approval from GM HC, the researcher then requested second approval from the General Manger of the Coal business unit as Ermelo depot is under his control.
- Once that had been approved, the researcher scheduled a telephone conference call with the Operations Executive Manager responsible for Ermelo depot and was granted access to the operations area, and authority was also given to managers and supervisors to allow employees time off work for participation in the research.
- The researcher then sent a confirmation of the research schedule that had the date and time for employees to be made available.
- The Ermelo depot human capital manager ensured that employees were rostered accordingly over that period of time when the researcher was on site.
- The semi-structured interviews took place at the Ermelo depot where employees worked, this minimised disruptions to operations, the interviewer travelled from Johannesburg to the depot. The time and dates for the interviews were emailed a week before, this enabled the interviewer and line managers to plan accordingly, ensuring that employees were made available for the interview. The researcher spent approximately three days in Ermelo and conducted all interviews, then travelled back to Johannesburg.
- The interviews took place at the operational area of 10e Diesel Loco, the Blue building, and the Tower building and the Regional offices. This also provided

the researcher an opportunity to observe how the time and attendance system had been implemented, how the employees interacted or were being impacted by the system. The researcher took notes on the surroundings and business environment in which the respondents were based.

- The researcher largely made hand written notes during the interview of all the responses, and documented any other aspects deemed relevant to the research while on site. The researcher in addition, recorded the interviews, for analysis and report writing purposes.
- The researcher captured the intangible aspects of the interviews that could not be voice recorded such as body language, gestures, using the hand written notes that formed part of the observations.

3.6 Data Analysis and interpretation

The data analysis technique that was used is thematic content analysis for qualitative research. A thematic analysis took into account all the data to identify common issues that recur, then identified main themes that summarised all the views the researcher had collected (Patton, 1987).

The researcher at first familiarised themselves with the data then clustered themes that were representative of the initial data analysis; then gathered the themes together and developed a colour coding scheme. It was useful to begin developing the coding scheme as soon as initial data had been collected. This early analysis helped shape later data collection (Patton, 1987).

Themes were then further clustered and were assigned succinct phrases to describe the meaning that underpinned the theme (Fereday & Muir-Cochrane, 2006).

The audio recording of the interviews was listened to and used in conjunction with the handwritten notes, and all the information for analysis was analysed. The researcher then identified key themes from the data, and made a list of the themes.

The researcher then applied coding to the whole data set. If there were any outliers these were specially noted for consideration in interpretation.

The data collected by the researcher from all the semi-structured interviews were combined into a single file where the regularity of each factor or theme was presented, outlying responses which highlighted different opinions were also duly noted.

Common factors from respondents were highlighted through this process; this enabled the researcher to deduce the results and advance a deeper understanding of matters. The researcher, throughout the data analysis and interpretation process, undertook to critically review the outcomes with due consideration for the literature.

The output of this qualitative research through semi-structured open-ended interviews was words, this was especially significant for this research as the analysis of the data needed to be more than just counting words, it was to intensely examine the language to classify the text into an efficient number of groupings that represent the same meaning (Weber, 1990). The principle of this research was to logically identify patterns in the words used; this enabled the researcher to build a significant representation without conceding the richness and dimensionality of the research (Leung, 2015).

The researcher only made use of the thematic analysis technique, and undertook to critically review results through the data analysis and interpretation process in line with the literature.

The researcher aimed not to prove a model but rather to develop one. The principle was to show how qualitative research enabled the researcher to capture main data responses based on the semi structured interviews. The researcher made use of the frequency of mentions of key themes by respondents not as a quantitative measure but to show how widespread the perceptions is among respondents.

3.7 Limitations of the research

There are potential limitations to the research conducted and these are:

- The heavy reliance on the availability of the 15 people identified sample target of people.

- The respondents may have cancelled the interviews even if they are pre-planned, and some may feel afraid to participate.

- The use of qualitative tools can pose a constraint as the research may be viewed as subjective.

- Researcher bias - the qualitative approach is dependent on the researcher's abilities, integrity, and sensitivity.

- Conducting the research on site and it being time-consuming may lead to respondents abandoning the interviews to go and attend to work matters.

3.8 Validity and reliability

According to Brink (1993), validity and reliability are key aspects of all research. Brink emphasises the importance of validity and reliability in all research particularly in qualitative work, because the researcher's subjectivity could cloud interpretation of data, and this can result in scepticism about the results by the scientific community.

3.8.1 Internal validity

Brink (1993) highlights that because reliability and validity of qualitative research is hugely depended on the potential of subsequent researchers to reconstruct original strategies, the researcher who presents a vague account of his design is putting himself at risk of being accused of invalid and unreliable findings (Brink, 1993).

Denzil (1989) discusses that, in qualitative research, some researchers use triangulation to circumvent the personal biases of investigators and to overcome deficiencies intrinsic to a single investigator, a single theory or single method of study, thus making the study more valid. Denzil defines triangulation as the use of two or more data sources, methods, investigators, perspectives and approaches to do analysis in the study of a single phenomenon and then validating the congruence among these.

In this research, triangulation was deemed not applicable and was not used as part of this research. The data collected during this research was considered valid because the interviews were steered in a fashion that did not influence respondents or nudge them in a certain way by the researcher. The respondents were free to offer and make commentaries as they saw fit; it was for this reason that interviews were conducted in the operational working areas to make respondents to feel comfortable.

The researcher took the responsibility to be objective in the analysis of the data, and interviews techniques. The objective was for the researcher to conduct the interview in a manner that is neutral and not leading respondents to answer in a specific manner (Denzil 1989).

The common denominator in the research was the person conducting the interviews. Notions of validity and reliability are addressed from the perspective of the paradigm out of which the research has been conducted (Merriam, 1995).

Qualitative methodology is often questioned and criticised for its dependence on small samples; it is widely viewed as incapable of rendering generalising conclusions (Myers, 2000). The research does not need to be generalisable. Internal validity asks the question, how congruent are one's findings with reality (Merriam, 1995).

Leung (2015) emphasises that the validity in qualitative research refers to the appropriateness of the tools, processes and data. It tests whether the research questions were valid for the desired outcome, whether the choice of methodology was appropriate for answering the research question and whether the design is valid for the methodology, whether the sampling and data analysis is appropriate, and finally whether the results and conclusions are valid for the sample and context (Leung, 2015).

3.8.2 Reliability

In qualitative research, reliability refers to the extent to which the processes and results can be replicated. Leung (2015) supports that the essence of qualitative research reliability lies in consistency. There is a margin of variability in qualitative research that is tolerable as long as the methodology and epistemological logistics regularly produce data that is ontologically comparable, but may differ in richness and ambience.

Reliability is concerned with the question of to what extent the findings can be found again, that if the inquiry be replicated, will the findings be the same (Merriam, 1995).

The challenge with reliability in this research is that the research was focused around human beings and as Merriam (1995) emphasises " human behaviour is never static", that measurements and observations can be repeatedly wrong, especially where human beings are involved.

The researcher ensured that the process of the research was accessible and written descriptively to enable communication of tacit knowledge though thick descriptions as recommended by Myers (2000). It was important that the research did not perpetuate the contextual ramifications and subjectivity issues regarding qualitative research results in terms of quality and trustworthiness (Leung, 2015).

To add to the reliability of the research, the interviews were conducted face-to-face with the respondents by the researcher. The researcher maintained consistency in the approach by using the same interview structure and questions.

3.8.3 Generalisability

In this qualitative research, the attribute of generalisability was not a requirement because this type of study studies a specific matter or phenomenon in a definite populace, of a focused area in a certain environment. . In the case of the research, it focused on TFR employees, specifically at Ermelo depot who were part of the time and attendance system implementation.

Chapter 4: PRESENTATION AND ANALYSIS OF RESULTS

4.1 Introduction

This chapter serves a dual purpose in that it combines the presentation of results and the analysis with the discussion of results; this is aimed at avoiding possible duplication and repetition so the two aspects are covered in this chapter.

This chapter consequently then presents and identifies key themes coming from the semi-structured interview process. Following the literature review, a research questionnaire was derived from the primary research question, and this questionnaire was used to conduct the interviews. The research aim was to identify factors that facilitate successful implementation of a Time and Attendance system in Transnet Freight Rail and how this subsequently contributed to a reduction in absenteeism. The results, together with the discussions derived from the research, are presented in the perceived order of importance in relation to the different factors, according to the respondent sample.

To establish the most important perceived factors by respondents, the researcher analysed the intensity of the response and how many times it was mentioned. Based on this, the researcher was then able to list the identified factors in perceived order of importance. The content of the interviews contributed largely to the factor standing, the number of times and the manner a factor was spoken about also led to the positioning. The presentation and discussion of factors in this chapter is in line with the classification starting from the factor perceived as most important. See Table 3 for the factor listing.

4.2 Profile of interview respondents and demographics

The researcher interviewed 15 full time employed TFR employees, as planned, seven of whom were general employees and eight were line managers that are senior leaders in the organisation. There was no specific sequencing of interviews, respondents presented themselves as and when they were available, due to operational obligations interviews took place during working hours and business had to continue as usual.

All the interviews took place in the vicinity of the Ermelo depot at the respondent's operational areas, one set of interviews took place at the regional manager office, other interviews at 10E loco depot, some at the finance offices. The 15 interviews were conducted against the research instrument which was the questionnaire. See Appendix A for the sample of the actual research instrument used.

At the beginning of each interview, the researcher confirmed with respondents that they are participating out of their free will, assured the respondents of the anonymity of the interview process and made them aware of the recording and obtained their permission to be recorded. The participants, prior to the interview, were handed a form to sign as consent, and agreement that their responses could be used in the research. See Appendix B for the respondents consent form.

Please note disclaimer: direct comments and statements by respondents are referenced and quoted as required, the comments are from the notes and recording made by the researcher. Page numbers are not provided as the comments are from the notes taken by the researcher during the interviews.

4.3 Successful implementation of a time and attendance system

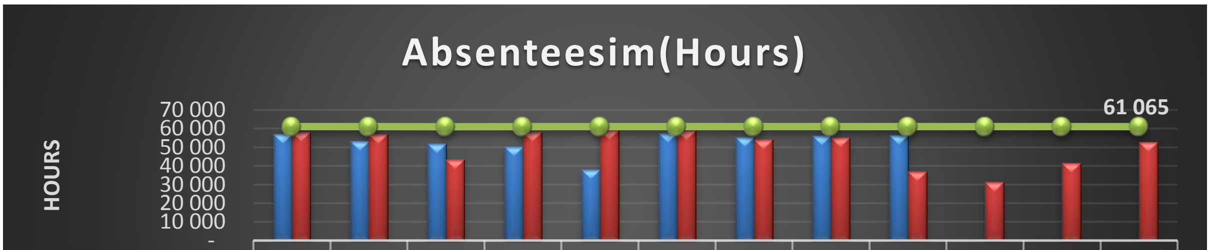
Findings from the literature review identified factors which are presumed to facilitate successful implementation of a time and attendance type system. Other factors are stemming from the respondents' feedback. The actual data from the thematic analysis was used to put a positioning order to the identified factors.

4.3.1 The successful implementation of Time and Attendance at Ermelo depot

The system implementation was deemed successful because it achieved the strategic goals of the organisation, and was subsequently recommended to be implemented nationally within Transnet Freight Rail, as a result of the outcomes of Ermelo depot. The implementation met the objective of reducing absenteeism and improving on time behaviour.

4.3.1.1 Reduction of absenteeism in hours

Figure 7 below shows the general decline patterns of absenteeism in hours. It is taking into account the historic actual absenteeism costs in hours noted in the 2015/2016 financial year, and compares that to the actual absenteeism hours for 2016/2017, against what was projected or budgeted for absenteeism for the 2016/2017 financial year.

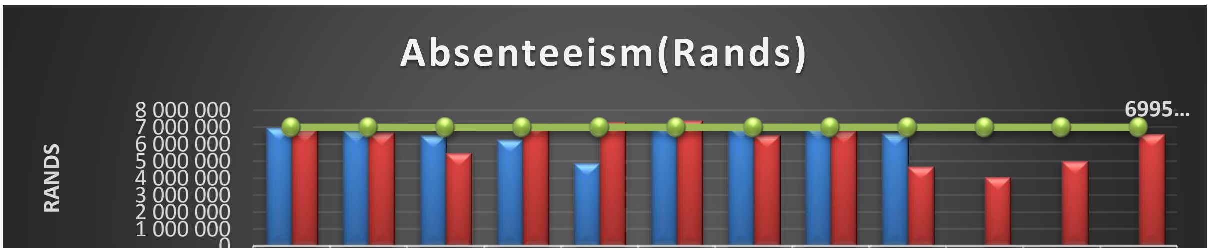


	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March
Act 16/17	56 83	53 28	51 72	50 47	38 12	57 36	55 27	56 02	56 34			
Act 15/16	57 89	57 02	43 42	57 94	59 18	59 00	53 94	55 24	36 84	31 25	41 41	52 85
Budget 16/17	61 03	61 02	61 01	61 06	61 06	61 04	61 03	61 04	61 05	61 04	61 06	61 06

Figure 7: Reduction of absenteeism in hours

4.3.1.2 Reduction of absenteeism in Rand value

Figure 8 shows the general decline patterns in absenteeism in Rand value terms. It is taking into account the historic actual absenteeism costs in Rands noted in the 2015/2016 financial year, and compares that to the actual absenteeism hours for 2016/2017, against what was projected or budgeted for absenteeism for the 2016/2017 financial year.



	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March
Act 16/17	6971	6816	6519	6281	4876	7181	7020	6994	6635			
Act 15/16	6878	6674	5471	7203	7285	7371	6543	6798	4672	4056	4986	6579
Budget 16/17	6993	6992	6991	6996	6996	6994	6993	6994	6995	6994	6996	6995

Figure 8: Reduction of absenteeism in Rands

4.4 Factors identified that facilitated successful implementation of a time and attendance system at TFR Ermelo depot

The researcher established that there was general consensus from both line managers and employees interviewed at Ermelo depot, in terms of what they perceived and mentioned consistently as the factors that they believed contributed significantly to the successful implementation of the time and attendance system at their depot. Table 2 shows the composition and sequence of the respondents in the research.

Table 2: List of Interview Respondents

Respondent Number	Role Description	Naming
1.	Employee	E1
2.	Employee	E2
3	Employee	E3
4	Line Manger	LM1
5	Line Manager	LM2
6	Employee	E4
7	Line Manager	LM3
8	Line Manger	LM4
9.	Employee	E5
10	Line Manager	LM5
11.	Line Manager	LM6
12.	Employee	E6
13.	Employee	E7
14.	Line Manager	LM7
15	Line Manager	LM8

The researcher proceeded to identify factors that facilitate successful implementation of a time and attendance system from responses in the semi-structured interviews conducted and from the literature review findings. Table 3 provides a description of factors identified from the thematic content analysis as having facilitated the successful implementation of the time and attendance at Ermelo depot.

Table 3: Description of Identified Factors

	Factor	**Description of factors**
1	Leadership Commitment	Coal BU executive management visible and active throughout the system implementation Supporting employees through the implementation. Making the necessary decisions to facilitate successful implementation
2	Reduction in Absenteeism	Minimising habitual pattern of absence from duty Fewer number of employees being recorded as absent Fewer unexplained employee absence from work stations
3	Consistent Communication	Face-to-face employee communication Proving information and regular updates on the implementation
4	Role Clarity	Understanding what is expected from each employees Ability to execute one's role in the implementation
5	Monitoring and Reporting	Reporting and regularly monitoring of the rate of absenteeism Audit trail availability Sustainability of implementation
6	Training provided	Formal classroom based training E-learning Participation in knowledge exchange session On-site training
7	Support Processes & Procedures	Recovery process and procedures documented and widely known
8	Benefits to individuals	What is in it for the employees
9	Benefits to organisations	How the implementation will benefit the organisation

10	Positive impact	Overall positive consequence of the system implementation
11	Behavioural change	Sustained behaviour change Employees doing things differently All parties not reverting to old ways of working

The listing of factors is based on the frequency of mentions by respondents in the interviews. Table 4 indicates the total number of mentions for both line managers and employees, the listing is not quantitative in nature, it is an indication of how widespread the response was among the respondents, the more respondents shared the same view the more widespread the factor is and the fewer respondents the less widespread the factor is.

Table 4: List of Researcher's Identified Factors

Name of Factor	Number of Line Managers	Yes	Number of Employees	Yes	Number of mentions
Leadership Commitment	**8**	**8**	**7**	**7**	**15**
Reduction in absenteeism	**8**	**8**	**7**	**7**	**15**
Consistent Communication	**8**	**8**	**7**	**7**	**15**
Benefits to the organisation	**8**	**8**	**7**	**6**	**14**
Training Provided	**8**	**7**	**7**	**7**	**14**
Support processes & procedures	**8**	**8**	**7**	**6**	**14**
Role Clarity	**8**	**8**	**7**	**5**	**13**
Monitoring and reporting	**8**	**7**	**7**	**6**	**13**
Benefits to individuals	**8**	**6**	**7**	**7**	**13**
Positive impact	**8**	**7**	**7**	**5**	**12**
Behavioural change	**8**	**6**	**7**	**6**	**12**

4.4.1 Leadership Commitment

The factor that stood out when the content analysis was undertaken was Leadership Commitment. This supports the literature on change management .The GE Change Acceleration model highlights the importance of authentic and committed support from leadership throughout implementation for change to succeed, and the CAP process also emphasises that for change initiatives such as system implementations to be successful, they must be executed using leadership support to influence, to build momentum and leverage off early adopters of change.

Table 5: Leadership Commitment Factor

Factor	**Line Managers**	**Yes**	**Employees**	**Yes**	**Number of mentions**
Leadership Commitment	**8**	**8**	**7**	**7**	**15**

Leadership commitment was overwhelmingly identified as one of the key factors that facilitated the successful implementation of the time and attendance system in Ermelo. From the initiation of the project, leadership showed their commitment through various activities as mentioned by both line managers and general employees below;

Leadership Commitment Line Managers – the majority of the line managers interviewed indicated that they believed that leadership commitment had contributed largely to the reduction of absenteeism through the change process applied in implementing the time and attendance system. Respondents supported this view, saying that leadership showed commitment by doing more than the usual such as holding daily meetings to ensure that implementation issues from the ground were escalated and resolved timeously, the leadership increased their visibility in the depot by walking the yards to support the implementation, they themselves made use of the time and attendance system to show that the system is for all to use, not only employees, they published weekly clocking statistics that included their names and their clocking adherence patterns for all to see, and this display of commitment to the process, according to all line manager respondents, contributed to the success of the implementation.

Interestingly, one of the line managers (LM3) highlighted that **“***leadership in this process were always visible and willing to engage with employees at all levels. Leadership was not only visible they were also active and responsive”*

There was however, one line manager (LM4) who did express that although ultimately at the end there was superb leadership commitment, that initially at the beginning of the implementation a few members of the leadership were slow in being accessible and visible and only started when employees and the unions started asking questions to them about the implementation process *“Some were not really visible at the beginning“.*

Leadership Commitment Employees – the majority of employee respondents emphasised how leadership commitment was instrumental in the success of this system implementation and how it propelled the process forward and ensured change sustainability. From an employee’s perspective, the leadership facilitated successful implementation of the system by coming down to their levels, holding meetings with them, giving employees opportunities to raise their concerns about the process, leadership timeously responding, making decisions that considered employee impact, make special concessions to accommodate employees where necessary, ensured the success of the implementation.

One yard official (E5) during the interviews expressed that *“Yes there was communication and follow up to check if thing were going well or not, there was two way feedback platform”.*

Another employee (E3) a train driver corroborated this by saying *“the management was very responsive even that time when employees had problems with their pay, employees who were overpaid due to systems errors were given an opportunity to pay back the money over a three month period, now that is leading change”.*

For this factor, all the respondents interviewed were of the opinion that the system implementation was successful because of the commitment from leadership. This is supported Aladwani (2001)’s research that successful ERP implementation can only be accomplished when senior management is totally committed to the initiative. Management commitment and support is the ultimate strategy that will secure the necessary conditions for successfully introducing the change brought by ERP into the organisation (Aladwani, 2001).

This factor is also positioned as one of the most critical elements for making system implementations change interventions successful. This is allied in the literature review by the change model of Kotter (1996) that highlights the importance of building a strong guiding leadership coalition, by assembling a group of powerful energetic people to lead and support change efforts in a two-way process (Kotter, 1996).

4.4.2 Reduction of Absenteeism

This factor received an overwhelming number of mentions and was salient in all respondents' minds. This appears to be a case of success breeding success or in change management terms the power of "Quick Wins". All the respondents, both line managers and general employees, agreed unequivocally that the change intervention of implementing a time and attendance system in Ermelo depot had been successful and the change process had resulted in a reduction of absenteeism in all their respective operational areas within the Ermelo depot. The reduction of overtime itself was viewed as having facilitating successful implementation, because the system was deemed to deliver what it promised which was to reduce absenteeism (actual reduction is shown in Figures 7 & 8). This created enormous buy-in with all the impacted stakeholders, and was mentioned frequently by most respondents as the contributing factor. The fact that it worked was seen as a facilitating success factor.

This contributed especially well because the statistics on absenteeism trends was published on notice boards for all see, the downward trend was highlighted and celebrated in all meetings in Ermelo. The absenteeism rate tracking was specifically made to be a standing agenda item in all meetings during the implementation time and is said to continue to date.

Table 6: Reduction of Absenteeism Factor

Factor	Line Managers	Yes	Employees	Yes	Number of mentions
Reduction of absenteeism	**8**	**8**	**7**	**7**	**15**

Reduction of absenteeism line managers - this factor was classified as one of the most contributing factors to the successful implementation of the time and attendance system implementation.

The importance of this factor was highlighted by all the line manager respondents; all of them agreed that the implementation had been successful, and that there had been a drastic change in rates of absenteeism, especially in the TFR Ermelo environment.

The reduction in absenteeism allowed management to plan and resource the business accordingly; this eliminated the train crew shortages, train cancellations, late departures that were as a result of unplanned absenteeism.

One line manager (LM8) said *"It has reduced absenteeism significantly, now employees know the consequences of losing hours, and the impact it has our bottom line, because of the naming and shaming nobody wants to be seen as the one bringing the business down by being absent".*

Reducing absenteeism employees - the majority of the general employee respondents also reiterated how the actual reduction in absenteeism facilitated the successful system implementation and credited the reduction in absenteeism to how the change process was implemented; they mentioned that the publishing of absenteeism rates, patterns and individuals by name led to reduction of absenteeism at Ermelo depot. The open discussions in meetings about reduction in absenteeism allowed for better engagement on the matter. The intensified engagement with employees on the absenteeism downward trend and the benefit thereof greatly contributed to the sustained reduction in absenteeism.

The general sentiment was that there was now communication between line managers and employees and was seen by employees as a sign that the organisation cares about its employees and in turn, employees felt valued and understood the importance of limiting their absence from work to an absolute necessity.

One female train driver (E1*) "The communication with management has now improved in that the line manager now has a conversation with the employee to understand the nature of absence instead of just marking you absent*".

There was one yard personnel respondent (E7) who felt that *"the system implementation was successful in reducing absenteeism because it created visibility and easier processes of tracking absenteeism, anyone now can see who is absent and when".*

Punnett et al. (2007)'s study also highlights that employees who feel responsible, and are committed and loyal to an organisation do not want to be absent because of the impact this has on the organisation. This is also supported by Martocchio and Jimeno (2003) that employees who are committed to their organisations are less likely to absent from work. There is literature (Brooks, 2016) that supports the notion that time and attendance system provides real time data on employees on duty, employees who are absent, late and employees generating overtime. The information becomes easily accessible with this type of system.

The importance of leadership commitment is supported by Mayfield and Mayfield (2009) that managers who use positive motivating language can significantly contribute to a reduction in employee absenteeism.

4.4.3 Consistent Communication

Consistent communication throughout the process was identified as a key factor that facilitated the successful implementation of the time and attendance system by Ermelo line managers and employees equally.

Table 7: Consistent Communication Factor

Factor	**Line Managers**	**Yes**	**Employees**	**Yes**	**Number of mentions**
Consistent Communication	**8**	**8**	**7**	**7**	**15**

Consistent Communication Line Managers – the majority of line manager respondents were of the firm view that the communication on this change intervention was consistent, relevant, timeous, and had significant impact and facilitated the successful outcome of the time and attendance system implementation at their depot.

Line manager respondents alluded to having received sufficient communication in the form of email communications from leadership, implementation updates from the project team, information sharing through notice boards, frequently asked questions that were distributed to all employees, the posters that were posted on the walls in all areas of the depot. This communication level was maintained before and throughout the implementation. They line managers knew what was changing, they were made to be part of project team meetings for understanding and better insight on the implementation plan. According to all managers interviewed, the communication was clear, easy to understand and to pass on to others; with all these communication mediums used, they were clear on their role in the change process.

Information was visible and accessible, put up on notice boards, made use of teleconferences, there were emails that management sent out to all impacted by the implementation of Time and Attendance that was aimed at reducing absenteeism.

One manager (LM1) from the finance department said *“The posters and the newsflashes were good …”* See Appendix C for one example of an actual newsletter that was circulated in Ermelo depot.

Consistent communication Employees - all employee respondents said that communication was good and effectively made the transition easier and they agreed that the communication was consistent and was one of the key factors that led to successful implementation of the system. The necessary information that was always and timeously put up on noticeboards , management ensured that employees were kept in the loop via the face-to-face meetings, the information sharing by leadership at employee symposiums, Operations meetings, pamphlets, frequently asked questions (FAQ’S) (See appendix D for the actual frequently asked questions) that were distribute to all employees.

This factor is key and overwhelmingly all respondents viewed that consistent communication throughout this change management process lead to successful implementation of the time and attendance system and is closely connected with the reduction in absenteeism at their depot.

K. Cresswell et al. (2011) supports the need for continuous communication to key local individuals capable of being boundary spanners, using employee engagement models that recognise points of engagement, and behaviour drivers for different groups of users, to enable successful system implementations. Hiatt (2006) equally emphasises that communicating the needs and requirements for change is critical for successful and sustainable change.

4.4.5 Benefits to organisations

An overwhelming majority of respondents mentioned that understanding the benefits to the organisation of the time and attendance system was a factor that can directly be recognised as having facilitated the success implementation at the Ermelo depot.

Leadership articulated the benefit to business very well in each meeting, the depot management also displayed on the notice board the costs of overtime on the depot, this daily representation on the notice boards, was a detailed view of how employee late arrivals, absenteeism, time stealing, was impacting the depot. The notices on the boards showed each department in the depot contributed to reducing costs.

Table 8: Benefits to organisation Factor

Factor	**Line Managers**	**Yes**	**Employees**	**Yes**	**Number of mentions**
Benefits to the organisation	**8**	**8**	**7**	**6**	**14**

Benefits to the organisation line managers - the line manager respondents cited that the change management process highlighted and articulated benefits of the implementation to all impacted. They further stated that because they knew and understood the benefits of the time and attendance system at the Ermelo depot, it assisted in increasing the use of the system and ultimately, this led to the implementation being successful.

The general sentiment was that the system is beneficial and good for business. One of the often mentioned benefits of the implementation to the depot by line managers, was the reduction in discrepancies between the actual attendance and the manual attendance recordings. LM6 declared saying "*The system is good, the pay is correct and I no longer lots of enquiries and the stress to go check with the paper trail the hours worked".*

The overpowering view from line management was that the system benefits to the organisation were a key factor in the success of the implementation of time and attendance in their depot. One of the key benefits stated by line managers was that the system implementation created capacity for them to focus on standard operating procedures and this is beneficial to their organisation.

Benefits to the organisation employees – the bulk of employee respondents interviewed similarly agreed that benefits of the change intervention implementing time and attendance at their depot to reduce absenteeism was indeed grasped by all employees. The fact that leadership ensured that the benefits and business rationale was clear, easy to see and that employees who were key impacted stakeholders in the implementation bought into the change facilitated the successful implementation of time and attendance at this depot.

The regular face-to-face meetings with employees, the benefit tracking mechanisms through finance that were published on notice boards; all these led to the majority of employees asserting that the benefits to the organisation contributed immensely to the successful implementation. They expressed that in the event that the employees did not see the benefits to business of making the implementation a success, the business would lose money and employees could have consequently lost their jobs due to the escalating costs of absenteeism. One employee E7 said *"the system eliminated inaccuracies, no more fingers faults, the system is more accurate, so people are not paid for time was not worked".*

Kotter (1996) emphasises the significance of getting people in the organisation to buy into the change for the organisation is implementing. The CAP also accentuates the importance of impacted stakeholders understanding the compelling reason and need for change, and this needs to be understood by all stakeholders, not only leadership.

4.4.6 Training provided

The training that was provided to both employees and line managers during this implementation was also identified as one of the fundamental facilitators of the successful implementation of the system. It was an enabler for execution.

Table 9: Training Provided Factor

Factor	Line Managers	Yes	Employees	Yes	Number of mentions
Training Provided	**8**	**7**	**7**	**7**	**14**

Training Provided Line Managers – the majority of line managers indicated that the adequacy and relevance of the training received was another element that made the implementation successful. Line managers were provided with two types of training; the first was a change management training to enable them to lead their subordinates through this change and the second training was of a technical nature, aimed at equipping managers with the capabilities and skills to manage attendance exceptions on the system.

The clearing of exceptions was a crucial part of the implementation, a daily activity that managers had to be equipped to do. This training, as part of the change management process, facilitated the successful implementation of the system, in that line managers were able to have meaningful conversations with employees about absenteeism through this exception management process.

The training provided prepared and also improved the relationship between managers and employees as they were now expected to have daily conversations with employees about the time off work which was more than what they had done in the past, so that element of training provided had a positive impact and contributed to the successful outcome of the system implementation.

“There was one line manager respondent (LM5) who was of the view that as much as training was provided he stated that “The line manager training could be improved by increasing the technical aspects of exception clearing, monitoring and controlling going forward.”

Training Provided Employees - all interviewed employees stated that they received sufficient training during the process and this was a significant factor that led to the successful implementation in time and attendance in Ermelo. What made this factor work was that the training was not only classroom based, the training specialist used various platforms to give training to employees, and this ensured that all training reaches all employees without negatively impacting operations in the depot.

The training specialist made use of different exciting mediums of training such as Leaflets, Posters that were posted next to the machines providing step-by-step guidance on the time and attendance processes, such as clocking; the training expert also used frequently asked questions as another different training tool, these were good in that they considered and responded to all possible scenarios employees may encounter in the implementation of the system at their depot.

The training was also conducted and finished in time before the system became operational in Ermelo. So by the time the system went live in Ermelo, employees attested to knowing exactly what they needed to do. This training provided factor aided tremendously the successful implementation of the system.

They had received training through various platforms; some had face-to-face engagements at Symposiums, pamphlets, leaflets (See Appendix D) this made the implementation a success.

One Yard official respondent (E5) said “*I found the leaflet confusing but through self-learning I managed to learn quickly how to clock on the machines and I was in a position to deal with the clocking system when it started at 11e loco building”*.

So the majority of respondents felt that training was adequate and supported that the adequacy of the training provided to them during the implementation was in fact, a factor that facilitated the successful implementation of time and attendance at the Ermelo depot. The researcher noted from the consistent respondents comments, that training was key in the success of the change.

The importance of providing training to enable system implementation is supported by literature. Hiatt (2006) highlights the importance of having an efficient and successful plan for developing employees going through the implementation during the change management process.

4.4.7 Support Processes and Procedures

The support processes and procedures that were put in place for the implementation of the time and attendance system at the Ermelo depot were perceived by the majority of respondents as having been a vital contribution to making the implementation successful. The majority of interviewed respondents mentioned that the support that the project team, leadership, management and employees received throughout the implementation was in fact effective.

Table 10: Support Process and Procedures Factor

Factor	Line Managers	Yes	Employees	Yes	Number of mentions
Support Processes & Procedures	**8**	**8**	**7**	**6**	**14**

The respondents stated that the procedures to follow when the machines were not working or faulty were visibly posted across notice boards, walls in eating areas, next to the clocking in and out devices. What the respondents also highlighted as having facilitated the successful implementation was that the written language of the outlined processes and procedures was in simple, easy-to-understand language and therefore made it stress-free to follow and thus facilitating successful implementation of the system. The setting up and training people at the Nerve Centre (IT Support) to deal specifically with Ermelo depot's time and attendance queries enabled quick responses on escalation matters and this was also stated by most respondents as a contributing factor to the successful implementation. The security department team in Ermelo was also trained as part of the implementation to offer on-site support to the depot, they were able to readily replace lost cards, and provide access pin codes in instances where employees had forgotten their cards at home. This was viewed as a factor that enabled successful implementation.

Support processes and procedures Line Managers – the majority of line managers interviewed said that throughout this system implementation process, there were clear and effective support structures in place. This facilitated the successful implementation of the time and attendance system and ultimately, the reduction of absenteeism. The section manager (LM5) at 10e Loco said *"It helped that we all knew what to do if anything went wrong with the system"*. The respondents mostly also mentioned the security department was always willing to help when called upon.

Support processes and procedures Employees - the majority of employee respondents expressed that the support structures put in place were effective, they always knew and understood exactly what the recovery process was, they would often call the security department or nerve centre to obtain access pin codes that they could use if they had forgotten their cards at home and therefore would not be recorded absent for not clocking.

One of the seven employees interviewed, a yard official (E6), said that there were support processes and procedures in place for implementation and they were effective, however he also felt that the Nerve Centre was not always quick in their response; he said *"the phone would ring without them answering, and at times we would struggle to get the temporary pin from the centre"*. The employee also indicated that there were times where the Security Department was inundated with calls for assistance that it would take some time for them to respond to their respective work area system challenges. There was a limitation in that it was only the security department that could fix broken down machines. This landed Section managers with an increased workload of having to clear more attendance exceptions and they would not have time to do daily task observations, as required by rail regulator. He continued to suggest a possible solution in that *regard "We need a dedicated line in the Nerve Centre that will only deal with the calls for time and attendance systems issues".*

So overall, respondents believed strongly in the existence of adequate support processes and procedures and that this contributed to the implementation of time and attendance being successful in their depot.

Hiatt (2006) referring to Prosci, emphasises that for implementation to be successful, managers need to provide support and help employees going through the change management process.

4.4.8 Role Clarity

The bulk of interviewed respondents pointed to the role clarity as one of the key factors that made the implementation of the time and attendance system successful in Ermelo depot of TFR. As part of the change process, the project team had developed a clear role and responsibilities matrix, that was communicated at all the meetings, and most forums that involved time and attendance matters. The role clarity was identified early on by all employees to be a huge contributor to the successful outcome of the implementation. Small Z cards were given to all employees outlining their role in the implementation, there was clear role distinction for leadership, line managers, and employees. The card also detailed how parties could take ownership of their roles. This was perceived by most respondents as a factor that facilitated the successful implementation of time and attendance system at Ermelo depot.

Table 11: Role Clarity Factor

Factor	Line Managers	Yes	Employees	Yes	Number of mentions
Role Clarity	**8**	**8**	**7**	**5**	**13**

Role Clarity Line Managers - the majority of line managers interviewed said they were clear on what their role was in the implementation process and that as part of the change management process, they were enabled to do their jobs as required by the new process because they had been communicated with several times, trained on how to do exception clearing on the systems. Their role was to support employees through the change management process, to monitor and manage exceptions daily, and when necessary, to escalate any issues they experienced or any risks they identified, to the project team through the escalation process. The bulk of respondents put emphasis on this level of clarity on their roles and were in agreement that it enabled the successful implementation of the time and attendance system in their depot.

Role Clarity Employees - most of the general employees indicated that they had clarity on their roles, which was to ensure that every time they go in or out of the building they clock in and clock out, they also were clear that they had the responsibility to report faulty clocking machines, to ensure that they have clocking cards at all times and to have undergone the relevant training on time and attendance implementation. The employees had to also attend the information sharing sessions. One train driver (E3) said *"We were going to lose hours if we didn't clock we knew it was clear that it was in our hands now"*.

The respondents had been very clear of the consequences of not clocking and this clarity of their role in the implementation contributed to the high rate of clocking in and clocking out which in turn, made the system implementation a success. There were tools developed (the Z card being one of them) to ensure that there is role clarity and this was perceived to have been critical to the successful implementation.

4.4.9 Monitoring and reporting

Table 12: Monitoring and Reporting Factor

Factor	Line Managers	Yes	Employees	Yes	Number of mentions
Monitoring and reporting	8	7	7	6	13

Monitoring and reporting Line managers - the perception widely held by the line managers interviewed was that the monitoring and reporting element of the implementation was a great catalyst in the change management process that enabled the successful implementation of the time and attendance system. The managers were provided with reports by the project team to be able to on a day-to-day basis, monitor and action all exceptions reports generated as a result of employees not clocking in and or not clocking out, so they had real time access to crucial information.

The line managers were on a daily basis, sent a report by the implementation team showing by name, which line manager had not managed their exceptions from the previous day. That increased ownership and accountability by managers during the change management process enabled the successful implementation of the system. This monitoring and reporting was also used by leadership as a process ownership tool, if a line managers had not managed exceptions for that day, a report of escalation was sent to their manager, this ensured that most line managers action their exception reports timeously.

The exception reports were an important tool for day-to-day monitoring and for audit trail purposes that managers had at their disposal. They were now able to quickly establish patterns and identify and manage absenteeism perpetrators. Line managers now had the ability to at any time, draw a report from their laptops even remotely, to have look at their absenteeism, analyse patterns from anywhere, were not limited to using manual registers, and journals. One manager (LM2) said ***"**it works perfectly for me during the day I am too busy with operational issues, but in the evening at home I have time to draw the report and do some analysis and planning to address my team's absenteeism challenges**".***

Monitoring and reporting employees - most of respondents on the employee side stated that the monitoring and reporting element had a positive influence on the outcome of the implementation of the system. The Finance department official (E4) said **"***it speeds our reaction on payroll queries, I am able to respond quicker by checking on the system instead of going to operational areas to find manual registers. It can be accessed at any time, whatever information we need we can draw it from the system".*

There was a sentiment from two other employees (E7 and E2) that the monitoring and reporting had not done anything to contribute to the reduction of absenteeism, but this was not a reflection of the successful implementation of the time and attendance system, or that the mechanisms put in place were not working E2 said *"it's not different, rate of absenteeism is still too high for an organisation like TFR".*

The positive result of the system implementation, as agreed by many, was due to the fact that all employee activity could now be reconciled with a reliable system audit trail. Managers could no longer do favours for employees by turning a blind eye on their absence from work, because the reporting could no longer be manipulated by bias management who had preferences and this supported adherence to shift lengths.

Ultimately, this was perceived by most employees as having facilitated the successful implementation at Ermelo depot.

Train driver (E1*) "I don't have to run around looking for my sign on or off manual journals, it's now all on the system".*

The system provided an audit trail that allowed for real time comparison. One employee who is a train driver and also a union representative said (E3*) "the system cannot be manipulated, no manual favours now ".* The system had minimised all the time spent searching for misplaced manual attendance registers, they were now able to just clock in on the system and proceed straight to departing the train on time and clock out again when they went off duty. So overall, thirteen out of fifteen respondents thought that the monitoring and reporting capabilities facilitated the successful implementation the time and attendance system at their depot.

The Change Acceleration model in figure 2 highlights the importance of putting a plan in place to measure progress on change management processes so as to know the progress being made and setting benchmarks for performance going forward. This is also supported by Aladwani (2001) who emphasises the significance of using a performance system to monitor change management efforts to enable top management to ensure that change management strategies, workers' anxiety, and resistance to ERP are under control.

4.4.10 Benefits individuals

The bulk of the respondents interviewed said that they recognised the benefits the system implementation was bringing to them as individuals and there was consensus that this minimised the natural resistance associated with change and system implementation, and therefore led to the successful implementation. Leadership, through their consistent communication with all impacted stakeholders, made sure that the benefits of the implementation were well articulated, to every level.

Table 13: Benefits to Individuals Factor

Factor	Line Managers	Yes	Employees	Yes	Number of mentions
Benefits to individuals	**8**	**6**	**7**	**7**	**13**

Benefits to individuals Line Managers - the majority of line managers interviewed said that proper articulation of benefits of this change to them as TFR employees was a key factor that made the implementation of the system successful. Specifically as line managers, the system implementation benefited them in that it saved them time of processing manual attendance records. Line managers were in alignment that they now had more time to focus on operational deliverables. The system allowed them remote access which enables them to monitor and manage absenteeism from anywhere. This remote access and flexibility that came with the implementation increased the rate of utilisation of the system and was a key factor in the success of the implementation.

Benefits to individuals' employees - all of the employees interviewed expressed that understanding of the benefits of the system implementation to them as individuals contributed to the successful implementation of system. Employees knew what was in it for them so this motivated them to make the system implementation work. The benefits highlighted by employees was the accurate recording of their attendances times, they perceived the system recording of clocking in and clocking out times to be objective, they also expressed as a result of the system implementation, they did not experience high rates of discrepancies as they had previously with the manual journals recordings. Employees also mentioned that they could now have meaningful conversations with line managers about absenteeism.

4.4.11 Positive impact of the change

The consistent overwhelming view from the respondents was that the system implementation was successful, and one other factor that facilitated that success was as mentioned by them was the positive impact that the implementation had brought to their depot. The improvement in staff morale, the automation of previously manual processes, and the reduction in absenteeism all had been positive for the business.

Table 14: Positive Impact of the Change Factor

Factor	Line Managers	Yes	Employees	Yes	Number of mentions
Positive impact of the change	**8**	**7**	**7**	**5**	**12**

Positive impact of the change line managers – the majority of line managers said the system implementation has brought a positive impact in their work environments, employees are on time, there is increased productivity, people now adhere to shift lengths, no more short time, no journals entries, no pay queries have decreased, overall improved attendance. Absence without leave, which was high before the implementation, had reduced, there was now proper recording system, and this reduced the element of human error or manipulation. The system was perceived by most to be more accurate and fair in that it creates exceptions that can still be signed off after discussion between line manager and employee, so there is better interaction between employee and supervisor. The system also addressed the perception of ghost employees in Ermelo depot, managers were as a result of the system implementation, taking accountability, and the Operations managers saved travel time, as they did not need to travel to query exceptions. This helped management to enforce agreements between unions and management. The positive impact brought on by all these is seen by the majority of line managers as having directly facilitated the successful implementation of the time and attendance at Ermelo depot.

Positive impact of the change employees - most employees interviewed expressed that the implementation of the time and attendance system was successful, the manner in which the change process was conducted, made the system achieve its goals of reducing absenteeism and the overall depot perception was positive. The one yard official (E5) mentioned that *“the system reduced buddy buddy manual intervention”, “there are no favours now”*. The bulk were in agreement that since the implementation there is now increased punctuality in the depot; all employees respect and adhere to their sign on or off time, people are not working short time, the system records accurately and facilitates better communication. This was viewed by employees as a contributing factor to the implementation success. The system was credited as having taught a lot of people discipline, not to stay away from work and also served as a remind to bring their cards to work. People ultimately adjusted well and the system has increased productivity in the depot.
“It’s a good system said one yard official". Sign on journals are no longer being lost by section managers.” E5

Mckinsey’s 7s of change management also support that when implementing changes, it is important to change where necessary to ensure that change has a positive impact. Hiatt and Creasey (2003) emphasise the importance of identifying and treating resistance during change management processes to ensure successful implementation of change projects.

4.4.12 Behavioural Change

Table 15: Behavioural Change Factor

Factor	Line Managers	Yes	Employees	Yes	Number of mentions
Behavioural change	**8**	**6**	**7**	**6**	**12**

Behavioural Change Line Managers – the majority of the line manager respondents in the interview process indicated that they had noticed significant change in behaviour in their respective operational areas, and this was largely attributed to the successful change process in implementing the time and attendance system.

They alluded to behavioural change in people, employees were more aware of implications of not clocking in or out. One section manager said (LM2) *"people didn't want a cent off their pay and made sure they clock in and out religiously "*

The line managers expressed that they are now in a position to communicate better with employees in relation to attendance and absenteeism, and that the conversations are more open and honest as they are supported by the system audit trail, this was viewed as having largely contributed to the successful implementation. The section manager further said (LM2) *"There are no arguments and accusations the system has the final word".* The overall sentiment from the line managers' perspective was that the behavioural change that emanated from the system contributed to the implementation thereof being successful.

Behavioural Change Employees - there was general consensus with general employee respondents interviewed; they all conveyed that this change intervention has been successful in driving behavioural change in their depot and thus the successful implementation of the system. They highlighted that the implementation had institutionalised their behaviour as employees, to be more punctual and not go home early unless so authorised.

The researcher noted that before the system implementation it was common practice in TFR especially for Yard Personnel to in an event of trains being cancelled because there would be no loading work to do, line managers would allow employees to go home based on management discretion. But with the system implementation employees could not just leave early, they had to be allocated to other work areas where they could be of assistance, so this drove a new behaviour. All these were deemed by employees to have facilitated the success of the implementation.

It also influenced behaviour in that people were not just staying away from work without valid reasons. When in the past, employees who go AWOL and still be paid for days they were absent because there was no way of checking and validating absence, it was the employee word again the line manager type of scenario. Post the system implementation fewer employees are unaccounted at work stations. Employees can no longer go on lunch for longer periods than they are entitled to, E3 stated *"They were abusing the system*". The implementation has also created a behaviour of punctuality because the system gives tolerance for 15 min within clocking time and most employees also made sure that they are there on time. The one yard official E5 mentioned that *"managers are now take accountability and dealing with the chronic absenteeism, they also take ownership for validating and signing off all the attendance exceptions prior to pay roll cut off to reduce queries to payroll after pay day".*

4.5 Ways the system implementation could have be optimised

This is a consolidated view of both line managers and employees on a question posed by the researcher to get perceptions from the respondents on what, in their view, could have been done better or differently in the implementation of the time and attendance system. The change management process and thus the system implementation was a success but there are areas of improvement that were mentioned by respondents such as:

- Increasing the number of machines for clocking in and out, when shift starts there is normally a high concentration of people waiting to clock in and out, especially in the mornings at sign on and afternoon at sign off times, so there is a queue which can be a deterrent for some employees clocking and may affect the sustainability of this implementation going forward.

- Appointing additional localised super users that can assist line mangers when experiencing challenges on the system, this will also reduce the number of calls to the Nerve centre asking for guidance.

- Ensuring that maintenance contracts are in place, effective, and valid for when machines break down and to avoid delays in response time.

- Continually enhancing the system by integrating it into some of the key existing TFR systems such the Crew Management System (CMS).

4.6 Summary

Line managers and general employees interviewed in the process were in overwhelming consensus on the factors that they perceived to have facilitated the successful implementation of the time and attendance system in their depot. The table below shows the summary of the factors.

What factors facilitate the successful implementation of a time and attendance in a large, labour intensive organisation? The table below shows the summary of the factors identified;

Table 16: List of Researcher's Identified Factors

Name of Factor	Number of Line Managers	Yes	Number of Employees	Yes	Number of mentions
Leadership Commitment	8	8	7	7	15
Reduction in absenteeism	8	8	7	7	15
Consistent Communication	8	8	7	7	15
Benefits to the organisation	8	8	7	6	14
Training Provided	8	7	7	7	14
Support processes & procedures	8	8	7	6	14
Role Clarity	8	8	7	5	13
Monitoring and reporting	8	7	7	6	13
Benefits to individuals	8	6	7	7	13
Positive impact	8	7	7	5	12
Behavioural change	8	6	7	6	12

Chapter 5: Recommendations and Conclusions

5.1 Introduction

The research aimed to identify and explore factors that facilitate the successful implementation of a time and attendance system in the Transnet Freight Rail Ermelo depot; an intervention aimed at reducing absenteeism.

Fifteen respondents, eight of whom were line managers and seven general employees, were interviewed and asked to provide, in their own opinions and perspectives, factors they believed aided the success of this change intervention at their depot. These factors were placed according to their order of importance based on how many respondents deemed the factors important contributors to success of the time and attendance system implementation. The content and context of the interview together with the identified factors, then served as the basis from which the researcher developed the final view of key factors that contributed in making this type of system implementation successful.

According to the respondents, these identified key factors contributed to the success of time and attendance implementation in Ermelo, and ultimately the achievement of the overall goal which was the reduction of absenteeism as presented in figure seven and figure eight.

5.2 Conclusions of the research

The researcher conducted 15 semi-structured interviews with respondents who were both line managers and general employees based at Ermelo which was the pilot site for the implementation of the time and attendance system in TFR, to understand their perceptions regarding factors of the change management process that facilitated the successful implementation of the time and attendance system. The researcher made notes and audio recordings during interviews and then conducted a themed content analysis on the comments and responses from all of the respondents during the interviews. This then became empirical data and the themes from this data were used to develop a position of importance in contribution of the factors that led to a successful change management process and therefore the successful implementation of the system.

The research findings positioned the following eleven factors as the key factors according to Ermelo depot line managers and general employees for the successful implementation of time and attendance system;

- Leadership commitment
- Reduction in absenteeism
- Consistent communication
- Benefits to organisation
- Training provided
- Support processes and procedures
- Role clarity
- Monitoring and reporting
- Benefits to individuals
- Positive Impact of the change
- Behavioural Change

The research aimed to establish what factors facilitated the successful implementation of the time and attendance system in a labour intensive organisation.

5.3 Recommendations

The research study has identified the key factors, which according to line managers and employees perceptions, contribute immensely to successful implementation of time and attendance systems.

It is therefore recommended that leadership commitment be viewed as critical element to successful of implementation of systems, and for the overall change management process. Leaders are urges to not only talk of their commitment, they must also be active and visible throughout the implementation process, and leaders need to be available and accessible for employees when necessary.

Another important recommendation for similar type of change interventions is consistent communication before, during and after implementation to ensure success. The communication should ideally use varying medium of communication such emails, posters, face to face talks, frequently asked questions leaflets, etc. to keep all impacted stakeholders informed about the implementation process.

The researcher recommends that executives clearly articulate the benefits of system implementation for both the organisational and individual levels. The knowledge and understanding of the benefits enables buy in from these key stakeholders and thus facilitates successful implementation.

Further recommendations from the researcher based on findings are that project leaders must ensure that training provided is relevant and can enable the change required, also to ensure that there are proper support structures in place, and continuous monitoring and reporting of implementation progress, to enable successful implementation of such systems.

The findings from this research study are considered critical in leading a successful system implementation process. Furthermore, findings from the literature review show that applying a robust change management process to system implementation can have a positive impact on the outcome of the implementation and the organisations can realise benefits as intended in their initial business case.

There is then clearly, from this research, an opportunity for organisations such as TFR and others to improve and optimise how they implement systems changes intended to drive behaviour change, to ensure it is a method that enables organisations to realise benefit of the changes presented.

The researcher therefore is recommending that organisations review their current and future change management processes on system implementation projects, and focus on making sure that key factors that make this process successful have been taken into account and applied throughout the implementation journey in order to make changes that are sustainable and beneficial to the organisations' bottom line.

5.4 Suggestions for further research

Knowledge and experience around change management processes, system implementation and behavioural change drivers is still emerging, especially for South African state owned enterprises. This research study was conducted to understand key factors that facilitate successful implementation of a time and attendance system in TFR South Africa. These further areas are suggested for future research:

5.4.1 Extending the population to include EXCO members

The current study only focused on views and perceptions of line management and general employees, whereas there could have been an opportunity to extend the research to include views from top leadership. The objective of this would be to identify and correlate the findings from these other key stakeholders in the change management process to the current findings and then have a more comprehensive view from stakeholders on factors that make change process of implementing systems that drive behaviour change successful. Recommendations could then be made by all these stakeholders on key factors that could facilitate successful system implementation.

5.4.2 Significance of behavioural change to sustainability of system implementation

The current research study perceptions placed the behavioural change slightly lesser than other factors. A new study could be undertaken into developing a comprehensive understanding as to the impact of system implementation on behaviour change - does the system automatically force behaviour to change, hence minor standing? The objective would be to understand why line managers and employees perceived this factor lesser on the contribution to successful change.

5.4.3 Benefits of change to individuals compared to benefits for organisations

The current research study also tiered this factor in the fourth quadrant, a new study could be undertaken to establish whether the benefit to the individual is less of a contributing factor to the success of the implementation of a change process than to the benefit of the organisation. The objective would then be to assess why these line managers and employees placed this factor lower that the benefit to organisation factor which categorised in the 1st quadrant in this study.

5.4.4 Union member employee compared to non-unionised employees

The current research study included the views from line management and employees. There was one respondent who is also a union representative. A new study could be undertaken into understanding the views and perceptions of organised labour members specifically, who generally operate on a mandate from their constituencies, and are almost always perceived to be anti-change, to establish what factors in their view, contributed to the success and how the factor positioning would be from an organised labour perspective.

5.4.5 Response from operational workers and admin workers

The current research study did not distinguish the type of line managers and employees who were interviewed. In TFR, there is a difference between administration office bound employees and operational employees who actually drive and work on trains. Operation departments work 24 hours shifts and administration departments works 8 hour days, the work environment is totally different. A new study could be undertaken to establish the views of these clusters of employees on what makes the implementation of a time and attendance system successful.

5.5 Concluding remarks

System implementation in organisations is increasingly becoming susceptible to failure; with this being said, it is important for system implementation to reflect the business needs and involve all stakeholders. System implementers must take into account the cultural implications of the systems' effort. Successful implementation is reliant on both people and systems. There are factors that need to be taken into consideration for effective implementation such as; employee attitudes, resistance, concerns, training, support, communication, leadership, management, integration into current work practices. A successful implementation can advance the organisation's efficiency improvement goals, and profitability, therefore it is critical to business continuity and sustainability.

The literature review in this research identified some of the factors that can facilitate successful implementation of a time and attendance system and the actual research offered more insight on line management and employee perceptions of the factors that contribute to successful implementation of a time and attendance in a large labour intensive South African organisation – the researcher tiered a list of eleven factors identified through the research process, and other factors that may potentially affect a successful implementation of a time and attendance system.

The goalmouth for organisations probing ways to enhance the implementation of systems in South Africa must be focused on driving and delivering on these key factors identified as facilitators of successful implementation of a time and attendance system.

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Appendix A

Interview outline for respondents

Line manager and employee perceptions on factors making Time and attendance implementation successful

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Details of the respondent:

Date:

Respondent name:

Opening Remarks:

The researcher started by thanking the respondent for making time for the meeting and contributing to the research report. Then referred to the briefing from the HC Manager that requested respondents' participation and provided general information and background about the research. Researcher also highlighted that the research is an important input to the TFR strategy, and what the research aimed to achieve, which was to identify and explore factors that facilitate successful implementation of a time and attendance in Ermelo depot.

Researcher provided short clarification of the format of the interview and the shape of it being a semi-structured format.

The interviewer then stated clearly that the interview was solely conducted for purpose of the research report, asked respondents for their permission for the interview to be recorded and assured them that the recording is purely to support note taking and report writing. It will not be transcribed. The handwritten notes and recordings can be made available if respondents so require. Researcher then assured the respondent of the anonymity of the process. No respondents would be mentioned by name in the research report

Background Information:

Asking the respondents some factual data about themselves and the organisation

- Where they working at TRF Ermelo depot when the system was implemented
- What is their current grade/ job level in the organisation
- Explained the purpose of the study which was to examine factors that led to the successful implementation of the time and attendance system in Ermelo depot.

Question one:

What information did you receive about the time and attendance system before it started?

Question two

What was your understanding of your role in the T&A system?

Questions three

What training did you receive in preparation for the use of the system?

Question four:

What support processes and procedures were put in place should problems arise with T&A?

Question five:

What is your view of the leadership's commitment to the T&A implementation?

Question 6:

What benefits has the system brought to the Depot?

Question 7:

In your understanding what is the impact of the T&A system on your day to day work activities?

Question 8:

What support processes and procedures were put in place should problems arise with T&A?

Question 9:

How has the system influenced the monitoring and reporting of absenteeism?

Question 10:

What is your view about the changes brought by T&A absenteeism levels in the Ermelo Depot?

Closing Remarks

The researcher thanked the respondents for their participation in the research and offered them a copy of the report once it is completed.

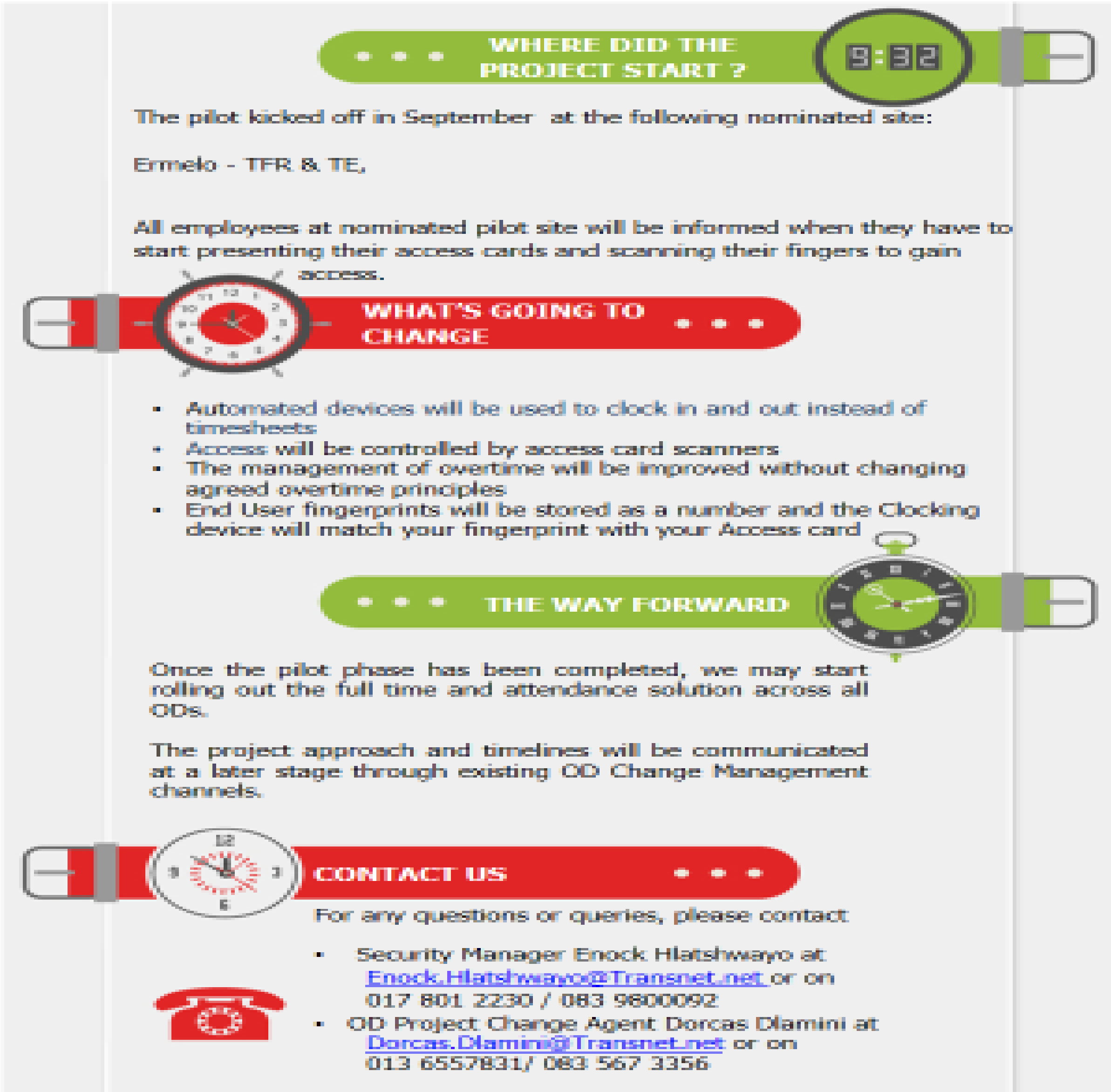
Appendix B

Factors affecting the successful implementation of a Time and Attendance system at Transnet Freight Rail in South Africa

QUALITATIVE RESEARCH CONSENT FORM	
I agree to participate in this study that I understand will be submitted in partial fulfilment of the requirements for the Master's degree of Business Administration at Wits Business School.	
I understand that my participation is voluntary.	
I understand that all data collected will be limited to this use or other research-related usage as authorized by Wits Business School.	
I understand that the interview will last approximately 30-45 minutes. Notes and audio recordings will be made during the interview. If I don't want to be taped I can ask the researcher to switch of the recorder at any time.	
I understand that I will not be identified by name in the final research product.	
I am aware that all records will be kept confidential in the secure possession of the researcher.	
I understand that the data I will provide are not be used to evaluate my performance as a TFR employee in any way.	
I acknowledge that the contact information of the researcher and his advisor have been made available to me along with a duplicate copy of this consent form.	
I understand that I may withdraw from the study at any time with no adverse repercussions.	

Name of Participant	Date	Signature

Appendix C


WHERE DID THE PROJECT START ?
9:32
The pilot kicked off in September at the following nominated site:
Ermelo - TFR & TE,
All employees at nominated pilot site will be informed when they have to start presenting their access cards and scanning their fingers to gain access.
WHAT'S GOING TO CHANGE
• Automated devices will be used to clock in and out instead of timesheets
• Access will be controlled by access card scanners
• The management of overtime will be improved without changing agreed overtime principles
• End User fingerprints will be stored as a number and the Clocking device will match your fingerprint with your Access card
THE WAY FORWARD
Once the pilot phase has been completed, we may start rolling out the full time and attendance solution across all ODs.
The project approach and timelines will be communicated at a later stage through existing OD Change Management channels.
CONTACT US
For any questions or queries, please contact
• Security Manager Enock Hlatshwayo at Enock.Hlatshwayo@Transnet.net or on 017 801 2230 / 083 9800092
• OD Project Change Agent Dorcas Dlamini at Dorcas.Dlamini@Transnet.net or on 013 6557831/ 083 567 3356

Appendix D

Who do I contact if I have questions about the Time & Attendance System ?

Empangeni Nerve Centre
035 906 7741
NerveCentreEmpangeni@transnet.net

Coal Business Transformation Manager
Dorcas Dlamini
083 567 3356

Ermelo Security Department
Enock Hlatshwayo
083 980 0092

1. What happens if I have forgotten or lost my access card ?

- You will receive a "visitor's card" from security / reception for the while your personal access card will be deactivated.

2. Why do I have to use a card and a fingerprint?

- The card will grant you access to the necessary work areas while the fingerprint will record your working hours.
- It also verifies your SAP number to your finger print

3. What will happen if my fingerprint does not read on a biometric finger scanner?

- You must call the Nerve Centre ,You will receive a pin to use with your access card.

4. Will my fingerprint be safe with Transnet?

- Your fingerprint does not get saved as an image but as a numeric value. It is like a telephone number for example: 46888776. It will only be linked to your company SAP number and will be useless to any other institution

5. Do I have to use my access control CARD when I go out to buy lunch or smoke?

How will this affect my working time or pay?

- Yes, you will use your access card . Working hours as per company policy has not changed. Employees will be expected to work for 8:48 normal time as a minimum. In addition to this is a 30 minute lunch break.

6. What will happen when I clock in or out a few minutes earlier or later?

- A grace period of 15 minutes will still apply. However the full 8:48 hours per day should still be clocked. (Flexi time to be approved by the line manager, applicable to admin staff)

7. What if the access control /clock in systems do not work?

- Offline systems will be communicated to all via management levels and time recording will continue as communicated per Organisational Division.

8. Will employees be able to access their own time report during the month?

- Yes, if there are any deviations the line manager will print a timesheet from the system if required. And can access deviation and discuss with employee and sign off.

9. What happens when I travel to another site?

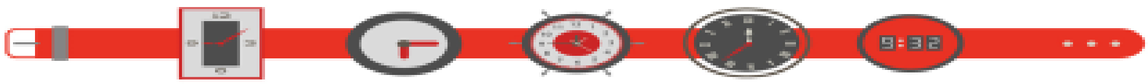
- The current practice will remain the same. A report showing time worked and time away from office will be sent to supervisors/ managers to review , approve and capture the exceptions online.

10. What about personal hygiene when I scan my finger?

- Follow the same procedure that is followed when opening a door/gate or restroom door.

11. What happens if someone opens the access control door for me / tail gates after me?

- Tail gating is strictly prohibited at Transnet. Each employee will be responsible for their own clocking. The system will not allow anyone who has not clocked into the building to clock out and will not allow any one to clock in the next time, if they have not clocked out.



12.Will the clocking machine allow me to clock in the next day if I did not clock out the previous day?

- NO

13.By which day of the month is the line manager expected to have cleared all the exception reports?

- Should clear every day, but at least weekly. By the payroll closing date of the next month all should be done.

14.Will I get paid if my line manager did not clear my exception report in time?

- Managers have to clear exceptions otherwise the payroll will have errors. Payment will still be made but it may have errors.

15. What if I have Time & Attendance HR queries (e.g. Payroll , Work schedules, Overtime, clocking records)

- For any queries please ask your immediate line manager

16. Am I only allowed to register my Thumb?

- No, you can register any of your five fingers. Preferably the index finger on both hands.

17. What happens when there is an emergency or electricity black out?

- Follow emergency evacuation procedures as always.

18. What will happen if line managers miss the system training sessions scheduled in Ermelo ?

- The line manager will not be able to do employee exceptions management, this will affect employees pay.
- The line manager will have to do online training (self study)

19.Can the line manager delegate the duty of clearing of exception reports i.e. to the Admin personnel?

- No they cannot.

20. What happens if my line manager is on leave?

- Then the person acting in his/her stead will do it.

21. Does the clocking machine go off immediately if the power supply is cut off?

- No, it has battery back up.

22. Why must managers be trained on SAP

- To ensure the employee clocking reconciliation and payments ,and to manage clocking exceptions

23.Why Ermelo ?

- Ermelo has been selected as a pilot site due to its size and operational diversity.
- There are other pilot sites that have been selected at other OD's including Carlton Centre

24. What happens after the system goes live on 1 August 2015?

- Employees need to use system all the time.
- Managers must clear clocking exceptions, and have conversations with employees about discrepancies.
- Any clocking discrepancies will lead to payment issues
- There will be retrospective deductions to employee payments if clocking is not done.

25. Can employees keep access doors open for convenience ?

- Keeping doors open (wedged using strings, bricks etc.) is strictly prohibited and action will be taken

26. Can I use any finger to clock in and clock out

- Employees must use the same finger they used during enrolment.