Performance Management Systems in the Air Traffic and Navigation Services

Mmasefako Cathrine Mashilo
0500478W

Masters of Management

A research report supervised Professor Ivor Sarakinsky and presented to the WITS Graduate School of Governance in partial fulfilment for the Masters of Management in the field of Governance

DECEMBER 2021

I declare that this report is my own unaided work. It is submitted in partial fulfilment of the requirements of the degree of Master of Management in the field of Governance: Sector Monitoring and Evaluation at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other university.

Mmasefako Cathrine Mashilo

13 December 2021

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BACKGROUND

This study was undertaken in an attempt to investigate the performance management system of the Air Traffic and Navigation Services (ATNS). This is a State-Owned Company (SOC) under the Department of Transport responsible for the provision of air traffic, navigation, training and associated services throughout the country as well as part of the Indian and Atlantic Ocean regions.

The aim of the study was to investigate and discuss the performance measurement system in place at the ATNS. It further explored whether the system in place is comprehensive enough to enable the organization achieve its set objectives, with a view to improving the performance of the organization and that of the employees and confirm if this system is linked to the organization's strategy and its operations.

Thirteen respondents participated in this qualitative study. The research method used was a questionnaire with open-ended questions. The respondents were all employees closely working with the system including an Executive, Senior Managers, Managers and specialists. The research instrument that was used was a questionnaire with open-ended questions.

This research report has revealed that although the performance management system exists at the Air Traffic and Navigation Services, more work should be undertaken to improve the current performance management system. Themes that emanated from the research led to a greater understanding of the factors affecting the implementation and utilization of the performance management system at ATNS. The research findings point out that although there is a performance management system, the effective and efficient implementation thereof is a challenge. The respondents recommended that for the performance management system to be effective, it should be aligned to the strategy and the entity's business objectives. It was also established that the cascading of objectives to other levels of employees from senior management is still a challenge which in turn leads to misalignment of organizational and employee performance.

Although the research findings revealed that the current performance management system does not assist the organization to achieve its goals, further analysis of secondary data indicated that ATNS performance has been consecutively satisfactory.

1 INTRODUCTION TO THE RESEARCH

1.1. Title

"Performance Management Systems in the Air Traffic and Navigation Services".

1.2. Research purpose statement

The main purpose of this study is to investigate the performance management systems in the Air Traffic Navigation Services, a State-Owned Company (SOC) under the Department of Transport. This is the SOC that provides air traffic, navigation, training and other related services throughout the country as well as part of the Indian and Atlantic Ocean regions, encompassing approximately 6% of the world's airspace.

In a broad sense, state-owned entities (SOEs) are those enterprises in which the state exerts significant control through full, majority, or significant minority ownership. They could be owned by the central or national governments and federal or provincial governments as well as the local governments (Sturesson, McIntyre, & Jones, 2015). According to Bolton (2010) these entities carry out business activities on behalf of the state. In many parts of Africa, they operate in virtually all sectors (Kikeri & Kolo, 2006).

In South Africa SOEs are legally defined by the Public Finance Management Act (Act of 1999) (PFMA). Section (1) of the PFMA of 1999 (updated in 2008, pp8-10) refers to SOEs as *"National Government Business Enterprise" to be "an entity which: (a) is a juristic person under the ownership control of the national executive (b) has been assigned financial and operational authority to carry on a business activity (c) as its principal business, provides goods and services in accordance with ordinary business principles (d) is financed fully or substantially from sources other than the National Revenue Fund or by way of a tax, levy or statutory money"* (PFMA, 1999).

Performance of SOEs has often been one of the most talked about topics in recent years. There is a wide-spread belief that state-owned enterprises world-wide perform worse than privately-owned companies (Stan, Peng and Bruton, 2013). “This is so largely due to association of public services with poor performance in many parts of the world. Therefore, performance measurement in SOEs is of increasing interest to scholars and so are the systems thereof” (Ngqumeya 2012:1). However, studies on performance management systems of specific entities have not drawn a lot of research output, hence the need to further explore this subject.

In South Africa, performance of SOCs has been under scrutiny recently (Chilenga, 2016:1). In general terms, these SOEs have acquired a reputation of poor performance (Nellis, 2005). “The reasons for such poor performance are only vaguely documented and are often argued along the lines of inefficiencies inherent in government’s involvement” (Mbo 2017:1). Therefore, this reputation epitomizes the importance of measuring performance of SOEs in South Africa to determine their effectiveness (Sturesson et al., 2015). As an effective and efficient performance management system is critical for growth, sustainability, and improvement of products, services and internal processes (Mensah & George, 2015). The ATNS is not necessarily among the underperforming SOEs perhaps owing to its critical and somehow monopolistic role in the sector it operates in. The entity has a performance management system that this research wants to assess.

1.3. Problem Statement

SOEs are expected to contribute positively to the economy by providing a variety of services such as electricity, water and transport on behalf of government in a sustainable manner. For such contribution to be sustainable, SOEs need to be competitive and perform well in the sectors that they operate in. However, according to Ngqumeya (2012:1) there have been questions about the performance of SOEs in South Africa in recent years. Most SOEs in South Africa are under financial distress putting these developmental objectives in jeopardy. According to Mashamaite & Raseala (2018) there are a variety of factors that put SOEs under pressure and public scrutiny. One of these has been their performance management systems. However, not much research, especially from local scholars has gone into this subject. The ATNS, as one of the SOEs in South Africa, has a performance management system that can be assessed in this regard. ATNS provides a good platform in this subject especially because it has no competition in the sector it operates in, yet it operates in an environment that requires strict adherence to aviation safety standards.

As an air navigation services provider (ANSP), ATNS is expected to provide air navigation services that contribute to the safety of flights in an efficient and cost-effective manner. Thus, ATNS operates in an environment where safety and efficiency are of paramount importance. To facilitate the design, implementation, and operation of a shared air traffic management system to serve the aviation community, ANSPs were urged by the International Civil Aviation Organization (ICAO) to adopt a performance driven approach. Several frameworks were developed by: ICAO, European Union, EUROCONTROL and even the Civil Air Navigation Services Organization (CANSO). Thus, this makes performance management crucial in the operations of ATNS. Organizations differ in their structures, culture and operational environment, therefore what works in one might not work in other.

Due to its operational environment, implementing performance management system at the ATNS can be challenging. The aim of the study is therefore to investigate and discuss the performance measurement system in place at the ATNS and if the system in place is comprehensive enough to enable the organization to achieve its set goals.

Apart from its mandate, ATNS like other SOEs is expected to contribute to developmental outcomes as outlined in the National Developmental Plan (NDP), 2030. As an entity of the department of transport, ATNS is expected to contribute to developmental outcomes such as; transport safety and security, infrastructure development and economic investment, the fight against fraud and corruption, environmental protection, job creation, broad-based black economic empowerment (BBBEE) and employment equity.

Therefore, for these outcomes to be achieved, the shareholder should assume an assessment of the performance of the SOE to identify its objectives, assets, and resources; financial assets and liabilities; evaluate their performance in meeting their objectives; and demonstrate their contribution to economic and social development. This process will assist to align the objectives of the SOE to those of the government (UN, 2008). Otherwise, without such checks and balances, performance management will just be a compliance activity and will not be able to focus on an in-depth analysis of performance and strategic focus of the SOE. This study focuses on the need to ascertain how performance is measured and managed at ATNS.

1.4. Research Questions

In order to achieve the objectives of this research report, the following research questions relating to performance management systems at the ATNS were explored:

1. Does the performance management system assist the entity to manage and measure performance?
2. Does performance measurement hinder or improve the entity's performance?
3. What recommendations can be made to improve the performance management system at the Air Traffic and Navigation Service

1.5. Research purpose

The purpose of this study is two-fold: Firstly, to analyse the performance management system currently used at ATNS. Secondly, to draw a conclusion on the effectiveness of the current system in the ATNS' fulfilment of its mandate.

1.6. Research Objectives

The primary objective of this study is to examine the performance management system at ATNS. The secondary objectives are;

- To describe and explain the performance measurement system of the ATNS;
- To assess the effectiveness of the current performance management system of the ATNS on the fulfilment of its mandate; and
- To contribute to literature on performance management that can form the basis to expand to other SOEs in South Africa.

1.7. Outline of Research Report Chapters

The report is structured into six chapters.

Chapter 1: Background and Introduction to the study

The first chapter provides introduction to the research report about performance management systems in SOEs. The introduction also covers the objectives of the research and indicates the primary objective of this study is to investigate the performance management system in the ATNS. Chapter one also provides the problem statement, research purpose statement and the research questions.

Chapter 2: Literature Review

The second chapter provides a literature review that looks at the role of SOEs in South Africa, by discussing reasons SOEs were established in South Africa, and also some international examples of SOEs looking at how SOEs operate in other parts of the world., performance management system in the SOEs discussing different views on performance measurement in general and performance management systems, its historical background including the conceptual framework of the research report.

Chapter 3: Research methodology

In the third chapter, a description of the research methodology, research design and sampling procedure that was used to collect data and how such data was analyzed. It offers justifications for the chosen research approach. More details with regard to the validity and reliability of the research report as well as the ethical considerations that were considered are provided in this chapter.

Chapter 4: Data presentation

This chapter presents the results of data which was obtained during data collection and identifies themes for each question.

Chapter 5: Data analysis and interpretation

Chapter five focuses on interpretation and analysis of the research findings.

Chapter 6: Conclusion and Recommendations

Finally, chapter six covers the summary of key findings, conclusions and recommendations based on the research findings.

References and appendices follow chapter six respectively.

Chapter 1 of this report provide the research background, introduction and outline of the research report was provided.

2 LITERATURE REVIEW

This section has been divided into three subsections. The first part briefly explores what has been written on the role of SOEs in South Africa, followed by the second part that deals with performance management in SOEs. The last part explores performance management in the ATNS which is the actual subject of this research.

2.1. Role of SOEs in South Africa

Available literature acknowledges that in South Africa, SOEs were created to contribute to the social needs of the nation while at the same time expected to operate on a commercial basis. This means they must contribute to development and rendering of service while at the same time ensuring that they operate profitably in order to sustain themselves. These two objectives sometimes create tension between the commercial requirements as companies and governments' social responsibility (Magwentshu, 2001). This tension often creates challenges in relation to the required performance of these SOEs where one role may be emphasized over the other.

In the height of apartheid, the then government used SOEs primarily for three main purposes: To mitigate against the implications of sanctions the international community imposed on it for its apartheid policies particularly in the transportation sector; to provide the government with critical access to arms; and secure employment for mainly the Afrikaner *(Transnet Shareholder Compact Presentation, 2011).* These purposes certainly made performance to be one of the key priorities in these entities.

With the dawn of the democratic government in 1994, SOEs evolved, from a policy point of view in South Africa. The new political dispensation has since led to a review of the SOEs to ensure the successful implementation of Growth and Employment and Redistribution Program (G.E.A.R) (Department of Public Enterprise, Annual Report, 2006). This review has changed the emphasis to the use of SOEs to support development objectives of the government. This emphasis often affects the performance element in these SOEs as it tends to allow political interference to override other objectives of the SOEs.

However, in terms of the definition of SOEs, the State cannot operate them by itself and needs to delegate their control to the enterprises themselves. The key for a successful SOE remains performance in order to achieve its mandate (Lin, 2007). Because to measure the performance of an SOE requires an appropriate performance management system, studies on the performance management systems themselves need to be enhanced.

2.2. Performance Management Systems in the SOEs

"State-owned enterprises are an important element of most economies and they account for over a fifth of the world's largest enterprises" (OECD, 2016:4). SOEs are primary drivers of the formal sector of the economy, providing the majority of economic growth and deliver most social goods and services to ensure quality of life to all South Africans (Kanyane & Sausi, 2015). Because of their strategic role in the economy and developmental role (Khoza & Adam, 2005), performance measurement of organizations has generally become an increasingly important topic in recent years (Omondi, 2015). Like other organizations, SOEs have not escaped this interest.

Therefore, there is a growing need for the performance of SOEs to be jerked up. To achieve this, there is growing recognition of the necessity to better understand the effective performance management systems that are used by these entities to manage their performance. There is also an understanding that in order to derive the full benefit of measuring performance, it is necessary that the performance management systems are suitable for the task (Parmenter, 2010).

Interestingly, studies reveal that each organization, at some stage, will face some challenges that will force it to consider performance management in one way or the other. This will compel such an organization to consider an effective performance management system. Stříteská, Zapletal & Jelínková (2016:44) state that “increasing globalization and technological revolution represent the primary challenges for maintaining competitiveness in today’s business environment. Thus, businesses must create a long-term vision and formulate new strategies to allow managers to manage short-term performance in accordance with long-term needs. Therefore, measuring and managing performance is being increasingly emphasized”.

Several scholars agree on the effectiveness of performance management systems in helping organizations achieve their goals, while emphasizing the significance of performance measurements and their usefulness to organizational efficiencies. Proponents of performance measurement such as Hatry, (1996) believe that it provides information which can be utilized to improve programme outcomes, planning and budgeting process. This sentiment is supported by Julnes, (2009:15) when indicating that “performance measurement can provide the basis for the refinement of goals and objectives, for monitoring results, and for modifying plans to enhance performance”. Additionally, Goh (2012) described performance measurement as an administrative process addressing issues relating to performance challenges in public sector organizations. As stipulated by De Bruijn (2007) that the purpose of performance measurement is to enhance performance improvement and positive reinforcement.

Hatry (2014), further describe performance measurement as a process in which organizations regularly collect data on outcomes and outputs for its programmess and services. On the other hand, Jarrar et.al, (2007:5) noted that “performance management provide public sector organizations with means for planning and implementing strategies; for influencing organizational behavior and to focus, compel, monitor and reward people; for communicating with stakeholders both internally and externally; and for adopting and developing the principles of a learning organization”. Thus, performance management is associated with measuring results and monitoring progress towards the achievement of objectives (Tomić et al., 2016).

According to Vance (2006), performance management intends to align, engage and integrate individual and group efforts for continuous improvement in attaining organizational mission and vision. Furthermore, as purported by Vance (2006), performance management can also offer the base for other employee management activities including:

- Training and career development,
- Performance pay as recognition and reward,
- Promotion and placement, and
- Disciplinary action as a consequence.

It is therefore important for organizations to use performance measurement information to improve performance, learning, change and for decision-making once measures for performance are developed (Goh, 2012). This is because performance measures can be utilized by public managers to evaluate, control, budget, motivate, promote, celebrate, learn, and improve as part of their general management strategy, (Behn, 2003). Performance measurement utilization is when performance information is used by leaders in organizations to plan strategies for future performance improvement and for decision-making Goh (2012).

The goal of performance management systems as defined by Vieira, O'Dwyer, and Schneider (2016) is to help organizations define a set of measures reflecting their objectives and then assess their performance in relation to these objectives. As supported by Markić, (2014), that performance measurement system encompasses data collection, processing, analysis and action. Whereas Stříteská et al (2016:45) described performance measurement system "as incorporating the process of establishing goals, collecting, analyzing and interpreting data concerning performance". Moreover, Aguinis (2009:2), defined performance management as "a continuous process of identifying, measuring, and developing the performance of individuals and teams and aligning performance with the strategic goals of the organization".

Performance management process

The performance management process is presented by Aguinis (2009), “as a cyclical process involving six stages including: prerequisites, performance planning, performance executions, performance assessment, performance review, and performance renewal and re-contracting” as shown in figure 1 below.

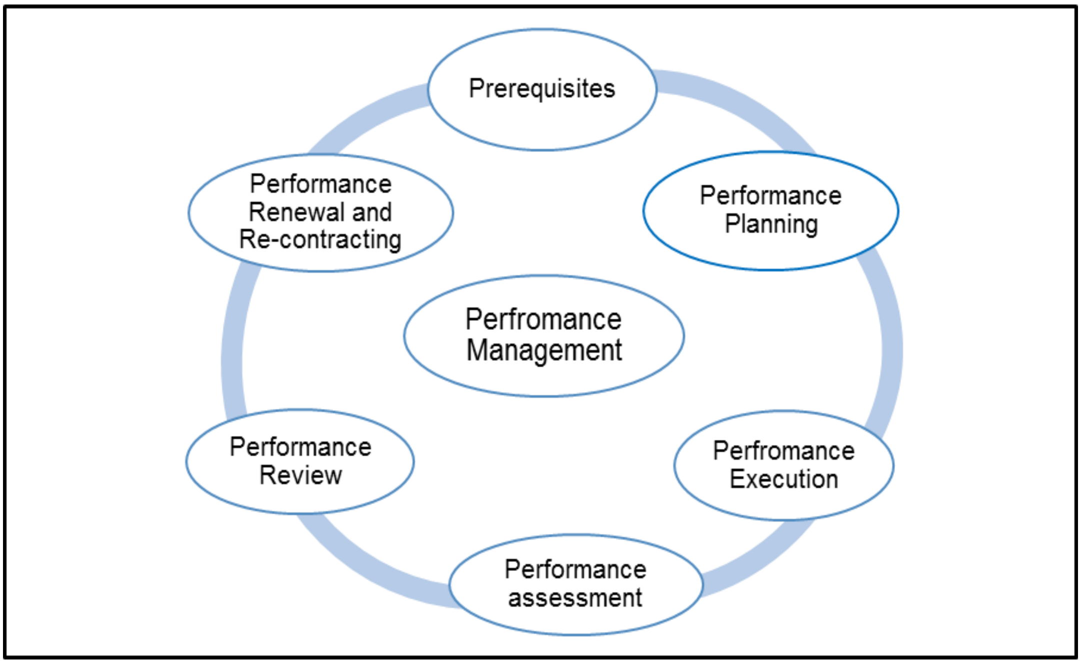

Figure 1: Performance management process
Source: Aguinis (2009)

The Prerequisites

This phase is the foundation of the whole process and comprises two important aspects that should be understood for the successful implementation of the performance management system. Firstly, understanding that the organization’s purpose, strategic objectives and what needs to be done is fundamental for the implementation of performance management system as organizational goals and objectives are the reason for its existence. Therefore, these plans and targets should be adopted as departmental roadmaps across the organization as they assist in guiding the actions of employees. The second and equally important aspect is the understanding of job analysis (Aguinis, 2009).

Performance Planning

During planning stage of the performance management system, it is imperative that all employees are involved. The discussion and agreement of activities and how these should be executed is undertaken among the manager and employees. This process would include the discussion of results, behaviors and development plan. As performance management intends to enhance employees' and organizational performance, employee activities should be planned in line with organizational outlook. In addition, the identification of measurements that need to be executed and their augmentation plans should be undertaken during this phase (Aguinis, 2009).

Performance Execution

The third stage of the performance management proposed by Aguinis is the performance execution. During this phase, execution commences where employees produce results that were ratified and display behaviors approved when developing activities and their outcomes (Aguinis, 2009). Supervisor should also be actively involved, during this stage, the supervisor should observe and document performance regularly, update employees on any changes on organization's goals and review and revise initial objectives. Supervisors are also expected to provide continuous feedback on progress towards achievement of goals and negative employee's positive or negative performance and provide coaching where necessary for performance improvement. Also, necessary resources should be made available to the employees. It should be noted that employee's participation does not only begin during the current phase (Smither, 2009).

Performance assessment:

During this phase, both the employee and the manager meet to evaluate the extent to which the desired behaviors have been displayed and whether the desired results have been achieved and the supervisor provides the performance information. Further, an evaluation of the extent to which the goals stated in the development plan have been achieved is evaluated.

Self-appraisal process increases employee’s job satisfaction while enhancing their conception with regards to performance management system, inevitably viewing feedback from this system as precise and unbiased. Further, at this point, previous information pertinent to performance, current environment as well as upcoming planned activities are provided (Aguinis, 2009).

Performance review

The performance review phase provides an opportunity for both employee and supervisor to evaluate their assessment. This is a platform referred to as appraisal meeting where employees are provided constructive by the supervisor with regards to their performance. The involvement of both the employee and the supervisor in the evaluation process creates an independent setting where employee performance is discussed. The involvement of an employee and their manager in assessment exercise forge an independent environment where employee performance is discussed. This encourages employees to take control of the process thus increasing their commitment level, consequently, imminent utilization of this information is likely (Aguinis, 2009; Tenakwah, 2015).

Performance appraisal as one of the processes within the performance management system intended to engage, align, and merge individual and group efforts to continually improve the achievement of the overall organizational goals and can thus provide a basis for identifying and correcting inconsistencies in performance (Vance, 2006).

Performance renewal and re-contracting

During the renewal and re-contracting stage, information from other phases is gathered and used to draw lessons learnt. The goals and objectives set during the planning stage are reviewed and some of them may be refined at this stage because, there may be deficiencies for example, setting unrealistic goals, thus achievable goals must be set for the upcoming period. Because the main purpose of performance management is to improve employee performance and to achieve organizational goals, the continuous monitoring of the prerequisites is crucial to ensure that all the other stages in the process are consistent with the strategic organizational goals and objectives (Aguinis, 2009).

The performance management process as outlined by (Aguinis, 2009) revealed that performance management is not a sequential process but instead a continual exercise ensuring that employees' activities and outputs are in alignment with the vision, goals and strategic objectives of the organization, thus giving an organization a competitive advantage over their rival organizations.

If followed, this process can also assist employees understand their contribution towards the achievement of organizational goals and objectives.

Purposes of Performance Management Systems

There are many possible ways in which performance management may be used. Performance management systems can be used to improve the performance of the organization, to generate quasi competition, to improve accountability in the public sector and as a resource-allocation system (Propper et.al. 2003). According to Smither, (2009), performance management systems can serve six important purposes which are: strategic, administrative, communication, developmental and organizational maintenance.

Strategic: By linking the organizational goals with individual goals performance management reinforces behaviors consistent with the achievement of organizational goals (Smither, 2009).

Administrative: Performance management systems are a source of valid and useful information for decisions-making (Smither, 2009).

Communication: Performance management systems provide employees with feedback pertaining to both their performance and that of the organization and are able to know what is expected of them and which aspects of their work are believed to be critical towards achievement of the organizational goals (Smither, 2009).

Developmental: Performance management systems provide continuous feedback that can be used by managers to coach employees and assist them improve performance (Smither, 2009).

Organizational maintenance: Performance management systems generate information about skills, abilities, promotional potential and assignment performance histories for lessons learnt that can be used for planning as well as assessing future training needs, evaluating performance achievements at the organizational level and the effectiveness of human resource interventions (Smither, 2009).

Overall, performance management systems are designed to help organizations achieve their goals and are essential for their survival and success (Vieira, et.al. 2016). Performance management as argued by Amaratunga et al., (2001) is the utilization of data collated from performance measurement systems to influence modifications in organizational practices and beliefs, while supporting an organization to create pragmatic targets, allocate scarce resources properly, alert managers to either maintain or change current policies or organizational focus to achieve strategic goals and share the anticipated outcomes. It is therefore necessary to set goals against which performance can be measured as it forms the basis of performance management. Further, it is also essential to link the objectives of employees to those of the organization (Thorgren & Wincent, 2013).

Moreover, (Jarrar et.al, 2007) stipulated that in recent years, the need for public service organizations to increase their accountability and customer focus led to the implementation of performance measurement systems with the aim to improve efficiency and performance in these organizations. Performance management system is thus one of the fundamental practices in the public sector organization and it is believed that companies with performance measurement systems perform better and are anticipated to be efficient than those without it (Ljungholm, 2015). Similarly, the successful implementation of performance measurement system is dependent on the validity of available performance information, thus employee training becomes imperative (Armstrong, 2008).

Fryer et al., (2009) “proposed several basic characteristics of an effective performance management including”:

- “alignment of the performance management system with vision, goals and organizational strategies”,
- “commitment of leaders to goals and objectives of the organization”,
- “an organizational culture in which performance management is used to improve employees’ performance and recognizes good performance and does not promote poor performance”,
- “stakeholder engagement”; and
- “continuous monitoring, feedback, information dissemination and learning from results”.

There is scholarly literature indicating that performance measurement can actually improve performance. On the other hand, implementing performance measurement system within the public sector organization turned out to be challenging. As noted by Gao (2015) that the successful design and implementation of performance measurement system in the public sector is faced with challenges hence performance measurement is never perfect. This is believed by Anderson & Eshima, (2013) that it could be due to the problems associated with identifying suitable elements for measurement within this sector.

The introduction of the New Public Management (NPM) in the 1980s and 1990s, resulted in the importance of performance management in the public sector. This paradigm emerged to embed a new approach into traditional public administration and was geared towards enhancing efficiency, productivity, improved service delivery and accountability, with an emphasis on results as opposed to a traditional process-oriented public administration (Ljungholm, 2015). This era led to the adoption of private sector management concepts and styles, with the establishment of the concept of pseudo-markets and contracting processes and the application of explicit standards and measures of performance within the public sector. This with the objective to improve the public sector performance through accountability relating to direct connection between the services providers and users thereof and social accountability (Christensen & Lægreid, 2015).

Although performance measurement and management are used in both the commercial and non-commercial enterprises, studies of organizational behavior within the public sector established that profit driven enterprises are different from non-commercial organizations, hence, what contribute to improved performance within the commercial institutions cannot be directly adopted for the non-commercial institutions (Propper & Wilson, 2003). Below are some of the features that differentiate the non-commercial from the commercial enterprises:

Dixit (2002), maintained that state-owned organizations are confronted with multiple principals and goals. For instance, civil servants working within this sector usually report to numerous high ranking officials including politicians from different offices, consumers of services, professional institutions and taxpayers. Likewise, these bureaucrats are faced with the challenge of delivering on varied results while improving productivity and value in the provision of essential goods.

As noted by Rantanen, (2007) that there are multiple participants including the state, taxpayers, civil society, politicians and regulators within organizations ran by the state each with their own objectives. Consequently, public sector organizations find themselves faced with two main problems with regard to the successful performance measurement implementation. Firstly, challenges with establishing coherent targets thus producing performance results which foster informed decision-making. Secondly, these interested parties could have varied performance measures that do not satisfy everyone. Also, private sector organizations are aimed at profit making, thus this enables clear target setting within these enterprises. On the other hand, due to multiplicity of goals within the public sector organizations, setting clear targets has become more difficult (Arnaboldi & Azzone, 2010).

Additionally, the complexity of the concept of performance within the public sector impacts on the effective development of some performance measures due to the fact that certain objectives and targets are not measurable, thus, analysis of such is generally based on guidelines. As a result, three difficulties emanate during this process: firstly, discussions pertaining to the notion of performance are still underway, secondly, there are difficulties relating to how performance is attained, and lastly, the way in which performance should be evaluated within the public sector (Diana, 2014).

An additional distinguishing factor of the public sector from the private sector is clearly defining what organizations produce. Whether to measure output or outcome, that is efficiency instead of effectiveness is still a dilemma faced by the public sector. Because outcome results may take longer to be achieved than output results, measuring outcomes tends to be more challenging than measuring output in the public sector (Chan, 2004; Rantanen, 2007).

While the NPM was based on the assumption that accountability would improve performance, this has been found not to be always the case in the public sector organization. It has been discovered that the relationship between performance and accountability in the public sector is characterized by austerities, ambiguities and contradictions (Bouckaert & Halligan 2008). On the other hand Behn (2001) stated that performance audit were found to be inclined to compliance and were biased towards hierarchy and punishment and not on performance itself. Whereas Dubnick (2005) revealed an accountability paradox in which organizational performance is been reduced by accountability.

Furthermore, a study by Van Thiel and Leeuw (2002: 269) identified unintended performance measurement consequences associated with minimal accountability requirements, such as; “the use of performance indicators can inhibit innovation and lead to ossification, that is, organizational paralysis. Another effect is referred to as tunnel vision, which "can be defined as an emphasis on phenomena that are quantified in the performance measurement scheme at the expense of unquantifiable aspects of performance". Other unintended side effects are sub optimization, which is defined as "narrow local objectives by managers, at the expense of the objectives of the organization as a whole" and measure fixation, "an emphasis on single measures of success rather than on the underlying objective".

Additionally, an analysis of public sector organizations in the United Kingdom revealed that the relationship between administrative reform and accountability is unclear, there is no direct link between accountability and performance, rather the relationship is described by tensions, dilemmas and dispositions and audits are more focused on compliance than on performance improvement (Glynn & Murphy, 1996). From this, one can deduce that the promise of the NPM with the introduction of accountability in the public sector did not improve performance but rather increased the complications, thus it can be said that more responsibility for performance does not lead to more accountability for performance in the public sector organization.

One of the difficulties in executing and utilizing performance measurement system in the public sector is the assessment and management of information and impalpable measures (Jarrar & Schiuma, 2007). As supported by Bourne et al. (2003) when citing two challenges in the design of performance measurement system as (a) evaluation and quantification of results in areas that are outcome oriented and qualitative in nature, (b) the identification of true drivers, time and financial resources for performance measurement.

Furthermore, results from a study conducted by Sanger (2008) indicated that developing an ideal performance measurement system is costly, and requires a considerable amount of investment towards designing and training of personnel on collection, usage and reporting of data. The study further revealed that regularly redesigning measures and reports, while rearranging resources make performance measurement to be current, thus using performance measurement systems is found to be costly by many organizations.

Insufficient management dedication and lack of support towards performance measurement was identified as problematic and affecting the successful development of performance measurement (Hacker & Brotherton, 1998). As supported by Sanger (2008) that for the public sector organizations to realize efficient and effective performance measurement, the traditional bureaucratic culture norms need to be changed and this requires leadership commitment. Furthermore, varied shareholders with different interests, inadequate management abilities coupled with vague objectives and goals were also identified as hindrances in the design of performance measurement system in the public sector organizations (Rantanen et al., 2007).

Furthermore, literature indicates that due to the multiplicity and vagueness of the public sector goals, the performance management system tend to be complex thus measuring these goals tends to be difficult. As a result individuals respond to performance management systems in such a way that they are beneficial to them. This can lead to behavioral distortion and manipulation with an intention to improve performance at the expense of unmeasured activities (Propper et.al., 2003).

These behaviors include tunnel vision, myopia, measure fixation, sub-optimization, gaming, misrepresentation and misinterpretation (Smith, 1995). For example, a study by Gao (2015) identified gaming as one of the factors hindering the successful execution of performance measurement system in China, however, this finding could possibly be related to various states globally. Another study by Hood (2006) identified gaming as one of the perverse effects of performance measurement. Gaming occurs when performance results are deliberately altered with the aim of attaining a strategic assessment leverage. This is when key performance data is distorted so as to enhance anticipated results. The reason for gaming to be deep-rooted in the public sector organizations could be due to the fact that managers are continuously striving to score political points with their principals (Propper et.al., 2003).

From the discussions above, it can be deduced that although performance measurement is important in the public sector organizations, the implementation thereof is nevertheless marred by numerous complications. As noted by Sanger (2008) that more research is required to identify deficiencies affecting the effective design, implementation and utilization of performance measurement in the public sector organizations.

Key to an effective performance management system is governance and leadership or effective corporate governance. The South African private and public sectors are influenced by the three King Codes on Corporate Governance (Report on Corporate Governance for South Africa 2016) Nonetheless, governance of SOEs is regulated by the Public Finance and Management Act, as amended (Republic of South Africa, 1999) and the related Protocol on Corporate Governance (Department of Public Enterprises, 2002). It is the way these guidelines are exercised that determine the effectiveness of the performance management system of an SOE.

Therefore, governance structures have a significant role to play in this regard. Literature suggests the first layer is that of the shareholders, who must ensure that governance structures are in place and appoint the board of directors and in some instances auditors (Napier & Shah, 1992). This is followed by the board that must play an important role of monitoring to ensure performance (Leblanc, 2007). Executive management, on the other hand, is responsible for implementation of the strategy and board's risk and control policies. In addition, they are expected to meet compliance targets essential for sound corporate governance principles (Khoza & Adam, 2007). Other critical structures include internal audit which monitors and evaluates the efficiency of the organization's risk management processes (The Institute of Internal Auditors, 2009). The audit committee also assures that proper accounting records are maintained, effective internal control systems are initiated and also that the company complies with the principles of good corporate governance (Smerdon, 2007).

Another structure is the external audit which assists to enhance the audit committee's effectiveness and to ensure the reliability of financial reports (OECD, 2015). Furthermore, they validate and investigate the information presented by the board to ensure it is equitable and precise (Personal & Archive, 2013). This means the effectiveness of the governing structures and the way they relate with each other may influence the effectiveness of the performance management systems.

Literature on performance measurement in general and performance management systems in particular is quite extensive. Several studies explore their nature and their effectiveness. According to Sahlin and Angelis (2019:21) the study of performance management systems of SOEs is also becoming one of the attractive research subjects. However, not much has been done in this regard. Very few studies have been completed on the measurement of performance in the SOEs as well as the performance management systems thereof (Ngqumeya 2012:1).

More studies are needed in this field of study in order to understand this aspect of governance better. However, various reports provide some literature that can be used as a point of departure. This study will therefore investigate the performance management system of one of these entities which is performing fairly well to see if its performance management system could be adopted and customized for other SOEs. Thus, this study aims to contribute to literature on performance management that can form the basis to expand to other SOEs in South Africa. More importantly, this study will examine a performance management system of ATNS in order to understand how performance information is used and the determinants of its effectiveness within this particular entity.

Studies on organizational improvement have indicated that the successful design and implementation of performance management systems in the private sector organizations has led to performance improvement of these organizations. On the other hand, public sector organizations have been faced with challenges hindering the successful design and implementation of the performance management systems. This is because the public sector organizations have multiple stakeholders with conflicting priorities thus affecting the implementation of ideal performance management system. Furthermore, public sector organizations are providers of essential services such as; energy, water, telecommunications and transport, thus quantifying their performance measures could be proof difficult.

It should therefore be acknowledged that implementing performance management systems may differ across organizations. Although, implementing an effective performance management system may require a reasonable amount of time and effort once it is developed, the system could benefit the organization. Subsequently, performance management and measurement systems should be aimed at resolving certain issues within their respective organization. Hence, developing and implementing an effective performance measurement system is crucial to any organization.

2.3. International Examples of SOEs

State owned enterprises are deemed critical for developmental agenda for most countries (Büge, Egeland, Kowalski, & Sztajerowska, 2013) and are thought to both commercial and public policy objectives but balancing the two can be difficult and lead to negative effects on efficiency and performance (Kikeri, 2018). It is thus imperative for governments to implement evaluation method that are inclusive of all aspects to assess performance of SOEs (Taghizadeh-hesary et al., 2019). As emphasized by Jarrar et.al, (2007) when stating that the implementation of performance management systems and procedures improved decision making within government institutions while improving performance and accountability ratings of governments in developed economies. As a result several countries reviewed the structure of their SOEs to align them to the nation's growth and developmental objectives. As experiences of reform will differ for each country, a comparative analysis of Malaysia and New Zealand is outlined below.

SOEs in South Africa, especially those classified as Schedule 2 are business enterprises required to generate revenue to fund their operations while achieving different socio-economic goals of government. Nevertheless, their performance challenges pose several problems, including slowing down economic growth. As a result, there has been calls for the government to privatize some of these enterprises as there is no effective evaluation method within government to assess performance of these SOEs. In 2010, the Presidential Review Committee (PRC) was established in order to review all state entities and determine if SOEs were responding to the government's developmental agenda. One of the recommendations from the PRC was that for performance monitoring and evaluation to be effective, the state should adopt a standardized criteria based on best-practice (PRC, 2012). To date poor performance of most SOEs in South Africa is still a concern.

Contrary to the South African approach, the Malaysian government started a Transformation Programme for Government-Linked Companies (GLCs). The programme's performance-based objectives are aligned to international benchmarks. The programme introduced key performance indicators and performance-based contracts and compensation, for board members and senior management. It was supervised by the Putrajaya Committee on GLC High Performance, included reps of all key SOE shareholders and external experts and was led by the Deputy Finance Minister. Legal and operational frameworks of SOEs were commercialised, and new management from private and public sector was introduced within SOEs. Management received clear mandate and refined time-bound indicators to improve performance of SOEs. SOEs became effective as the changes introduced encouraged performance-based culture resulting in better utilization of capital and other resources (ADB Institute, 2017). Similarly, the Malaysian GLC grew by 11% between 2004 and 2014, their market capitalization tripled and their return on equity equated to those recorded by the listed companies. By 2014, GLCs revenue increased to $22 billion compared to $7 billion in 2004, and their operations expanded to 42 countries (World Banks, 2016).

New Zealand like many countries undertook government reform in the 1980s, with the aim to increase efficiency and effectiveness within the public sector (Wilkinson, 2019). The purpose of this reform was to ensure alignment of the public with the private sector prioritizing results and outcomes coupled with effective use of public sector resources (Mason & Lang, 2018). New Zealand's SOEs were restructured and their transformation necessitated market deregulation, corporatization, accountability for quality services and profitability. SOEs were compelled to generate revenue, their management was separated from the state, and their managers entered into performance-based contracts and rewards. Thus SOEs were well-organized commercial organizations (Luke et al., 2013). With financial footprint proportional to that of the private sector. SOEs' commercial value equalled 30% of all equity market capitalization at the end of 2012 (Chan et al., 2018). Thus, due to corporatization SOEs turned into efficient and profitable organizations with increased public service delivery (Luke et al., 2013).

The literature on both Malaysia and New Zealand SOEs indicate that, their performance can be attributable to their governance structure and not necessarily the performance management system used within the public sector organization. Both countries experienced efficiencies within SOEs once corporatized them. It does show that it is not easy to adopt the traditional performance management systems for SOEs in their current governance structure due to their multiple and yet competing mandates.

Although SOEs profitability is important, it will be misleading to consider it alone when analyzing performance of SOEs as most of them focuses on social welfare improvement rather than making profit, thus, these objectives should be considered accordingly when evaluating SOEs performance (Taghizadeh-hesary et al., 2019). As for the Air Traffic and Navigation Services, performance management system is still relevant and can be used to improve performance at this entity. It should be acknowledged though that with suggestions proposed by the participants, the incorporation thereof might improve the performance management system. Furthermore, as it was indicated in the annual reports, the entity has an aviation training academy that provides relevant training within and some countries in the continent. There is evidence that SOEs can successfully implement performance management systems to improve performance as seen in the case of Malaysian SOEs and those in New Zealand (Luke et al., 2013). Therefore, the entity has a commercial service unit which is a vehicle to expand the business outside the regulated model. In this regard, the current performance management system can be customized and adopted for these two units of the entity.

2.4. The Performance Management System in the ATNS

The ATNS, as a state-owned company and a schedule 2 public entity as per the PFMA, is accountable to the Minister of Transport on behalf of the South African Government. The Minister of Transport is therefore the shareholder in this regard. "*The ATNS was established in 1993 in terms of the ATNS Company Act*"(45 of 1993). Its mandate is to own and operate the infrastructure of, and provide air navigation services. Furthermore, The Act mandates ATNS to provide Air Traffic Management solutions and associated services on behalf of the State in accordance with ICAO standards, recommended practices as well as the South African Regulations and Technical Standards (Republic of South Africa, 1999).

The entity is structured along two primary business divisions; regulated (operating mainly within the country) and non-regulated (which is the international growth partnerships and related activities). These two divisions allow ATNS to provide safe and efficient service across the African skies, thus providing air traffic control services throughout South Africa, and part of the Indian and Atlantic Ocean regions, comprising approximately 6% of the world's airspace. The Aviation Training Academy offer courses on air traffic services and air traffic services' electronic personnel training, as well as safety-related courses (ATNS Report, 2020).

As an entity of the DoT, the ATNS responds to developmental outcomes identified by the shareholder to demonstrate its contribution and support towards national priorities as stipulated in the medium-term strategic framework (MTSF). The ATNS enters into a performance agreement with its shareholder contained in the shareholders' compact, as represented by the Minister of Transport, on an annual basis (National Treasury, 2002). The performance against the predetermined objectives' key performance indicators (KPIs) is monitored by the board through the Audit and Risk Committee (ARC) and is reported to the DoT on a quarterly basis. The performance report includes both financial and non-financial KPIs (ATNS, Integrated Report, 2020).

As a monopoly service provider, ATNS is required to seek permission from the Economic Regulating Committee (ERC) to levy air traffic services charges, provide air navigation infrastructure and conduct air traffic and air navigation services. The formulation and appointment of the members of the ERC as a legislative institution is undertaken by the DoT. This committee is responsible for the issuance of the five year permission to ATNS as authorized by the ATNS Company Act. It is therefore important that the organization operates within the parameters of the permission (ATNS Report, 2019).

ATNS complies with South African Civil Aviation Regulations (CAR) Part 140, supporting the ICAO Annex 19 requirements, with some of the imperatives such as: embedding a safety culture, ongoing personnel development and performance management in safety matters, minimizing risk associated with aircraft incident or accident, comprehensive safety audits and active monitoring of safety processes and procedures. Furthermore, ATNS is expected to develop, implement and improve on its safety management system (SMS) maturity metric as per the International Civil Aviation Organization's (ICAO's) Annex on Safety Management. The SMS maturity is measured against the Civil Air Navigation Services Organization (CANSO) Standard of Excellence yearly. Furthermore, an annual audit is conducted in terms of the ISO: 9001 Standards where certification is issued if the standard is adhered to. With all these compliance and regulatory standards, one tend to wonder what it means to have a performance management at ATNS.

The above indicates that the air navigation environment within which ATNS operates is complex, therefore necessitates a comprehensive performance management system encompassing different measures inclusive of air traffic management (ATM), socio-economic and developmental elements. It might thus seem that measuring performance for this organization is a sensible step. However, in the case of Air Traffic and Navigation Services, being part of a global and regional ATM community provides the organization with many options as well as many difficulties in the choice of the performance management framework. Thus this study intended to evaluate the performance management system of this organization with interconnected objectives where safety is of paramount importance and yet expected to be profitable and contribute socio-economically.

2.5. Theoretical Framework

Frameworks can be assumed to be structures, systems or plans arranged logically and consistently to assist describe and interpret a case under observation through analyzing its various components and their relationships

(Nilsen, 2015). In the context of this research, part of the task of interpreting final results is identifying appropriate frameworks that best capture and describe the phenomenon under investigation. There are several frameworks that have been developed in the study of performance management systems. In this section, performance management frameworks, by Otley, Bouckaert and Halligan and Ferreira and Otley are reviewed.

As a result of some general control theories been unable to fully capture complexities of performance management and internal activities of organizations, Otley (1999) came up with an integrative model and introduced performance management framework. This framework introduced organizational strategy and operation control within performance management. Additionally, the framework emphasizes five elements central to the development of a systematic performance management systems namely; identification of the organization's key objectives, formulation and implementation of the strategy, performance targets setting, development of effective organization's reward system and information flows (Otley 1999).

This performance management framework has been viewed to be compatible with management control systems as its performance components are comprehensive and can efficiently be integrated with strategic elements and routine operations. Further, the framework emphasizes performance data and information flow and how they should be utilized to maximum benefit, also, it has capacity to improve productive, client satisfaction and encourages employee to engage in continuous self-improvement (Ferreira, 2002). Nonetheless, some scholars viewed this framework as lacking analysis of external context and assumptions, time consuming and costly. Other limitations are related to its focus on what works instead of how things should work and the fact that the interconnection between different components of the performance management system is not clearly addressed in the framework (Stringer, 2007).

Recognizing this knowledge gap, Bouckaert and Halligan (2008) extended the framework and proposed an interpretive and analysis model that enables comparison of effectiveness and challenges of implementation of performance management. They identified three core dimensions of a comparative framework which are measurement, incorporation and using. Although it is thought to be helpful towards the implementation of performance management, this framework was developed through an extended analysis of performance managed by examining experiences of selected highly industrialized countries. Thus it is limited to its one dimensional snap shot of realities on the ground as they emerge and not be able to address the ambiguity surrounding what the concept of performance entails, the dynamic nature of the public sector and complexities of organizational management (Talbot, 1999).

The most relevant in this study is the much-improved Ferreira and Otley performance management systems framework since it is designed to specifically study performance management systems of specific organisations. Vieira et al (2016:6) identify the Ferreira and Otley framework as the one that has been developed to an extent of addressing many weaknesses in the frameworks pertaining to performance management systems. The framework was first proposed by Otley (1999) to study performance management systems within specific organizations. It evaluates five key areas: key objectives, strategies and plans, target setting, reward systems, and information flows.

According to Vieira et al (2016:6) the framework initially had some limitations such as being static and its failure to develop links between a company's vision and its mission as well as ignoring the dynamics of change. To address these weaknesses, Ferreira & Otley (2009) extended the initial Otley (1999) framework to develop what they called the performance management systems framework. The new hybrid framework captures the complexity and particulars of the performance management systems. Vieira et al (2016:6-7) identify a significant improvement of the new performance management systems framework as it is more holistic in nature encompassing several important, interrelated issues or themes such as; mission and vision, key success factors, organization structure, strategies and plans, key performance measures, target setting, performance evaluation, reward systems, systems and networks, performance management systems use, change and its strength and coherence.

Because of its extensiveness, this framework will assist the researcher to explore whether the performance management system at ATNS is comprehensive enough to enable the organization achieve its set objectives, with a view to improve its performance and verify whether the strategy is aligned to its mandate. This is because ATNS is in a highly specialized sector with various stakeholders with competing demands. The framework is relevant first because it is meant to study a performance management system of an individual institution, which is the case in this study that will focus on the ATNS as an institution. Further, its improved version will assist this research to unbundle the complexities in the analysis of the performance management system of ATNS.

Although performance management system frameworks are generally viewed as time consuming and financially costly, if implemented effectively, they can assist the organizations to plan, measure, and control their performance as per agreed strategy. As argued by Julnes, that (2009), though performance measurement can provide evidence to measure performance, for performance management system to be successful, it should be understood that it is a diverse and continuous process which requires constant development and refinement.

2.6. Conceptualizing Performance Management Systems

Conceptualization involves the analysis of data, in an attempt to develop a theoretical approach. The collection of data for a research study calls for a reasoning basis and a frame of reference to guide and evaluate such data. Conceptualising will assist with the classification and identification of questions on the performance measurement and challenges of implementing performance management in the Air Traffic and Navigation Services. There is also the question on the extent to which the performance management system impact and influence its effectiveness, towards achieving organizational goals. As stipulated by Asmah-Andoh (2012:52) that "any guidelines for the establishment of performance management in public institutions need to overcome some of these conceptual difficulties, and also to meet the requirements of effectiveness and efficiency associated with the applied side of performance management systems. This provides a rationale for this research.

Several theories can be used in the study of performance management. In this study, the systems thinking theory will form the basis of analyzing the implementation of performance management in the Air Traffic and Navigation Services. According to Dye (1984:40), "systems thinking theory can be used to evaluate performance management for service provision and management improvement". A system can be assumed as a structured whole consisting of connected parts directed at a particular purpose (Terry, 1977). Additionally, Jordan (1998) described a system as a network of related components integrated together identified within a certain object or process. It can thus be said that systems are fundamental to human activities. Components of systems theory are; input, processes, output and impact (Dye, 1984; Meiring, 2001).

When it was first introduced in the study of biology, the aim of systems thinking theory was to assist the earlier biologist to understand systems better, Von Bertalanffy (1969), so that they could find new ways to deal with recurring problems Skyttner (1996). Moreover, systems thinking theory supports the concept of order, patterns and systematic structures, (Skyttner 1996; Kim, 1999) thus providing scientific modelling, rational, testing, implementation and evaluation processes, (Jackson, 2000; Von Bertalanffy, 1968), which are necessary to unbundle complexity of "systems" in modern technology. This theory was introduced within the management field to assist in dealing with problems, Jackson (2000) whereas in physics and cybernetics it was introduced as a vision of hierarchic order Skyttner (1996) and to minimize overspecialization in one field Von Bertalanffy (1968), and was perceived by

Kim (1999) as a useful tool to comprehend how systems fit into a broader context.

Ackoff (1994) suggests that a system should satisfy the following characteristics:

- "The behaviour of each element has a specific effect on the behaviour of the whole",
- "The behaviour of the elements and their effect are interdependent, by and large",
- "However, subgroups of the elements have an effect on the behaviour of the whole, but none has an independent effect on it".

Thus, systems thinking theory is a means to ensure solutions are planned, designed, evaluated and implemented, and can be effectively used in various fields, to uncover hidden assumptions and perpetual practices that contribute to poor results, (Skyttner 1996; Von Bertalanffy,1968, Jackson, 2000).

Coetzee (2009), posits that within the systems theory, problems are approached with an understanding that humans and their environment are part of an interacting system. Within this system there are specific feedback mechanism, where inputs are conveyed through a receptor and control apparatus to an effector. In reaction to the input received, an effector becomes a monitor response. Coetzee (2009) illustrated the concept diagrammatically, as follows:

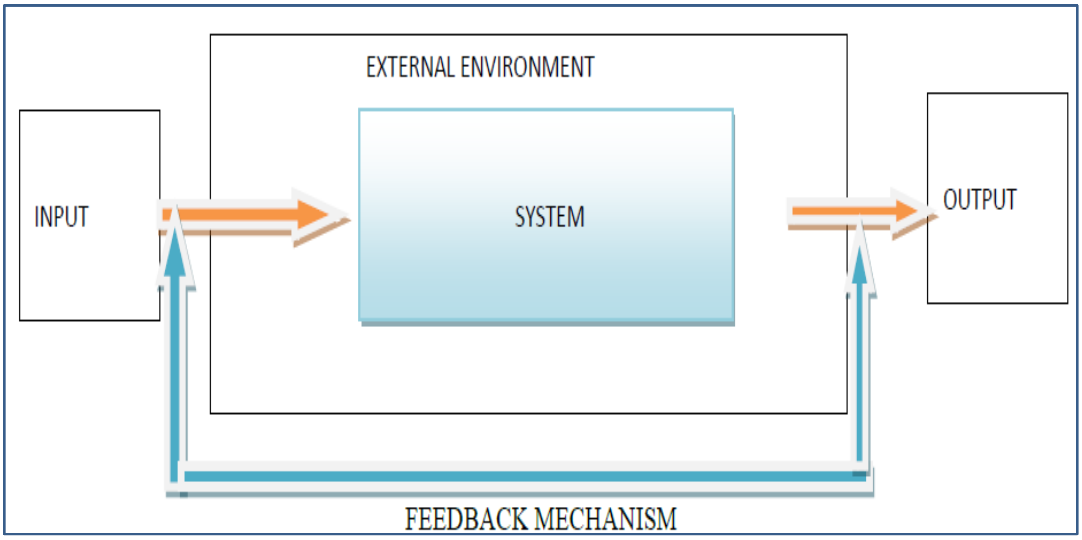

Figure 2: **Extrinsic feedback model**

Source: The development, Implementation and Transformation of Disaster Management; Coetzee, 2009:25

The above suggests that a system has an input and a feedback mechanism. A feedback mechanism provides a formal evaluation to check the relevance of the system; and this can be either formative or summative. To be effective and efficient, a system needs a feedback mechanism that can ascertain whether the outputs of the system are what they should be; if not, a system should have the ability to adjust its inputs or process to improve the outputs, Coetzee (2009).

A feedback mechanism in an information system may be automated, or it may be manual. The research aims at establishing the effectiveness and impact of the performance management system of the ATNS towards achieving its set goals. Organizations has control over and can change the internal operating environment; but do not have control on the external operating environment and should thus adjust to such. The internal environment relates mainly to the structure, culture and management systems of the organization; whereas, the external environment relates to the environmental, socio-political and economic setting in which the organization operates (Martnez, 2001). As supported by Amagoh (2008), that within the systems concept, organizations are continually interacting with their environment, whereas organizational environment is a set of relationships between stakeholders, and any factors beyond the organization's control.

This chapter undertook a literature review on the role of SOEs in South Africa, performance management systems in the SOEs, the international examples of SOEs and performance management systems in the ATNS. It revealed that, SOEs are common throughout the world and the important role they play in economic development, especially in South Africa. Furthermore, it showed how performance management and measurement systems can contribute to performance of SOEs with international comparisons and the challenges faced by public sector organizations with regard to the design and implementation of these systems. This chapter also discussed the theoretical framework that was selected when undertaking the research and processing the data. The next chapter discusses the research methodology that was used to gather the research data.

3 RESEARCH METHODOLOGY

This section identifies and describes the research approach, research tools and their application, sampling, process of analysis, limitations, feasibility and positionality validity, reliability and dependability and ethical considerations.

3.1. Research Approach and design

The research employed a qualitative research methodology. A recognised research design used broadly in an extensive range of practices, particularly in the social sciences (Crowe et al., 2011). The approach was selected because it would allow the researcher to examine people's experiences in detail using a variety of methods. Since the study was about the performance management system of the ATNS, this method enabled the researcher to gather the necessary data from people in their natural setting (Hennink, Hutter & Bailey, 2020:10) using questionnaires as one of the multiple tools the method allows (Khan 2014:300). This research further opted for a case study, a research design that assisted in generating an in-depth, multi-faceted understanding of a complex issue in its real-life context. This is an established research design that is used extensively in a wide variety of disciplines, particularly in the social sciences (Crowe et al., 2011). Case studies are widely used in organizational studies and across the social sciences, and there is some suggestion that the case study method is increasingly being used and with a growing confidence in the case study as a rigorous research strategy in its own right (Kohlbacher, 2006). This approach was relevant as this study wanted to explore and give a descriptive analysis of the performance management system of the ATNS.

3.2. Research Tools and their Application

Primary data was collected from the interviewees using questionnaires. According to Radhakrishna (2007) questionnaires are the most frequently used data collection methods in various fields and they assist with gathering of information on a variety of subjects. They were selected specifically for this research project because they are useful, versatile, quick to implement and the data they generate can generally be analysed quickly and easily (Coombe & Davidson, 2015:217). According to Khan (2014:306) questionnaires can be structured, semi-structured and open-ended. This research selected a semi-structured questionnaire to gather the data from the relevant sources within the ATNS. Lewis, Saunders, & Thornhill (2005) highlight that semi-structured interviews are suitable in the kind of research where the researcher wants to categorise responses from sources while at the same time allowing for the exploratory questions. In other words, while the semi-structured questionnaire directly responds to certain categories of data, it also give room for other categories to be introduced through exploratory questions. Interview times varied from each responded, but the average time was about forty five minutes to complete each questionnaire. It was not easy securing interviews with respondents as most indicated work pressure that came with working from home coupled with personal time. None of the respondents opted for a face to face meeting citing time constraints. About four respondents opted to complete questionnaires on their own and others agreed to virtual interviews. On average, interviews were completed within 45 minutes. Five virtual interviews were conducted and eight respondents completed the questionnaire at their leisure.

Secondary sources of data includes published books and journal articles, strategic planning documents, annual reports as well as other performance related documents of the ATNS. Other sources include relevant reports by government departments such as the Auditor General and the national Department of Transport, speeches by the president, ministers and press releases by these departments as well as research outcomes by other scholars.

3.3. Sampling

According to Khan (2014:305) sampling is a method of deducing information about a whole population from a limited number of units. The sample was limited to members of management in the ATNS because they are involved in the implementation of the performance management system.

The study employed a purposive sampling strategy. This approach involves selecting a small number of respondents to yield the most information and have the greatest impact on the development of knowledge (Guetterman, 2015). The sampling technique in this research therefore corresponds to the purposive sampling, as the population elements will be selected based on the purpose of the interview (Peljhan & Marc, 2018:926). Staff members working directly with the system were interviewed as they are knowledgeable in terms of the contents of the system. As Yin (2012) puts it, purposive sampling is a strategy which allows the selection of specific data sources from which data are collected to respond to the research question.

The plan was to interview sixteen employees directly involved with the performance management system. Thirteen employees responded and participated in the research.The respondents within the sample included an Executive, Senior Managers, Managers and Specialists. These four key positions were interviewed as they are involved with the performance management system and provide the inputs thereof. Eight participants completed the questionnaire on their own as they indicated that there were not available for face to face or virtual interview, but were willing to complete the questionnaire whenever they have time. They did avail themselves when they were required to clarify their responses. Five participants agreed to be interviewed, though one opted not to be recorded. The other eight opted to complete the questionnaire on their own and were available for further consultation if necessary.

3.4. Data Processing and Analysis

The purpose of data analysis, irrespective of data type or underlying research tradition, is to organize, provide structure, and generate meaning from the data (Polit & Beck, 2010). Furthermore, Neuman, (2000) stipulates that generally, data analysis means a search for patterns, recurring behaviors, objects or body of knowledge. The researcher used thematic analysis to identify the main themes in the data gathered from the participants. This was achieved by analyzing and reviewing transcripts and field notes. Thematic analysis is defined as a method to identify, analyze, and report themes within data. (Boyatzis, 1998). This method of analysis organizes and describes a data set in detail. According to Fereday and Muir-Cochrane (2006), thematic analysis enables the identification of overarching themes in the raw data from interview transcripts and organizational documents and capture the phenomenon as described by participants. The researcher then analyzed the data gathered about the performance management systems in the ATNS.

By analyzing the information gathered on the performance management system in ATNS, the researcher “examined the raw data recorded line by line in order to identify isolated events, incidents, ideas, actions, perceptions, and relevant interactions that were coded as perceptions” (Bhattacherjee, 2012:114). Thereafter, the remaining data were coded, similar concepts grouped into higher order categories. The researcher arranged the pieces of information into various groups, taking into account the categories or groupings suggested by the participants themselves. From this information a set of categories were formed. Themes were manually identified from responses as provided by participants for each question posed in the questionnaire.

Identifying themes manually was vital as it ensured that when the data was processed, themes that appear were reflective of the data collected and ensured that the distortion of data is minimized as much as possible. Practically, thematic analysis allowed the researcher to analyze the data such that a certain trend in the information is identified, which then formed a theme.

Consequently, the researcher was able to provide a report based on the collected data allowing for a conclusion to be made from these data and reveal research findings and analysis thereof as outlined in chapter 4 and 5 respectively. Using this approach to data analysis was helpful as the researcher was able to organize data, divided it into manageable units, synthesize it, and search for patterns thus discovering what is vital and what is to be learned and deciding what will be shared with others (Bogdan & Biklen, 2007).

3.5. Validity, reliability and dependability

To ensure validity, reliability and dependability, this qualitative study utilized different sources to gather data that is; interviews and documents. This study included interviews with managers, senior managers and executives of ATNS through semi-structured or open-ended interviews. Data gathered through interviews was triangulated with audited information from annual reports, corporate plans and the strategy. To derive contextual meaning from the information provided by the respondents, the researcher employed content analysis. Krippendorff (2013:403) defined content analysis as "a research technique for making replicable and valid inferences from data to their context". The emphasis in this study was to capture and describe the participants experience, perception, description and judgment of the phenomenon being studied. Based on this, there are areas where the researcher used direct quotations from the research participants, as these are often informative.

To confirm some of the research findings, annual reports from 2016 to 2020 were analyzed. These reports were accessed from the company website to ensure that only audited information is analyzed. Performance measurement information related to the research was retrieved and analyzed with data received from the respondents and literature. Data triangulation assisted in obtaining different viewpoints to validate the study's findings, conclusions, and recommendations. The semi-structured questionnaire allowed free flow of information thus producing enough information to a point of data saturation. To further ensure credibility, the transcribed spreadsheets were shared with respective respondents to correct or confirm if the recordings were true and completely articulated their intentions, knowledge and understanding.

As the researcher was interviewing the colleagues, the primary concern was how knowledge will be acquired from participants without compromising the collected data considering the relationship between the researcher and the interviewees. There was a risk of data biasness from both the participants and the researcher alike. Therefore, the researcher had to mitigate against this in order to avoid bias during data collection and analysis. To achieve this, the researcher sought assistance with data coding and review of findings from peers. This process assisted in confirming that all information was included, while identifying gaps that needed to be addressed in the argument. Peer review also provided affirmation that conclusions reached are sound and reasonable given the data gathered.

Also, the researcher adopted a two-column approach to mitigate for data bias while preparing data into field notes and transcripts. To do this, in, one column verbatim reports were recorded while in the other column, the researcher's thoughts in contexts were recorded. This meant that during interviews, and when going through the questionnaires respondents completed on their own, the researcher had to record her reaction or even immediate thoughts coming to her mind. This was done because the researcher is part of the team that work with the performance information and is responsible for compiling some of the performance reports.

This process actually helped the researcher to capture her reaction about the responses in context (Rajendran, 2001). It must be noted though, that the first interview was actually the most difficult especially the first five questions as the researcher believed that these questions were focused on the anatomy of the system. Though it did not come naturally, as the interview progressed, the researcher manage to remove both the interviewer and the respondents from the process. For example, when Respondent 3 indicated that "we do not have a dynamic capable M&E unit, it seems as if this unit is by default and not by design". With both the interviewer and the respondent working within this unit, the first reaction would be, "does this person think we are not doing what we are supposed to really, or why they aren't even working towards that capability?"

But by recording the immediate thoughts as the responses were provided, assisted the researcher to be able to remove both the interviewer and the respondents from the process during data collection, interpretation and analysis, and was able to focus on recording the respondents' understanding and knowledge of the system. Thus, it can be said that this strategy assisted the researcher to concentrate on the data and avoid being bias thus rejecting the participants' realities when collecting, interpreting and analyzing the information.

3.6. Limitations, feasibility and positionality

The study will use primary data obtained from a group of managers from ATNS who interact with each other on daily basis. Such analysis may tend to be subjective. Nonetheless, the information to be used would have been subjected to audit.

3.7. Ethical consideration

In this research, the researcher is also an employee of the organization working within the unit that deals with performance management systems and directly involved with the performance information. This has a potential to exert power dynamics between the researcher and the participants. To mitigate on this risk, at the beginning of each interview, the researcher assured the potential participants that the research was for academic purposes only and will not be used otherwise without their consent. The researcher therefore approached the research from a neutral angle so that the objectives of the study could be achieved without compromising the quality thereof. The participants were also informed that although the permission to conduct research was granted by the Executive Management, it did not mean that they were expected to participate in the study, but it was emphasized that participation was voluntary and there was no expectations from their seniors to take part in the research.

Prior starting with the interviews, the researcher reminded the participant of the objectives of the study and informed them that the research data will not be used for any other purpose but academic. If needs be permission will be requested from all the participants if the research data is to be used for other purposes than those outlined in the consent form.

The interview process was challenging as the participants would address the researcher as a colleague and who is aware of what is happening in the organization. Thus, the researcher had to continuously remind the participants that the responses required are based on their personal experiences and knowledge and not those related to the researcher's line of work or opinions. In this way, the researcher avoided placing herself in their "shoes". This helped as the participants were able to understand that the interview is not a notes sharing session rather an information seeking session to collect data on the performance management system in the organization to respond to an academic research topic. Furthermore, participants were requested to share their utmost understanding and knowledge of the system and not as custodians of information so that the objectives of the research could be achieved.

Another potential risk identified was the researcher's bias towards the data collected. Although the participants were assured of the intentions of the study, the researcher assumed a position of power in this study and could therefore decide on how the collected data is used. The researcher, though neutral, was in a position to use scientific knowledge to control the interview setting through initiating the interview, deciding and asking the questions, and following up on the answers and finally ending the interview (Kvale, 2006). To avoid bias, a two-column approach (Rajendran, 2001) was adopted as outlined under the validity, reliability and dependability section above. By using this strategy assisted the researcher to ensure that when the data is being processed, will be reflective of the data collected and will ensure that the distortion of data is minimized as much as possible. During data analysis, this strategy assisted the researcher to reflect back at the interview process from several perspectives to check on own interests within the interview environment. This helped to identify situations where the researcher unintentionally reacted to some responses during the interviews. Thus, the researcher was able to consider all the information provided and not discard any information based on own understanding. As a result, the research was conducted from a neutral perspective.

This research aims to contribute to the academic community and therefore nothing will be done to undermine the ethics driving the research and participants' were informed as such. To adhere to ethical conduct principles, the researcher ensured that the procedure of the proposed research was disclosed to the participants before attaining informed consent and requesting permission to participate in the research process.

Another ethical concern related to the fact that the researcher conducted interviews with people familiar to her and on the issue she is accustomed to from organisational level. This has a potential to limit openness on the part of the respondents. Equally, the respondents might be too willing to provide information thus exaggerating on issues.

Though the interview process was not easy due to the relationship of the researcher and research the participants, it did receive positive feedback. With most participants even indicating that the topic is very relevant to the organization. One respondent even suggested that once completed, a paper be prepared and presented to executives and senior managers. It should be noted that the interview process was horizontal, this way the focus was more on the purpose of the study and what it intends to achieve. Also, the open ended questions provided respondents an opportunity to further explain their views and observations.

Confidentiality and anonymity are interconnected yet different concepts. Confidentiality can be ensured through anonymity (Crow & Wiles, 2008). Anonymity is a way to intensify privacy, which intends to avoid the identification of the person who performs a certain action (Dobrick et al., 2017). Measures were taken to protect confidentiality of the respondents. As a result, the names of the respondents or their positions were not included in the report.

Though anonymity of respondents might not be achieved in this study, all information that can easily identify the respondents will be kept confidential. To further ensure anonymity, the interview respondents were referred to as Respondent 1 to Respondent 13 respectively. Additionally, the questionnaires incorporated a non-disclosure agreement and approval letters from both the university and ATNS to alleviate the respondent's concerns. The study commenced after receiving permission to conduct research from both the university and ATNS, the researcher did not manipulate the gathered information.

This chapter provided a discussion and explanation of the research methodology that was used in gathering the research data. Components such as the research approach, the research design, the data collection method, and the approach to data analysis were discussed. This section also discussed validity, reliability and dependability, limitations, feasibility. This section also and clarified the ethical considerations of the research. The next chapter presents the research data.

4 RESEARCH DATA PRESENTATION

In this chapter the research data are presented as per the research methodology explained in the previous chapter of this research report. The themes that emanated from the interpretation of interview transcripts will be presented accordingly. As mentioned in the methodology, sixteen questionnaires were distributed, but only thirteen employees responded and participated in the research. This included one executive, three senior managers, three managers and six specialists.

The rationale for selecting these employees was based on an assumption that they are engaged with the entity's performance management system and would therefore provide vital information and their individual perspectives and experiences pertaining to the functioning of the performance management system and how performance measurement information is utilized at ATNS.

It was therefore imperative to use the correct data analysis method when presenting research findings. As this will allow for data to be presented as accurately and objectively as possible and respond to the research questions. For the purpose of this research report, a thematic analysis approach was used. This approach was selected as it would assist the researcher to make sense of the information and find insight in order to give an accurate report on the performance management system at the Air Traffic and Navigation Services (Guest, Namey and Mitchell, 2013).

Themes were manually identified and extracted from the responses provided by the research participants when responding to questions posed in the questionnaire. It was important for the researcher to identify themes manually in order to ensure that during data processing, the themes extracted would be reflective of the data collected. This would ensure minimization of the risk associated with data distortion. By using thematic analysis, the researcher was able to manage the data effectively as it was categorized, thus provided an answer to the research questions of this research report.

Themes that were extracted from each question were therefore grouped together and analyzed separately to draw a conclusion for each question separately. These themes were then analyzed together in the conclusion to find commonalities and systematic conclusion. The results are presented according to the research questions.

The questions in the questionnaire aimed to respond to the three questions that defined this research which are: (1) Does the performance management system assist the entity to manage and measure performance? (2) Does performance measurement hinder or improve the entity's performance? (3) What recommendations can be made to improve the performance management system at the Air Traffic and Navigation Services? The findings from the questions are highlighted below:

Question 1 of the questionnaire asked the participants how comprehensive they thought the entity's performance management system was.

The opinions of the respondents on this question was split. Six out of the thirteen respondents felt that the system is comprehensive, which represents 46.15%. In elaborating on their satisfaction with the comprehensiveness of the system, the participants who responded affirmatively indicated that it is inclusive of all aspects of performance measurement. This was also stated by Respondent 7 when saying "the entity's performance measurement system is very comprehensive and talks to all the areas of performance within the entity". Also respondent 4 agreed by stating that "it is comprehensive as it covers both financial and non-financial Key Performance Indicators".

Respondent 5 further showed appreciation for the planning, coaching, reviewing and rewarding aspects of the performance management system and the fact that the process is done between the employee and the line manager. These qualifications should be understood as the indication of satisfaction on the system's comprehensiveness which goes beyond the basic level of comprehensiveness.

Furthermore, another 46.15% of participants indicated that the performance management system of ATNS is not comprehensive. Indicating that the system is not linked to relevant areas of operations. As Respondent 12 puts it, “KPIs are created at an organisational level but not aligned to other areas of the business. For example, there is nowhere in the system where officials report the permission performance”. And was supported by Respondent 11 “the current system only measures corporate performance and does not take into consideration the measurement of corporate strategy”.

Respondent 8 “If you have got a good PMS you tend to be proactive – in some cases we are just reactive”.

Respondent 3 indicated “The mere fact that we consistently change it means that we are not sure, or we are still learning”.

Respondent 10 stated “In my view it has lost its value within ATNS. There was a time when this was done properly now it’s more of a tick box exercise”.

In general, participants in this category feel that there is room for system improvement to address what they perceive as the silo mentality and to ensure that all targets can be measured or audited. They think the system must be more proactive to avoid it being just reactive. Few even think it is sometimes done for compliance and used for malicious purposes with Respondent 10 calling it ‘a tick box exercise’.

One participant signifying 7.7% was uncertain. When asked further to seek clarity on the response, the participant responded, “It is because I am not sure if there is a framework out there indicating what a comprehensive performance management system should look like. I am not sure if ours is comprehensive or not”. The findings from this question are as shown in figure 1 below.

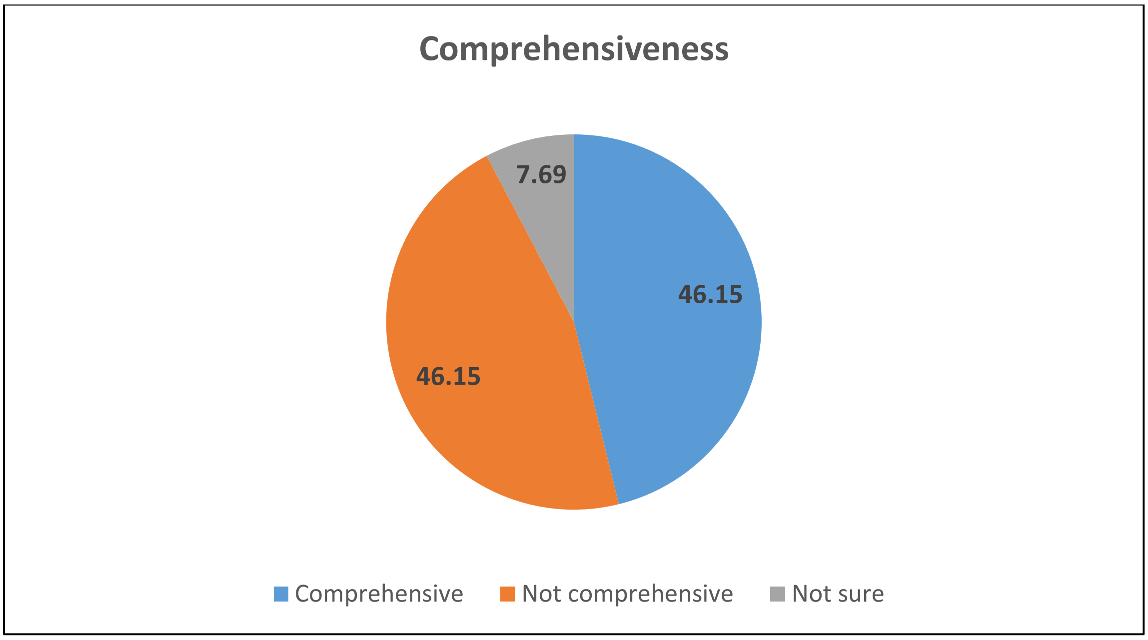

Figure 3: Comprehensive of the measurement system

The overall findings for this question is that the ATNS performance management system is only minimally comprehensive. The fact that the number of those who think it is comprehensive equals the number of those who think it is not and one participant been uncertain means there is a balance of scale between two opinions: the comprehensive one and the non-comprehensive one. Therefore, the system can only be said to be minimally comprehensive.

Under question 2 of the questionnaire, the participants were asked if the performance management system assist the organization to achieve its goal.

This question sought to establish if the system, in its current form, assists the organization to achieve its goal. Under this question, seven respondents, representing 53.85% of respondents said the system does not the company to achieve its goal. Six out of thirteen participants, equating to 46.15% of responses agreed that the performance management system assists the company to achieve its goal as indicated in figure 2 below.

The small margin of 3.85% between those who think the system assists in achieving goals and those who think it doesn't can be attributed to the negative factors about the system that both categories identify on the system. They thought it does not have the tracking link through which progress and failures can be tracked. This is articulated by Respondent 9 stating 'If we set a target we need to track them. Tracking performance is as important as running the business itself, so you cannot run a business without checking if you are doing well or not'.

Respondent 3 also added "Not at this stage. Many a times we find that the things that we contracted on, are not the final product. The system looks good on paper".

Furthermore, some participants felt that the performance management system is not linked to the strategy. This was uttered by Respondent 1 "No, the culture of performance measurement is not linked to the achievement of goals.
The system reports the progress (or status quo) and there is no effort into chasing the organizational goals".

Supported by Respondent 11 "The current system only measures corporate performance and does not take into consideration the measurement of corporate strategy".

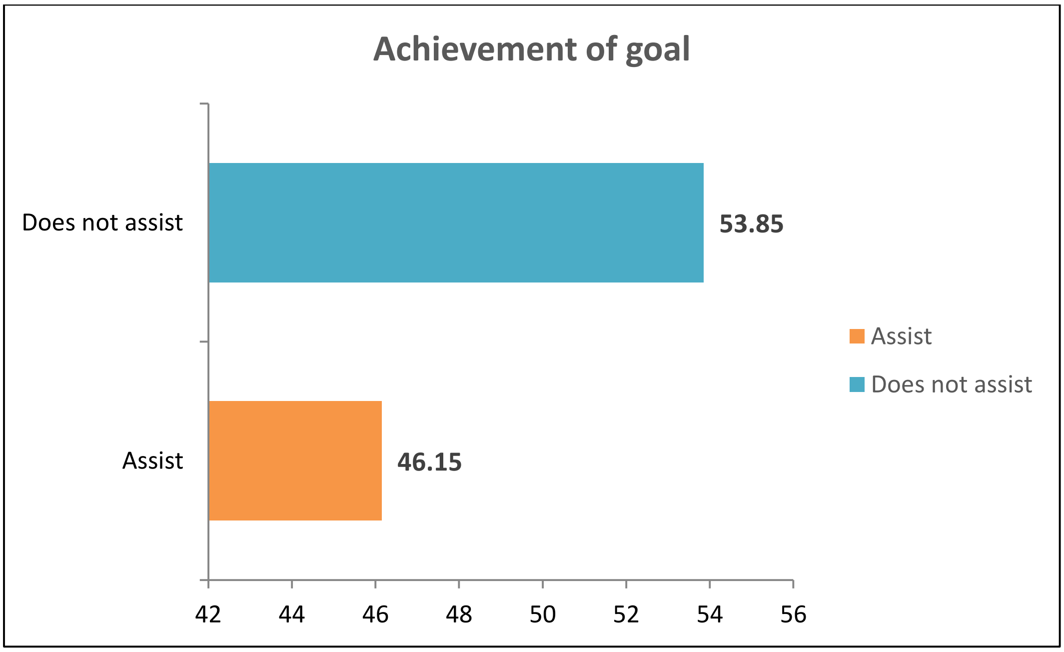

Figure 4: System assist achieve goal

About 66.66% of the six participants who said the performance measurement system assist the organization to achieve its goal agreed that the system has a number of limitations and gaps which necessitate for the system to be improved. In other words they do not say the system is perfect, but they say it assists to achieve goals with its deficiencies. For example, Respondent 8 noted “It does assist. The only challenge is implementation – if we can monitor what we have identified because what we have documented is good enough to make sure that we achieve our goals, but I think implementation and accountability are still a biggest challenge”.

Respondent 7 also noted, “The performance measurement system does assist the organization to achieve its goals, however it has a number of limitations. One of the key limitations is that the system is amended every year and that creates inconsistencies in the management of performance in the organization”.

Although most respondents highlighted the deficiencies that make them feel the system does not assist the organization achieve its goal, a few pronounced that the system has objectives that drive high-performance culture. Indicating that the system aligns individual activities to organizational ones.

Question 3 of the questionnaire asked the participants if they thought the performance measurement system measures what it is supposed to. This question sought to establish if the system measures the required aspects of performance in the organization. When responding to this question, seven participants representing 53.85% agreed that the performance measurement system does measure what it is supposed to.

As noted by Respondent 5 “Yes. The performance measurement goals are cascaded through the company level to all the employees, embedding the company strategy in individual goals”. Although some agrees with this sentiments, they still cite some discrepancies associated with the system. As noted by Respondent 8 “Yes it does. Because e.g. even where we cannot audit we know what we want to measure, most of them follow SMART principle”.

“As Responded 6 also responded, “Yes, if implemented correctly”. And Responded 11 supported these sentiments “Not all the time as corporate performance is still lacking, therefore management interaction with the system is also problematic”.

On the other hand, 46.15% said it does not measure what it is supposed to. This indicating that some of the participants thought the system is not geared to measure performance as envisaged. Respondent 3 stated, “For example, we contract in November and yet we are meant to have two performance reviews in the year. That shows that the system is actually dysfunctional”. Respondent 10 agreed “It does not because the target keeps moving, so in a way setting up the target is really worthless. Without a target you cannot really evaluate your performance”.

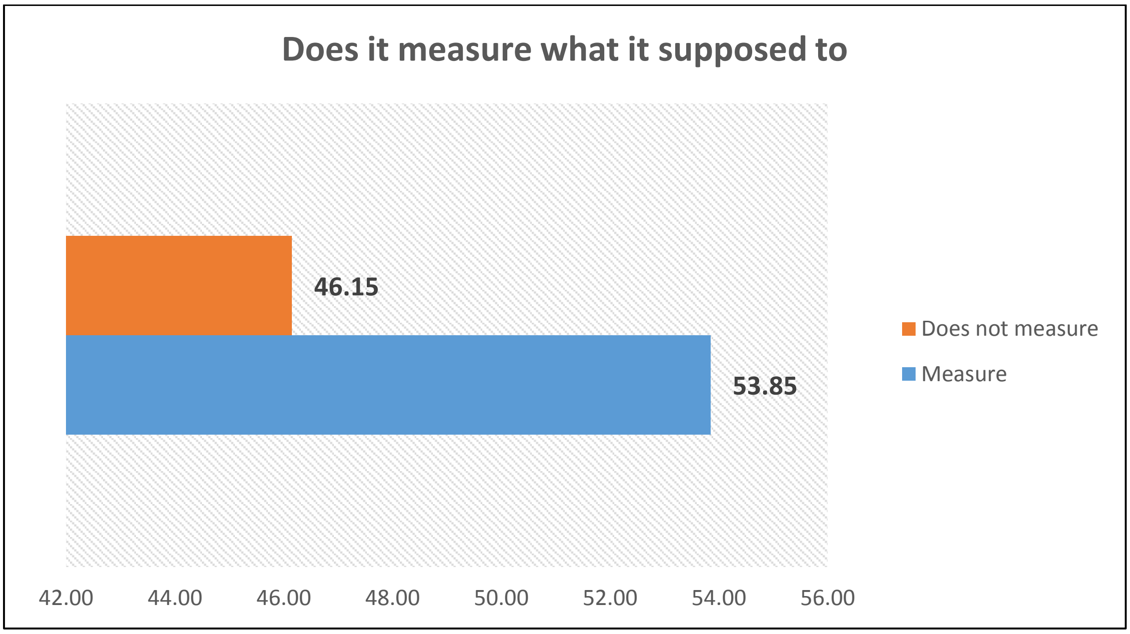

Figure 5: **Does system measure what it supposed to**

The small margin of 3.85% between those who think it does and those who think it does not still speaks to the deficiencies already identified in the system as indicated in the responses mentioned in respond to the previous question. Those who think the system is able to measure what it is meant for support this view by stating that it is able to measure goals from the company level through to all levels of the employees,

The above mentioned reasons seem to correspond well with those provided by those who believed the system does not measure what it is supposed to because they seem to tilt towards human resources than to the system itself. Therefore, most issues and discrepancies around the system clearly indicate that the system is not effective in assisting the organization to measure its performance. It also seem like there is no commitment from management on the system as other respondents thought it is just done for compliance purposes “In my opinion, the overarching goals are noble, however it is in the lower level criteria that the quality of what we do is degraded because we are focusing on too many aspects and the measure of success does not speak to quality but rather to a tick box exercise".

Furthermore, question 4 of the questionnaire wanted to find out from the participants if the key performance areas (KPAs) and key performance indicators (KPIs) are clear. This with intention to find out how performance measurement is used at the ATNS to measure performance and how it contributes to performance of the entity. The question sought to determine if the two aspects of performance measurement that could assist the organization to monitor and assess progress towards achieving the set goals are clearly defined and mutually understood.

When responding to this question, all the respondents agreed that both the key performance areas and key performance indicators were clear. However, out of the 13 participants, 9 participants signifying 69.23%, indicated that, although the KPAs and KPIs are clear, they do not really assist the organization to monitor and assess progress towards achieving the set goals

Some of the respondents who believed that the KPIs and KPAs were clear cited reasons such as, being aligned across all levels of the organization for example, Respondent 5 stated that “To support cross-organizational alignment of goals, employees also view the goals of managers and senior leaders in matrix business units or functions".

Respondent 1 "Yes, the management and employees, agree on the KPAs and KPIs and how they will be measured on BSC and the DOT KPIs".

However, those respondents who indicated that even though they are clear, the way in which the KPAs and KPIs are measured does not assist the organization to measure performance for example, Respondent 3 stated "They are clear, but how we measure them does not lead us to achieve what we set out to achieve".

Respondent 8 indicated that "They are, the challenge though is how to measure some of the targets quarterly and monthly but annually they are clear".

Respondent 11 reiterated "The KPAs are clear but some if not most of the KPIs needs to be reworked, simplified and more robust interrogation is needed to make them measurable and SMART". As concurred by Respondent 7, "Not all areas are clear, some KPAs are ambiguous and very difficult to measure for performance".

Respondent 6 "Yes, but they are not cascaded down well to all levels of the organization, particularly for core staff". Respondent 10 agreed, "In most cases they are but not always aligned with the strategy and or JDs". Figure 5 below indicates the findings from question 4 as presented.

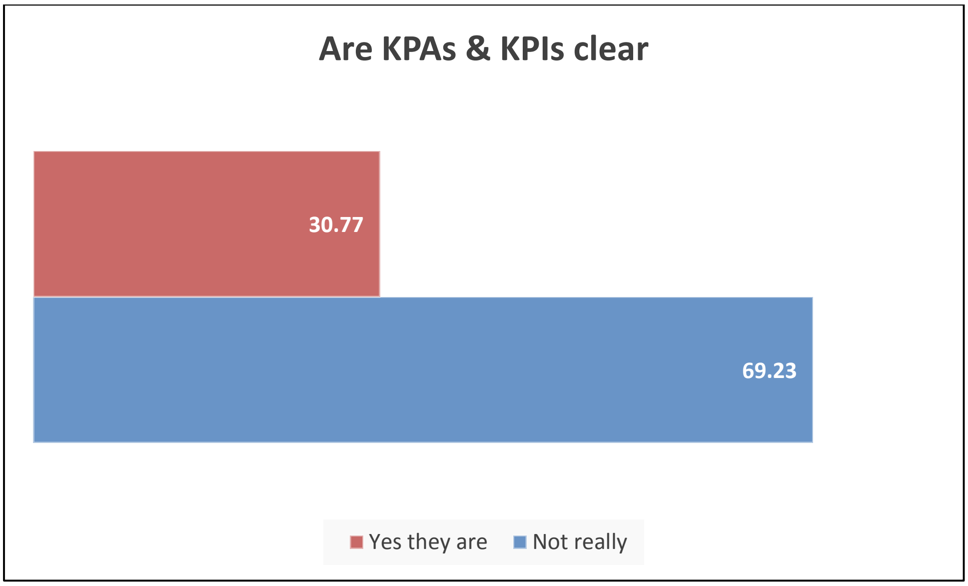

Figure 6: Clarity of KPAs and KPIs

Whereas some attribute the implementation challenges to the system itself, others indicated that there is no mutual understanding of these measures within the organization as stated by Respondent 12 “They are clear to the person that is monitoring the expectation. To the rest of the organization, it is clear to them what they need to do, to achieve the bonus status – their measurement of success is not that we achieved – but it is for incentive purposes”. Respondent 13 shared the same sentiment “We are not clear what the end goal looks like. As such the interpretation of what needs to be done is depended on who is doing the work – there is no continuity”.

More can be done to ensure that all employees are well versed with the organization’s KPA’s and KPI’s and ensure that they are aligned to the strategy and the employees job description so that everyone understand the organization’s goals and what is expected of the towards the achievement of those goals.

Question 5 of the questionnaire requested the participants to provide suggestions on how they think the performance management system can be improved. Through this question the research sought to solicit suggestions that could be used to improve this system. The aim was to find ways of strengthening it for future performance enhancement. About 30.77% of the participants said employees need to be trained and more communication around performance is required.

Thus these participants advocated for the improved training and communication efforts. Respondent 4 stated “Employees can regularly be taught/refreshed on how to measure and what to measure”.

Respondent 1 “The system is only known at senior levels (by Managers and Executives). The juniors only understand the Individual Performance System. I think it should be explained how these two systems correlate to each other, i.e. the Individual system and Organizational Performance Management system”.

Also, 23.08% of participants thought that the organization should have consistent objectives and not change them as frequently as they are now. As noted by Respondent 10 “the goals should not be changed as often as they are”, supported by Respondent 7” The system should be consistent and not be changed/amended every single year before it can be fully tested”.

Other measures as suggested by the participants are indicated in figure 5 below.

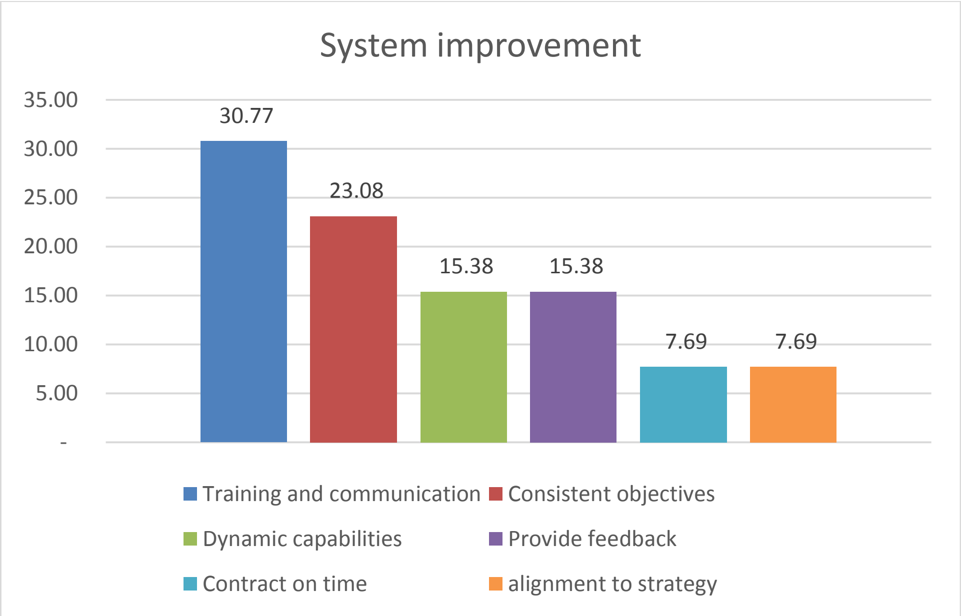

Figure 7: **System improvement**

The overall sentiment among all the participants was that in every system there is always room for improvement. Therefore, the participants agreed that the system can indeed be improved. However, they raised varying views on how it can be improved. Some of the views have their focus on the system while others are on the personnel as the users of the system. As indicated by Respondent 6 “Enabling managers to have performance conversations, Electronic Performance Management system in place to cascade goals and enable calibration of scores, contracting early in the financial year, have a plan in ensure that all employee understand what is expected from them”.

The understanding of the participants is that improving the system alone without empowering the users may not yield the relevant results in improving the system itself.

In question 6 of the questionnaire, participants were asked to propose implementation plan and evaluation measures that can be put in place to ensure the performance management system is sustainable. It was anticipated at the commencement of this research that some of the responses provided by the participants could relate to the manner in which the system is implemented and evaluated. Therefore, this question was specifically designed to seek proposals for such plans and evaluation measures should the need arise.

Various views were provided in response to this question; most respondents, at 23.08%, believed that it will be beneficial for the organization to align the performance management system to the strategy and operational objectives. Some of the responses are noted as follows; Respondent 4 stated, “Continuous alignment to the changes in functional and operational strategies”.

Also Respondent 11 agreed “at operational level, company should ensure cross functional team alignment”. Respondent 6 further stated “Proper alignment of organizational goals to individual goals (goal alignment and cascading)". Added Respondent 12 "I think the alignment of performance management and strategy goes a long way. Also the alignment of the business or organizational core processes".

Furthermore, 15.38% believed that employment of weighted performance approach per department will go a long way, as those departments that do not meet their set targets can be held accountable. An additional 15.38% thought contracting on time is another element that can assist. Other measures that were suggested are shown in figure 7 below.

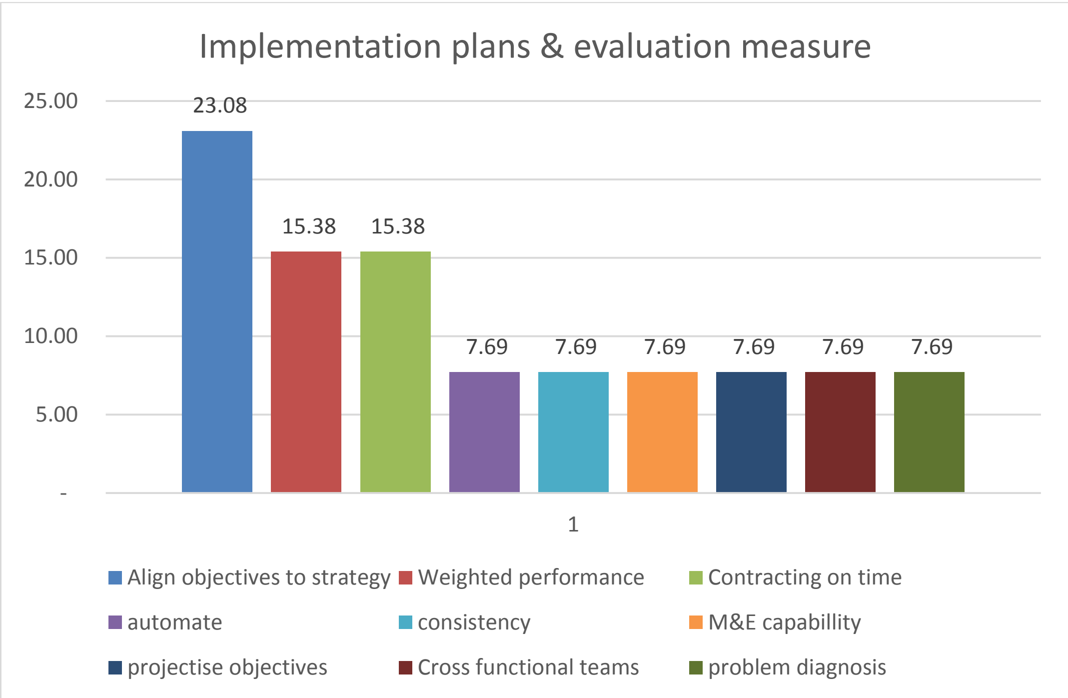

Figure 8: **Implementation plans and evaluation measures**

Basically, different measures were suggested to ensure the sustainability of the performance management system, mainly the need to ensure alignment with the strategy across the departments and that performance measurements should be similar to create synergy within the system.

Respondent 7 felt that "the collective approach of performance management is not efficient and thus the introduction of weighted performance for each department will assist". Respondent 10 stated "managers/Leaders must monitor the performance within their respective departments and hold their respective staff accountable for not achieving their targets by offering support where it is needed".

Also, Respondent 2 indicated "timing is really bad, every year we are always behind in setting corporate targets and closing annual performance discussions". Respondent 8 "PMS is manual and it is easily manipulated. We need to automate the system. Currently the targets can be easily changed".

Fundamentally, proposals were mainly based on the process for performance management and on the system itself. Alignment across the organization was highlighted as one of the measures that can assist. Another critical issue that was raised is the manipulation of performance measurement system.

Respondents indicated that when targets are not met, it is easy to change the measure to suit the output required. Subsequently, the performance information will be distorted and will not assist the management to make informed decisions, this could negatively impact the entity in the long-term. Contracting on time was raised as one of the measures that can be employed as late contracting impacts on planning and implementation of performance in the organization. Automating the system was indicated as one of the measures that can be employed to ensure the system is sustainable as the current system is easily manipulated.

Question 7 of the questionnaire asked participants to suggest performance measures that the entity can put in place under turbulent economic conditions.

No organization is immune to volatile economic environment. This question therefore sought to solicit different measures that the organization can introduce to improve the performance measurement system in order to adapt to varying challenges in the organization's operating environment. In response to this question, participants provided varied answers.

With 23.07% of participants indicating that whether turbulent or not, the performance measurement system should be able to monitor progress and identify KPIs to allow proper decision making by the management. Some of the responses are indicated as follows;

Respondent 9 “For me is about been able to track, manage and capture it accurately whether it is good or not”.

Respondent 13 “Regardless of what is happening we should be in a position to collect, analyze and report on information regarding our performance”

On the other hand, 15.38% thought that been flexible can assist the organization during tough economic environment. For example Respondent 1 said “Immediately when there is economic turbulence, the organization should apply strategic agile approach, there should be flexible performance measure to accommodate the abrupt economic changes”.

Respondent 3 “There must be some level of flexibility. For instance, during unforeseen circumstances, such as Covid-19 in the current financial year, we need to be flexible and able to align ourselves with what was planned at the beginning of the year and identify what we can do to get us out of the challenging times”.

Another 15.38% felt been innovative and exploring other forms of incentives will help, a further 15.38% indicated that the introduction of more financial KPIs will be handy, reviewing of performance measures and readjustment was cited by another 15.38% of participants as another way to assist during such times. One participant believes that contracting on time is one way to prepare for turbulent economic times, while the other 7.69% did not respond.

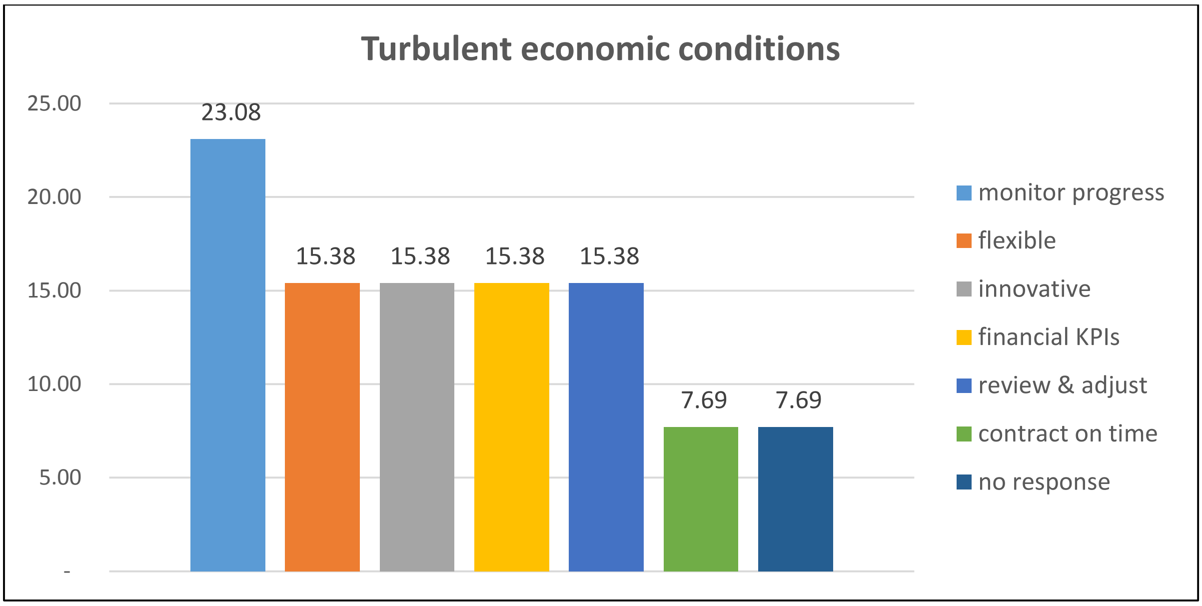

Figure 9: **Turbulent economic conditions**

Furthermore, Respondent 10 stated that “once the assessment is done, the entire strategy needs to be adjusted in line with current environment and performance management also be adjusted in line with the reviewed strategy”.

The majority of participants indicated that the performance management system should be able to monitor progress at any point in time regardless of economic conditions. Indicating that an effective system should be able to detect changes in the environment and provide measures to respond to such. They therefore believed that this could potentially be the only time when targets are adjusted. Indicating that the application of agile strategic approach and flexible performance measures to accommodate the abrupt economic challenges will assist the organization. The participant’s responses to this question concur with the responses provided in the previous questions indicating that the current performance management system in the ATNS is not effective and thus does not assist the organization to achieve its goals.

Respondent 6 cited “the inclusion of specific, measurable and attainable financial targets; behavioral targets that support the required culture will assist. While Respondent 4, suggested the inclusion of more financial KPIs such as, Net Profit Margin, Return on Assets, Asset Turnover, Debtors Collection Period, Current Ratio, Quick (acid-test) Ratio, Debt Ratio, Interest Coverage (times interest earned) Ratio within the performance measurement system was viewed as one way to assist the organization".

Respondent 12 proposed that once adjustment of the strategy and performance measures is done, in the context of turbulent economic conditions and also depending on the position of the strategy been followed, it is imperative to concentrate on monitoring KPIs affecting the company the most.

Furthermore, Respondent 7 advised that the organization should consider a broader spectrum of incentives. "Performance management should not be limited to cash incentives in the form of performance bonuses. The organization should explore other means of rewarding its employees. Options such as recognition awards should be considered. Another option is the deferral of incentive bonuses to a later period of good economic conditions".

Respondent 2 noted that contracting on time can assist, late setting of performance criteria work at our disadvantage like it is currently the case.

Respondent 8 suggested for the entity to consider efficiency measures, consolidation of some issues and analysis of resources, such as if the technology and skills available are fit for purpose. Be innovative and allow failures for innovation so that employees can improve. Also, eliminate duplication and integrate some objectives. Leadership is key, inspirational leaders are required in such times, therefore the organization need to train managers to be inspirational.

Overall, respondents felt that the performance management process should be improved so that during challenging economic times, the system can assist the company to respond adequately.

Question 8 of the questionnaire requested participants to provide suggestions on other measures the entity can use to improve efficiency. Performance management is an ongoing process and can assist organizations to achieve their set goals. Operating in such a specialized environment, been able to track progress is important in ATNS as it will assist with the improvement of processes and systems where necessary. To do this, the performance measurement system should include all critical aspects of the organization and communicate changes and provide training where needed to ensure alignment of all business processes within the organization. This question therefore, sought to see if the system can assist identify if there is a need to revise some business processes to respond to the needs of various stakeholders. For this question, participants suggested different measures that can be used to improve efficiency.

Four participants thought integrating the respective departmental objectives will assist to improve efficiency. For example, Respondent 3 stated “The plans for each department are not overarching, they just applicable to their respective departments and employees”.

Respondent 8 “Integration within departments such as project management and with external stakeholders”.

Respondent 2 noted “Establishing a forum where competing demands are discussed could be helpful as it may provide insight to leadership on where the bottle necks are occurring and where the underlying war is waged for the limited resources available to achieve the multiple goals”.

Respondent 13 “We think in silos – for example as long as I sent an email to someone I did my part. We do not have the ability to think systematically and understand how our actions affect others”.

On the other hand, two believed that more communication on performance is required. This represented 15.38% of respondents respectively. Respondent 6 stated that “Providing consistent feedback to the business on how the organization is performing and areas of improvement.” Interestingly, one participant indicated that the reduction of the number of KPIs would assist.

Figure 9 below indicates measures to improve efficiency as suggested by the respondents.

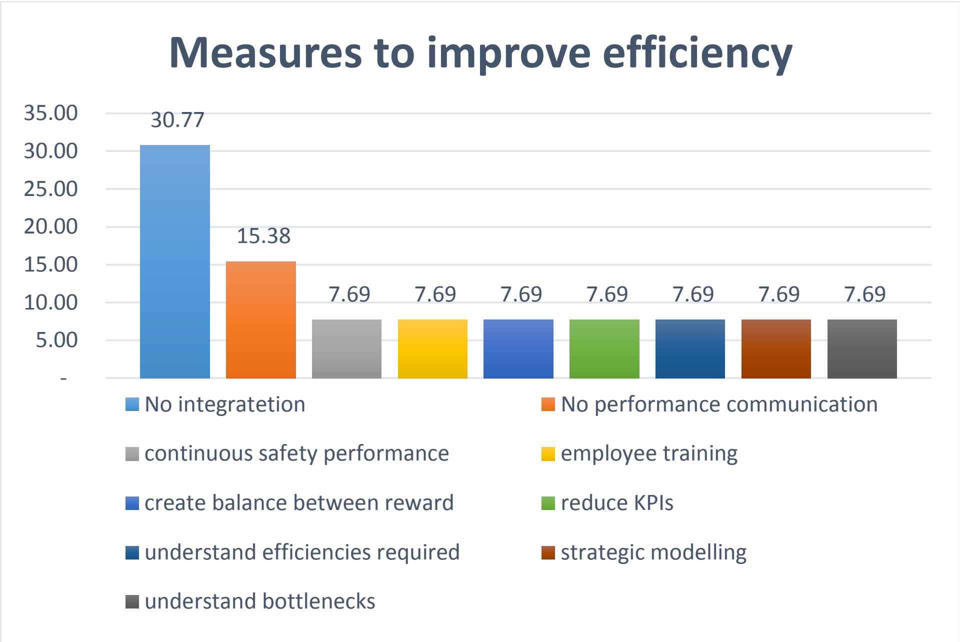

Figure 10: **Measures to improve efficiency**

The most common measure suggested by the respondents is system integration and alignment across departments. Increased communication regarding performance management was the second popular measure suggested. This indicates that there are numerous deficiencies within the system if not improved can hinder its implementation.

The themes that emerged from this question are (a) the need to empower all levels of staff to understand performance management.

Organizations are faced with different dynamics in their operating environment. These dynamics may either be internal or external. If not identified, these factors can impact on the organization’s performance.

Question 9 in the questionnaire therefore intended to find out from the participants if there were any environmental and or organizational culture issues which they thought impact on performance of the entity. This question, wanted to determine if there are any other issues that are not necessarily related to the structure of the performance management system or the implementation thereof that impact on performance at the ATNS.

Responses to this question were varied and are presented as follows; four respondents believed that silo mentality within the organization hinders performance, representing 30.77% of respondents. This means that internal rather than external factors affect the organization's performance. There is no alignment within departments. These findings are shown in the figure below.

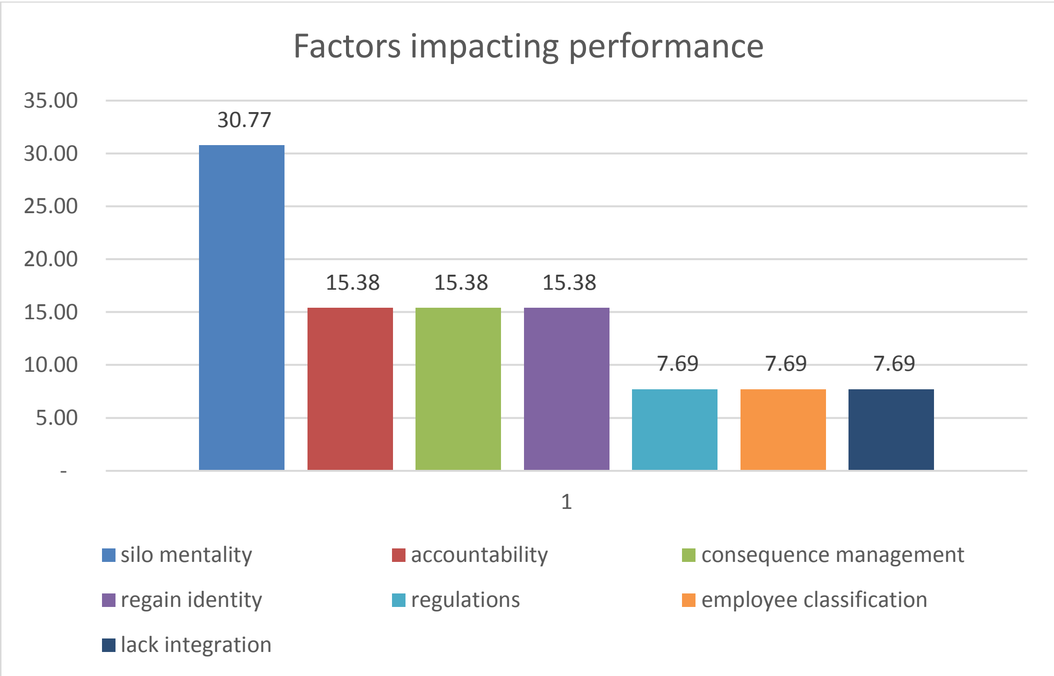

Figure 11: Factors impacting performance

Some of the responses provided are summarized; Silo mentality. Respondent 13 remarked "As long I have done my bit I am fine. We don't even want to understand the impact of our action on others. We focus on what we are doing and how it affects the rest of the organization is something else. We don't consider the repo effect of what we do".

Respondent 7 pointed out "the organization's approach in classifying different categories of employees which is seen to be distorted. The roles classified as core function are given more preference over other roles that are considered as support roles. Within the core function roles, there is also a distortion in the classification of different roles based on the base (station)".

Respondent 4 indicated "there is a need for ATNS to regain its identity and for all employees to understand the significance of airspace safety, air traffic management, navigation, communication and surveillance services as these form part of customer centricity and safety culture. This change is required for ATNS to attain its strategic objectives of continuous improvement of safety performance and achievement of long-term financial growth and sustainability".

Respondent 2 stated "The biggest challenge in my opinion is that every department has their own performance objectives that they wish to achieve, but in many instances these objectives are competing for these same resources to make it possible to implement each project/objective in the business. Regrettably ATNS at an Executive level does not streamline these and communicate to business what objective take priority so everything competes with everything and everyone wants their objective to be achieved/completed first".

One of the areas identified as a challenge is centrality. Respondent 9 opined "So, the whole issue around organizational culture is something that really need to be looked at as it can impact negatively on the achievement of the strategy".

Respondent 6 noted "The current organizational culture does not enable constant communication between line manager and employee. There is also a culture of "working in silos" that results in a breakdown of open and honest feedback".

Respondent 5 indicated that "The other part that may have a negative impact is new regulation change such as the implementation of the Disaster Management Act".

Respondent 8 indicated “There are people who don’t want to take decisions at ATNS. Everything is submissions and meetings. There is a culture of fear – but people are appointed to make decisions”.

Generally, participants indicated understanding on how the performance management system is utilized and its effectiveness in managing performance. And were even able to identify the challenges faced with the implementation of this system. Only one respondent identified external factors such as political and regulations that impact on performance of the organization. The rest of the respondents cited internal issues.

In this chapter the research findings collected were presented. The chapter started by outlining the process that was followed for data interpretation. It then presented the research findings for each question and provided a summary of all the responses given per question. The research findings indicated that although there is a nominally comprehensive performance management system at the Air Traffic and Navigation Services, this system does not assist the entity with performance information that can yield decision-making towards performance of the organization.

This, they reasoned is because the performance management system is not aligned to the strategy, is not fully understood by most employees, can be easily manipulated, lacks accountability, is not focused and it is not really used by management to improve performance. It was indicated that it is therefore imperative for the system to be improved for it to assist the entity to attain improved performance. Several improvement measures were proposed by the respondents. The researcher was able to extract five themes and it is from these themes the detailed analysis of the findings will be done in the next chapter.

The transcribed responses were grouped, for example all responses under question one were put under question one. They were then separated into themes to focus the analysis. Table 1 below indicates the grouping of interview questions with respective themes.

Question	Question No. for Grouping	Theme
Purpose orientation of the current system	1,4,9	The need to integrate the performance management system with the corporate strategy, and alignment with business objectives
Effectiveness of the current system	2,3,5,7	Importance of linking organizational outcome targets to individual performance and
		The need for performance measurement information to be used for decision-making.
Suggestions to Improve	6,8	The need to empower all levels of staff to understand performance management
Challenges with implementation of performance management system at the Air Traffic and Navigation Services.		

Table 1. Grouping of Interview Questions

5 ANALYSIS AND INTERPRETATION OF FINDINGS

The research findings were presented in the previous chapter. Chapter five provides an analysis and interpretation of the research findings based on the themes obtained while identifying the research findings. In addition, this chapter addresses the problem statement and objectives as highlighted in chapter one and literature review in chapter two. It also recognizes the purpose of the research report which is to to investigate the performance management system of the Air Traffic Navigation Services.

The responses to the research questionnaire utilized in support of the research questions would be linked to studies and literature reviews to either support or to refute the assumptions of the study. The correspondence or failure to support previous studies would contribute to literature on performance management systems in SOEs. As indicated in the theoretical framework, the system thinking theory was selected as the researcher's conceptual framework. The utilization of systems thinking theory can be contribute to performance management for evaluation of service provision and management improvement" Dye (1984:40).

The main notion around this research is performance measurement systems and participants were asked about their understanding of the performance measurement system of the Air Traffic and Navigation Services. This would allow the researcher to determine the comprehensiveness and broadness of this system. This with an intention to assess whether the performance management system of the ATNS is effective and efficient in assisting the organization achieve its goal. And if the performance measurement system is aligned to the strategy and objectives as is one of the themes identified. Thus suggesting any improvements measures that can assist the organization to improve its performance management.

a) The need to link the performance management system with the corporate strategy and operational objectives

The responses that were received indicated that the performance management system of ATNS does not assist the entity to plan, measure and manage its performance as it is not aligned to the strategy. As indicated earlier in the literature review from the definition provided by Aguinis (2009) that performance management is a continuous process and is in alignment with the strategic goals of the organization, failure to align the performance management system to the strategy means that the organization’s mission, goals and objectives are not understood the same way within the ATNS. The difficulty in aligning performance management to the organizational goals could be due to the complexity of the concept of performance within the ATNS environment. As an air navigation service provider, this organization has multiple stakeholders with conflicting goals, thus, the performance management system tend to be complex therefore measuring these goals tends to be difficult (Diana, 2014 and Propper et.al., 2003) subsequently, alignment of the performance management system to the strategy and organizational goals could be complicated.

This implies that the ATNS management will not be able to utilize the performance management system to plan, measure, and control performance in accordance to their defined strategies. Therefore, achievement of the organizational performance cannot necessarily be attributed to the performance management system. This indicates that the current performance management system is not serving its purpose. Bourne et al. (2000) stated that when selecting elements to be measured during design phase, the performance management system should be centered on the organizational outlook. The ATNS performance management system contradicts this idea. This means that the performance management system of the ATNS does not assist the organization to measure and manage performance of each department and subsequently that of the employees.

Although, synchronization of the performance management system with the organizational strategy and objectives would allow for their effective and efficient execution, this might not be possible to attain due to complications within the operating environment of ATNS. For instance, although management is responsible for the design and implementation of the performance management system, they are not necessarily accountable for what need to be achieved, thus they do not have the authority to influence processes and outcomes as well as an accountability for such processes and outcomes (Glynn & Murphy, 1996). Therefore, the performance management system does not serve its purpose at ATNS. As stipulated by Fryer et al., (2009) that positioning of the performance management system within the organizational perspective, objectives and plans is one of the key characteristic of a successful performance management. For ATNS application it means that the current system does not serve its intended purpose as a result does not contribute to its performance.

For the performance management system to be effective it should be holistic and inclusive of different elements that are relevant to the organization's operation environment. Because, if the ATNS performance management system is not synchronized with the strategy and business objectives, implementing performance management system successfully will be extremely difficult if not impossible.

Moreover, the research data indicated that the performance measures are not clear, specific, measurable, and accurate. This supports literature that setting performance measurements is a challenge to public sector organizations as stated by (Arnaboldi & Azzone, 2010) that the private sector organizations are noted for setting clear targets and this promotes profit making within this sector. In contrast, setting clear targets has become more difficult because of diversified purposes within the public sector organizations. This could be due to the complexity of the performance notion within the public sector which can affect the effective development of certain performance measures due to the fact that some goals and objectives are not measurable, thus, analysis of these measures would be based on guidelines (Diana, 2014).

On the other hand, it does indicate that although there is a process of audit process inculcated within the performance management process, audit has not been able to assist the organization to improve performance. This is due to the fact that the audit process is not about performance evaluation, but it is about verifying if the information is reported correct and in accordance with the agreed criteria. (Glynn, et. al. 1996).

This implies that the performance measurements of ATNS does not assist the organization to achieve its performance. Because for this to happen, performance measurement of ATNS should be clearly echoed in the vision and strategies of the organization and be quantifiable to reflect the critical success factors of an organization (Dougall & Mmola, 2015). It should be noted though that this can lead to another complexity as within the service provision sector it is not easy to quantify the results. As Bourne et al. (2003) noted that when designing performance measurements, managers are faced with the difficulty of been able to assess and quantify impalpable results.

Furthermore, data indicated that the performance measurement system is easily manipulated. In most cases, managers deliberately manipulate performance measurement system results so that they can satisfy their principals' expectations for political gain. Manipulation of results distort achieved scores such that only positive feedback pertaining to organizational performance would be revealed. This finding confirms previous studies in which performance results were amended to favor positive outcomes, this when performance results are intentionally manipulated to conform to the performance indicators thus invalidating the authenticity of the process (Propper et.al., 2003; Gao, 2015). This implies that there is interference pertaining to the implementation of the system thus, the use of performance measurement in the ATNS leads to measurement errors. As noted by Smith (1995) that an inability to measure complex organizations correctly could lead to data misrepresentation by either overstating or distorting the data to make a good impression.

Additionally, the data pertaining to the inclusiveness of the performance management system was split in half, with those agreeing equating to those who do not concur. Contrary to that, the research data indicates that the performance measurements are clearly defined. This findings raises contradictions among the users of the system. Thus, this could lead to the delays in the improvement of the system due to the conflicting views. It also indicate that the system is open for interpretation, there is no clear vision which is known to the users of the system. Implementation of such a system can prove impossible due to its ambiguity. This findings supports literature that one of the challenges in implementing performance management systems is contradicting views of the system among the stakeholders (Melkers and Willoughby, 2001). Nonetheless, it should be noted that this could be due to other reasons noted by Propper et.al., (2003) that due to the multiplicity and vagueness of the public sector goals, the performance management system tend to be complex, thus, measuring these goals tends to be difficult. As a result individuals are likely to respond to performance management systems to their own benefit. A process that can lead to behavioral distortion and manipulation of data with an intention to improve performance at the expense of unmeasured activities.

It will therefore be important for performance measurements to be assessed and analyzed so that such contradictions could be clarified. As asserted by Dascalu et.al. (2016), that assessment of performance information can prompt the establishment of corrective measures to ensure achievement of set targets, offering a feedback, essential for learning and improvement at all levels, being; strategic, operational or individual. For ATNS, this means that the current performance management system does not assist the management to easily identify dependencies and mitigate areas of concern. Furthermore, it also implies that ATNS management will not be able to effect required changes in organizational processes and culture properly, in response to changes in their operational environment. These findings also highlight the gap in the audit process as it does not assist the organization to assess the impact of the programmes being implemented, rather it focuses on the process of programme implementation. Consequently, the audit process is concentrated more on compliance than on performance improvement (Glynn, et. al. 1996)

b) The importance of linking individual performance to organizational outcome targets

Performance measurements are important and can contribute to organizational efficiencies. It is therefore necessary to set goals against which performance can be measured as it forms the basis of performance management. Data from the findings indicated that there is a challenge in cascading the organizational objectives to all levels of employees within the organization. Aguinis (2009), identified performance planning as the second phase of the performance management and is also important for implementing performance management systems successfully. Based on the departmental strategy developed from the organizational strategy and objectives, managers and employees agree on activities that would contribute to the achievement of the organization’s performance. Failure to cascade organizational goals to employee’s activities will cause misalignment between employee and organizational performance. This could be due to the fact that the ATNS’ operating environment involve complex and non-manual work, multiple principals and group interactions, political and environmental influences and interdependencies, and non-standardized outputs making the establishment of accurate performance measurements and targets to be both challenging and costly (Heinrich & Marschke, 2010) subsequently the management is not able to break down these objectives into tasks that could be cascaded across all levels of employees.

This implies that it will be difficult for the management to provide employees with feedback pertaining to organizational and individual performance. Furthermore, it will be difficult for ATNS management to identify relevant aspects pertaining to employees’ jobs critical towards the achievement of organizational goals.

Therefore, measuring performance of individuals towards the achievement of the organizational goals and objectives using the performance management system would be unlikely. It can therefore be said that the current performance management system in the ATNS is not effective. Also, this means that the employees' achievement of performance does not reflect the organizations' performance. This can instigate a separation between the organizational objectives and the measurement system, which could lead to what Smith (1995) referred to as a tunnel vision in which case management chooses to ignore difficult indicators and put more emphasis on easiest ones.

Additionally, it was depicted that there is no commitment from management to ensure that the system is implemented properly. Without leadership commitment, it will be difficult to implement the performance measurement successfully. This finding supports the view by Hacker et.al. (1998) that inadequate management dedication and lack of support towards performance measurement is problematic and affects the successful construction of performance measurement system. This could be due to the fragmented environment the ATNS leadership finds itself in. Such that they are not only involved with administrative and technical issues, but also the policy issues, and they have become political actors that not only address their political principals but also have multiple relationships to society (Christensen & Lægreid, 2015).

The effective systems will certainly improve the performance of employees as well as the organization. This view has been supported by scholars such as Armstrong (2008). Generally, the current performance management system of the ATNS does not assist the organizations to plan, measure, and control performance in accordance to their defined strategy.

This could be due to the fact that the organizational objectives and goals are not clear, thus the design of performance measurement system is not undertaken properly to allow management to determine how employees can contribute to the overall organizational performance. This implies that there is no alignment and integration between what the top management and other employees are doing, as a result it will be challenging for management to engage with employees to foster continuous improvement in attaining organizational mission and vision. This challenge could be due to the complexities of ATNS' operating environment, thus making it difficult to adopt the widely used performance measurement model. As noted by Heinrich, et.al, (2010:3) that performance measurement model is based on the assumption that organizational goals and production tasks are known, employee efforts and performance are verifiable, performance information is effectively communicated, and there are a relatively small number of variables for managers to control. Hence, the current performance measurement system is not effective in ATNS.

For the performance management to be effective, the organizational strategy, objectives and initiatives should be divided into tasks that can be customized to each group or individual within the organization (Aguinis, 2009). The need to align the organizational outcomes to individual objectives is supported by Thorgren & Wincent, (2013) when stating that it is essential to link the objectives of employees to those of the organization.

Lack of alignment between organizational and individual performance can distort performance management. Armstrong (2008) pointed out "that the application of performance management is to improve the organization members' performance by developing the capability of the team and its members through a strategic and integrated system which can encourage organizations to operate successfully". Therefore, the performance management system of the ATNS contradicts with this notion, asserting that the current performance management system is not effective. For the ATNS, although developing and implementing an effective performance management system that shows its employees' contribution towards achievement of organizational goals is a necessity, this objectives has not been realised as discussed in this section. Subsequently, some employees could be demoralized if they do not see how their role fit into the overall organizational goals because such employees receive their job satisfaction through contributing positively to organizational performance.

It is therefore important that feedback be provided to these employees so that their job descriptions could be restructured in such a way that they could induce intrinsic motivation. As Heinrich, et.al (2010) points out, some employees are not motivated by achievement of individual goals, but rather align their interests and objectives with those of the organization, hence their personal needs and interests are attained by achieving the goals of the organization.

c) The need to empower all levels of staff to understand performance management

The research findings highlighted concerns on the use and understanding of the purpose of the performance measurement system in the ATNS. Respondents felt that the use of the performance measurement system is subjective at ATNS as some managers use the performance appraisal system to settle personal vendettas. This could be as a result of some managers concentrating on individual weaknesses, rather than an individual’s strengths and overall contributions performance (Buckingham, 2005), consequently if not mitigated, this could lead to a decrease in organizational efficiency and productivity while escalating costs (Grubb, 2015). For ATNS application, it implies that lack of understanding could lead to misalignment of the organizational goals with individual goals thus actions congruent with the achievement of organizational goals cannot be strengthened. As a result, administrative decisions are likely to be based on personal preferences, politics and biased decisions.

Because performance management is a continuous process aligned with the strategic goals of the organizations, in which the identification, measuring and developing performance of both individuals and teams (Aguinis, 2009), it is therefore important for all employees to be trained so that they can understand the performance management. Training is defined as a “systematic approach to learning and development to improve individual, team, and organizational effectiveness" (Aguinis & Kraiger, 2009:2). Thus training should be provided to avoid mistrust among employees and management and for bias errors to be minimized.

There are various reasons why performance measures are established in organizations. It is therefore important for an organization's performance management system to be known and understood by all employees if its purpose is to be realized (Aguinis, 2009).

Therefore, all employees should be trained and understand the context in which the ATNS' is defined. As employees are another component of the performance management system, it is important for them to be kept abreast as the success of the system is dependent on them. Some scholars such as (Dascalu, et.al. 2016) emphasized this view when stating that performance management is as 'an on-going process, which is essential in performance measurement, involving the identification, supervision and communication of performance results, in relation to a set of performance indicators. Training of employees on performance management will increase understanding and individual accountability towards organizational performance.

d) The need for performance measurement information to be used for performance improvement.

Data from the findings indicated that the performance measurement information does not influence decision-making at ATNS. This finding contradicts literature on performance measurement which stipulate that performance measurement systems can be employed to identify effective and efficient components within an organization. Therefore, performance measurement data should be utilized for performance improvement, reinforcement and imminent planning (Wolk et al., 2009; Goh, 2012). This could be due to the fact that performance information is seen as the final product in the Air Traffic Navigation Services and not as a tool that can be utilized to improve the system. It is therefore imperative for the ATNS management to utilize performance information as a point of departure to encourage discussions about performance within the organization. As stated by Moynihan (2008), the performance information systems and documentation thereof are not the final product, but rather a means for engaging in policy and management change.

According to the OCED, 2005, in performance management objectives and targets are determined, whereas, performance information is used for informed decisions making, business design, and employee planning and for rewards. Failure to use performance information by ATNS management will not be able to improve its organizational objectives and operation. And some employees might be demotivated if they are not able to perceive their place within the organization.

The third phase in the performance management process is performance assessment, during which both the employee and the manager meet to evaluate the extent to which the desired behaviors have been displayed and whether the desired results have been achieved. Further, an evaluation of the extent to which the goals stated in the development plan have been achieved is evaluated (Aguinis, 2009). The research finding above further implies that employee's performance reviews are not based or aligned to organizational performance, this could be attributed to the fact that the performance management system is not linked to the strategy and individual objectives as indicated in the previous sections. It thus shows that there are no lessons learnt drawn from performance information for management to use for future performance improvement and decision-making. If this trajectory continues, the performance management will eventually not be supported by employees as it will be considered as not adding value to the organization.

The inability to use performance information for decision-making could also be due to the fact that performance measures are not clearly defined and with the system not been aligned to the organizational strategy as indicated in the previous section. As a result, the performance information cannot not be efficiently used to identify bottlenecks for mitigation plans to be developed to ensure that the organizational goals are achieved. This will also impede the provision of feedback from management to the employees with regards to organizational performance. The use of performance information for decision making is supported by (Mayne, 2007) when stating that the importance of sensible and informed use of performance information is pertinent for decision-makers. It is thus imperative for ATNS to utilize the performance information to improve on its performance. By adopting this approach, the entity will continuously improve its performance management.

The inability to use the performance information for decision-making could be due to the fact that "performance information is ambiguous, subjective, and incomplete thus its context, institutional affiliation, and individual beliefs will affect its use" (Moynihan, 2008:95). Hence managers are able to deliberately distort and manipulate performance appraisals for political purposes. Therefore, training on the performance management system is imperative to ensure that the system is used for its intended purpose. As this could lead to low staff morale, as Khoury & Analoui, (2004) identified deficient training, coaching and lack of communication, lack of ownership, top management non-engagement and feedback to be factors contributing to employees' low morale, passiveness, frustration at work, and grievances.

e) Challenges of performance management system at the Air Traffic and Navigation Services

In their quest to implement performance management systems, organizations will face certain challenges. While analyzing the data, the theme of various challenges relating to the implementation of the performance management system at the Air Traffic and Navigation Services was identified and it is for this reason the researcher deemed it necessary to present these challenges.

Some of these challenges revealed by the respondents include the following: poor communication, poor integration, low commitment by management, lack of training, inadequate ability for establishing clear goals and objectives, and assessing and evaluation standards for performance assessment, cultural issues and manipulation of performance information. These revelations are in line with literature as outlined in chapter two of this report that although organizations in the private sector have been successful in the implementation of the performance management systems, it has not been the case with their counterparts in the public sector (Gao, 2015).

Performance management systems should be able to utilize data collated from performance measurement systems to influence the amendment of organizational practices and beliefs, while aiding an organization with the calibration of pragmatic objectives, proper allocation of scarce resources, notifying managers of any review and/or revision of current organizational procedures in order to achieve planned objectives (Amaratunga et al., 2001). The research findings indicated that this is not the case at ATNS, as the current system is not effective, generates data that is not measurable and does not assist the organization to achieve its goals. This could be due to the complexity of the notion of performance within the non-commercial organizations impacting the successful development of certain performance measures due to the fact that some objectives are not quantifiable (Diana, 2014).

Moreover, lack of integration and synergy among the departments was also cited as one of the challenges that impact on collective organizational performance. This implies that there is no linkage between the ATNS' strategy, budgets and operational plans mainly due to the fact that each department is concentrating on its own objectives and not necessarily at organizational level. Thus the separation between the organizational objectives and the measurement system, could instigate unintended consequences such as: tunnel vision in which case management chooses to ignore difficult indicators and put more emphasis on easy ones or keeping irrelevant indicators in the system, a behavior referred to as ossification (Van Thiel & Leeuw, 2008).

The implementation challenges of the performance management system at the ATNS could also be attributable to the environment the organization is operating in. ATNS has numerous stakeholders with diverse and conflicting ideas. As a result, the organization find itself faced with challenges pertaining to the successful performance measurement implementation, for instance, the setting of clear targets and informed decision-making based on performance information is questionable. And various stakeholders may produce different performance measures that do not please none of them (Rantanen, 2007). Moreover, the challenges raised in this section further highlight the complexity of the ATNS operating environment as noted earlier that due to the multiplicity and vagueness of the public sector goals, the performance management system tend to be complex thus measuring these goals tends to be difficult (Propper et.al., 2003).

In this chapter, findings emanating from the research were presented and discussed extensively. The views of the participants were synchronized so that meaningful conclusions inspired by literature could be drawn. The findings point to the extent to which the ATNS has been unable to implement its performance management system. The findings indicate that the Air Traffic and Navigation Services has not been able to successfully design and implement its performance management system due to a number of challenges ranging from unclear performance measurements, lack of training and communication around the performance management system, misalignment of the performance management system, business objectives and processes, and job descriptions. This could imply that the design and implementation of performance management system in the ATNS has challenges due to its operational environment which encompasses different stakeholders with conflicting interests. Therefore, in its current form, the performance management and measurement system of ATNS is ineffective and does not assist the organization to achieve its performance. Nonetheless, it should be appreciated that the organization is expected to achieve several outputs and outcomes while improving equity and efficiency in the provision of its services (Dixit (2002). The summary, conclusion and recommendations of this research report will be presented in next chapter.

6 CONCLUSION AND RECOMMENDATIONS

The researcher has attempted to investigate the performance management system of Air Traffic and Navigation Services. Although findings reveal that there is considerable progress with regards to implementation of performance management, some issues still need to be addressed by the entity. This chapter provides conclusions and recommendations that were made about the research as a whole.

As indicated by existing literature and later the research findings, effective and efficient performance management systems can potentially assist SOCs to track their progress towards achieving their set objectives, strategy and deliver on their mandate. In line with their mandate.

Although having the performance management system can potentially assist organizations with the achievement of performance, this alone does not provide assurance that the organization will realize success in the attainment of their objectives. The research revealed that the following additional factors should be considered to avoid system failure in the Air Traffic and Navigation Services;

- Align the performance management system to the strategy and and integrate the system with business objectives and processes,
- Eliminate subjectivity of objectives and ensure that the understanding thereof is mutual across the organization,
- Introduce weighted performance management per department so that people can be held accountable for non-performance,
- Increase conversations around performance management and organization-wide training on the system,
- Performance contracting should be conducted on time to allow proper planning,
- Consider other forms of incentives/rewards as the current monetary based incentive system is not sustainable

- Clearly define key performance areas and their key performance indicators and reduce the number of KPIs,
- Automate the system as in its current format is easily manipulated.

The above were thought to be elements of performance management that can elevate the performance management system and its implementation and probably assist the entity to improve its performance management if considered by management.

It is therefore recommended that;

Performance management should be consistent across the board and setting of corporate targets and performance contracting should be done on time. Automate the current performance management system as this can assist to avoid amending the system as frequently as currently before assessing if measures its effectiveness.

Being considered as co-owner of the system is important, thus regularly training and engaging employees on performance management is important. All will have a clear understanding of the expectations and understand their contribution towards corporate performance. ATNS management should monitor performance and create room for improvement while encouraging discussions about performance management from all employees.

Performance measurement system should be clearly linked to the mandate, aligned to the strategy and objectives of the entity and ensure that daily activities support the entity's strategy.

KPAs should be linked to individual performance and properly cascaded to all levels of staff. The culture of accountability should be instilled. Performance information should be used for decision-making, also for learning, improvement and feedback.

Although the research data indicated that there is no accountability and people are not held responsible for non-performance, the annual report showed otherwise. The ATNS annual reports outline that, to encourage a high-performance culture, the annual salary adjustments are performance-based and executives are evaluated against set routine objectives encompassing the scope and nature of the role and job content on an annual basis. Furthermore, the 2018 ATNS annual report that the executive management did not receive performance bonuses as the entity attained a qualified audit report, this supports the research findings that the system does not assist the organization to measure its performance also that the performance information is not used for decision-making. Indicating that the performance information is not able to assist the management to identify deficiencies and bottlenecks which could impact the organization negatively.

Furthermore, the 2017 ATNS annual report indicated that the Regulating Committee levied a claw-back against the entity due to previous less asset capitalization. This supports the research finding that the performance management system is not aligned to the strategy. Thus it can be argued that, performance information does influence decision-making at some levels within the entity's operations. On the other hand, one can agree with the research findings that the performance management system is not effective or is not used effectively to assess and identify bottlenecks thus develop corrective measures.

It was also picked-up from the reports that some of the objective measures and KPIs were not clearly defined. For instance, there was an objective measure of "airspace and flight procedures enhancement" with an annual target of "RNP APCH in 100% of instrument runways located at ACSA airports. Its KPI being "4 Design Reports for submission to SACAA (RNP APCH)". The actual at the end of the year was captured as "4 Design Reports for submission to SACAA". The issue with this is that there is no way the outcome can be measured as the achievement of the measure was determined by a number of reports completed, and there is nowhere indicating the progress in enhancement of the airspace.

Research findings further indicated that other KPIs are ambiguous and difficult to measure, for example a business objective “the fight against fraud and corruption with KPI “Preliminary investigations are completed for all reported whistleblowing matters” and a target “Investigation of whistleblowing matters reported to be completed within 90 days from the date of receipt”. It is impossible to determine how many matters will be reported within a year, and when will they be reported, this KPI does not really assist the organization to achieve its goal to fight against fraud and corruption. The end of year results indicated that the targets were achieved in 2016, partially achieved in 2017, not achieved in 2018, achieved in 2019 and not achieved in 2020, but yet, it will still be difficult to determine if completing investigations within 90 days assisted the entity to fight fraud and corruption. This observation supports the research findings that the system can be easily manipulated and it is open to interpretation.

These echoes the research findings indicating that some of the KPAs and KPIs are not clear, and the manner in which some of them are measured does not assist the organization to achieve what needs to be achieved and some are open for interpretation. Thus, as one of the ATNS mandate is to effectively and efficiently manage the airspace on behalf of the state, with measures like this the entity would not be able to properly assess progress towards achieving its strategy and mandate.

In the quest to improve its business processes, reduce company-wide waste, lower overall costs, and setting company-wide direction, ATNS is expected to comply with the ISO: 9001 quality standard. The entity has been ISO: 9001 certified since 1998. Additionally, ATNS’ safety management system maturity is measured against the CANSO) Standard of Excellence yearly. This was reported in the 2020 annual report. The organization did not achieve it as the assessment was not conducted at the time of reporting due to the travel restrictions as a result of the covid-19 pandemic. Nonetheless, there were no safety non-compliance reported by SACAA attributable to the ATNS as per annual reports investigated. Consequently, it can be argued that, performance management systems at the ATNS to do not impact on its performance or agreed that linking it to the strategy and other business objectives could assist the organization streamline its operations.

From the findings on performance management system of ATNS, it was indicated that this system does is not effective and does not assist the entity with regard to performance management. Nonetheless it should be noted that from service provision point of view, the efficient running of the entity is not due to its performance management system. Even though it operates in a highly specialized environment with different stakeholders and safety as its core operation, the entity is still able to achieve its performance without an effective performance management system.

The research findings in this report pointed out that the performance management at the ATNS does not assist the organization to manage its performance. Different areas pertaining to the system were raised such as the development of the system, its structure, how the performance information is used and the way the system is implemented. It can therefore be conclusively concluded that performance management system is irrelevant to an organization like ATNS.

The Air Traffic and Navigation Services management can while developing their performance management system align it with a performance framework such as those developed by Ferreira and Otley referred to as performance management systems framework.

This framework is holistic and includes different related aspects such as; mission and vision, key success factors, organization structure, strategies and plans, key performance measures, target setting, performance evaluation, reward systems, systems and networks, performance management systems use, change and its strength and coherence. In the Air Traffic and Navigation Services context, this framework could assist the entity to improve its performance management system because of its extensiveness. The current system does not indicate the framework followed to develop it, thus a form of framework might guide and produce an effective performance management system.

Concluding remarks

The study moved from the premise that SOEs were created to contribute to the social needs of the nation while at the same time expected to operate commercially. This means that performance management becomes key to these entities in order to achieve their mandate as suggested by various scholars and demonstrated in different official reports, most of which are generated by these entities and audit bodies (Lin, 2007).

The purpose of this study was to analyse the performance management system currently used at ATNS and to draw a conclusion on the effectiveness of this system in the ATNS' fulfilment of its mandate.

In order to achieve the objectives of the study, a thorough review of related literatures was done to establish the theoretical background. Research about the various concepts on public sector organizations including SOEs, performance management and measurement systems was done. Qualitative research approach was used to achieve the research aim and objectives.

Based on critical observations from the analyses of the research data, the following results were reported:

It was observed from the research results that there are challenges affecting the successful design and implementation of performance management and measurement systems in the ATNS which include: PMS not been linked to the organizational strategy and objectives, manipulation of the system, lack of communication and training of employees and unclear performance measures.

It was further observed from literature on international examples of SOEs that those SOEs which has adopted the private sector managerial approaches rather than public sector approaches has been successful in the design and implementation of the performance management systems. This could be due to the fact that adoption of this approach meant that they focus on efficiency, pro-active management and skills development.

Future Research

The researcher realized the gap in the use of qualitative research method. It is therefore suggested that a future study using a different research method be undertaken. Furthermore, a larger sample and different population group can yield different results and be able to draw recommendations for management of the ATNS.

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APPENDIX A: INTERVIEW SCHEDULE

Name of the interviewee:____ **Date of interview:**____ **Place of the interview:**____
1. How comprehensive is the entity's performance management system?
2. Does the performance management system assist the organization achieve its goal?
3. Does the performance measurement system measure what it is supposed to?
4. Are the key performance areas and key performance indicators clear?
5. How can the system be improved?
6. What implementation plan and evaluation measures can be put in place to ensure the performance management system is sustainable?
7. What performance measures should be employed under turbulent economic conditions?
8. What other measures can be used by the entity to improve efficiency?
9. Are there any environmental and or organizational culture issues that impact on performance in the organization?