

Performance management at Air Force Base Ysterplaat

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Abstract

This paper presents the findings of an explorative study on the strategic performance management at AFB Ysterplaat. The overarching objective of this research endeavour was to elucidate the essential elements requisite for the Air Force Base Ysterplaat to implement an efficacious performance management framework. A triangulated mixed method approach was used to analyse data from four operational units at AFB Ysterplaat. Questionnaires and semi structured interviews were used to gather data from participants. The data collected from the interviews was used to corroborate the findings of the questionnaires. The triangulated mixed methods approach used, which included a pilot study, enabled the researcher to produce a comprehensive, credible and cross-validated conclusion. Findings of this study showed that although the management processes, vision, mission of AFB Ysterplaat were clear to the strategic, operational and tactical levels of management, there was limited knowledge of strategic performance management systems and tools. This research contributes to filling the knowledge gaps in literature at Air Force Bases regarding strategic performance management. The study concludes with implications and limitations of the study and recommendations for future research.

Keywords

Performance Management, Balanced Score Card

1. Introduction

Air Force Base (AFB) Ysterplaat, a component of the South African Air Force (SAAF) located in Cape Town, provides combat-ready air capabilities for the South African National Defence Force (SANDF) on behalf of the Department of Defence (DoD) (South African Defence Review, 2016). Regarding the SAAF's operations, AFB Ysterplaat furnishes deployable maritime and landward air capabilities in service of South Africa's military interests (Air Force Base Ysterplaat Business Plan, 2019/2020, 2019). Like many organisations, AFB Ysterplaat has grappled with the concept of Performance Management (PM) and its measurement over the years. Currently, the base employs a PM tool that solely evaluates the tactical level of performance, namely employees' personal performance. Crucially, AFB Ysterplaat lacks an approved PM tool or model to assess the other two levels of PM: strategic and operational performance. Significantly, Reddy (2023) underscores the importance of good performance management stating, performance is an essential component of measurement-based management systems within organisations.

The view of Murphy (2020) intersects with the context presented above, when he argues that effective PM is the key to address shortcomings in the performance of an organisation. Concomitantly, Armstrong (2014) suggests that the concept of PM forms part of an approach to create a shared vision of the purpose of the organisation. In this way, PM assists by enhancing the performance of the organisation, teams and the individuals, through understanding and managing performance within an agreed framework of planned goals, standards and competence requirements. Within this conception of PM, three levels of PM have been identified. On the first level, organisational structures and goals are referred to as the strategic level of PM. On the second level of PM, operational teams are referred to as the operational level of PM and on the third level of PM, individuals performing work in the organisation are referred to as the tactical level of PM. Murphy (2020) opines that if the three levels of PM are effectively linked to each other in any organisation, it can ensure that the organisation's activities are streamlined on every level, directed at achieving the overall strategic goals and objectives

Over the past 20 years, AFB Ysterplaat used iterations of a performance-based system to measure performance in the organisation with less than successful results. Significantly, there is no evidence to suggest that the strategic and operational level of PM were measured at AFB Ysterplaat during this time. Notably, various authors (Murphy 2020; Swartz, 2017; Armstrong, 2014) urge organisations to approach PM from an integrated perspective which considers the three levels of PM. Moreover, the authors caution that if PM is approached primarily from just the individual level of PM, the practice lends itself to being a simple performance appraisal for employees doing work in the organisation instead of a robust business tool. Against this backdrop, various performance-based systems that were previously used at AFB Ysterplaat will be briefly discussed next.

According to Oschman (2009), in 1998 an attempt was made by the top command structure of the SAAF to measure performance by implementing various tools to measure effectiveness and productivity on SAAF bases and units. One of the methods followed during the aforementioned attempt, was a formal self-assessment programme based on the European Foundation of Quality Management (EFQM) model. The programme was launched in 1999 by the Inspector General of the SAAF; however, it was replaced by the South African Excellence Foundation (SAEF) model 2001. From 2005 various other methods such as Project SAFER SAAF, ISO 9000:2000 and AS91000 were implemented. Oschman (2009) explained that the management of these systems proved to be labour intensive and time consuming, and as a result it became evident that a new approach to management was needed to measure performance. Currently there is no approved performance management system (PMS) or framework being used to measure the strategic and operational performance of AFB Ysterplaat, and this, in itself may be construed as a risk.

At present, AFB Ysterplaat only makes use of a Performance Management Development System (PMDS) as a tactical tool to mainly measure employee's personal performance. Another tactical management tool used at AFB Ysterplaat is the Readiness Index Management System (RIMS) to measure the base's readiness in support of operations for internal and external stakeholders. These management tools are currently only used for reporting data that is not translated into management information so that commanders can make strategic and operational decisions pertaining to their unit's performance and the impact that it has on their operations. Although there is not one approved system to measure the strategic, operational and tactical performance at AFB Ysterplaat, the above-mentioned performance-based tools are used in an endeavour to manage the base more effectively. Murphy (2020) suggests that the use of disparate tools is problematic for organisations as it gives a disjointed impression. This is believed to be the case at AFB Ysterplaat. With the above context in mind, this study aims to explore the reasons and rationale why the former performance-based tools and models were jettisoned by the SAAF and AFB Ysterplaat. Furthermore, the study aims to explore the requirements for, and the necessity for implementing a performance management system for AFB Ysterplaat in Cape Town. The motivation for this study is centred around investigating the need for a PMS at AFB Ysterplaat that would allow AFB Ysterplaat to focus their strategy and ensure that operations are directed towards the success of their organisational mission

1.1 Research Objective

The research objective of this study is to determine the elements required by AFB Ysterplaat in regard of performance management. Moreover, the study aims to investigate whether AFB Ysterplaat's current practice of evaluating only the tactical level of performance, namely employees' personal performance, could potentially hinder AFB Ysterplaat's ability to effectively provide deployable maritime and landward air capabilities in service of South Africa's military interests, thereby impacting the nation's security capabilities.

2. Literature Review

To accomplish the objectives of this study, a full understanding of the research problem is essential, therefore literature is presented on AFB Ysterplaat's strategy, followed by the process of strategy formulation and strategy implementation in relation to AFB Ysterplaat. Thereafter, the different levels of PM will be discussed in the section that follows.

2.1 Air Force Base Ysterplaat Strategy

Stangis and Smith (2017) assert that the term strategy is derived from the Greek word "strategos" which associated with the term "military leader". The origin of strategy was revealed in the leadership of ancient empires where a strategoi (person), was elected to lead military stadia and oversee territorial outposts of these ancient empires. Johnson et al. (2020) notes that strategy starts with the vision of an organisation. A strategy also includes an overarching, clearly communicated concept as to how the organisation will realise their objectives (Stangis and Smith, 2017).

Strategy is what an organisation does, or does not do, to satisfy their vision and mission. AFB Ysterplaat's vision and mission are explicitly stated in Figure 1 in relation to that of the SAAF.



Figure 1: AFB Ysterplaat Vision and Mission (Source: AFB Ysterplaat User Business Plan 19/20, 2019)

In this regard, an effective strategy can aid the base perform its function effectively. The primary function of AFB Ysterplaat is to ensure combat readiness to ultimately defend the sovereignty and territorial integrity of the Republic of South Africa.

2.2 Process of Strategy Formulation

Strategy implementation is the process that activates strategies and plans to accomplish strategic objectives and goals of an organisation. It is regarded by Heinzen, Loveridge and Marinho (2020) as the action phase which institutes an organisation's strategy. Krüger (2013) argues that the strategy formulation process entails analysing the strengths, weaknesses, opportunities and threats to determine the appropriate strategy for the organisation. Researchers such as Musandiwa (2019) and Heinzen, Loveridge and Marinho (2020) agree that the process of strategy formulation can be developed as a standalone concept. However, the outcome of developing the strategy formulation process as a standalone concept will limit an organisation's ability to achieve its goals and objectives as it only constitutes a singular stage of the strategy process. Moreover, Dayan, Heisig and Matos (2017) advance that the strategy formulation process at organisations is and should be a management responsibility.

Foregrounded by this, the strategy formulation process at AFB Ysterplaat is guided and directed by the Officer Commanding of the base and the Base Command Council, who are considered the strategic level of management of AFB Ysterplaat. Dayan, Heisig and Matos (2017) also noted that often during the process of strategy formulation, the competence, values and skill set of the individuals in the team are often not taken into consideration, despite the value doing so would add in the strategy implementation process. Thus, it is presupposed, that should AFB Ysterplaat only reach the strategy formulation stage of their strategy, there is no guarantee that AFB Ysterplaat's operations will be directed towards the success of their organisational mission. The process of strategy implementation will be discussed next.

2.3 Process of Strategy Implementation

Obeidat et al. (2017) highlight some common challenges associated with the process of strategy implementation, such as problems surfacing that were not initially anticipated, as well as underestimating the time required for the implementation of the strategy. Significantly, Musandiwa (2019) contends that other notable challenges to the strategy implementation process are the lack of a shared vision by the organisation and a lack of consensual understanding of how the strategy should be implemented. Essentially, the author recognises that the traditionally acknowledged challenges of unsupported organisational structure and lack of upper management commitment are not the main inhibiting factors to the effective strategy implementation process.

Instead, Musandiwa (2019) proposes that the major challenges to overcome in the strategy implementation process are more cultural and behavioural in nature, including the impact of poor communication and diminished feelings of commitment and ownership among staff and employees which are also present at an organisation like AFB Ysterplaat.

Consistent with the foregoing discussions on the strategy formulation and strategy implementation, Borrero, Acosta and Medina (2020) highlight the importance of an organisation having a strategy. They add that the process of strategy formulation is of minimal value if it is not implemented at the organisation.

of South Africa.

2.4 Link between Strategy Formulation and Implementation and Performance Management

Performance Management plays a significant role in successful strategy implementation by communicating and implementing an organisation's strategy and strategic goals (Musandiwa, 2019). Woyessa (2015) cites the lack of connection between the three concepts namely (1) process of strategy formulation, (2) the process of strategy implementation and (3) PM to be one of the main reasons for the failure of a PMS at an organisation. Woyessa's (2015) view implies that, for an organisation like AFB Ysterplaat's strategy to be successful, aligning strategy formulation and strategy implementation with PM must be a prerequisite to continue to provide deployable maritime and landward air capabilities to the SANDF. AFB Ysterplaat aligning strategy formulation and strategy implementation with PM, can aid the base in ensuring that their operations are directed towards the success of their organisational mission.

2.5 Levels of Performance Management

Armstrong (2014) asserts that PM is a systematic process for improving organisational performance by developing the performance of individuals and teams. Notably, Swartz (2017) advances that there are three levels of PM namely Strategic, Operational and Individual. For the purposes of this research, the DoD nomenclature will be used to refer to the different levels of PM, namely the acronym SOT is used. The SOT acronym refers to the Strategic (S of the Acronym), Operational (O of the acronym) and Tactical (T of the acronym) levels of PM. In the context of this paper, when the strategic level is discussed, S refers to the organisation (AFB Ysterplaat). When the operational level is discussed, it refers to operational units -referred to as O of the acronym, of AFB Ysterplaat and their support. Finally, when the tactical level is discussed, (T of the acronym), refers to the employees of AFB Ysterplaat. The three levels of PM will be discussed in the section that follows.

2.6 Strategic Level of Performance Management

The strategic level of PM is the uppermost level of PM. At this level, PM strategies are developed that are converted into strategies and thereafter these strategies are executed within an organisation Ramataboe (2015) and Swartz (2017), advance that the strategic level of PM is where strategic decisions are made pertaining to the allocation of resources (i.e., employees, equipment, assets and infrastructure) to ensure the success of the organisational mission.

Essentially, the strategic level of PM deals with the strategy, policy, design, structure and deployment of resources at AFB Ysterplaat when they are providing deployable maritime and landward air capabilities to the SANDF in service of our country. The operational level of performance management will be discussed next.

2.7 Operational Level of Performance Management

While the strategic level of PM provides direction for an organisation to achieve their mission and vision, the operational level of PM directly supports the strategic level of PM in deciding what needs to be done to achieve the short to medium term objectives of the organisation (Armstrong, 2014). Swartz (2017) argues that the operational level of PM is associated with the management of operations where the focus is more on the functional level. The functional level operates from the center of the three PM levels and refers to the middle management of an organisation. Significantly, at this level at AFB Ysterplaat, teams are realised, goals and objectives are formulated according to set performance standards. In addition, Ramataboe (2015) opines that the operational level of PM is the cement that holds the three levels of PM together.

In the context of AFB Ysterplaat, this level includes the middle management of AFB Ysterplaat, which are senior officers and warrant officers of the base that are responsible for the coordination and management of operational missions and projects. Similarly, the five operational units operate from this level. The operational level of AFB

Ysterplaat is where the identified missions and projects are planned, and more detail is formulated in relation to providing deployable maritime and landward air capabilities to the SANDF in service of our country. The next section will discuss the tactical level of performance management.

2.8 Tactical Level of Performance Management

The tactical level of PM at an organisation is where the plans that have been formulated at the operational level of PM are executed (Cassim, 2011). Moreover, McGregor and Doshi (2017) claim that at this level, annual objectives are monitored and measured to gauge how well the organisation is performing in terms of their strategy. The typical performance measures at the tactical level of PM are productivity and effectiveness of the individual or the team (Swartz, 2017). In the context of AFB Ysterplaat, the tactical level of PM is where the execution of the mission occurs at the operational units and the action plans that are carried out in relation to the employees that perform them.

Notably however, at AFB Ysterplaat, there is no PM framework to gauge how effective the operational unit is performing their role towards providing deployable maritime and landward air capabilities to the SANDF in service of our country. Consequently, performance is not quantitatively measured at a tactical level of PM. Thus, AFB Ysterplaat is unable to ensure that operations are directed towards the success of their organisational mission as their performance is not quantitatively measured at a tactical level of PM. Based on the discussions pertaining to the strategic, operational and tactical level of PM, it is evident that there is a need for a comprehensive PMS that allows AFB Ysterplaat to focus their strategy and ensure that operations are directed towards the success of their organisational mission.

3. Methods

To systematically evaluate the elements of PM at AFB Ysterplaat, neither a quantitative nor qualitative approach is sufficient when used in isolation of each other. Therefore, due to the nature of this study, a mixed methods approach that include the research characteristics typically associated with pragmatism was employed. Swartz (2019) adds that a pragmatic approach compliments mixed methods research in that the researcher can freely draw from both the qualitative and quantitative theories when he/she engages in their approach to solve the problem. A pilot study was used to ensure validity while a triangulated mixed method approach enabled the researcher to produce a comprehensive, credible and cross-validated conclusion.

The target population for this study consist of 400 participants. Non-probability convenience sampling was used as the data collection method for the study (Strydom, 2017). To overcome sampling bias, the sample is increased in accordance to guidelines advocated by (Neuman, 2010 and Strydom, 2017). The data for this study is concurrently collected and analysed separately and independently, using the techniques traditionally associated with both quantitative and qualitative research. The questionnaire was personally administered by the researcher at AFB Ysterplaat, as well as the interviews that was conducted. Both questionnaires and semi structured interviews were used to collect data from the participants in four distinct nominal subgroups (ranks) at AFB Ysterplaat namely, Senior and Junior Officers, Warrant Officers and Non-Commissioned Officers, that are all stationed at AFB Ysterplaat. The Senior Officers form part of the strategic level of management of the base, whereas the Warrant Officers form part of the operational level of management of the base. Finally, the Junior Officers and Non Commissioned Officers forms part of the tactical levels of management of AFB Ysterplaat.

During the quantitative phase, questionnaires were used to collect data (n=85) from the different nominal subgroups (ranks). Concurrently, during the qualitative component of this study a sample size of (n=2) is used to gather data from an Officer Commanding and a senior coordinator at the operational units of AFB Ysterplaat, who are considered knowledgeable regarding management approaches and performance management and systems. The qualitative data is used to enhance the quality of the quantitative evaluations by complimenting the design of questionnaire statements and clarifying and broadening quantitative evaluation findings (Bugari-Doherty, 2014). The purpose of these interviews is to corroborate the findings in the questionnaire, thereby imparting validity and reliability on the research design. Moreover, Cronbach's Alpha was another technique that was used to assure reliability (Takavol and Dennick, 2011) in the quantitative part of this paper. The results of the test revealed a reliability coefficient of 0.727, which is deemed acceptable (Takavol and Dennick, 2011). Ethical clearance for this research was granted through institutional channels. Table 1 below depicts the quantitative data plan to meet the research objective.

Table 1 Statistical methods to explore the performance management elements at AFB Ysterplaat

Name of statistical analysis	Purpose of statistical analysis	Specific study details
Cronbach Alpha	Cronbach's Alpha is used to measure the internal reliability of data (Gorrell, Ford, Madden and Eaglestone, 2010).	Cronbach's Alpha test ensures that each conceptual elements of elements is internally reliable.
Descriptive statistics per individual variable	Univariate analysis is the analysing of one variable of data and expresses the proportion of participants per choice provided on the Lickert scale (Mann and Lacke, 2010).	Univariate analysis per variable which evaluated the strategic performance management elements of PM and PMS at AFB Ysterplaat) was performed.
Inferential Statistics	Chi-square test for proportions indicates if there is a statistically significant difference between the proportions of participants who agree or disagree with a particular research variable (Field, 2012)	Chi-squared test will be used for research objective with its affiliated elements.

4. Data Collection

This study employed a concurrent mixed methods approach, collecting and analyzing quantitative and qualitative data separately. For the quantitative component, a sample of 85 participants from different ranks (Senior Officers, Junior Officers, Warrant Officers, and Non-Commissioned Officers) at AFB Ysterplaat completed hardcopy questionnaires over 10 working days. The quantitative data was analysed using SPSS v27.

Simultaneously, for the qualitative component, the data obtained from the two knowledgeable participants was thematically analyzed to identify patterns and recurring themes related to management approaches and performance management systems. Since data collection took place in 2020, COVID-19 protocols were followed. Participant consent was obtained before data was collected. Accurate data collection was critical to maintain study integrity, as per Strydom (2017).

5. Results and Discussion

This section presents the results of data analysis and discusses the findings of this study. The results that are derived from the quantitative data analysis will be presented first and thereafter the qualitative results from the interviews. Qualitative results will be used to corroborate the quantitative findings during the process of triangulation. The proportion of participants in their different ranks that completed the questionnaire is displayed below in Figure 2.

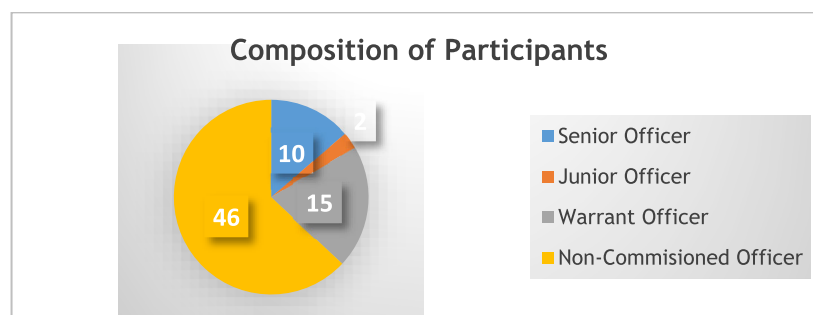


Figure 2: Composition of Participant Ranking

The review of literature (Murphy, 2020; Heinzen, Loveridge & Marinho 2020; Musandiwa, 2019; Swartz, 2017; Armstrong, 2014) highlighted seven elements that are important to PM at AFB Ysterplaat. Thus, the research instruments of this study were designed to explore these seven elements as listed below.

- Management processes at AFB Ysterplaat clear Management processes;

- Vision, mission, values, objectives and strategy of AFB Ysterplaat;
- Vision, mission, values, objectives and strategy of AFB Ysterplaat at prominent places in and around the base;
- Effectiveness of how performance was measured previously;
- Familiarity with the Balanced Scorecard tool;
- Individual performance measured at AFB Ysterplaat;
- Regular performance appraisals conducted at AFB Ysterplaat.

5.1 Management processes at Air Force Base Ysterplaat

The management processes at AFB Ysterplaat refers to the higher-level processes such as command and control, aviation safety, communication, reporting, human resource, asset and facility management and financial management. Analysis of quantitative responses soliciting research participants' perceptions on management processes returned that 73.6% agreed that management processes were clear. Only 9.7% indicated that management processes were not clear and 16.7% were undecided.

Further analysis was undertaken to determine if there was any significant difference in the opinions on the clarity of management processes at AFB Ysterplaat when comparing the responses from the different ranks. A chi-square test of independence revealed that statistically, there is an association between these elements, $\chi^2 (6, N=72) = 45.214$, $p = 0.00001$). In addition, there is no difference in their opinion regardless of the rank.

Analysis of the qualitative findings, is succinctly summarised by Participant 2 who stated “...*I would say that the management processes are clear, and this makes the base function effectively*”. The responses from both qualitative participants suggest that the management processes at AFB Ysterplaat are clear.

Thus in summary, from the analysis of quantitative and qualitative data on the element of ‘management processes at AFB Ysterplaat, responses from participants representing the strategic, operational and tactical levels indicated that the management processes are clear, therefore it can be concluded that the management processes at AFB Ysterplaat are clear.

5.2 Vision, Mission, Values, Objectives and Strategy of Air Force Base Ysterplaat

The vision, mission, values, objectives and strategy of AFB Ysterplaat is reflected by how well the above-mentioned is formulated, documented and the participants' perception of how clear it is. The quantitative analysis of the responses regarding the clarity of the vision, mission, values, objectives and strategy of AFB Ysterplaat that a resounding 91,7% participants agreed that the vision, mission, values, objectives and strategy is clear. Only 5,6% and 2.8% of participants respectively were either not in agreement or unsure that the vision, mission, values, objectives and strategy were clear.

Further analysis was undertaken to determine if there was any significant difference in the opinions between the clarity of the vision, mission, values, objectives and strategy of AFB Ysterplaat when comparing the responses from the different ranks. A chi-square test of independence revealed that there is an association between these elements, $\chi^2 (6, N=72) = 134.000$, $p = 0.00001$). For this reason, there is no difference in their opinion regardless of the rank.

The responses from both qualitative participants suggest that the vision, mission, values, objectives and strategy of AFB Ysterplaat are clear. Ultimately the findings of the analysis of the qualitative data is illustrated by Participant 1 who stated that “...*Yes, I think the vision, mission, values, objectives and strategy of AFB Ysterplaat is clear*”.

Therefore, it was noted that the analysis of quantitative and qualitative data on the element of the vision, mission, values, objectives and strategy of AFB Ysterplaat responses from the strategic, operational and tactical levels yielded the same results. Thus, this study concludes that the vision, mission, values, objectives and strategy of AFB Ysterplaat is clear.

5.3 Vision, Mission, Values, Objectives and Strategy of Air Force Base Ysterplaat at prominent places in and around the base

Research progressed with the analysis of how well the vision, mission, values, objectives and strategy of AFB Ysterplaat is communicated by way of publicising it around the base for all employees to see, interpret and experience. This study found that the strategic direction is communicated effectively and is understood by the employees.

With reference to quantitative analysis of the responses regarding the clarity of the vision, mission, values, objectives and strategy of AFB Ysterplaat, the majority (81,7%) of the participants agreed that the vision, mission, values, objectives and strategy is visible. Less participants were either not in agreement or unsure (11.3% and 7.0% of participants respectively), that the vision, mission, values, objectives and strategy were visible at prominent places in and around the base.

Further analysis was undertaken to determine if there was any significant difference between the visibility of the vision, mission, values, objectives and strategy of AFB Ysterplaat when compared to responses from the different ranks. A chi-square test of independence revealed that there is no difference in opinion regardless of the rank of the participants. Thus, there is an association between these elements, $\chi^2 (6, N=71) = 83.741, p = 0.00001$.

The qualitative responses from both participants suggest that the vision, mission, values, objectives and strategy of AFB Ysterplaat is visible at prominent places in and around the base, as illustrated by Participant 2 who categorically stated that “...Yes, definitely, if you enter the base, there is a huge board displaying the vision, mission values of the base. There are other places like at the units where it is also displayed”.

Thus in summary, from the analysis of quantitative and qualitative data on the element of the visibility of the vision, mission, values, objectives and strategy of AFB Ysterplaat from the strategic, operational and tactical level perspectives, it can be deduced that the is visible at prominent places in and around the base.

5.4 Effectiveness of previous Performance Measurement methods

In terms of the way performance was previously measured (i.e., EFQM, SAEF) at AFB Ysterplaat, analysis of quantitative responses revealed that 41,1% of participants agreed that the way in which performance was previously measured was effective, while 39.7% and 19.2% respectively were either unsure or in disagreement regarding the how effective the way performance was previously measured at AFB Ysterplaat.

Further analysis was undertaken to determine if there was any significant difference between the way in which performance was previously measured compared to the responses from the different ranks. A chi-square test of independence revealed that there is no association between these elements irrespective of the opinions of the different ranks, $\chi^2 (6, N=73) = 4.894, p = 0.087$.

An analysis of the qualitative data confirmed the quantitative findings as Participant 2 stated “... I wasn't really exposed to all the TQM, SAEF and EFQM that the base was using”. The responses from both the qualitative research participants suggest the way performance was previously measured at AFB Ysterplaat was ineffective.

Therefore, triangulating the findings of quantitative and qualitative analysis of data obtained from the strategic, operational and tactical levels of management, focused on the way performance was previously measured, this study deduced that the previous performance measurement models and tools were not effective.

5.5 Familiarity with the Balanced Scorecard Tool

The balanced scorecard is a strategic performance management tool used to measure organisational performance (Ndevu, and Muller, 2018). The question interrogated the familiarity of the participants regarding strategic performance management tools available.

Analysis of quantitative responses revealed that 36,1% of participants were familiar with Balanced Scorecard tool, while 26.4% and 37.5% respectively were either unsure or not familiar with the Balanced Scorecard tool.

Further analysis was undertaken to determine if there was any significant difference between the familiarity of the Balanced Scorecard compared to the responses from the different ranks. A chi-square test of independence revealed that there is no association between these elements and that the participants had limited knowledge of quality tools, $\chi^2 (6, N=72) = 2.786, p=0.248$.

The qualitative analysis data confirmed quantitative findings succinctly illustrated by Participant 2 who stated “...How exactly it works, I'm not really sure “. The responses of both qualitative participants suggest that the participant knowledge of the Balanced Scorecard is limited.

The quantitative and qualitative data on the familiarity of the Balanced Scorecard and the responses from the strategic, operational and tactical levels concludes that there is a limited knowledge regarding quality and performance tools.

5.6 Individual performance measured at Air Force Base Ysterplaat

Quantitative analysis of participant responses on perceptions of individual's performance being measured by means of the Performance Management Development System (PMDS) showed that 60,6% of participants were in agreement that their performance is currently measured at AFB Ysterplaat, while 30,3% and 9,1% respectively were either unsure or disagreed that their performance is currently measured at AFB Ysterplaat.

Further analysis was undertaken to determine if there was any significant difference between the individual's performance measurement compared to the responses from the different ranks. A chi-square test of independence revealed that there is an association between these elements regardless of the opinions of the different ranks, $\chi^2 (6, N=66) = 32.909, p = 0.00001$.

Analysis of the qualitative data confirmed the quantitative findings as showcased by Participant 2 who stated that "...Yes, we make use of the PMDS". The responses from both qualitative participants suggest that the employees' performance is measured by means of the PMDS.

Therefore, from the analysis of quantitative and qualitative data that employee's performance is measured at AFB Ysterplaat and the responses from the strategic, operational and tactical levels, it can be deduced that the employee's performance is measured at AFB Ysterplaat by means of the PMDS.

5.7 Regular Performance Appraisals conducted at Air Force Base Ysterplaat

Finally, quantitative analysis of the responses to the question posed on the frequency of performance appraisals at AFB Ysterplaat showed that 55,6% of participants were in agreement that regular performance appraisal are conducted at AFB Ysterplaat, while 30,6% and 13,9% respectively were either unsure or disagreed that regular performance appraisal is conducted at AFB Ysterplaat

Further analysis was undertaken to determine if there was any significant difference between the responses obtained from the different ranks with regard to the frequency of performance appraisals conducted at AFB Ysterplaat. A chi-square test of independence revealed that regardless of the opinion of the different ranks there is an association between these elements, $\chi^2 (6, N=72) = 25.470, p = 0.00001$.

Analysis of the qualitative data confirmed the quantitative findings and is illustrated by Participant 1 who stated that "...performance appraisals are conducted bi-annually". The responses from both qualitative participants suggest that performance appraisal are conducted at AFB Ysterplaat.

In summation, the triangulation of findings derived from the analysis of quantitative and qualitative data obtained from the strategic, operational and tactical levels on the element of regular performance appraisals being conducted at AFB Ysterplaat allowed this research study to confirm that regular performance appraisals are being conducted at AFB Ysterplaat.

6. Discussion

The significant finding drawn from the data analysis is that the management processes and the strategy at AFB Ysterplaat is clear and visible to employees. However, the manner in which performance was previously measured was ineffective, and the current performance-based system that is being used primarily report data pertaining to employee performance and the readiness status of AFB Ysterplaat on a tactical level. Moreover, the knowledge of alternative available performance tools was limited amongst the different rank groups. Another significant finding derived from the triangulation of data is in the context of AFB Ysterplaat, measurement of the PMDS previously was considered a last-minute compliance exercise.

These findings relate directly to the overarching research objective of determining the essential elements required for an effective performance management framework at AFB Ysterplaat. Specifically, the study investigated whether

AFB Ysterplaat's current practice of solely evaluating tactical employee performance could hinder its ability to provide deployable air capabilities for South Africa's military interests and national security.

Analysis of data on the elements of PM as presented above also highlighted that it is important to have a strategy that is effectively implemented at all levels of an organisation. For the strategy to be realised, the process of strategy formulation and strategy implementation are key. Formulating an organisation's strategy is a challenging task for any management team. However, implementing the organisation's strategy is even more difficult than formulating the strategy. While both the process of strategy formulation and strategy implementation could be dealt with separately, a recommendation based on the results of this research study is that strategy formulation and strategy implementation should be aligned and integrated into the organisation's strategy. Thus, this implies that an organisation like AFB Ysterplaat's efforts might be in vain if they only reach the strategy formulation stage and not the strategy implementation stage, as strategy implementation is the gateway to superior organisational performance.

7. Conclusion

Although AFB Ysterplaat has a strategy, this research found that the organisation needs a vehicle to drive the strategy. Thus, the use of PMS is recommended as it will aid in communicating and implementing an organisation's strategy and strategic goals. In addition, PM places emphasis on the process of strategy implementation and that the execution of the strategy becomes everyone's main priority. For this reason, it is accepted that for an organisation like AFB Ysterplaat's strategy to be successful, PM should be used as a tool to ensure that sufficient focus is placed on formulation and implementation to continue to provide deployable maritime and landward air capabilities to the SANDEF. By AFB Ysterplaat ensuring that PM adequately drives both the process of strategy formulation and implementation, the organisational mission can be accomplished.

The overarching conclusion is that a PM is a viable option for AFB Ysterplaat to measure their strategic, operational and tactical performance. In addition, if AFB Ysterplaat decides to implement PM, the process should be considered as an opportunity for learning and growth and not a once-off event. The impact of this study contributes to the development and implementation of a framework for PM at AFB Ysterplaat. Consequently, it can lead to future research into the subject of PM and spur on the SAAF's top command structure to implement a PMS at all the bases around the country.

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Biographies

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