THE DEVELOPMENT OF A PERFORMANCE MANAGEMENT SYSTEM AS A PREDICTOR OF EFFECTIVE IMPLEMENTATION IN A SPORT AND RECREATION DEPARTMENT

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-Abstract-

Performance management systems are widely used in private and public entities. Research is replete with empirical evidence, which corroborates that successful organisations are those that use PMS effectively. Although the effective use of PMS has attracted an enormous amount of attention, scant research on the critical role a properly developed PMS plays in the make or break of a PMS in the domain of local government is discernible. Such research is even scarcer in the context of South Africa. The current study aims at determining the pivotal role the development of a PMS plays in its effective implementation in the Sport and Recreation Department in Gauteng.

A survey was used through which structured questionnaires were distributed. Of the 150 questionnaires distributed, 136 were completed and returned, resulting in a satisfactory response rate. The reliability of the research instrument was tested using the Cronbach alpha coefficient. Exploratory factor analysis was invoked on the questionnaire items in the use stage of the questionnaire, which resulted in the extraction of five behavioural factors. Descriptive statistics were computed to determine the means and standard deviations of these factors. Correlation analysis was performed to establish the relationship between the development of a PMS and the five factors extracted. Additionally, regression analysis was utilised to establish the extent of the predictive association between the development of a PMS and the five identified behavioural factors.

The findings highlighted the existence of a significant positive relationship between the development of a PMS and behavioural factors. Furthermore, there was a prevalence of a predictive association between the development of a PMS and the behavioural factors.
Based on the findings, it could be safely recommended that managers should develop relevant key performance indicators (KPIs) to ensure the realisation of performance measurement and improvement.

**Keywords:** key performance indicators, critical success factors, performance measurement, performance management, balanced scorecard

**JEL:** M12

1. **Introduction**

Organisations develop and implement performance management systems (PMSs) for a variety of reasons including the need to improve the quality of the products and services they render, reward employees appropriately, retention of critical employees and the fervent need for competitiveness (Black & Marshall-Lee, 2011). PMS is considered to have structural and behavioural factors. The structural factors include the development of critical success factors (CSFs) and key performance indicators (KPIs), whereas behavioural factors describe those factors that have to do with the use or implementation of a PMS (De Waal & Gerritsen-Medema, 2006).

In the development and implementation of a PMS, structural factors seem to have taken centre stage, thus ignoring the critical role that behavioural factors play. In so doing, sight is lost of contextual factors or behavioural factors (Halachmi, 2011). Elzinga, Albronda and Kluijtamans (2009) argue that the “greenfield approach” and not a “contextual approach” is merely mechanistic as it chops and bundles structural components of a PMS without due consideration to employees who are supposed to implement it. Clearly, this approach undermines the role of behavioural factors in the realisation of effective PMS. To the contrary, abundant research points to the direction that behavioural factors have a positive impact on the implementation of a PMS (Amaratunga & Baldry, 2002; Brumback, 2003). In light of this, the current study examines the relationship between the development of CSFs and KPIs and the behavioural factors of implementation of a PMS in the Sport and Recreation Department of the Emfuleni Local Municipality.

2. **The concept of performance management**

Tsang (2007) contends that performance management embraces various processes such as planning, reviewing, rewarding and developing performance. Brudan (2010) amplifies that the processes above are geared towards setting both individual and team goals, the achievement of which should be incessantly
monitored and rewarded. In a related observation, Verbeeten (2008) adds that the strategies for the attainment of pre-set goals should be chosen carefully if organisations are to reap the benefits from the implementation of a PMS. Shane (2010:6) argues that if the aforementioned aspects are thoroughly considered, individual and team performances are likely to improve.

In essence, performance management involves the measurement of individual and team performance, which should be rewarded, if considered satisfactory and developed, should performance fall below the predetermined performance standard (Hellqvist, 2011). Bahri, St-Pierre and Sakka (2011) opine that the failure to include these processes in the execution of a PMS will render it incomplete, therefore, ineffective. These authors further assert that by reviewing, rewarding and developing individual and team performance, a positive change in organisational culture, systems and internal business processes will be affected. Goedegebuure, Deradts and De Waal (2011) advance this argument to proffer that performance management should be an ongoing process aimed “to improve the very satisfactory performance”.

The structural paradigm of a PMS

Previously, it has been alluded to that a well-considered PMS should fundamentally comprise of a structural dimension and a behavioural dimension. The structural dimension of a PMS refers to the requisite salient features for the effective development of a PMS, which include the development of CSFs and KPIs. In this section, both of these essential features are discussed. Critical success factors are considered to be those components that are required to make a PMS successful in the environment in which it is implemented, which could include, for example, client satisfaction (Angelopoulos, Kitsios & Papadopoulos, 2010). Shane (2010) adds that these components are the attributes or characteristics that should be measurable as outputs.

Alexandrova and Ivanova (2013) contend that CSFs usually consist of two categories, namely strategic and tactical. The strategic CSFs encompass the vision, mission and top management support, whereas the tactical CSFs include factors such as client consulting, human resource development, recruitment and selection. Notwithstanding any categories of CSFs, it is widely accepted that CSFs should be integrated into PMS to make it successful. Moreover, the success of performance management is dependent on the relationship between the CSFs and the KPIs (De Waal & Counet, 2009). Anderson, Henrksen and Aarseth (2006) further advise that any changes in circumstances should be reflected in the
relevant CSFs and KPIs because the relevant CSFs and KPIs facilitate the monitoring and assessment of the organisation’s strategy and employee performance.

McEwen, Shoesmith and Allen (2010:587) define KPIs as “qualitative or quantitative measurements that demonstrate meaningful steps are being taken towards the stated goal”. In their seminal study, Flapper, Fortuin and Stoop (1996) advance that the relations between KPIs should be checked or clarified if they are to serve their meaningful role or assume their importance in the development of a PMS. The authors purport that the relations between KPIs are of two types, namely relations between the KPIs used within the context of one function (internal relationship) and relations between the sets of KPIs defined for different functions (external function).

Manville (2007) contends that adequately formulated KPIs are those that take account of stakeholder requirements. Authorities in this subject, De Waal and Coevert (2007), submit that consultation with critical stakeholders is imperative in the development of KPIs and sternly argue that KPIs should be selected and agreed upon with both internal and external stakeholders.

In the development of KPIs, proper consideration should be accorded to the type of KPI relevant for each performance dimension (Greiling, 2006). Fryer, Antony and Ogden (2009) differentiate between two categories of KPIs, namely lagging indicators and leading indicators. The former indicators report results after the event, whereas the latter indicators are used primarily to predict a future event. Renowned scholars on the subject of PMS are of the firm view that leading indicators, rather than lagging indicators, should be used because they have the potential to predict the future as opposed to lagging indicators, which tend to fail in the analysis of performance data in a predictive and dynamic way (De Waal & Counet, 2009).

De Waal and Counet (2009) caution that a thorough final analysis of the performance situation should be made in order to select the relevant and appropriate KPIs, which should be appropriately designed and clearly defined. These authors further advise that the number of KPIs should be limited to between seven and nine, as research has shown that too many KPIs have undesirable adverse effects on performance quality.
The behavioural paradigm of a PMS

The behavioural factors requisite for the effective implementation of a PMS refer to the behaviours of role players in the execution of a PMS and the culture change that creates an enabling environment (Walker, 2008). According to this author, if organisations take full cognisance of the behavioural factors in the implementation of a PMS, they are dubbed to be performance management orientated, and the phenomenon is referred to as performance management orientation. The view that behavioural factors are important factors for implementing a PMS is supported by various authors (De Waal & Coevert, 2007; De Waal & Counet, 2009) who argue that much attention has been on the mechanics of a PMS and the results of the implementation of PMS than on the behavioural factors required for its effective implementation. The various behavioural factors have been categorised into five areas, namely the manager’s understanding, the manager’s attitude, PMS alignment, PMS focus and organisational culture (De Waal, 2007). In the subsequent study by Elzinga, Albronda and Kluijtmans (2009), the categorisation was confirmed.

Towards a performance management analysis

Any successful or effective PMS has to have an equal emphasis on the structural and behavioural factors (Natale, Libertella & Rothschild, 1995; Ingram & McDonnell 1996). Arora (2002) corroborates that an effective PMS or a performance-driven organisation is directly contingent on the synthesis of the structural and behavioural dimensions. The balancing act of these structural dimensions and the performance-driven behaviour is referred to in the seminal study of Ingram and McDonnel (1996) as performance management analysis. The tendency among organisations is to emphasise the structural factors whenever PMS is developed and implemented without due consideration of the salient behavioural factors underpinning the implementation. In this paper, the approach adopted is one of performance management analysis.

3. The conceptual framework and research hypotheses

3.1 The conceptual framework

In light of the reviewed literature, the conceptual framework depicted in Figure 1 was configured. The model proposes a relationship between the CSFSs and KPIs during the development of a PMS and the behavioural factors (PMS alignment – PMA; management support – MS; management understanding and involvement –
MUI; organisational culture – OC; performance improvement attitude – PIA) at an implementation stage of a PMS.

3.2 Research hypotheses

In view of the conceptual framework, the following hypotheses were postulated.

**H1**: There is a significant positive relationship between CSFs/KPIs during the development of a PMS and PMS alignment at an implementation stage of a PMS.

**H2**: There is a significant positive relationship between CSFs/KPIs during the development of a PMS and management support at an implementation stage of a PMS.

**H3**: There is a significant positive relationship between CSFs/KPIs during the development of a PMS and management understanding and involvement at an implementation stage of a PMS.

**H4**: There is a significant positive relationship between CSFs/KPIs during the development of a PMS and organisational culture at an implementation stage of a PMS.

**H5**: There is a significant positive relationship between CSFs/KPIs during the development of a PMS and performance improvement attitude at an implementation stage of a PMS.
4. Research methodology

4.1 Research instrument

A quantitative survey design was utilised to elicit responses on whether the development of a PMS appropriately reflected the relevant CSFs and KPIs and whether the requisite behavioural factors were enacted during the implementation of a PMS. To this end, a structured questionnaire was utilised in three sections. As with all studies, Section A garnered biographical information about the sample on gender, job level in the Sports and Recreation Department, number of years in service in the department and number of years in the current position in the department. Section B of the questionnaire pertained to the inclusion of CSFs and KPIs during the development phase of a PMS. Section C included items relating to the behavioural factors. The questionnaire was adopted from De Waal and Counet (2009). The five-point Likert scale questionnaire was used, anchored on a scale of 1 to 5 with 1 representing strongly disagree and 5 strongly agree.
4.2 Sampling and sample size

The research was conducted in the Sports and Recreation Department of the Emfuleni Local Municipality. This municipality is located in the Gauteng Province of South Africa. Structured questionnaires were distributed, using the non-probability convenience sampling method, to 150 sports personnel. Only those personnel who were present during the various sporting events filled out the questionnaire, and the researcher explained the meaning of the questionnaire items for the members of the department who required further explanation or clarification. Of the questionnaires distributed, only 136 were completed and returned, translating into a 90 percent response rate.

4.3 Statistical analysis

Exploratory factor analysis (EVA) was performed to extract salient behavioural factors essential for the effective implementation of a PMS. Prior to this, the Kaiser-Meyer-Olkin test and Bartlett’s test of sphericity were invoked to determine if the data set was indeed appropriate for the factor analysis. The values resulting from these tests (.818; $df=276$ at the significance of 0.000) indicated the suitability of the data set for the conducting of factor analysis.

Descriptive statistics were used to analyse the biographical information. Correlation analysis was utilised to measure the extent of the relationship between CSFs/KPIs and the behavioural factors. Regression analysis was also conducted to determine the predictive relationship between CSFs/KPIs and behavioural factors.

4.4 Reliability and validity

The internal consistency of the research instrument on PMS was measured using the Cronbach alpha coefficient. The reliability values of the various factors of this instrument are captured in Table 1. The alpha values are reflected as follows: PMS alignment (PMA) = .873; management support (MS) = .870; management understanding and involvement (MUI) = .857; organisational culture (OC) = .722; and performance improvement attitude (PIA) = .667; CSFs and KPIs = .872. Clearly, these alpha values confirm that the research instrument was reliable.

Various validity tests were conducted to measure the validity of the research instrument, which included content validity, convergent validity, discriminant validity and predictive validity. For content validity, five academics who are experts in the field and an industry expert confirmed the accuracy of the questionnaire items. Convergent validity was tested by correlational analysis,
which illustrated positive correlations between variables. The predictive validity was measured by means of regression analysis, which showed relationships to be significant at <0.01. Exploratory factor analysis attested for the discriminant validity of all factors or variables.

5. RESULTS AND FINDINGS

5.1 Biographical information

Male respondents constituted 77.2% (n=105) of the target population; whereas, the female counterpart comprised 22.8% (n=31). The majority of respondents were ordinary employees (68%; n=93), and the other job level categories were supervisors – 20% (n=27) managers – 12% (n=16). The composition of the sample in respect of the number of years respondents worked for the department was as follows: <1 year – 21% (n=28); 2-5 years – 27% (n=37), 6-10 years – 32% (n=44); >10 years – 20% (n=27). In addition, many of the respondents (32%; n=44) had between 2-5 years in the current position. The representation of the remaining sampled respondents pertaining to years of service in the current position was as follows: <1 years – 24% (n=32); 6-10 years – 24% (n=32); >10 years – 20% (n=28).

5.2 Correlations and regressions

It could be observed in Table 1 that strong correlations existed between CSFs/KPIs and PMS alignment (r=.764; p<0.01); CSFs/KPIs and management support (r=.616; p<0.01); CSFs/KPIs and management understanding and involvement (r=.710; p<0.01); CSFs/KPIs and organisational culture (r=.567; p<0.01); CSFs/KPIs and performance improvement attitude (r=.514; p<0.01).

<table>
<thead>
<tr>
<th>Table 1: Correlations, means, standard deviations and alpha values</th>
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<tbody>
<tr>
<td>CSFS/KPIs</td>
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<tr>
<td>-----------</td>
</tr>
<tr>
<td>PMA</td>
</tr>
<tr>
<td>MS</td>
</tr>
<tr>
<td>MIU</td>
</tr>
<tr>
<td>OC</td>
</tr>
<tr>
<td>PIA</td>
</tr>
<tr>
<td>CSFs</td>
</tr>
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**Significant at the level of 0.01 (2-tailed)
Table 2: Regression analysis data

<table>
<thead>
<tr>
<th>Model: 1 PMS alignment (DV)</th>
<th>Unstandardised Coefficients</th>
<th>Standardised Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>1.033</td>
<td>.128</td>
</tr>
<tr>
<td>CSFs &amp; KPIs (IV)</td>
<td>.614</td>
<td>.062</td>
</tr>
</tbody>
</table>

R = 0.631; R² = 0.398; Adjusted R² = 0.394; F change = 97.824. * significant at p<0.05

<table>
<thead>
<tr>
<th>Model 2: Management support (DV)</th>
<th>Unstandardised Coefficients</th>
<th>Standardised Coefficients</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>2 (Constant)</td>
<td>1.421</td>
<td>.209</td>
</tr>
<tr>
<td>CSFs &amp; KPIs (IV)</td>
<td>.601</td>
<td>.060</td>
</tr>
</tbody>
</table>

R = 0.616; R² = 0.380; Adjusted R² = 0.375; F change = 82.064. * significant at p<0.05

<table>
<thead>
<tr>
<th>Model 3: Management understanding and involvement (DV)</th>
<th>Unstandardised Coefficients</th>
<th>Standardised Coefficients</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>3 (Constant)</td>
<td>1.035</td>
<td>.155</td>
</tr>
<tr>
<td>CSFs &amp; KPIs (IV)</td>
<td>.068</td>
<td>.068</td>
</tr>
</tbody>
</table>

R = 0.710; R² = 0.505; Adjusted R² = 0.501; F change = 136.561. * significant at p<0.05

<table>
<thead>
<tr>
<th>Model 4: Organisational culture (DV)</th>
<th>Unstandardised Coefficients</th>
<th>Standardised Coefficients</th>
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<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>4 (Constant)</td>
<td>1.271</td>
<td>.163</td>
</tr>
<tr>
<td>CSFs &amp; KPIs (IV)</td>
<td>.614</td>
<td>.062</td>
</tr>
</tbody>
</table>

R = 0.567; R² = 0.321; Adjusted R² = 0.316; F change = 63.422. * significant at p<0.05

<table>
<thead>
<tr>
<th>Model 5: Performance improvement attitude (Dependent variable)</th>
<th>Unstandardised Coefficients</th>
<th>Standardised Coefficients</th>
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<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>5 (Constant)</td>
<td>1.103</td>
<td>.158</td>
</tr>
<tr>
<td>CSFs &amp; KPIs (Independent variable)</td>
<td>.601</td>
<td>.060</td>
</tr>
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R = 0.514; R² = 0.265; Adjusted R² = 0.258; F change = 48.191. * significant at p<0.05

Table 2 illustrates the prevalence of predictive relationship between CSFs/KPIs and PMS alignment (β=.764; p<0.01); CSFs/KPIs and management support (β=.616; p<0.01); CSFs/KPIs and management understanding and involvement...
The results of the correlation and regression analyses led to the acceptance of the hypotheses posited in the study. The first hypothesis surmised that there was a significant positive relationship between CSFs/KPIs and PMS alignment. By implication, including CSFs and KPIs in the PMS during its development ensures that PMS is aligned with improving performance, thereby ensuring that the department delivers its mandate to its intended clients. This view is supported by Kihn’s (2010) observation that CSFs and KPIs have to be related to one another and, above all, with the organisation’s objectives. Walker (2008) accentuates that quality performance data obtained using CSFs and KPIs could be invaluable as a basis for performance improvement.

Secondly, the hypothesis that supposed the existence of a significant positive relationship between CSFs/KPIs and management support was accepted, thus suggesting that a PMS that is based on relevant CSFs and KPIs has a high probability of being supported by management. The previous study argued in favour of management support for the development of a PMS to ensure the integration of the relevant CSFs and KPIs in the PMS (Lawrie, Cobbold & Marshall, 2004). These authors contend that employees’ attitude towards prospects of success of a PMS hinges on the level of support managers extend to the performance management efforts.

The third postulated hypothesis of the significant positive relationship between CSFs/KPIs and management understanding and involvement was also accepted. The infusion of CSFs/KPIs into a PMS during its development creates an understanding of the purpose of a PMS and its intended results (De Waal, 2007). The fact that they are involved in the development of a PMS ensures an even better understanding of a PMS and how it should operate. Employees’ involvement in the development of a PMS could ascertain that the relevant CSFs and KPIs are made integral constituents of a PMS (Sole, 2009).
The hypothesis that suggested the relationship between CSFs/KPIs and organisational culture was equally accepted. It could be alluded to, from the finding, that the formulation of CSFs and KPIs promotes a culture of discussion and negotiation, as critical stakeholders have to deliberate as to which of the CSFs and KPIs are imperative. This decision on the relative importance of the CSFs and KPIs is contingent on a cogent analysis of the needs of clients (Mol & Beerens, 2005). The culture of open communication allows for trade-offs between related CSFs and KPIs. Continued engagement about these issues further deepens employees’ understanding of the development of a PMS and how it should be implemented. In turn, employees are encouraged to get more involved in the development and implementation of a PMS (Radnor & McGuire, 2004). The spinoff of open engagement, the authors argue, is the development of a trust relationship between employees and management and the trust that performance management efforts will bear fruit.

Lastly, the significant positive relationship between CSF/KPIs and performance improvement attitude has been attested to and the hypothesis is accepted. Implicitly, the identification of the relevant CSFs and KPIs tends to infuse an attitude geared towards improving performance. In this regard, Hunter (2010) emphasises the CSFs and KPIs that are identified well in advance turn out to be potent measures through which employees’ performance is measured. Clear CSFs and KPIs are the cornerstones for directing the performance of employees. Knowledge of CSFs and KPIs changes the attitude of employees to a PMS, who without any shadow of a doubt, will be performance orientated (Holloway, 2009).

6. Limitations and future research opportunities

The use of the non-probability sampling method nullifies any attempts of generalising the findings to the entire target population. The small sample (n=136) yields results that could have been somewhat different had a larger sample been used. It is also possible that some of the sampled respondents may not have understood some of the intricate items of a PMS. Besides, the voluntary personal responses might have been marred with bias.

Comparative studies across municipalities with sports and recreation departments could be conducted. Similar studies could be replicated among universities where PMS is in place. A longitudinal approach is also an option in order to identify performance trends in any demarcated area of study.
7. Conclusion and recommendations

It emerged from the study that if PMS has to be effectively implemented, it should be aligned with the CSFs and KPIs. The realisation of effective implementation of PMS further requires that management supports performance management efforts. Any effective implementation of a PMS is dependent on the understanding and involvement of employees. Furthermore, the identification of CSFs and KPIs is the bedrock of performance-driven behaviour. By and large, adopting a systems approach to a PMS blends the structural and the behavioural dimensions, which is a prerequisite for the effective implementation of a PMS. A systems approach integrates all components of a PMS and ensures that they are related to one another.

It is pivotal that employees in a Sports and Recreation Department be trained on the importance of CSFs and KPIs of a PMS. The training should extend to include the formulation of relevant CSFs and KPIs. Workshops on the essential behaviours for the effective implementation of a PMS are an absolute necessity. Only when employees are knowledgeable about the aspects of a PMS will they find the courage to get involved and make a meaningful contribution.

References


