

## The Contribution of Non-Technical Factors in the Development of Performance Measurement Frameworks

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### Abstract

*A performance measurement framework forms the basis for which the organizational, departmental, team and individual performance measures are developed. It is therefore imperative that a sound performance measurement framework is developed. While there are numerous studies that have concentrated on the centrality of performance measures as a performance management tool, there is less attention on the development of a performance management framework in intergovernmental organizations, which forms the basis for the formulation of performance measures. This study, thus sought to fill the void that many scholars appear to have left. Specifically, the study worked backwards with an objective of identifying the critical non-technical factors that are antecedents of a sound performance management framework. The study was conducted in IGAD which is a project-oriented institution that employs performance measures as an important performance management tool. The study followed a non-experimental research design methodology and copies of questionnaires were distributed to 108 respondents online. A response rate of 93.5% was realized. From the study, it emerged that, leadership, facilitative culture, supportive environment, top management commitment, and staff involvement are the main factors that organizations need to put in place if they are to successfully develop a sound performance measures framework.*

**Keywords:** *Framework, Non-Technical Factors, Performance, Performance Management, Performance Management Framework, Performance Measures.*

### Introduction

Organizations have realized the centrality of performance measures as a key tool to drive performance [1]. A popular phrase that, “you can’t manage what you can’t measure” attributed to Peter Drucker, a renowned management scholar, emphasized on the need to have a performance metrics/measure to guide the performance [2]. Agreeably, there has been a wide consensus among scholars and practitioners that performance measures are more straight forward indicators of performance organization. In the process, different models have been developed over

time on how to formulate reliable and actionable metrics.

The SMART (Specific, Measurable, Actionable, and Timebound) test model, which keeps on being improved, is largely used model that guides the development of performance measures [3]. Measures such as Key performance indicators (KPIs), Key Result Areas (KRAs), and other related measures, which are widely acceptable metrics that the organization that are critical in measuring performance are expected to meet the SMART Test [4]. Many organizations invest a lot of resources in terms of time, hiring of consultants, trainings, and financial resources

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to ensure that they develop such metrics for the organization, and then cascading them down to departments, teams and individuals to form the accountability centres for performance of the different players in an organization. Such performance measures could be in terms of percentage, amount of money, or number of materials. An example of the specificity of these measures could be a target of 90% efficiency levels. Undeniably, when well-articulated, performance measures are a good foundation for holding different players accountable for their performance.

Despite the commitment of resources and the effort undertaken to develop clear and easily understandable performance measures, not all organizations have been able to effectively manage performance [5]. One of the widely advanced reason (which forms the focus of this study) for the failure to realize results even when an organization has developed performance measures failure to have or having a faulty organizational-specific performance measures framework [6]. From the available literature, some of the organizations develop performance measures to meet the requirements of a best practice while others are required to have the measures as an official contract between the employee and the supervisor, department and the management, and the management and the board. In other cases, some organization hire external consultants to specifically guide on the formulation of the performance measures [7]. While the product of the said processes largely leads to what meets the face validity of a good performance measure, without being guided by an existing performance measures framework, such measures are inherently faulty.

For the purpose of this study, a performance measurement framework is considered a prerequisite for developing an implementable performance measure for a specific organization. In particular, it is argued that, a performance measurement framework, provides guidelines and rules that are followed

to measure the performance of an entity. The performance of an entity could be defined in terms of strategic goals that take longer period, annual goals, and even technical goals [8]. Such goals are then cascaded to different levels which could entail department, teams, and right down to individuals. Undoubtedly, in order to have an effective performance measure, a facilitative framework is necessary. Another importance of a performance measurement framework is that, it forms a foundation through which an entity formulates the different human resource interventions such as, staffing, training programs, work designs, and employees' contracts [1]. The said interventions follow the expected performance goals, formulation of which is guided by a performance measurement framework. Equally, a performance measurement framework is a foundation of an effective performance management, as it provides the guidelines on the appropriate metrics through which performance is defined [2].

An organizational performance measurement framework is a management tool that helps to enhance the management and reporting of an organizational program, earmarked objectives and activities by measuring the level to which organization achieves the expected results [9]. As such, the framework can enable managers to make more informed and effective choices and decisions about their programs and activities.

Equally, a performance measurement framework is considered as a tool that helps foster organizational improvement [10]. From this point of view, the performance measurement is expected to be done in different stages and period and as fast as possible as to inform the areas of improvements that are needed in subsequent periods. When undertaken within a period of operation, the measurement can inform the interventions that need to be undertaken as to enable the organization be on course towards realizing the period's objectives [3]. Again, when

undertaken at the terminal end of the current period, the findings of the performance of an organization informs the areas of improvement for the next period [11]. This is so since they become historical information that would be instrumental in formulating goals of a subsequent period with a view of improvement [12]. It has thus been argued that, Organizations must be able to measure their performance in order to improve it.

In addition, performance measurement framework is also considered an important tool that can foster motivation among the employees. The argument behind this is that, when the entire organizational targets per period is developed, it is mainly cascaded down to a point where each of the employees can have their own target [13]. Such a target provides a direction of focus and this can be a motivating factor [12]. An employee that has well clarified target is likely to put a directed effort towards achieving the same and this justifies the view that a performance measurement framework could be a tool that foster motivation [3].

At an advanced level, it is now possible to have a performance measurement framework that can enable real time measure [14]. In this regard, the management is able to assess performance per day and this can enable them undertake the necessary adjustments. In a more specific elaboration, an organizational performance measurement framework comprises of the metrics that are used to evaluate the performance of an organization in delivering on its objectives and outcomes.

Given the implications that performance measurement framework in terms of management, employee behavior, and organizational performance, there are undoubtedly best practices that would need to be observed if a framework is to gain acceptability and yield the expected results. This work attempts to assess the contribution of non-technical factors towards the development of a performance measurement framework.

There are non-technical factors that influence the development of a performance measures framework. These factors are required to offer the necessary support, participate in the formulation, and owning of the framework, which is an antecedent of its successful implementation [15]. Alternatively, these are known as soft factors. A number of such factors have been identified over time and include, commitment of organizational Leadership, organizational Culture, and Stakeholder participation.

Stakeholder's involvement as one of the factors, entail the level at which the management includes the key players who are affected, who will be responsible in meeting the performance measures, and those that may be involved in the implementation of the same [16]. The managers are the owners of the framework as they represent the top management of organization. Ordinarily, they will be the one who will be formulating the framework. Supervisors on the other hand are handed over the framework for implementation in their respective department [17]. Employees are the ones whom the measures affect as they are the ones who perform the work and their performance is aggregated to produce the desired organizational results [18].

Ownership of both the process and the output is one of the justifications of stakeholder engagement when formulating a performance measurement [18]. Ownership entails being party to, subscribing to, or associating oneself the provisions of a given initiative, process, or decision. Such ownership is enhanced when an individual in question was involved in the decision-making process [15]. In this regard, there is evidence that employees and other stakeholders are likely to own the process of formulating a performance framework and would support if they were involved. There is a long-standing principle that a change or new initiative is likely to win support when stakeholders are involved in the process [19].

Relatedly, stakeholder engagement is a buy-in mechanism which entails drawing different stakeholders into accepting to be part of an earmarked initiative, process or a decision [20]. When the stakeholders buy-in the decision, they will be supporting the resolutions and be part in the implementation phase. On the contrary the reported resistance mainly on change or a new initiative, which demonstrates failure to buy in, has largely been attributed to failure to involve stakeholders [16]. Undoubtedly, stakeholder involvement in the formulation process of a performance measurement framework goes a long way to buying in of the process and the output [17].

In addition, stakeholder involvement has found to be a means towards achieving a win-win outcome between two or more parties that may initially have had divergent views [21]. In relation to performance measurement framework, there are normally two broad parties of stakeholders who may have divergent views. On one part, there are the managers and supervisors who are the owners and custodian of the framework on behalf of an organization, while on the other hand, there are employees who are subjected to achieving the provisions thereof [22]. In this regard, the employees would need to know what there is for them and may have pertinent issues that they would need to be addressed before they embrace the new initiatives. Stakeholders' involvement becomes an important avenue by which back and forth, give and take engagements are undertaken towards a win-win outcome [23]. Once such an outcome is achieved, then there is enough support for the new initiative.

As to how stakeholder involvement amounts into a non-technical factor in the formulation of a performance measurement, involvement is more of an art and a good practice whose main aim is to influence the stakeholders. In the process, the stakeholders' hearts are won by being given an opportunity to offer inputs and have their fears addressed in the process [24].

To achieve this, more of soft skills in management and negotiations is required.

Top management support is another nontechnical factor that have been advanced to be instrumental in the development of a performance management framework [25]. Notably, the organizational leaders are the earmarked owners and thus adopters of a performance measurement framework. In this case, regardless of whether an organization already has a formal performance measurement framework or not, there is always a means by which performance is measured [26]. As such, commitment of organizational leadership for the purpose of this study is in line with embracing of a new or an improved form of a performance that replaces an old model or one that seeks to enshrine new model [27]. Drawing from that background, leadership commitment would be in buying in into a newly recommended move to establish a new framework, providing the resources that would be needed, and helping to facilitate the process, adopting, and facilitating the implementation thereof [25].

Adoption of the process of developing new framework is largely a reserve of the organizational leadership. In this regard, a change towards improving or introducing a performance measurement framework is largely dependent on organizational leadership [28]. Their acceptance towards development of the framework authorizes the commencement of the exercise. Again, upon completion of the exercise which amounts to formulation of performance measurement framework, the leadership is required [6]. As such, the establishment of a performance measurement gains approval from the leadership signifying the centrality of commitment of organizational leadership.

Equally, the process of formulation of a new performance measurement framework will ordinarily require commitment of resources [29]. This may include hiring the services of a consultant, facilitating of the process of

framework development, and training of the different stakeholders. The leadership is the one that provides or approves the required resources and their commitment to the course becomes critical.

Organizational culture, another important not-technical factor, gives an organization its unique identity in terms of beliefs, management style, symbolism, internal and external relationships, organizational structure, and the ethical inclination, among others [30]. In regard to performance measurement, the concept of interest in this study, organizational culture may influence the process of the framework formulation [31]. This could inform the parties that may be involved in the formulation, the process of formulation, and the adoption thereof. Undoubtedly, some of the organizational cultures are better than others.

In the modern management principles, a culture that is more inclusive, open and involving has been advanced as being more superior and effective. In this regard, the key stakeholders are involved in the process of formulation and implementation of framework. Involvement has proved to be important since employees and other stakeholders are allowed to participate and, in the process, they feel valued [32]. This is instrumental in building acceptance and buy in of the whole process.

There are, in some instances, though with an increasing high degree of scepticism, where top-down and rigid cultures are still recommended and applicable [33]. Such a culture still applies to the conventional institutions such as the army. It is sometimes applicable when the employees or lower rank personnel are unwilling to participate or have a low level of knowledge. It may also apply when the process needs to be undertaken with a very short period of time [34]. From the said circumstances, it can be argued that rigid culture would largely be applicable in exceptional circumstances.

The context of this study was the Intergovernmental Authority on Development (IGAD), one of the eight Regional Economic

Communities recognized by the African Union. The institution is project-based, comprising of eight countries namely, Djibouti, Eritrea, Ethiopia, Kenya, Somalia, South Sudan, Sudan and Uganda with a Secretariat located in capital city of Djibouti. The institution has a performance framework that is the foundation of the performance measures that are used by the organization in its performance management. Specifically, the study aimed at assessing the salient non-technical factors that are involved in the development or a review of performance measures framework and its effects.

## **Materials and Methods**

### **Research Design**

The study followed a non-experimental research design method that focused on a single target group of individuals from one intergovernmental organization called the Intergovernmental Authority on Development (IGAD), located in Djibouti city, the Republic of Djibouti, which served as the unit of analysis.

### **Study Variables**

The study had 4 non-technical factors that have largely been advanced as being necessary in the formulation and owning of performance management frameworks [15]. From reviewed literature, nontechnical factors that are worth advancing include commitment, organizational Culture on performance and accountability [31], political Commitment, and Stakeholder participation [16].

The study variables and indicators were also revised based on a previous survey instrument [35] and customized to the context of the current study.

### **Survey Instrument**

The majority of the survey questions were adopted from the survey instrument [17] with a few new questions were added based on the theory and literature reviewed. These questions

were measured on a five-point agree/disagree Likert scale. The study collected primary data using a quantitative approach with the questionnaires administered through an online survey tool.

### Sampling Techniques and Size

The Intergovernmental Authority on Development (IGAD) was purposively selected as a single target group for the study. The target population are the IGAD staff members who are grouped in four categories namely, Senior management, programme managers/coordinators, project experts and support staff. For this study, the sampling frame included only the list of staff categories involved in the development, implementation and utilization of the performance measurement framework. Therefore, the total target population of relevant staff in the organization at the level of senior management, Managers or coordinators and Experts is 108. From this small population size, a sample size of 103 staff members was randomly selected from the three relevant strata at 99% confidence interval and 3% error of margin. However, given the already small population size of the study, it was decided to interview everyone from the target population.

## Results

### Respondent's Demographics

Out of the 108 questionnaires that were distributed, 101 were retrieved by the time the data collection was completed and as such, a response rate of 93.5% was realized. The demographic details relating to the participants

showed that the male respondents formed a large majority of the people that participated in this study constituting 73.3%. A majority of the respondents were in the 50-and above age group representing 26.7% of respondents. In addition, majority of the respondents had served the institution for 10 and above years representing 25.7% of the respondents. In respect to the period the respondents had served in performance management, majority had served between 3 and 10 years, representing 50.5% of the respondents. Finally, majority of the respondents had been holding the position of a specialist and this constituted 61.3%. In conclusion, the respondents were well acquainted with aspects of performance management which was the factor of interest in this study.

### Confirmatory Factor Analysis for the Non-Technical Factors

After undertaking a confirmatory factor analysis, the initial classification of the four independent variables were revised to five factors namely Leadership, facilitative culture, supportive environment, top management commitment, and staff involvement.

### Development of Performance Measures

The survey instrument had five panels of statements relating to development of performance measures. For each of the development of performance measures statements, individual responses were scored according to the following ratings as shown in table 1 below:

**Table 1.** Five-Point Agree/Disagree Likert Scale Applied in the Study

<i>Five Point Likert</i>	<i>Scale</i>
Strongly Disagree	1
Disagree	2
Neutral/no opinion	3
Agree	4
Strongly Agree	5

In each panel, a mean response was calculated for each of the supporting statements, and an average of all supporting statements compared with the mean response to an overall summary statement. Mean responses between 4.50 and 5.00 were interpreted as an informal indicator of strong support for the statement; between 3.50 and 4.50 were interpreted to indicate moderate support;

responses between 2.50 and 3.50 were interpreted as inconclusive; and responses between 1.00 and 2.50 were interpreted to indicate a clear disagreement with the statement. A Cronbach alpha statistic was also calculated to assess the level of internal consistency within each panel. Cronbach alpha scores were interpreted according to the range of values shown in table 2 below.

**Table 2.** Cronbach’s Alpha Range

<i>Cronbach’s Alpha</i>	<i>Internal Consistency</i>
> 0.90	Excellent
.80-.89	Good
.70-.79	Acceptable
.60-.69	Poor
<.60	Unacceptable

Source: Hair et al (2006)

### Development of Performance Measures

The table 3 below shows a summary of responses in respect to the development of performance measures panel of statements.

**Table 3.** Analysis of Internal Consistency of Responses to Development Factors Affecting PMFs

<i>Development of Performance Management measures</i>	<i>Mean</i>	<i>Std. Deviation</i>
IGAD has adequate number of staff involved in developing PMF	2.88	1.07
IGAD’s PMF is derived from international standards and guidelines already developed by the Organization	3.28	1.08
Developing PMF is mandatory for all IGAD programmes and projects	3.49	1.08
IGAD Senior Management enforces strict compliance to development of PMF	3.51	1.04
IGAD has staff capable of collecting performance data in a timely manner.	3.37	0.87
The use of performance measurement helps managers and coordinators to better develop solutions to managerial and operational problems in their departments	3.15	0.71

IGAD's PMF has stimulated organizational learning and feedback about performance measurement issues and improvement across departments	2.72	1.08
IGAD Directors, Managers and Coordinators frequently hold meetings to discuss performance measurement issues	4.23	0.82
<b>Grand mean</b>	<b>3.33</b>	
<b>Cronbach Alpha statistic</b>	<b>0.86</b>	

The responses to supporting statements showed a variable pattern of moderate support and inconclusive support for the supporting statements, and the Cronbach alpha statistic showed an "acceptable" level of internal consistency. The mean score across all supporting questions suggested that there would be a range between inconclusive and moderate level of support for the summary statement. However, the responses to the summary statement show an "inconclusive" level of overall support.

### Correlation and Regression Analyses

In this study, the degree of correlation between each of the nontechnical factors summary statements and the development of performance measures framework was conducted. A Spearman Correlation procedure was conducted to analyze the relationship between the variables of interest. The correlation scores were interpreted according to the range of values shown in table 4 below.

**Table 4.** Spearman Correlation Coefficient Range

<i>Spearman Statistic</i>	<i>Strength of relationship</i>
> 0.80	Very Strong
0.60-0.79	Strong
0.40-0.59	Moderate
0.20-0.39	Weak
<0.20	Very Weak

A summary of correlation results is as shown in table 5 below. Regression analysis further helped to assess whether the independent

variables had a significant influence on the dependent variables. This helped to determine whether the hypotheses were supported or not.

**Table 5.** Correlation of Nontechnical Factors and Development of Performance Management Measures

<i>Correlation</i>		<i>1</i>	<i>2</i>	
Spearman's rho	1.NonTechnicalinP MMIGAD	Correlation Coefficient	1.000	.644**
		Sig. (2-tailed)	.	.000
	2.DevelopmentOFP MCIGAD	Correlation Coefficient	.644**	1.000
		Sig. (2-tailed)	.000	.
**. Correlation is significant at the 0.01 level (2-tailed).				



From the above result, there was a strong positive relationship between nontechnical factors and the development of performance measures ( $r=.644$ ). The relationship was also significant at .01 significant levels. This suggests that nontechnical factors are positively associated with the development of performance measures.

The regression results in table 6 show that technical factors predict 42% (Adj. R Square=.420) variance in the development of performance measures. Technical factors are again found to be statistically significant predictor of development of performance measures given the p value( $\text{sig}=.000$ ) which is less than .05.

**Table 6.** Regression of Non-Technical Factors and Development of PMF in IGAD

<b>Regression Summary</b>						
<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>		
1	.653 <sup>a</sup>	.426	.420	.44991		
a. Predictors: (Constant), NonTechnicalinPMMIGAD						
<b>Coefficients<sup>a</sup></b>						
<b>Model</b>		<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>T</b>	<b>Sig.</b>
		<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
1	(Constant)	1.118	.277		4.036	.000
	NonTechnicalinPMMIGAD	.698	.081	.653	8.571	.000
a. Dependent Variable: DevelopmentOFPMICIGAD						

In accordance with both correlation and regression results, non-technical factors were found to positively impact on the development of performance measures.

## Discussion

The following section presents a discussion on the possible reasons why the results to the study turned out to be the way they were. It was expected that nontechnical factors have an impact on the development of a performance management measures framework [35].

From the results, the nontechnical factors were found to positively influence the development of the performance management measures framework. Drawing from the various analysis, the initial projected non-technical factors which had been grouped into four factors (organizational support, organizational culture, external support, and legitimacy), were reformulated into Leadership, facilitative culture, supportive environment, top management commitment, and staff involvement. As such, it is argued that,

from the study, the non-technical factors that emerged in this study as affecting the development of performance management measures framework includes leadership, facilitative culture, supportive environment, top management commitment, and staff involvement. These factors suggest that, top management, culture and the environment created thereof are important in the processes leading to the development of a sound performance management. The available literature suggests that such categorization can be acceptable.

As indicated, there is leadership, top management commitment, and staff involvement, which for the purpose of this discussion, are buddled together, form part of the nontechnical factors. According to the available literature, the top leadership can be centrally influencing the three aspects as identified [36]. Leadership, according to management studies, is the capability to rally personnel and other resources towards a given course. As a nontechnical factor, leadership is

mainly considered an art that can draw other personnel together. Indeed, literature suggests that, appropriate leadership like transformative leadership, is able to draw the other aspects including influencing top management commitment and staff involvement (as per the categorization of some of the non-technical factors in this study). Again, the aspects of top management commitment to any given course in an organization has been found to be instrumental in fostering the success of any organizational initiative (which could include performance management measures framework development and implementation) [37]. Equally, the aspect of staff involvement is among the modern management best practices that is advanced to foster management initiatives as it is a process of buy-in and this has been found to enhance acceptance of initiatives (and this could be so in the development and implementation processes of performance management measures which were the process of interest in this study).

Facilitative culture also emerged as one of the indicators of the non-technical factors that would be considered important in the process of development and implementation of a performance management measures framework. Culture entails beliefs, assumptions, values, norms, actions, and language patterns shared by members of an organization and as such defines how things are done. The large amount of scholarly works indicate that culture could be either facilitative or inhibitive of the processes within an organization [38]. Further, culture is stronger than management as it influences how the management acts [39]. In essence, a facilitative culture in the process of performance management frameworks, would be one that is an enabler rather than a hindrance of the likely success. Therefore, facilitative culture as one of the nontechnical factors that influence performance management measures processes is well supported by available literature.

Finally, supportive environment was also identified as being one of the nontechnical factors that influences the processes of performance management measures. Again, supportive environment as a factor that influences many organizational processes and thus, undoubtedly, its categorization among the factors that affect performance management measures is justifiable. The available literature, more so in regard to new processes or changes thereof, heavily depend on the support it receives across the organization to succeed [40]. Such support could range from top management, the employees, and other key stakeholders. Evidence has shown that an initiative that enjoys support from the most relevant cycles, has an increased degree of success.

In conclusion, the study revealed that the non-technical factors that may influence the processes involved in performance management frameworks could be categorized as, leadership, facilitative culture, supportive environment, top management commitment, and staff involvement. There is an equally supportive scholarly work that agrees with such a categorization. As such, a study formulated with the said factors as nontechnical factors that influence performance framework would be important to assess the validity.

## **Conclusion**

A performance measurement framework forms the basis for which the organizational, departmental, team and individual performance measures are development. As such a sound performance measures framework is critical. Nonetheless, many studies have largely focused on the development of performance measures and have given less attention to the development measures framework. This study sought to work backwards and identify the critical factors that are prerequisite of development of a sound performance measures framework with a special attention to nontechnical factors. From the study, it

emerged that, leadership, facilitative culture, supportive environment, top management commitment, and staff involvement are the main factors that organizations need to put in place if they are to successfully develop a sound performance measures framework.

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## Conflict of Interest

There's no conflict of interest

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