Empirical Evidence of the Relationship between Performance Management Antecedents and Public-sector Organizational Performance

Abdulkadir Abubakar[1], Siti Zabedah Saidin[2] and Aidi Ahmi[3]

[1]*PhD. Candidate, Tunku Puteri Intan Safinaz School of Accountancy, Universiti Utara Malaysia, Kedah, Malaysia. Email: aakatagum@gmail.com*
[2]*Associate Professor, Tunku Puteri Intan Safinaz School of Accountancy, Universiti Utara Malaysia, Kedah, Malaysia. Email: zabedah@uum.edu.my*
[3]*Senior Lecturer, Tunku Puteri Intan Safinaz School of Accountancy, Universiti Utara Malaysia, Kedah, Malaysia. Email: aidi@uum.edu.my*

ABSTRACT

The paper provides empirical evidence of the relationship between performance management antecedents and the public-sector organizational performance. The purpose of the study is to establish the latent function of the performance management system in the Nigerian public-sector. The data for the study were collected through survey questionnaires, self-administered on the Ministries, Departments and Agencies (MDAs). The data was analysed using Partial Least Square (PLS) path modelling. The findings of the study show that, two (2) antecedents of the performance management maintains a significant and positive relationship with the public-sector organizational performance. While more studies are left to be done in this area, the present study has amply demonstrated that, these antecedents generate strong powers to influence public-sector organizational performance.

JEL Classification Codes: H11, H83, M40.

Keywords: Performance management, organizational performance, public-sector, Nigeria.

1. INTRODUCTION

The climate of public-sector reforms that sweeps across countries have undoubtedly reinforces the significance of the performance management system in many countries (McAdam & Hazlett, 2005; Kloot & Martin, 2000; Mwita, 2000). Thus, public-sector organizations in these countries have devoted a reasonable amount of resources and attention in building and sustaining the effective performance management practice (Heinrich & Marschke, 2010; Kloot & Martin, 2000). Interestingly, it is worthy to note that, the above painted

scenario is a direct fall-out of the long-held rolling debate on the suitable management accounting and control model of public management that best-suited the public-sector organizations (Pollitt & Bouckaert, 2011; Arnaboldi, Lapsley & Steccolini, 2015). Arguably again, tied to this reality is the growing popularity of the new public management (NPM) along with the fiscal and economic crises that systematically threatens to negatively affect the public-sector performance globally (Raudla, Taro, Agu & Douglas, 2016). Therefore, these and many other latent factors catapulted the performance management system to the level of the global prominence (Arnaboldi et. al., 2015; Pollitt & Bouckaert, 2011). Good performance management is a vital element in the public-sector capacity building strategy as well as an integral component of efficient and effective public-sector (McAdam & Hazlett, 2005). To illustrate this point further, it is observed that, despite the symbolic policies supporting public-sector performance management, effective process that would support and engage the stakeholders have consistently remain weak (Kloot & Martin, 2000; Fryer, Antony & Ogden, 2009).

Micro-managing the public agencies notably, ministries, departments and agencies is by no means complex tasks that requires a cohesive and efficient combination of the performance management antecedents (Abubakar, Saidin & Ahmi, 2016; Mwita, 2000). Regardless of the sector or setting, dysfunctional performance management antecedents elicits unimpressive organizational performance (Abubakar et. al., 2016; Verbeeten, 2008; Marcoulides & Heck, 1993). Despite this however, only few number of empirical studies apparently point towards the impact of the antecedents of the performance management on the public-sector organizational performance (Verbeeten, 2008; Spekle & Verbeeten, 2015; Moynihan & Pandey, 2010; Abubakar, et. al., 2016; Lee & Yu, 2004; Moynihan & Pandey, 2005). Equally still, it is observed that, only little effort is made to integrate the performance management antecedents into a single research model.

Specifically, Verbeeten (2008) examined the impact of the performance measurement on the organizational performance. Similarly, other related research efforts examined the impact of the institutional culture (Lee & Yu, 2004; Marcoulides & Heck, 1993) and goal orientation (Kagaari, Munene & Ntayi, 2010) on the organizational performance. In addition, studies have strongly suggested that, application of tougher performance management regime results in better outcomes and sound decision-making process (Christensen, Laegreid & Stingen, 2006; Fryer, Antony & Ogden, 2009). Quite appreciably, there is sufficient evidence in the literature that, performance management does not operate in a vacuum (Ferreira & Otley, 2009). This also gives ground to the optimism that, the efficacy of the performance management system depends on the highlighted functions of these antecedents (Arnaboldi et. al., 2015; Pollitt & Bouckaert, 2011).

Overall, the contribution of this study is to enhance understanding of the impact of the antecedents of performance management on the public-sector organizational performance. Given the fact that, some studies have already identified these antecedents and some researchers have explored latent role of these variables, then, the new angle is to examine the combined impact of some of these antecedents and to critically analyse whether they strongly influence organizational performance, since none of the previous studies took that interesting trajectory. Thus, integrating these antecedents and empirically investigating their unique impact on the organizational performance is a significant effort in plugging the highlighted gaps in the performance management literature.

2. THEORETICAL BACKGROUND OF THE PERFORMANCE MANAGEMENT ANTECEDENTS

Performance management refers to the strategic and integrated process that delivers sustained success in organizations by improving the performance of the people who work in them; and by developing the capabilities of individual contributors and teams (Armstrong & Baron, 2000). Impressively, performance management attracts literature from the broad multidisciplinary subjects owing to its importance especially in the public-sector (Fryer, Antony & Ogden, 2009; Ferreira & Otley, 2009). Specifically, researchers from management accounting, public-sector accounting and management control have contributed a great deal of studies on the performance management (McAdam, Hazlett & Casey, 2005; Mwita, 2000; Otley, 1999; Otley, 2001). In simple terms, these studies have investigated varieties of constructs in the performance management under different environmental context (Verbeeten, 2008; Spekle & Verbeten, 2014; Hoque, 2004). For instance, it is observed that, despite the increasing interest of researchers on the public-sector performance management, there exists many unresolved literature gaps that continue to feature prominently, which also need to be given adequate attention (Arnaboldi, Lapsley & Steccolini, 2015; Fryer et. al., 2009; Kagaari et. al., 2010; Hvidman & Andersen, 2013). Specifically, a particular case in point is examining the impact of the performance management antecedents on the organizational performance itself (Abubakar, Saidin & Ahmi, 2016; Verbeeten, 2008).

For example, numerous contributors to the performance management in the public-sector have examined this particular problem in a more separate nature, thereby treating the concepts more in isolation than in combination. Specifically, studies have investigated the relationship between performance measurement and organizational performance (Spekle & Verbeeten, 2014; Abubakar et. al., 2016; Verbeeten, 2008). Yet again, other studies have attempted to examine the relationship between goal orientation and performance (Kagaari et. al., 2010; Latham, Borgogni & Petitta, 2008). Furthermore, numerous other studies have critically considered the relationship between institutional culture and performance (Lim, 1995; Lee & Yu, 2004; Marcoulides & Heck, 1993; Abubakar et. al., 2016). But nonetheless, it has been pointed out historically that, combined effect of these antecedents is rarely seen to have been empirically tested (Abubakar et. al., 2016). Although, a number of frameworks have been developed (Otley, 1999; Otley, 2001), some of the frameworks have eloquently been criticized for being tailored towards narrow aspects of the performance management in the public-sector (Ferreira & Otley, 2009). Therefore, other alternative frameworks are being routinely proposed to remedy the earlier perceived deficiencies. Hence, this study's framework is another subtle attempt in outlining another alternative framework that could fittingly suit the public-sector, by incorporating the vital antecedents of the performance management together. This is to ensure that, the recent views on the performance management are encapsulated and reflected equitably and appropriately. Hence, the performance management antecedents to be examined in this study are performance measurement, goal orientation and institutional culture.

3. HYPOTHESES DEVELOPMENT

Goal Orientation and Public-sector Organizational Performance

Hoque (2008) argue that, aligning performance management system with strategic goals brings about improvement in the organizational performance. To corroborate this point, Latham, Borgogni and Petitta (2008) claims that, effective performance management system is described as the one that, typically
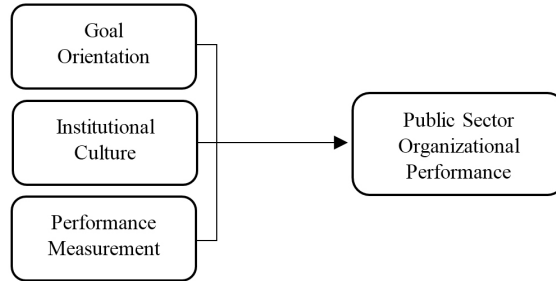
Figure 1: Research Framework

involves strategic and prioritized goals that are eminently challenging but not excessively overwhelming. Specifically, Latham and Locke (2007); Locke and Latham (2002) conducted empirical studies on the relationship between goal orientation and performance. The studies revealed that, high alignment to goals leads to improved performance. Equally still, Klein and Mulvey (1995) empirically established that, goal orientation is the most immediate determinant of the performance. Again, Kagaari et. al., (2010) established yet another empirical proof between goal orientation and performance, thus, commitment to goal is a vital and critical construct in explaining performance. Therefore, based on this empirical evidence, the following hypothesis id formulated:

H$_1$: Goal orientation is significantly related to organizational performance.

Institutional Culture and Public-sector Organizational Performance

Institutional culture is essential attribute in the public-sector organization that secures and promotes organizational performance (Abubakar et. al., 2016; Lee & Yu, 2004). The relationship between institutional culture and organizational performance has been empirically tested within the realm and context of the performance management, the results exhibit different findings. For instance, it has been established that, institutional culture is positively associated with organizational performance (Lee & Yu, 2004; Abubakar et. al., 2016; Parry & Proctor-Thompson, 2002). It is also argued that, flexible culture in public-sector organization enables organizational effectiveness (Lim, 1995; Marcoulides & Heck, 1993). At the background, studies earlier conducted found that, culture was persuasively a predictive determinant of the organizational performance (Baird, Hu & Reeve, 2011; Gordon & DiTomaso, 1992; Kotter & Heskett, 1992). Therefore, having established the theoretical and empirical support, the following hypothesis is formulated:

H$_2$: There is significant relationship between institutional culture and organizational performance.

Performance Measurement and Public-sector Organizational Performance

Performance measurement is one of the critical challenges facing public-sector organizations because of its strategic and symbiotic relationship with organizational performance (Ittner & Larcker, 1998; Hoque, 2004). Consistent with this, Spekle and Verbeeten (2014) strongly advocated that, performance measurement reflects and reinforces better outcomes, it also impacts on organization missions and performance. Performance measurement has been empirically tested to have a positive relationship with organizational performance (Verbeeten, 2008). Performance measurement in the public-sector has been a powerful determinant of the public-sector efficiency and effectiveness (Arnaboldi et. al., 2015; Kaplan, 2001). Yet still, empirical studies have once again established that, improving public-sector organizational performance is faster and successful

if the performance measurement system is effectively utilized (Hurst & Jee-Hughes, 2001). Specifically, Cavalluzzo and Ittner (2004) empirically found that, increased emphasis on the public-sector performance measurement is positively related with perceived increase in the organizational performance. Thus, based on the highlighted empirical evidence and conceptual postulations, the hypothesis below is proposed:

H$_3$: There is significant relationship between performance measurement and public-sector organizational performance.

4. METHOD

The survey instrument comprises of the questionnaire along with the instructions on completion as well as letter of introduction with a self-addressed envelopes. The questionnaires were sent to the senior officers in the ministries, departments and agencies (MDAs) particularly directors, deputy directors and assistant directors. Of the 85 questionnaires sent, 47 were returned. A follow-up through phone calls and personal contacts has further added 16 usable responses making 63. Overall response rate is 74.12% which is excellent (Hair et. al., 2010). The detail of the distribution and responses are presented in the Table 1.

Table 1
Distribution of Responses

Organization	Sent (85)		Received (63)		Response Rate (74.12%)
	Frequency	*Percentage*	*Frequency*	*Percentage*	
Ministries	25	29.42	19	30.20	76%
Departments	40	47.05	31	49.20	78%
Agencies	20	23.53	13	20.60	65%

From the Table 1, it could be seen that, all the organizations have recorded the appreciable response rate. The least response was from the "Agencies", although it is considered reasonably good. All the respondents hails from the state governments' ministries, departments and agencies in the North-eastern part of Nigeria. The survey questionnaires were distributed from March-May 2016. The questionnaires were self-administered by the researcher. This is considered appropriate method of data collection in an organization-based studies, especially if the targeted respondents must be identified at the point of submitting the questionnaire (Sekaran & Bougie, 2013). Although, it may be costly especially in a large geographically-dispersed population, it is equally effective and rewarding as all forms of doubt about the capacity of the respondents in the targeted organizations are eliminated.

Measurement of Variables

Organizational Performance – Organizational performance refers to the ability of the public-sector organization to accomplish its goals using available resources effectively and efficiently. The construct measuring public-sector organizational performance was adapted from Spekle and Verbeeten (2014) and was slightly modified. Originally, the construct was developed by Ven de Ven and Ferry (1980) but was broadly adopted and adapted by several studies like Dunk and Lysons (1997), Verbeeten (2008).

Goal Orientation – Goal orientation refers to the extent to which a public-sector organization is aligned or oriented towards goal achievement. The measurement for goal orientation was adapted from Nurkholis and Ismail (2014) with some modifications to suit the unique context of this study.

Institutional Culture – Institutional culture is defined as shared norms, ethics and behavioural expectations of an organization. Institutional culture is like a fad that determines failure or success of an organization. The measure for this variable is adapted and operationalized from Brewer and Selden (2000). Few changes were made to improve the respondents' understanding of the items in the instrument.

Performance Measurement – Performance measurement is defined as the process of assessing how well an organization keeps trail of its programmes, projects and policies using established management control procedures. The items measuring performance measurement were adapted from Hoque and Adams (2011). The instrument was lightly modified for the purpose of this study. The instrument was earlier used by Abubakar et. al., (2016).

5. RESULTS

Assessment of Measurement Model

Generally, two stages are involved in assessing the research model using PLS-SEM vis-à-vis measurement model and structural model (Hair, Hult, Ringle & Sarstedt. 2016; Wong, 2013; Hair, Ringle & Sarstedt, 2013). Measurement model refers to the section of the model that examines the relationship between latent variables and their measures (Hair et. al., 2013; Wong, 2013). Measurement model contains four significant segments of the PLS-SEM. They are indicator reliability, internal consistency, convergent validity and discriminant validity (Hair et. al., 2016; Lowry & Gaskin, 2014).

Specifically, item indicators are computed through PLS algorithm in order to obtain the loadings and cross- loadings (Ringle, Sarstedt & Straub, 2012). In practice, the individual item loadings should 0.70 and above, thus, any item with a loading of less than 0.70 will be out rightly deleted from the model (Hair et. al., 2016; Hair et. al., 2013). This implies that deleting items with poor loadings of below 0.70 would automatically increase the Average Variance Extracted (AVE) as well as the composite reliability to the higher levels (Hair et. al., 2014). For example, when the PLS algorithm was calculated, all the items loaded extremely good, hence, none of the item was deleted.

With regards to the internal consistency, Hair et. al., (2014) suggests that, composite reliability is the most effective measure of internal consistency, especially when using PLS-SEM. Yet still, Hair et. al., (2011) stressed that, the criteria for using composite reliability as a measure of internal consistency is that, the value of composite reliability should be greater than 0.70. Even though, some exemptions were made concerning exploratory study. For the purpose of this study, the composite reliability calculated using PLS algorithm indicated that, all the constructs under review have perfectly met the condition established in the literature. In other words, the composite reliability of the constructs exceeds 0.70.

Equally still, convergent validity is another significant extract of the measurement model. Convergent validity refers to the degree to which two or more measures of a construct that theoretically should be related, are in fact related (Sarstedt, Ringle, Smith, Reams & Hair, 2014). Specifically, Hair et. al., (2014) argue that, the latent construct should explain at least half of the variance of the indicators. This implies that, Average Variance Extracted (AVE), which is used in measuring convergent validity should be at least 0.50. Therefore, for the purpose of this study, the AVE of all the constructs have fulfilled this condition. Thus, none of the construct have AVE of less than 0.50. For instance, Table 2 below shows the item loadings, composite reliability and the AVE of the constructs.
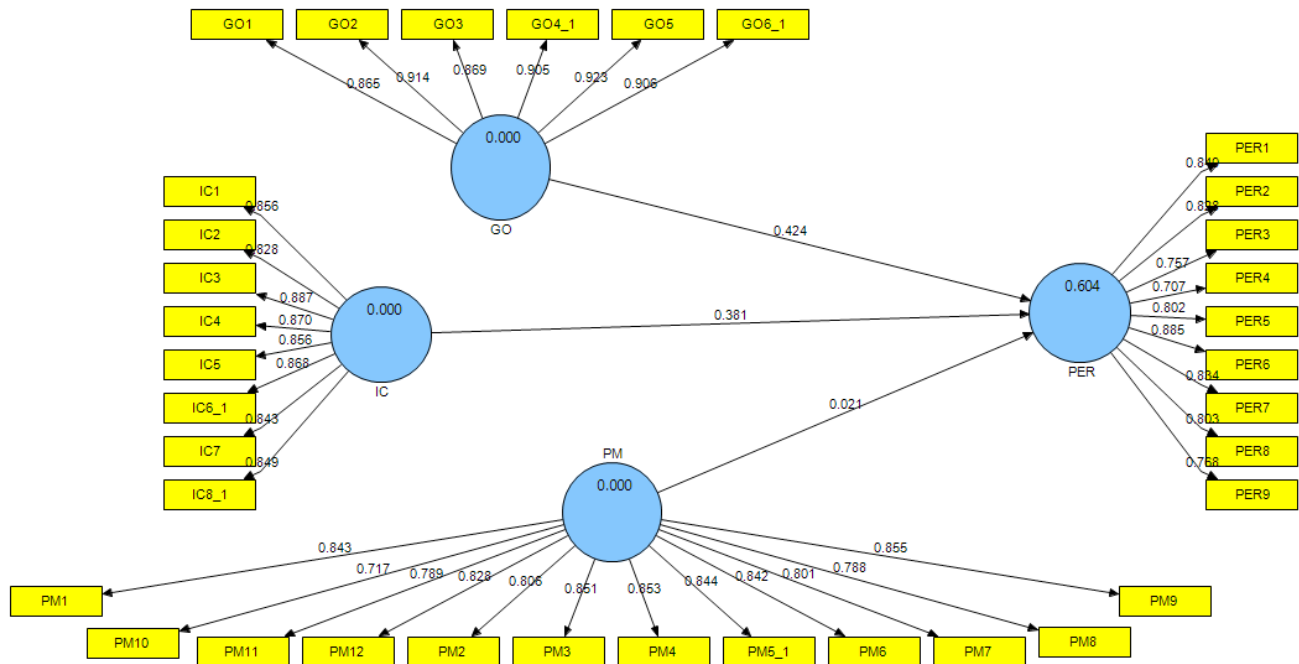
Figure 2: Measurement Model

Table 2
Internal Consistency, Reliability and Convergent Validity

Constructs	Indicators	Loadings	AVE	Composite Reliability
Organizational Performance	PER1	0.8401	0.647	0.9426
	PER2	0.8283		
	PER3	0.7569		
	PER4	0.7066		
	PER5	0.8025		
	PER6	0.8854		
	PER7	0.8336		
	PER8	0.8025		
	PER9	0.7678		
Goal Orientation	GO1	0.8652	0.805	0.9612
	GO2	0.9136		
	GO3	0.8688		
	GO4	0.9055		
	GO5	0.9227		
	GO6	0.9065		
Performance Measurement	PM1	0.8433	0.671	0.9606
	PM10	0.7174		
	PM11	0.7889		
	PM12	0.8278		
	PM2	0.8055		

Constructs	Indicators	Loadings	AVE	Composite Reliability
	PM3	0.8514		
	PM4	0.8533		
	PM5_1	0.8445		
	PM6	0.8421		
	PM7	0.8013		
	PM8	0.7882		
	PM9	0.8547		
Institutional Culture	IC1	0.8559	0.735	0.9568
	IC2	0.8275		
	IC3	0.8867		
	IC4	0.8696		
	IC5	0.8561		
	IC6_1	0.8682		
	IC7	0.843		
	IC8_1	0.8493		

Discriminant validity also constituted an important pillar of the measurement model. Discriminant validity refers to whether concepts or measurement that are not supposed to be related, are in fact unrelated (Sarstedt et. al., 2014). The usual practice of computing discriminant validity is by square root of AVE (Fornell & Larcker, 1981). This implies that, the square root of AVE of a particular construct should be higher than the subject construct with any other construct in the model (Cheung, Chiu & Lee, 2011; Fornell & Larcker, 1981). However, in this study, the discriminant validity of all the constructs have been established through the square root of AVE. it is observed that, none of the correlation among other constructs is up to the computed square roots. Hence, the discriminant validity has been taken care of. Table 3 below displays the values of the discriminant validity at the diagonal.

Table 3
Discriminant Validity

Variables	GO	IC	PER	PM	AVE
Goal Orientation	0.897274				0.805
Institutional Culture	0.7784	0.857205			0.735
Organizational Performance	0.7374	0.7284	0.804177		0.647
Performance Measurement	0.7833	0.8033	0.6597	0.819085	0.671

Assessment of Structural Model

Next in line after assessment of measurement model is the assessment of the structural model. Assessment of structural model comprises of the procedure, criteria and method used in evaluating the model. This part involves assessment of path coefficient and hypothesis testing, determination of R^2, effect size and predictive relevance. To begin with, this study proposes three hypotheses which were thoroughly explained and backed up with the relevant literatures. Specifically, statistical *t*-values, *p*-values, βeta values and the standard error of estimates were used in testing the hypothesis. In order to obtain *t*-values, PLS bootstrapping was ran. Prior to the bootstrapping, PLS algorithm was ran to obtain the path coefficient and the direction

of the relationship. Table 4 below shows the hypotheses testing results. It also indicated the *t*-values, βeta values and the standard error.

Table 4
Hypothesis Testing Result

Hypothesis	Relationship	Beta	Standard Error	T Statistics	Decision
H_1	GO -> PER	0.4238	0.1351	3.1377	Supported
H_2	IC -> PER	0.3814	0.174	2.1918	Supported
H_3	PM -> PER	0.0214	0.2074	0.103	Not supported

From the above table, it is observed that, hypothesis 1 and hypothesis 2 are supported, while hypothesis 3 is not supported. This implies that, there is significant relationship between goal orientation and organizational performance. Yet again, there is a direct significant relationship between institutional culture and organizational performance.

However, with regards to the coefficient of determination (R^2), it is established that, coefficient of determination is the variance explained in the endogenous latent variable by exogenous latent variables (Hair et. al., 2014; Wong, 2013). Opinion differs on the acceptable level of R^2 in a study. According to Falk and Miller (1992), R^2 is considered satisfactory if it exceeds 1.5%. Likewise, Cohen (1988) and Chin (1998) argue that R^2 is could be categorized into three groups (a) 0.26 and 0.67 is substantial (b) 0.13 and 0.33 is moderate (c) 0.02 and 0.19 is weak. Table 5 below indicates the coefficient of determination of the study. From the table, it is observed that, the coefficient of determination (R^2) is 0.604. This implies that, the R^2 is quite substantial based on the criteria of Cohen (1988) and Chin (1998).

Table 5
Determination of R-square

Endogenous Variable	R square Value
Organizational Performance	0.604

Another important pillar of the structural model is the determination of the effect size of the model under review. Ringle et. al., (2012) stressed that, analysis should be carried out to assess the effect size (F^2) of the model. The conventional formula for computing effect size is expressed below:

$$F^2 = (R^2 \text{ Included} - R^2 \text{ Excluded})/(1 - R^2 \text{ Included})$$

According to Cohen (1988), effect sizes of 0.02 is small, 0.15 is medium and 0.35 is large. It is worthy to note that, some researchers opined that, even small effect size is considered extremely important, hence, should not be ignored. Table 6 below shows the effect sizes of the constructs under review.

Table 6
Main Model Effect Size

Endogenous Construct	Exogenous Construct	R^2 Included	R^2 Excluded	Effect size (F^2)	Cohen (1988)
Organizational Performance	Goal Orientation	0.604	0.548	0.141	Small
	Institutional Culture	0.604	0.562	0.106	Small
	Performance Measurement	0.604	0.604	0.000	None

Finally, predictive relevance should also be assessed to examine the degree to which the model explained (R^2) variance in the endogenous variable. Hair et. al., (2014) suggested that, Stone-Geisser's Q^2 should be employed in examining the predictive relevance of a model. This is achieved in PLS-SEM through blindfolding procedure for only endogenous variable (Henseler, Ringle & Sinkovics, 2009). Again, Hair et. al., (2014) suggested that, the predictive relevance is assumed when the Q^2 value for endogenous variable is greater than 0. Table 7 below indicated that, the predictive relevance of the model is substantially robust because the value of Q^2 is greater than 0 (0.359).

Table 7
Determination of Predictive Relevance

Endogenous Latent Variable	*R square*	*CV Red*	*CV Com*
Organizational Performance	0.604	0.359	0.000

6. DISCUSSIONS AND CONCLUSIONS

The result of the study has technically and elaborately confirmed the significance of the performance management antecedents on the public-sector organizational performance. Specifically, goal orientation has strongly proven to have a significant positive effect on the public-sector organizational performance ($\beta = 0.4238$, $t = 3.1377$, $p < 0.05$). Equally still, institutional culture also poses a strong and significant positive effect on the public-sector organizational performance ($\beta = 0.3814$, $t = 2.1918$, $p < 0.05$). However, performance measurement is found to have no significant effect on the public-sector organizational performance ($\beta = 0.0214$, $t = 0.103$, $p > 0.05$). It is worthy to note that, the hypothesis between goal orientation and organizational performance, as well as between institutional culture and organizational performance are supported, while the hypothesis between performance measurement and public-sector organizational performance is not supported. Furthermore, the performance management antecedents accounts almost 60% of the variance in the public-sector organizational performance. This implies that, the result confirmed the importance of the performance management antecedents in the public-sector agencies (Abubakar et. al., 2016; Verbeeten, 2008; Putu, Jan van Helden & Tillema, 2007; Lee & Yu, 2004; Spekle & Verbeeten, 2014).

The idea of promoting the performance management in the public-sector is to be able to engender a fundamentally efficient management control mechanism that continuously enhance efficient and effective service delivery (Otley. 2001; Otley, 1999). Although, performance management practice is still evolving in some public-sector organizations, its widening and gradual impact on the performance has undoubtedly been established (Kloot & Martin, 2000; McAdam, Hazlett & Casey, 2005). On another score, it is also discovered that, the application of the performance management system in the public-sector is to develop the capability of the organizations through establishment of integrated mechanisms so as to operate successfully (Heinrich & Marschke, 2010; Mwita, 2000). Therefore, without the performance management, many public-sector organizations may likely remain inefficient (Verbeeten, 2008).

Specifically, goal orientation has been a key pillar in the public-sector performance management. It reinforces organization's focus on the accomplishment of results (Christensen, Lægreid & Stigen, 2006). Impressively, it has been argued that, without a clearly defined goal and a more robust orientation to accomplish such goals, performance management could be meaningless (Otley, 2001; Spekle & Verbeeten,

2014). Ultimately, the result of this study has once again re-echoed that, goal orientation is a vital antecedent of the performance management that enhances organizational performance.

Again, it is interesting to note that, institutional culture is a necessary characteristic for the efficient establishment of the performance management system (Lee & Yu, 2004; Ferreira & Otley, 2009). Good culture presupposes better performance (Abubakar et. al., 2016). Therefore, the link and strong relationship between culture and performance as found in this study is not surprising, as it has been postulated severally in the literature that, culture and performance are inextricably interwoven (Ogbonna & Harris, 2000; Marcoulides & Heck, 1993; Lim, 1995). This implies that, sound institutional culture elicits efficient organizational performance.

Yet still, in this study, performance measurement has been found to be a non-essential antecedent of the performance management with respect to its relationship with the public-sector organizational performance. This also not unexpected, some studies argue that, performance measurement could sometimes be counter-productive (Hoque, 2004; Arnaboldi et. al., 2015). This simply means that, performance measurement could be a non-essential variable. Explicitly, the rising uncertainties of the positive impact of the performance measurement on the organizational performance, brings to the fore, the need for careful evaluation of the real functions and practice of the performance measurement in the public-sector. Therefore, the public-sector organizations in Nigeria and elsewhere need to adequately assess their performance management practice to ensure that, performance measurement optimally accomplish its purpose.

Overall, the findings of this study highlights that, performance management antecedents are primarily important determinants of the public-sector organizational performance. Thus, the antecedents should be strengthened for more positive results. Stimulating the antecedents would inevitably stabilize the management control mechanisms; and eventually the organization performs effectively and efficiently. An extensive component of this element is that, service delivery will be enhanced and tailored towards the targeted beneficiaries.

Limitations and Recommendations for Future Studies

The major focus of this study is to examine the relationship between some antecedents of the performance management and the public-sector organizational performance. However, it is significant to note that, other antecedents not considered in this study are equally important. Specifically, accountability, performance reporting, management support and performance audit are essential antecedents of the performance management not considered in this study. This implies that, these variables were not examined at this point in time.

Therefore, future studies should integrate these variables for more robust and broad outcomes. In addition, the data for this study was collected in a cross-sectional manner, thus, the result may likely be slightly different if the data is collected over a fairly long period of time. Future studies may consider longitudinal approach for more detailed highlight on the interrelationship between the variables. Equally still, the data of this study uses organization as a unit of analysis. Subsequent studies should collect the data on the perception of individual employees in the public-sector organizations. By so doing, the general feel of the employees whom are directly or indirectly affected with the existing system could be evaluated and valid inference drawn from it.

References

Abubakar, A., Saidin, S. Z., & Ahmi, A. (2016). Performance Management Antecedents and Public-sector Organizational Performance: Empirical Evidence from Nigeria. *International Journal of Economics and Financial Issues*, *6*(7S).

Adcroft, A., & Willis, R. (2005). The (un) intended outcome of public-sector performance measurement. *International Journal of Public-sector Management*, *18*(5), 386-400.

Armstrong, M., & Baron, A. (2000). Performance management. *Human resource management*, *69*.

Arnaboldi, M., Lapsley, I., & Steccolini, I. (2015). Performance management in the public-sector: the ultimate challenge. *Financial Accountability & Management*, *31*(1), 1-22.

Baird K, Hu K, Reeve R (2011). The relationships between organizational culture, total quality management practices and operational performance. International Journal of Operations & Production Management 31: 789–814.

Brewer, G. A., & Selden, S. C. (2000). Why elephants gallop: Assessing and predicting organizational performance in federal agencies. *Journal of public administration research and theory*, *10*(4), 685-712.

Cheung, C. M., Chiu, P. Y., & Lee, M. K. (2011). Online social networks: Why do students use Facebook? *Computers in Human Behavior*, *27*(4), 1337-1343.

Christensen, T., Lægreid, P., & Stigen, I. M. (2006). Performance management and public-sector reform: The Norwegian hospital reform. *International Public Management Journal*, *9*(2), 113-139.

Cohen, J. (1988). Statistical power analysis for the behavioral sciences Lawrence Earlbaum Associates. *Hillsdale, NJ*, 20-26.

Falk, R. F., & Miller, N. B. (1992). *A primer for soft modeling*. University of Akron Press.

Ferreira, A., & Otley, D. (2009). The design and use of performance management systems: An extended framework for analysis. *Management accounting research*, *20*(4), 263-282.

Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of marketing research*, 382-388.

Fryer, K., Antony, J., & Ogden, S. (2009). Performance management in the public-sector. *International Journal of Public-sector Management*, *22*(6), 478-498.

Gordon, G. G., & DiTomaso, N. (1992). Predicting corporate performance from organizational culture. *Journal of management studies*, *29*(6), 783-798.

Hair Jr, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage Publications.

Hair Jr, J. F., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM) An emerging tool in business research. *European Business Review*, *26*(2), 106-121.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing theory and Practice*, *19*(2), 139-152.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Editorial-partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance.

Heinrich, C. J., & Marschke, G. (2010). Incentives and their dynamics in public-sector performance management systems. *Journal of Policy Analysis and Management*, *29*(1), 183-208.

Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In *New challenges to international marketing* (pp. 277-319). Emerald Group Publishing Limited.

Heskett, J. L., & Kotter, J. P. (1992). Corporate culture and performance. *Business Review. Vol, 2*, 83-93.

Hoque, Z. (2004). A contingency model of the association between strategy, environmental uncertainty and performance measurement: impact on organizational performance. *International Business Review, 13*(4), 485-502.

Hoque, Z. (2008). Measuring and reporting public-sector outputs/outcomes: Exploratory evidence from Australia. *International Journal of Public-sector Management, 21*(5), 468-493.

Hurst, J., & Jee-Hughes, M. (2001). Performance measurement and performance management in OECD health systems.

Hvidman, U., & Andersen, S. C. (2013). The impact of performance management in public and private organizations. *Journal of Public Administration Research and Theory*, mut019.

Ittner, C. D., & Larcker, D. F. (1998). Innovations in performance measurement: Trends and research implications. *Journal of management accounting research, 10*, 205.

Kagaari, J., Munene, J. C., & Mpeera Ntayi, J. (2010). Performance management practices, employee attitudes and managed performance. *International Journal of Educational Management, 24*(6), 507-530.

Kaplan, R. S. (2001). Strategic performance measurement and management in non-profit organizations. *Non-profit management and Leadership, 11*(3), 353-370.

Klein, H. J., & Mulvey, P. W. (1995). Two investigations of the relationships among group goals, goal commitment, cohesion, and performance. *Organizational Behavior and Human Decision Processes, 61*(1), 44-53.

Kloot, L., & Martin, J. (2000). Strategic performance management: A balanced approach to performance management issues in local government. *Management Accounting Research, 11*(2), 231-251.

Latham, G. P., & Locke, E. A. (2007). New developments in and directions for goal-setting research. *European Psychologist, 12*(4), 290-300.

Latham, G. P., Borgogni, L., & Petitta, L. (2008). Goal setting and performance management in the public-sector. *International Public Management Journal, 11*(4), 385-403.

Lee, K. J. S., & Yu, K. (2004). Corporate culture and organizational performance. *Journal of managerial psychology, 19*(4), 340-359.

Lim, B. (1995). Examining the organizational culture and organizational performance link. *Leadership & Organization Development Journal, 16*(5), 16-21.

Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American psychologist, 57*(9), 705.

Lowry, P. B., & Gaskin, J. (2014). Partial least squares (PLS) structural equation modeling (SEM) for building and testing behavioural causal theory: When to choose it and how to use it. *IEEE Transactions on Professional Communication, 57*(2), 123-146.

Marcoulides, G. A., & Heck, R. H. (1993). Organizational culture and performance: Proposing and testing a model. *Organization science, 4*(2), 209-225.

McAdam, R., Hazlett, S. A., & Casey, C. (2005). Performance management in the UK public-sector: addressing multiple stakeholder complexity. *International Journal of Public-sector Management, 18*(3), 256-273.

Moynihan, D. P., & Pandey, S. K. (2005). Testing how management matters in an era of government by performance management. *Journal of Public Administration Research and Theory, 15*(3), 421-439.

Moynihan, D. P., & Pandey, S. K. (2010). The big question for performance management: Why do managers use performance information? *Journal of public administration research and theory, 20*(4), 849-866.

Mwita, I. J. (2000). Performance management model: A systems-based approach to public service quality. *International Journal of Public-sector Management*, *13*(1), 19-37.

Ogbonna, E., & Harris, L. C. (2000). Leadership style, organizational culture and performance: empirical evidence from UK companies. *International Journal of Human Resource Management*, *11*(4), 766-788.

Otley, D. (1999). Performance management: a framework for management control systems research. *Management accounting research*, *10*(4), 363-382.

Otley, D. (2001). Extending the boundaries of management accounting research: developing systems for performance management. *The British Accounting Review*, *33*(3), 243-261.

Parry, K., & Proctor-Thomson, S. (2002). Leadership, culture and performance: The case of the New Zealand public-sector. *Journal of Change Management*, *3*(4), 376-399.

Pollitt, C., & Bouckaert, G. (2011). *Public Management Reform: A comparative analysis-new public management, governance, and the Neo-Weberian state*. Oxford University Press.

Putu S, N., Jan van Helden, G., & Tillema, S. (2007). Public-sector performance measurement in developing countries: A literature review and research agenda. *Journal of Accounting & Organizational Change*, *3*(3), 192-208.

Raudla, R., Taro, K., Agu, C., & Douglas, J. W. (2016). The impact of performance audit on public-sector organizations: The case of Estonia. *Public Organization Review*, *16*(2), 217-233.

Ringle, C. M., Sarstedt, M., & Straub, D. (2012). A critical look at the use of PLS-SEM in MIS Quarterly.

Sarstedt, M., Ringle, C. M., Smith, D., Reams, R., & Hair, J. F. (2014). Partial least squares structural equation modeling (PLS-SEM): A useful tool for family business researchers. *Journal of Family Business Strategy*, *5*(1), 105-115.

Sekaran, U., & Bougie, R. (2013). Research methods for business: A skill-building approach. [e-book].

Speklé, R. F., & Verbeeten, F. H. (2014). The use of performance measurement systems in the public-sector: Effects on performance. *Management Accounting Research*, *25*(2), 131-146.

Verbeeten, F. H. (2008). Performance management practices in public-sector organizations: Impact on performance. *Accounting, Auditing & Accountability Journal*, *21*(3), 427-454.

Wong, K. K. K. (2013). Partial least squares structural equation modeling (PLS-SEM) techniques using SmartPLS. *Marketing Bulletin*, *24*(1), 1-32.