Performance Management Antecedents and Public Sector Organizational Performance: Empirical Evidence from Nigeria

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ABSTRACT

Using data from ministries, departments and agencies (MDA)-wide survey administered on the public sector organizations in the North-eastern part of Nigeria, the study examine some antecedents of the performance management practice and how these antecedents influenced public sector organizational performance. The hypotheses of the study were tested using the survey data from 63 public sector organizations notably MDAs. Pearson zero-order correlation was used to analyze the hypothesized relationship. The study found that, certain antecedents such as performance measurement and institutional culture have significant positive association with public sector organizational performance. Thus, the study provides an avenue for MDAs in Nigeria and elsewhere to redesign, redefine and formulate policies for improving their hitherto unencouraging performance. The study also recommended that, more performance management mechanisms are needed to complement and improve the public sector efficiency.

Keywords: Performance Management, Antecedents, Performance, Public Sector

JEL Classifications: H11, H83

1. INTRODUCTION

Performance management practice in the public sector organizations has been severally highlighted by scientific and other literatures as a significant and valuable asset in promoting effective and positive public sector organizational performance (Northcott and Taulapapa, 2012; Verbeeten, 2008; Taticchi et al., 2010). Performance management antecedents has been a frequently discussed topic by the public policy makers and in the academic circles, more or less in relation to how the efficiency of the public sector organizations could be evaluated (Sanger, 2012; Taticchi et al., 2010; Yang and Hsieh, 2007). Organizations around the globe are favorably disposed to the economic criterion of the performance management antecedents for gaining more positive ground in terms of the clear picture of the direction of performance pattern being taken (Sanger, 2012; Klovienne and Valanciene, 2013; Verbeeten, 2008; Veladar et al., 2014).

Although performance management has attracted volumes of literature, it is noted that, little guidance and scant empirical evidence exists on the components/antecedents of the performance management with regards to the actual operational impact it exerts on the public sector organizations particularly on the less-developed countries (Folz et al., 2009; Klovienne and Valanciene, 2013; Verbeeten, 2008; Veladar et al., 2014).

In Nigeria for instance, the performance management is always viewed in relation to the actual organizational performance of the ministries, department and agencies (MDAs) at both Federal and State governments levels (UNDP, 2014; World Bank, 2015, Esu and Inyang, 2009). On this score, the interplay of certain antecedents of performance management and their impacts on
the public sector institutions in improving outcomes, performance and service delivery has been quite a vigorous policy pursuit of various governments in Nigeria, international development partners as well as non-governmental organizations (Oladoyin, 2012; UNDP, 2014; Ibieta, 2013). The fundamental question is whether the performance management antecedents jointly or individually brings about the improvement of the public sector performance generally (Van Thiel and Leeuw, 2002; Ittner and Larcker, 2001; Verbeeten, 2008).

Yang et al. (2009) and Ho (2006) strongly averred that, despite the sweeping relevance of the performance management practice in the public sector, a quite little is known about the relative efficacy and effectiveness of the performance management antecedents on the organizational performance. Thus, the further effect of this component of the performance management practice and how it could trigger significant improvement in the public sector service delivery remains largely unanswered (Amirkhanyan, 2011; Northcott and Taulapapa, 2012; Van Thiel and Leeuw, 2002).

The strongly advocated antecedents of performance management with a potentially significant positive consequences on the organizational performance are performance measurement (Verbeeten, 2008; Northcott and Taulapapa, 2012; Nomm and Randma-Liiv, 2012; Kloot and Martin, 2000) and institutional culture (Kagaari et al., 2010; Cavaluzzo and Ittner, 2004; Otheitis and Kunc, 2015). However, these two important antecedents are often ignored, thus, no rigorous academic output exists on the area in some countries notably in developing economies (Cavaluzzo and Ittner, 2004; Kagaari et al., 2010). Furthermore, the empirical evidence on how these antecedents drives performance in the public sector are largely missing and have not been accorded the deserved recognition and attention in the developing countries’ academic literature (Spekle and Verbeeten, 2014; Kloot and Martin, 2000). Notwithstanding, the recent evidence suggests that, performance management impacts on organizational performance has been exhaustively investigated in many developed countries, therefore, the causal relationship has been quite established but with varying degrees of results (Ingraham et al., 1998; Van Thiel and Leeuw, 2002). On this score, Bejerot and Hasselbladh, (2013) discovered that, after virtually couple of decades in reforming public sector, the effect of performance management antecedents on public sector performance still remains controversial. Thus, it becomes an endless exercise (Spekle and Verbeeten, 2015). Verbeeten (2008) further claims that, this conundrum could only be unravelled by deep empirical exercise among different countries’ public sector. By so doing, the differing areas of outcomes will be marked (Cavaluzzo and Ittner, 2004) and be absolutely highlighted for future reference (Spekle and Verbeeten, 2015).

Therefore, against this background, this study takes a holistic approach to remedy the shortage of studies on this area by testing the performance management antecedents in the Nigerian public sector. Specifically, MDAs across state governments in Nigeria will be considered. Similarly, the study made a unique contribution to the existing body of knowledge as many studies, empirical and otherwise were principally conducted on the basis of data from one or few public sector organizations (LeRoux and Wright, 2010; Carman, 2009; Stone et al., 1999).

2. PERFORMANCE MANAGEMENT IN NIGERIA

Public sector organizations generally in Africa differs largely due to background, historical and cultural differences, but the common problem facing most countries regardless of the culture and history, is weak or poor performance in terms of service delivery (Okeke-Uzodike and Chitakunye, 2014). Given this fundamental context, public sector organizations in Nigeria and many African countries have been stigmatized with inefficiency leading to weak and dysfunctional performance management practices (Okeke-Uzodike and Chitakunye, 2014; Soludo, 2013; Owusu, 2012).

Despite the fact that, performance management literature is replete with the studies on the potential benefits of the system (Folz et al., 2009), Nigeria in particular and other African countries as a whole fell short in terms of concrete research outputs on performance management if place side by side with other countries in Asia and Europe (Owusu, 2012). Nonetheless, Nigeria and other African countries have wholeheartedly embraced reforms in the public sector that usher in the New Public Management (NPM) and performance management practices (World Bank, 2008; 2015; UNDP, 2014). In Nigeria, the performance expectation has quite skyrocketed in the recent past. Public institutions endure tremendous pressure anchored around public demands for improve service delivery (Soludo, 2013; ADB, 2012). The demands are quite daring due to the shrinking revenue base and the limited resources to cater for many expectations. This holistic challenge has encouraged governments to rediscover the age-long need for performance management and how this driven organizational performance in key government agencies and institutions (Ene et al., 2014; Owusu, 2012).

Historically, public sector organizations and their performances are attributable to the management control procedures, therefore, the push for performance management derives its origin in management control and management accounting (Ittner and Larcker, 2001; Verbeeten and Spekle, 2015). Performance management practice in the public sector is specifically anchored around certain tools, drivers or antecedents, among which are performance measurement and institutional culture (Kloot and Martin, 2000; Spekle and Verbeeten, 2015; Verbeeten, 2008). But in Nigeria there is little compelling evidence that, these antecedents are jointly investigated in relation to their significance on the public sector organizational performance. In other words, the mix antecedents are less-investigated in practical sense in the Nigerian context. Curiously, Ingraham et al. (1998) supported this submission by claiming that, few studies, which are largely descriptive emphasized albeit implicitly on the need for radical changes in investigating the key drivers that influence the performance management practice like sound institutional culture, goal orientation and measurement.
Over the past decades, performance management practices have become a catchcry international trend among the public executives due to its significance in the public sector management (Pollitt, 2006; LeRoux and Wright, 2010; Ittner and Larcker, 2001). Growing global relevance of performance management has actually led to significant point of interest that triggers different model of studies towards fostering performance culture and performance orientedness (Nomm and Randma-Liiv, 2012; Hood, 1995). Moon and DeLeon (2001) argue that, the passage of GPRA 1993 has been a turning point on the performance management practice not only in the USA but also across the globe. Okeke-Uzodike and Chitakunde (2014) further argue that, the effect and need for performance management has, for long, trickled down to African countries’ public sector whose disposition to weak services are self-evident and profound.

Some years ago, only little thought was given to the performance management practice in the public sector (Pollitt and Dan, 2013). Nevertheless, as the public sector management became largely professionalized and the stakeholders’ interest expand tremendously big, the performance management assume a dramatic importance in the scheme of things within the public sector (Kloot and Martin, 2000).

Performance management sometimes assumes multidisciplinary and multidimensional pattern, therefore, in attempting to investigate and explain the relevance of its antecedents, then, it is necessary to consider other strands of literatures from other disciplines. This is because the area could not be absolutely explored by exclusively restricting the review only within accounting and finance, thus, such exercise brings about incomplete results and incorrect conclusions (Verbeeten, 2008; Merchant et al., 2003).

Specifically, in establishing the subtle contribution of the performance management in Nigeria, reference should be made to the individual and collective contributions of two key antecedents viz., performance measurement and institutional culture. This reason is not far-fetched because greater expectations at all levels aroused due to the fact that, agencies and ministries world over are currently scrutinized with regards to their adherence to the performance management practice (Melkers and Willoughby, 2005).

### 2.1. Performance Measurement in Public Sector

Specifically, it is established that, performance measurement if not well-considered and evaluated could undermine the public sector organizational performance (Amirkhanyan, 2011; Heinrich, 1999; Van Thiel and Leeuw, 2002). Although, performance measurement contains a wide scope and a long history in service delivery and programs evaluation, it is immediate outcomes and symbolic effects is inevitably presumed to impact on the management performance (Ho, 2006; Yang and Hsieh, 2007; Moynihan, 2005). Hence, it is often assumed that, performance measurement in the public sector leads to sound organizational performance (Hood, 1995; Verbeeten, 2008). Amirkhanyan (2011) further posited that, performance measurement exerts a positive impact on the public sectors’ ability to effectively manage contracts.

### 2.2. Institutional Culture in Public Sector

Institutional culture is essential in understanding the public sector organization pattern. It is believe that, the style in which organizations are created and infuse with a particular cultural norms cast a shadow down on the general performance of the organization (Politt and Bouckaert, 2011; Politt and Dan, 2013). Institutional culture forms part of the essential attributes of the performance management. Both institutional culture and performance measurement have been severally cited by the scholarly literatures as affecting the way and manner in which performance management transforms and improves public sector performance (Politt and Dan, 2013; Sanger, 2012).

Melkers and Willoughby (2005) strongly advocated that, flexibility in cultural norms as well as transition of government institutions from the weak cultural inclination to sound institutional cultures constituted a significant antecedent that provides performance management an opportunity to blossom.

### 3. HYPOTHESIS DEVELOPMENT AND RESEARCH FRAMEWORK

#### 3.1. Performance Measurement and Organizational Performance

Performance measurement has been severally established to be a tool which brings about positive managerial effects like cost-efficiency and service effectiveness in the public sector organizations (Yang and Hsieh, 2007). Again, effective performance measurement is linked to organization’s managerial effectiveness and performance (Behn, 2003; Melkers and Willoughby, 2005; Ho, 2006). Verbeeten (2008) observed that, performance measurement practice is implicitly and explicitly connected to organizational performance. De Lancer Julnes and Holzer (2001) aligned their findings along similar prior outcomes, by observing that, organizational success and outcomes are largely hinged around the practice and effectiveness of its performance measurement system. Folz et al. (2009) opined that, performance measurement is a key precursor for managing performance towards achieving efficiency and effectiveness. OECD-NPM also considers performance measurement system as a catalyst for public sector performance improvement (Verbeeten and Spekle, 2015; OECD, 2002). Den Hartog et al. (2004) argue that, good performance measurement system characteristics improves performance. Equally still, Melkers and Willoughby (2005) suggested that, although performance measurement is a fundamental attribute for sustained public sector organizational performance, though, some researchers are cautiously optimistic, while others are of the opinion that, performance measurement usage might sometimes be counter-productive. Again, LeRoux and Wright (2010) empirically found that, there is a significant positive relationship between performance measurement use and improvement in organization’s strategic decision making. Based on the above presumption, the following hypothesis is proposed:

$H_1$: There is a significant positive association between performance measurement and public sector organizational performance.
3.2. Institutional Culture and Organizational Performance

Verbeeten and Spekle (2015) empirically observed that, there is a positive association between the result-oriented institutional culture on one hand and performance on the other hand. It is also established that, performance management triggers the emergence of a unique culture in the public sector organizations, the ripple effect of which significantly improves public sector organizational performance (Hood, 1991; Parker and Bradley, 2000). Henri (2006) claims that, institutional culture is a deeply-established practice of the performance management that also serves as a key determinant of the public sector organizational performance. Effective institutional culture is a well-known and a familiar construct that plays a significant role in promoting good institutional practice and achieving efficient outcomes (Ramachandran et al., 2010). In similar order Kanji and Moura (2007) posited that, institutional culture influences functional patterns and performance of organizations. Melkers and Willoughby (2005) specifically postulated that, flexibility in cultural norms and sound cultural inclinations improves public sector organizational performance.

Wong et al. (2012) maintain that, organizational or institutional culture is a vital determinant of success or failure in a corporate settings. Institutional culture indicated the purpose of an organization, it is also a pattern that provides direction to an organization, and institutional culture reflects and mirrors performance of an organization (Pandey, 2014). Parker and Bradley (2000) established that, there is a positive and significant relationship between institutional culture and organizational performance. Yet still, Ramachandran et al. (2011) found that, institutional culture has gradually becomes a fad in the public sector organizations, it is non-functionality or absence points to a serious concern. Therefore, based on the above presumption, the following hypothesis is established:

H₂: There is a significant positive association between institutional culture and public sector organizational performance.

Therefore, in relation to the above stated hypotheses, the following research framework will guide the conduct of this study (Figure 1).

4. RESEARCH METHOD

A mail survey questionnaire was administered to 85 MDAs in the North-Eastern states of Nigeria. The North-East geo-political zone consists of six states namely: Bauchi, Adamawa, Gombe, Taraba, Borno and Yobe states. The questionnaires were addressed to the directorate of administration, finance and related services in every ministry, department or agency. The directors were selected because they are mostly and unarguably the deserved custodians of the Nigeria’s public sector performance management system. They are also the managerial decision makers within the MDAs, hence they are presumed to be aware of the management initiatives employed in their respective organizations be it at departmental level or organizational level.

Out of the 85 questionnaires, 63 questionnaires were retrieved which constituted usable responses, thereby representing an excellent response rate of 74.12%. The sample is not biased as all types of government establishment viz. MDA are ably represented. Likewise, the study cut across all areas of government visible presence, from education, health, works, housing and the rest. Therefore, the study is not proportionately skewed towards any particular area of government services. The survey instrument was pre-tested by experts in both Nigeria and Malaysia.

4.1. Measurement of Variables

The questionnaire elicited responses on the performance measurement, institutional culture and public sector organizational performance. Each of the variable under review was measured using multiple items. Existing and well-established measures were used with modifications to co-opt the current research’s unique context.

4.1.1. Public sector organizational performance

Public sector organizational performance was measured by an instrument long established by Van de Ven and Ferry (1980). The instrument was deliberately designed to assess the performance of the government organizations. The instrument was further adopted by Spekle and Verbeeten (2014), Williams et al. (1990), and Verbeeten (2008). The instrument contains nine items.

For instance, items in the instrument originally utilized by Verbeeten (2008) seeks to establish the “quantity or amount of work produced,” “quality or accuracy of work produced” and other relevant questions in the public sector agencies. Thus, in this study, they were modified to specifically ask questions like “How would you quantify the organizational performance of your ministry?” “How would you assess the organizational performance of your ministry with regards to quality?” Hence,
all other items in the instrument were modified in similar order, fashion and approach.

4.1.2. Performance measurement
Performance measurement was measured by an instrument developed by Hoque and Adams (2011). The instrument was designed to measure the usage of performance measurement by public sector organizations. The instrument contains 12 items.

Under the original instrument as developed by Hoque and Adams (2011), the respondents were asked to indicate the usage of the performance measurement on some fundamental areas in their various organizations. The areas includes “strategic planning,” “budget formulation,” “achievement of goals,” etc. therefore, in this study, the instrument was modified to demonstrate the specific context of the researcher’s direction. Hence, questions were used like “To what extent does your organization used performance measurement in long-term planning?” “To what extent does your organization use performance measurement in budget formulation? This ensures answers in definitive terms from the respondents.

4.1.3. Institutional culture
Institutional culture was measured using an instrument developed by Brewer and Selden (2000). It contains 8 items measuring institutional culture in an organization.

For example, the questions in the original instrument elicited responses to questions like “At the place of my work, my opinion seems count,” “A spirit of co-operation and team work exist in my immediate work unit.” Equally still, the above questions were structured for responses like strongly agree, strongly disagree, etc. Consequently, Brewer and Selden (2000) instrument was modified in this study to assume a question form. Specifically, questions like “To what extent does the opinion of employees count in your organization?” were ably used. Similarly, the Likert options were replaced with 1 - Not at all, 5 - To a very great extent.

5. RESULTS AND DISCUSSIONS

5.1. Descriptive Analysis
Descriptive analysis of the study reveals that, 30.2% of the organizations whose responses were collated are ministries, 49.2% and 20.6% are departments and agencies respectively. This implies that, almost half of the organizations in this study are government departments. However, all the responses of the pilot study hails from the North-Eastern zone of Nigeria. Also, the descriptive statistical analysis showed that, respondents at the position of director represents 33.3% which is the highest. Equally still, the deputy directors, assistant directors and other cadre of employees that participated in the study represents 14.3%, 25.4% and 27% respectively. This fundamentally implies that, majority of the responses comes from the directors in the organizations under review.

For the experience on a particular position, descriptive statistics reveal that, 39.7% spent <2 years on their present position. This is followed by those that spent 2-5 years on their current position which constituted 44.4% and finally those with over 5 years of experience which equals to 14.3%. For gender, it is quite established from the descriptive that, male represent 55.6% of the responses, while female represents 44.4%. This implies that, there is preponderance of male on the position of authority in the Nigerian public sector in relation to their female counterparts.

5.2. Results
SPSS 20 was used throughout for the purpose data cleaning and analysis. However, the data cleaning exercise reveals that, there were some missing data or blank responses on the three items of the questionnaire. The affected items are PM5, IC6 and IC8. This happens to be a random missing responses, therefore, they were analyzed and properly replaced using mean substitution method. Incidentally, further data exploration reveals that, no identified case of univariate outliers was established. This implies that, the calculated Z-scores of all the variables under review falls within the acceptable threshold (Tabachnick and Fidell, 2007).

Reliability of the instruments were also computed, thus all the variables in the study reveals acceptable Cronbach alpha reliability co-efficient. Thus, the Cronbach alpha co-efficient of the public sector organizational performance, performance measurement and institutional culture are 0.931, 0.955 and 0.948 respectively. These have exceeded the recommended minimum (Nunnally and Bernstein, 1994).

Moreover, normality assumption is the most vital assumption in the bivariate and multivariate statistical analysis (Hair et al., 2010). Therefore, this study utilized histogram method of achieving normal distribution which easily and graphically presents histogram and the normal distribution curve. This is more visibly straightforward than using numeric method (Kolmogorov–Smirnov test).

In order to satisfy the assumption of linearity and homoscedasticity, the scatterplots were plotted to ascertain the direction of the relationship between the variables. The scatterplots indicates that, the scores of the plots cluster uniformly around the regression line, hence, linearity and homoscedasticity are assumed. The regression line that passes through the data points represent the “line of best fit.”

5.3. Test of Hypothesis
Having achieved all the assumptions of statistical analysis, the data of the study were analyzed using zero-order correlation. Therefore, the Pearson zero-order correlations between the study variables were obtained at 5% level of significance. From the result of the analysis of the bivariate correlation, it is established that, significant positive association exists between public sector organizational performance and performance measurement as well as between public sector organizational performance and institutional culture.

5.3.1. Public sector organizational performance and performance measurement
The result of the analysis shows that, higher public sector performance is positively associated with higher performance...
measurement system \((r = 0.643, P < 0.05)\). Based on this, the alternative hypothesis is accepted which states that, there is significant positive association between public sector organizational performance and performance measurement. This association has been tested and confirmed. Therefore, the finding is in line with theoretical postulation of Behn (2003), Melkers and Willoughby (2005) where they strongly claimed that, effective performance measurement is closely associated with public sector performance. Again, the finding confirms other similar studies’ findings. Specifically, Verbeetan (2008) found that, effective performance measurement is implicitly and explicitly connected to the public sector performance. Moreover, this finding is in tandem with LeRoux and Wright (2010) conclusion, where they observed that, significant positive relationship exists between performance measurement and organization’s strategic decision making as well as performance.

### 5.3.2. Public sector organizational performance and institutional culture

The result of the analysis shows that, higher public sector performance is positively associated with higher institutional culture \((r = 0.721, P < 0.05)\). Based on this, the alternative hypothesis is accepted which states that, there is significant positive association between public sector organizational performance and institutional culture. The results of this study is in line with the findings of other studies. Specifically, Verbeetan and Speke (2015) empirically found that, positive association exists between result-oriented culture and organizational performance. Furthermore, other theoretical notions of different researchers have been confirmed empirically to be true. For instance, Henri (2006) observes that, institutional culture is a long-established variant of the performance management practice that serves as a vital factor for improving performance. Equally still, Pandey (2014) indicates that, institutional culture mirrors performance of an organization. Parker and Bradley (2000) empirically tested similar theoretical postulation and eventually found that, significant positive relationship exists between institutional culture and organizational performance.

### 6. CONCLUSIONS, LIMITATION AND RECOMMENDATIONS

The aim of the study was to demonstrate the need and relevance of the performance management antecedents in the public sector MDAs towards achieving the effective public sector organizational performance. In order to keep faith with the purpose of this study, it is established that, an attempt to investigate the relevance of the antecedents of the performance management is poised to likely continue to generate research interest from the researchers and will undoubtedly produce multiple empirical evidence. Thus, this study tested the hypotheses that were carefully built from the reviewed literatures.

Hence, the study draws upon management accounting, management control and public sector performance management literatures. It is found that, performance measurement is a vital determining factor in stimulating organizational performance. Equally still, institutional culture is established to be essential variable in promoting public sector organizational performance. Finally, it is recommended that, more performance management mechanisms are needed to augment and improve the public sector efficiency especially in some ministries and agencies where the performance management practice is practically observed in breach.

This study conducted only correlation analysis to establish the strength and the direction of the relationship as observed by different studies previously. Further research opportunities should investigate the holistic causal nature of the relationship between these variables. Regression analysis may be conducted further to establish the cause and effect of this hypothesized relationship. However, it is also observed that, some factors seems to be instrumental in explaining the nature and extent of the relationship between public sector organizational performance on one hand and performance measurement and institutional culture on the other hand. For instance, performance audit could be introduced to moderate the relationship in the subsequent studies. Pool of literatures and anecdotal evidence have shown that, performance audit is a significant factor in the public sector organizations’ performance management arrangement. Performance audit fundamentally focuses on management control procedures and organizational efficiency. Therefore, performance audit may well have interactive or contingent effect on these variables.

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