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# The Effects of Benchmarking on the Eastern Cape Municipalities' Performances

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## Abstract

Local government practices reveal that there is skewed use of human resource measures as mechanisms for evaluating, measuring and improving governmental performances. Yet in a number of instances, organizational diagnosis have revealed that shortfalls in governmental performances are not related to human resource related factors, but the kinds of operational systems, processes and work methods in place. It is against such a backdrop that this paper examines the nexus between benchmarking as a system and process improvement mechanism, and its resulting positive effects on improving performances of the municipalities in the Eastern Cape Province. The target population for the study comprised of all the municipalities in the Eastern Cape Province. It is indicated in the Local Government Human Resource Document (2009:19) that there are approximately 11700 municipal employees in the Eastern Cape Province. In order to determine the appropriate and valid sample for the study, Yamane (1967:886)'s formula was applied, with the result that 100 sample respondents were concluded as the representative and valid sample for the study. The desired 100 respondents were drawn into the study using simple random sampling. The principal primary data collection instrument was a questionnaire designed basing on the Likert Scale Style. The Cronbach and Spearman Brown analysis were performed in order to determine the validity and reliability of the questionnaire. The techniques which were used in determining whether the hypothesized benchmarking theory fits the sample data included; the Goodness of Fitness Index (GFI), Parsimony Normed Fit Index (PNFI), Tucker Lewis Index (TLI), Comparative Fit Index (CFI) and RMSEA (Root Mean Square Error of Approximation). Hu and Bentler's (1995:22) interpretation was used in determining whether the results of GFI, PNFI, TLI and CFI were within acceptable limits of 0 and 1. On the other hand, Wheaton's (1987:2) and Carmines and McLver's (1981:1) arguments were used in assessing whether RMSEA (Root Mean Square Error of Approximation), fell in the acceptable limit of 0.05 and 0.08. Nonetheless, the results of GFI, PNFI, TLI, CFI and RMSEA confirmed that the hypothesized benchmarking model fits well with the observed sample data.

**Keywords;** Benchmarking; Performance; Municipalities; Eastern Cape Province

## 1. INTRODUCTION

There is a tendency for most modern public sector organizations to use human resource related measures such as performance management and performance appraisals as techniques for monitoring and evaluating governmental performances (Hyatt, 2001:12). Hyatt (2001:12) argues that the use of these human resource measures is significant for realizing improving public sector performances. However, Hyatt (2001:12) noted that the use of such human resource measures limits the ability of public sector organizations to gain holistic evaluations and understanding of shortfalls which could be limiting effective governmental performances. He identified benchmarking as one of the appropriate performance improvement techniques for most modern private and public sector organizations. Heckman, Heinrich and Smith (2002:778) shares Hyatt's (2001:12) believe that benchmarking provides opportunities for organizations to compare themselves with other similar best performing organizations, and to adopt "best practices" which can be used to significantly improve their performances. Through such processes, Heckman et al. (2002:778) noted that public sector organizations are able to identify service shortfalls and take appropriate corrective and improvement measures. In other words, Heckman et al. (2002:778) hinted that the use of benchmarking provide organizations with benefits that cannot be gained from the application of more inward looking techniques such as; performance management, performance appraisals, and balanced scorecard. They further pointed out that benchmarking coupled with effective implementation of "best practices" significantly results into improving organizational process efficiency, effectiveness, costs reductions, enhanced service quality, and ability to adequately meet public needs and wants.

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Despite values associated with benchmarking, the analysis of strategies used by Public Service Commission to evaluate and improve performance of the South African public sector reveals that benchmarking is not one of the strategies which are used to evaluate, measure and improve inter-departmental performances. Yet there is strong evidence reflected in the Public Service Commission Report (2011) that whereas other provincial governments and municipalities especially in the Western Cape Province has registered year after year clean audit reports and constant improving service delivery, no initiatives have been undertaken by other poor performing provinces and municipalities to benchmark themselves against such better performing provincial governments. This implies that most of the poor performing provinces in South Africa may lack sufficient information in order to gain in-depth understanding of the reasons why they might be performing badly. It also signifies that municipalities may not be able to effectively determine measures which could be considered suitable for redressing such challenges. It is therefore on that basis that this study is being conducted so that appropriate benchmarking measures can be suggested. This research paper is divided into three main sections. The first section examines the literature on benchmarking as a performance improvement measure, the second section provides the description of research design and methodology which was used in the research process and the third section examines the findings, conclusions and recommendations of the study.

## **2. Benchmarking as a Performance Improvement Measure**

Maire, Bronet and France (2005:45) posit that benchmarking refers to the management process comparing and contrasting organizational performances in certain key identified areas. In terms of comparison of performances between two public sector organizations, Maire et al(2005:45) stated that benchmarking can be aimed at measuring and comparing costs, efficiency, effectiveness, strategic successes, employee performances, applications of technology to enhance performances, and service delivery processes. In a more precise description, Wait and Nolte (2005: 48) explained that benchmarking concerns a process through which organizations capture specific data related to its costs and performance in terms of set baseline, and then evaluates this costs and performance data against those from some other entity which is a benchmarking partner. Maire et al(2005:45) agreed with Lee, Zailani and Soh (2006:565) that such process of comparing and contrasting enables organizations to identify areas of weaknesses and strengths. They further indicated that isolating areas of weaknesses enables organizations to take appropriate remedial actions to deal with such weaknesses, and on the other hand to take strategies which would result into building the identified strengths. Nonetheless, Maire, Bronet and Pillet (2008:66) noted that although in most cases benchmarking is done externally; it can also be done internally. They stated that in cases of internal benchmarking, comparisons are made between units, divisions, plants or subsidiaries within the same organization. Maire et al. (2008:66) argued that internal benchmarking makes comparison of like with like easier and relevant data are easier to obtain, since departments in one organization are less afraid to share data and secrets with each other.

In an alternative view, Hyatt (2001:12) indicates that internal benchmarking has drawbacks; in that it can be mainly inward looking and tends to be narrow in perspective, as compared to external benchmarking processes. Hyatt (2001:12) further noted that it is possible to make comparisons across national boundaries, but unless the comparisons are made within the same group and accounting polices are standardized, the process is fraught with problems because of differing local conditions and cultural differences. Vermeulen (2003:65) stated that benchmarking can be differentiated according to the type of comparison being made between organizations. He outlined the different types of benchmarking to encompass; functional benchmarking, and process benchmarking. Vermeulen (2003:65) explained that whereas functional benchmarking compares performance relating to a single business function, process benchmarking compares performance relating to a structured set of activities that are designed to produce a specified output for a particular customer or market. Vermeulen (2003:65) further elaborated that this type of benchmarking examines activities of competitors supplying the same or similar customer or market and may involve activities within more than one functional area. On that basis it is hypothesized in this study that;

H<sub>0</sub>; The use of a combination of different types of benchmarking may significantly result into the improving performance of the municipalities in the Eastern Cape Province

H<sub>1</sub>; There is no significant link between the use of a combination of different types of benchmarking and the significant resulting improving performance of the municipalities in the Eastern Cape Province

Despite strong evidence linking benchmarking to improving general organizational performance, Bourne (2005:101) stated that benchmarking may not result into achieving its desired strategic objectives and goals, unless if certain systematic and logical processes are followed by organizations during the benchmarking process.

### **2.1 The Organizational Benchmarking Processes**

Bourne (2005: 101) agrees with authors such as Walshe (2003: 5) and Stutzer (2003: 13) that benchmarking may not effectively result into improving operational and process efficiency, unless if keen management attention is paid to the logical and systematic processes involving six main steps. Bourne (2005: 101) revealed that the six main steps are; Step 1; Understand and measure critical success factors, Step 2; Select area of performance for benchmarking, Step 3; Select a benchmark partner, Step 4; Collect data in partner organization, Step 5; Compare

data and Step 6; Mark strength to be built. In step 1, Bourne (2005: 101) pointed out that organizations must understand and measure critical success factors. He stated that step 1 can be accomplished by examining the critical success factors, practices, processes and performance measures which are related to efficiency and effectiveness of the organization. He added that such a process usually results into ensuring that the exercise is focused on core areas and factors which determine their success. Bourne (2005: 101) explained that the process in Step 2 involves selecting area of performance for benchmarking. He suggested that this can be achieved by determining activities and measures to be used, but noted that a decision will usually need to be made on whether to benchmark a wide range of activities and levels of performance or whether to focus on a few key strategic areas. Bourne (2005: 101) suggested that the latter will not necessarily be at the corporate level, but may be anywhere in the organization where performance is seen as having a significant impact. Bourne (2005: 101) further argued that the effectiveness of benchmarking process is not only measured by compliance with processes in the second step, but also by the extent to which the appropriate partner is selected in step 3. In order to effectively select an appropriate partner, he pointed out that an appropriate criteria regarding similarity of business type, culture, process, technology and so on must be determined.

Bourne (2005: 101) suggested that such initiative may involve assessing competitors at local, national and international levels. It may also involve leaders in other industrial or commercial sectors, so as to determine the most appropriate level at which to benchmark (Bourne, 2005: 101). He argued that comparison of one department of an organization with another in the same organization is comparatively straightforward, but also pointed out that comparison with another excellent organization will depend on access to the information needed for comparison. He elaborated that the accomplishment of the processes in step 3 leads to the executions of activities in step 4 which concerns collecting data in partner organization. He stressed that process for data collection should be done using techniques which are used in one's organization. In his description, Bourne (2005: 101) stated that the collected data provides the basis for comparison in step 5. However, he noted that comparison of data with partner organization can only be effectively accomplished if the collected data is quantified as accurately as possible so that it is possible to compare like with like. According to Bourne (2005: 101), the aim of the comparison should be to identify areas of differences in performance and to consider their root causes in terms of activities and decision making, so as to enable the application of suitable and appropriate improvement techniques possible. Finally, Bourne (2005: 101) indicated step 6 involves marking strengths that organizational efforts must be directed towards building. He nonetheless pointed out that a positive benchmark result shows that the organization is ahead of its competitors, but it must not breed complacency. In particular, Bourne (2005: 101) stated that it is possible to identify where the organization is performing better than its benchmarking partner and mark areas where organizational strengths must be built.

Despite the fact that Bourne's (2005: 101) six main steps in the benchmarking process may be comprehensive, Accenture (2011) differed and provided a four steps approach encompassing; Step 1; Plan, Mobilize and Kick – Off, Step 2; Gather and Validate Data, Step 3; Perform Qualitative Assessment, and Step 4; Analyse Results and Identify Recommendations According to Accenture (2011), planning, mobilizing and kick-off is done in step 1. It also involves planning the data gathering approach, and can be accomplished by assessing scope, metrics and data sources. It subsequently leads to formal kick-off and communication. However, Accenture (2011) noted that this step is critical for an efficient benchmarking, because the time spent in this step can pay dividends in later processes and steps. Accenture (2011) stated that data is usually gathered, consolidated and validated in step 2, and advised that the process must certainly result into the producing of preliminary benchmark results. Accenture (2011) further noted that the findings of the study conducted on major organizations in the United States revealed that data gathering, consolidation and validation is followed by the activities in step 3 which involves undertaking qualitative assessments. They pointed out that what is required here is performing leading practice comparison and undertaking "voice of customers" assessments. According to Accenture (2011), step 3 is essential and necessary because, it enhances the understanding of the reasons behind numbers. Finally, Accenture (2011) stated that organizations must analyze results in step 4 by reviewing costs, performance gaps, and identifying the root causes of performance shortfalls, so as to development appropriate improvement measures.

Anand and Kodali (2008:291) revealed that following either the Bourne's (2005:101) Six Steps of the Benchmarking Process or the Accenture's (2011: 3) four main Steps of the Benchmarking Process would result into successful undertaking of benchmarking processes in most modern public sector organizations. However, Anand and Kodali (2008:291) noted that Bourne's (2005:101) Six Steps of the Benchmarking Process seems more comprehensive and effective as compared to Accenture's (2011: 3) four main Steps of the Benchmarking Process. They attributed their disagreements to the fact that Accenture (2011: 3) excludes the identification of key areas where performance must be compared with other organizations for improvement purposes. Anand and Kodali (2008:291) also noted that Accenture (2011: 3) excludes the need for the selection of appropriate benchmarking partner. Yet, according to Anand and Kodali (2008:291), most benchmarking processes have not usually resulted into achieving the desired positive benefits, because either the organization have failed to outline key areas for benchmarking or because a suitable benchmarking partner has not been selected. Anand and

Kodali's (2008:291) arguments are resonated in Bourne's (2005:101) assertion that factors encompassing: similarity of business type, culture, process and technology significantly determine the selection of a benchmarking partner and subsequently the undertaking of the successful benchmarking process. On that basis, this study states in its hypothesis that;

**H<sub>0</sub>**, The application Bourne's (2005: 101) six main steps in the benchmarking process may result into the improving performance of the municipalities in the Eastern Cape Province.

**H<sub>1</sub>**, There is no link between the application Bourne's (2005: 101) six main steps in the benchmarking process and resulting effects on improving performance of the municipalities in the Eastern Cape Province.

Nonetheless, Fletcher and Smith (2004:6) argued that a well executed benchmarking process must significantly result into improving organizational performances. These positive effects are examined in the next sub-section.

## **2.2 Effects of Benchmarking on Organizational Performance**

Fletcher and Smith (2004:6) posit that there is a significant direct positive effect between benchmarking and the organization's ability to understand its costs variables and performance drivers. Fletcher and Smith (2004:6) stated that it is because benchmarking is a form of a current state assessment of the organizational functional departments, and it involves rigorous assessments of costs, quality and circle time of external and internal comparisons. They argued that such assessments enable the organization to understand its costs and performance drivers, and to apply strategies through which costs can be reduced and performance enhanced. Kaynak (2003:405) concurred with Fletcher and Smith (2004:6) and pointed out that the use of performance improvement strategies which involve adopting best practices that focus on firm production processes can result into reduction of input and waste disposal costs. Kaynak (2003:405) further noted that it can also lead to the reduction or even the complete elimination of non-value added activities, and subsequently improving customer satisfactions and general organizational performance. On the other hand, Kumar and Chandra (2001: 9) linked the value of benchmarking to resulting ability to create foundation for implementing organizational transformational programmes. In other words, Kumar and Chandra (2001: 9) construed that effective benchmarking process provides the organization with sufficient information on key areas where there could be performance shortfalls. They added that such information enables an organization to more easily identify and prioritize opportunities, by process, region and cost driver which in turn results in more informed and relevant improvement targets and initiation of a stronger overall business case for the transformation effort.

Besides enhancing transformations of the organization, Wong and Wong (2008: 51) argued that benchmarking creates a strong basis for continuous improvement, and help renew a culture of managing by metrics through facilitating periodic measurement against the initial baselines. Mathaisel, Cathcart and Comm (2004: 17) however suggested that the effective undertaking of continuous improvement is measured by the benchmarking effectiveness. Mathaisel et al. (2004: 17) also noted that it depends on its resulting effects on providing a standard set of terms and definitions of key aspects of a company's business processes that enables everyone in the enterprise to share the same understanding about the state of the enterprise operations. In an alternative view, Prajogo, Brown and Alan (2004: 41) added that the undertaking of effective organizational benchmarking processes results into enhancement of teamwork and cross-functional and subsequently improving efficiency and effectiveness. On the other hand, Prajogo et al. (2004: 41), Thiagarajan, Zairi and Dale (2001: 306), Wong and Wong (2008: 51) and Zairi (2003) argued that the ability of the organizational benchmarking process to result into such positive effects may be limited. Prajogo et al. (2004: 41) linked benchmarking limitations to; inappropriate process for selecting appropriate set of performance measures, selecting appropriate a partner who represents the best practice, inability to gain access to information which constitutes the firm's trade secrets, and reluctance of top management. Prajogo et al.'s (2004: 41) perceptions on the determinants of effectiveness benchmarking process are consonant with Bourne's (2005:101) and Accenture's (2011: 3) conceptualization that there are certain variables in the benchmarking process that significantly determine how it is effectively implemented.

Nonetheless, whilst towing similar lines of arguments, Thiagarajan et al. (2001: 306) stated that one of the key success factors in a benchmarking process is the top management and middle management support and buy-in. They based their arguments on the fact that where top management is less committed, benchmarking may be undertaken merely as a formality, without any serious initiative to implement the results of what has been discovered through benchmarking. Yet on the other hand, Zairi (2003) suggested that succeeding in benchmarking also means that the organization has sufficient funds to implement the adopted measures. He noted that in most cases the organization benchmarked against could be having excess capital, and therefore are able to adopt certain better operation models or certain prescribed best practices. Then that may not be possible, if the organization benchmarking does not have sufficient funds, since its ability to invest in the complex and expensive improvement measures will be limited. In addition, Mathaisel, et al. (2004: 17) noted that although the end result of benchmarking is the copying of the other organization's best practice, what may be a best practice in a particular business environment today may or may not be a best practice in a changed business environment

tomorrow. In that case the constant changes in the organization's business environment may limit the effectiveness of a benchmarking process.

### **2.3 Measures for Enhancing Successful Organizational Benchmarking Process**

Hesham (2008: 764) argued that there are several keys to using benchmarking on an ongoing basis, and one of them is undertaking a process review. He stated that undertaking a process review involve identifying the processes and metrics that the company wants to measure and keeping them reasonably constant from year to year so that the company can generate trending data and evaluate the impact of improvement initiatives. Hesham (2008: 764) pointed out that approaching benchmarking from a process view, rather than an organizational perspective, is critical because it enables comparison of an organization's current state with the original baseline without being affected by myriad changes that the organization itself undergoes over time. On the other hand, Chenhall and Chapman (2006:201) argued that another key is a benchmarking rhythm which involves updating the benchmarking study regularly, for instance once a year for the entire function and once per quarter or six months for the selected metrics. In terms of use of forecasting results, Chenhall and Chapman (2006:201) explained that avoiding being affected by the turbulent changes in the external business environment implies that benchmarking must be undertaken in companion with the analysis of the effects of the likely changes in the external business environment. However, Jarrar and Zairi (2001: 906) noted that implementing the results of benchmarking means that there are certain changes which the organization must undertake. Such changes however may be resisted by managers and employees. In order therefore to ensure the smooth implementation of the benchmarking results, Jarrar and Zairi (2001: 906) suggested that the process must be accompanied with certain change management strategies. Basing on these theories, this study hypothesizes that;

**H<sub>0</sub>**; The use of certain measures may result into the successful undertaking of the benchmarking process and subsequently improving performance of the municipalities in the Eastern Cape Province.

**H<sub>1</sub>**; The use of certain measures may not result into the successful undertaking of the benchmarking process and subsequently improving performance of the municipalities in the Eastern Cape Province.

The next section provides a description of the methodology which was used in the study.

### **3. METHODOLOGY (CONFIRMATORY FACTOR ANALYSIS)**

This study used quantitative research method and specifically confirmatory factor analysis as the technique for assessing whether the hypothesized benchmarking theories reproduce the observed sample data. The target population for the study comprised of all the municipalities in the Eastern Cape Province. It is indicated in the Local Government Human Resource Document (2009:19) that there are approximately 11700 municipal employees in the Eastern Cape Province. In order to determine the appropriate and valid sample for the study, Yamane (1967:886)'s formula;  $no = \frac{N}{1 + N(e)^2}$ , was used. Where N is the target population (11700), and e is the precision level set at + or -10%, and No is the sample size.  $No = \frac{11700}{1 + 11700(.1)^2} = 100$  sample respondents. The desired 100 respondents were drawn into the study using simple random sampling.

The principal primary data collection instrument was a questionnaire designed basing on the Likert Scale Style. The Cronbach and Spearman Brown analysis were performed in order to determine the validity and reliability of the questionnaires. Whereas, the Cronbach Analysis was 0.8, the Spearman Brown's Homogeneity test was 1 and demonstrated that the measurement instrument used in the study was valid and reliable. Confirmatory factor analysis was applied in order to determine whether the assumptions in the benchmarking theory fit the observed sample data. The techniques which were used in determining whether the hypothesized benchmarking theory fits the sample data include; the Goodness of Fitness Index (GFI), Parsimony Normed Fit Index (PNFI), Tucker Lewis Index (TLI), Comparative Fit Index (CFI) and RMSEA (Root Mean Square Error of Approximation). Hu and Bentler's (1995:22) interpretation was used in determining whether the results of GFI, PNFI, TLI and CFI were within acceptable limits of 0 and 1. On the other hand, Wheaton's (1987:2) and Carmines and McLver's (1981:1) arguments were used in assessing whether RMSEA (Root Mean Square Error of Approximation), fell in the acceptable limit of 0.05 and 0.08. Nonetheless, the results of GFI, PNFI, TLI, CFI and RMSEA confirmed that the hypothesized benchmarking model fits well with the observed sample data. The details of the findings are discussed in the next section.

### **4. FINDINGS AND DISCUSSIONS**

Basing on theories discussed in the theoretical framework, it was hypothesized in this study that;

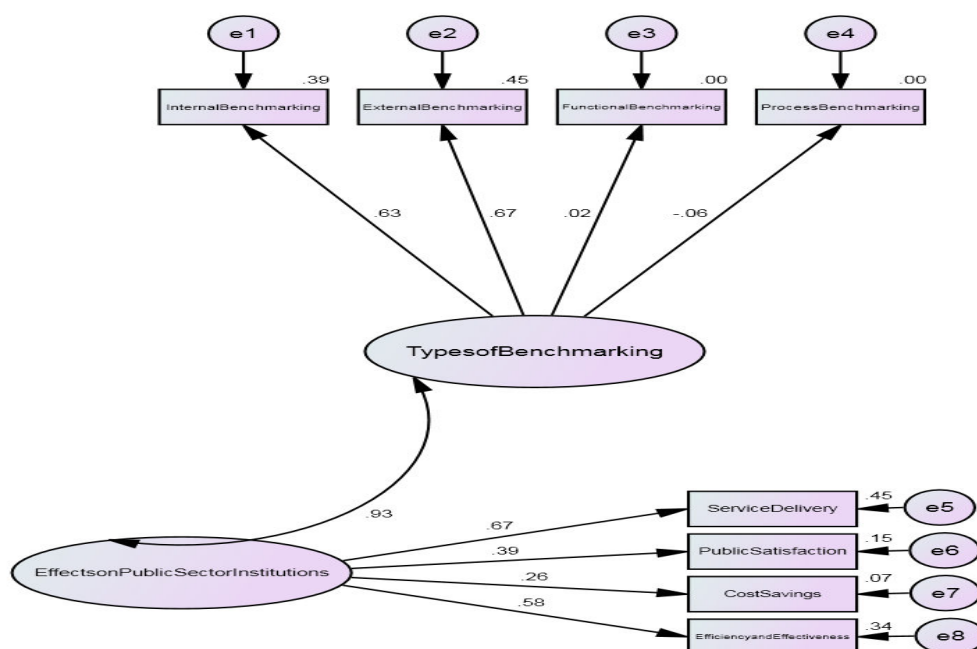
**H<sub>0</sub>**; The use of a combination of different types of benchmarking may significantly result into the improving performance of the municipalities in the Eastern Cape Province.

**H<sub>1</sub>**; There is no significant link between the use of a combination of different types of benchmarking and the significantly resulting improving performance of the municipalities in the Eastern Cape Province.

While sharing the views of Bourne et al. (2000:754), it is argued in this hypothesis that the use of different types of benchmarking would result into the Eastern Cape's Municipalities' successful use of benchmarking as performance measurement and improvement mechanism. Internal benchmarking would enable municipalities in

the Eastern Cape Province to compare themselves against best performing municipalities within the Eastern Cape Province, and to make improvements according to the standards of such internal municipalities. It is further hypothesized that external benchmarking would enable municipalities in the Eastern Cape province to compare themselves against another best performing municipalities in other provinces or even municipalities in over sea's countries. In each of these instances, the Eastern Cape's municipalities may use either functional or process benchmarking or a combination of both. Authors such as Bourne et al. (2000:754) and Hyatt (2001:12) seem to present their argument as if these different types of benchmarking can be undertaken differently. In this study, the author differs and points out that the use of a combination of different types of benchmarking would significantly result into improving undertaking of benchmarking and performance of the municipalities in the Eastern Cape Province. The assertion is based on the fact that the use of a combination of different types of benchmarking would enable the weaknesses of one type of benchmarking to be outplayed by the application of the strengths of other types of benchmarking. This was the argument against which the null hypothesis was formulated. Figure 1 does not only represent the conceptualization of the use of a combination of the four types of benchmarking, but also confirms the assertion in the null hypothesis that the use of a combination of internal, external, functional and process benchmarking significantly determines the extent to which the benchmarking processes in the Eastern Cape province would be effective, but also resulting improving performances of the Eastern Cape municipalities.

Figure 1: The use of a combination of different types of benchmarking may significantly resulting into the improving performance of the Eastern Cape Municipalities



In other words, Figure 1 indicates that the results of Standardized Regression Weights (Factor Loadings) and Square Multiple Correlation Coefficient ( $R^2$ ) indicates that the relationship between the use of a combination of the four types of benchmarking and resulting positive effects is significant at 0.93. This conclusion is drawn in the light of Wgener's (2010:407) assertion that a relationship between variables or data set is significant if the results of the analysis falls in between plus or positive 0 and 1. This implies that if the municipalities in the Eastern Cape Province are to apply a combination of the four types of benchmarking, then they are most likely to experience resulting improving service delivery, customer satisfactions, cost savings and improving efficiency. The null hypothesis that the use of a combination of different types of benchmarking would result into improving performance of the Eastern Cape Province is further confirmed in the results of the confirmatory factor analysis. It is indicated that the Chi-square = 25; Degrees of freedom =20; Probability level =.215; CMIN/DF=1.23. Hu and Bentler (1995:16) stated that the model can be considered to fit well with the sample data, if  $P > 0.05$ . In this instance, P value is .215, and it can be considered to be greater than 0.05 (Probability level =.215=  $P > 0.05$ ), and on that basis, one would argue that the model illustrated in Figure 1 significantly fits well with the sample data. It is further noted in Table 1 that the Goodness of Fitness Index (GFI) was 1, PNFI (Parsimony Normed Fit Index, acceptable if falls between 0 and 1)=.28, TLI (Tucker Lewis Index, acceptable if it falls between 0 and 1)=.41, and CFI (Comparative Fit Index, acceptable if falls between 0 and 1) was .67. Hu

and Bentler (1995:22) argued that the model can be concluded not to depart from the sample data if GFI, PNFI, TLI and CFI falls between 0 and 1., with results falling closer to 1 indicating better fit. In Table 1, it is noted that except for PNFI and TLI, GFI was .71 and CFI was .67, and indicating better fitness of the model. Although PNFI and TLI did show only moderate fitness, the holistic assessment of the findings in Figure 1 and Table 1 would imply that there is a model fitness between the observed sample data and the hypothesized benchmarking theory.

Table 1: Modification Indices (Alternative Fit Indices)

Chi-square = 25; Degrees of freedom =20; Probability level =.215 ; CMIN/DF=1.23		
Modification Indices (Alternative Fit Statistics)	Obtained Value	Interpretation
GFI ( Acceptable if falls between 0 and 1)	.71	Acceptable
PNFI (Parsimony Normed Fit Index, acceptable if falls between 0 and 1)	.28	Acceptable
TLI (Tucker Lewis Index, acceptable if it falls between 0 and 1)	.41	Acceptable
CFI (Comparative Fit Index, acceptable if falls between 0 and 1)	.67	Acceptable
RMSEA (Root Mean Square Error of Approximation, acceptable if falls between 0.05 and 0.08)	.05(PClose=.467)	Acceptable

In other words, the findings reveal that the use of a combination of different types of benchmarking would result into the significant improving performance of the municipalities in the Eastern Cape Province. The findings imply that improving service delivery processes, costs savings, customer satisfactions and improving efficiency and effectiveness would result from the fact that internal benchmarking would provide opportunities for municipalities to study and copy best practices of municipalities operating in a similar environment. External benchmarking would enable them to be exposed to new approaches and processes for delivering public services in municipalities in other provinces. Functional benchmarking would provide the avenue for the municipalities in the Eastern Cape Province to study other municipalities and understand the kinds and causes of functional shortfalls that they could be experiencing. Process benchmarking would provide the municipalities in the Eastern Cape Province with the opportunity to study how other municipalities have been able to eliminate glitches and improve their processes. The combined effects as the study revealed would be manifested in elimination of glitches and improving processes which could result into improving service delivery. The elimination of glitches in processes implies that the municipalities in the Eastern Cape Province would also be able to eliminate costs and wastages which are usually associated with glitches in service delivery processes. This would result into costs savings which can be used to improve service delivery, improve efficiency and effectiveness, and subsequently improving satisfactions with the provided public services.

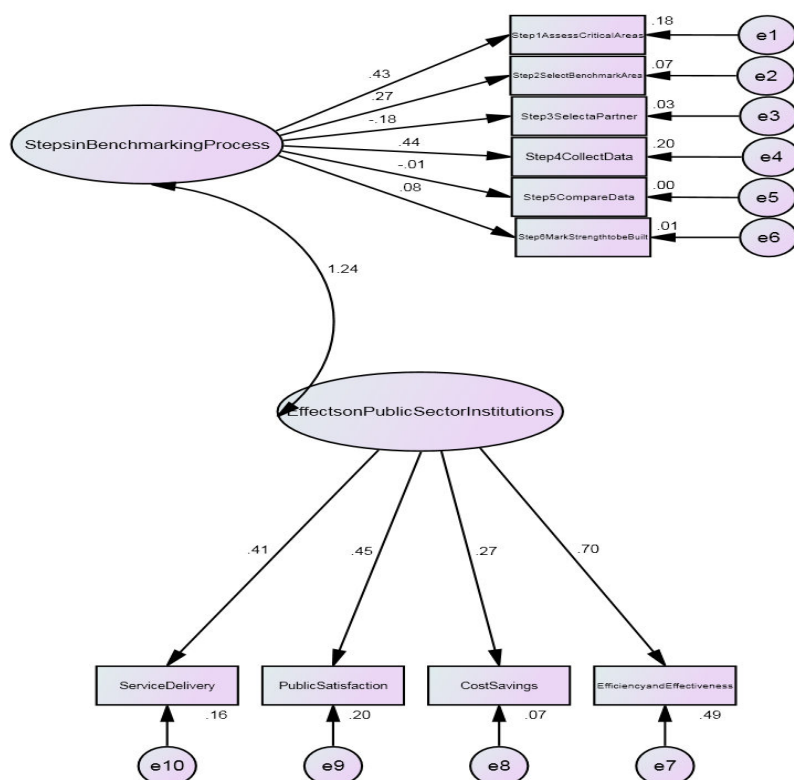
The findings also suggest that successful benchmarking will not only be achievable through the application of a combination of the four types of benchmarking, but also through the following of certain prescribed systematic steps and processes. In other words, the findings seem to indicate that random approach to benchmarking may not result into realizing of values which are usually associated with benchmarking. Such a view is echoed in the views articulated in the Bourne's (2005: 101) six main steps in the benchmarking process. Basing on Bourne's (2005: 101) six main steps in the benchmarking process, this study hypothesized that;

**H<sub>0</sub>**; The application Bourne's (2005: 101) six main steps in the benchmarking process may result into the improving performance of the Eastern Cape Municipalities.

**H<sub>1</sub>**; There is no link between the application Bourne's (2005: 101) six main steps in the benchmarking process and resulting effects on improving performance of the Eastern Cape Municipalities.

Bourne (2005: 101) revealed that the six main steps are; Step 1; Understand and measure critical success factors, Step 2; Select area of performance for benchmarking, Step 3; Select a benchmark partner, Step 4; Collect data in partner organization, Step 5; Compare data and Step 6; Mark strength to be built. Figure 2 confirms the null hypothesis and Bourne's (2005: 101) assertions that the following of the six main steps can result into benchmarking undertaken by the municipalities in the Eastern Cape Province. In other words, Figure 2 indicates that the relationship between the use of the application Bourne's (2005: 101) six main steps in the benchmarking process and the resulting positive effects on the municipalities in the Eastern Cape Province is significant at 1. Using Wgener's (2010:407) interpretations, one can conclude that the application of Bourne's (2005: 101) six main steps in the benchmarking process would enable the municipalities in the Eastern Cape Province effectively identify problems in their service delivery processes, and take corrective actions would result into costs savings and investment on activities will not only improve efficiency and effectiveness, but also customer satisfaction.

Figure 2: The application Bourne’s (2005: 101) six main steps in the benchmarking process may result into the improving performance of the municipalities in the Eastern Cape Province



This is because following Step 1 would enable the municipalities in the Eastern Cape Province to understand and measure critical success factors. Step 2 involves selecting area of performance for benchmarking, and it is at that point that it will require commitments of the managers in the Eastern Cape Province to identify areas that need to be benchmarked so that best practices can be adopted. In Step 3, the municipalities would be required to select a benchmark partner, Step 4; Collect data in partner organization, Step 5; Compare data and Step 6; Mark strength to be built. In other words, the findings are consonant with Bourne’s (2005: 101) argument that following the six main steps in the benchmarking process would result into improving organizational performance. It is not only the results of Standardized Regression Weights (Factor Loadings) and Square Multiple Correlation Coefficient ( $R^2$ ) that indicate that the application of Bourne’s (2005: 101) six main steps in the benchmarking process would result into the improving performance of the municipalities in the Eastern Cape Province, but also the Chi-Square and Modification Indices which are contained in Table 2.

Table 2: Modification Indices (Alternative Fit Indices)

Chi-square =54 ; Degrees of freedom = 35; Probability level = .021; CMIN/DF=1.5		
Modification Indices (Alternative Fit Statistics)	Obtained Value	Interpretation
GFI ( Acceptable if falls between 0 and 1)	.89	Acceptable
PNFI (Parsimony Normed Fit Index, acceptable if falls between 0 and 1)	.30	Acceptable
TLI (Tucker Lewis Index, acceptable if it falls between 0 and 1)	.34	Acceptable
CFI (Comparative Fit Index, acceptable if falls between 0 and 1)	.15	Acceptable
RMSEA (Root Mean Square Error of Approximation, acceptable if falls between 0.05 and 0.08)	.07 (PClose=.149)	Acceptable

Table 2 reveals that the Chi-square =54 ; Degrees of freedom = 35; Probability level = .021; CMIN/DF=1.5 and suggests that the model departs from the observed sample data. However, Wheaton (1987:2) and Carmines and McLver (1981:1) using a ratio of 2 to 1 implied that a CMIN/DF=1.5 can be construed as indicating a model fitness. Basing Wheaton (1987:2) and Carmines and McLver (1981:1), one would argue that the CMIN/DF=1.5 indicates that the hypothesized benchmarking theory adequate fits the observed sample data.

The fact that the hypothesized benchmarking theory fits well with the observed sample data is further echoed in the fact that the modification indices in Table 2 indicate that the model fits well with the observed sample data. Using Hu and Bentler’s (1995:22) interpretation, one can construe that Goodness of Fitness Index (GFI) of .89, PNFI (Parsimony Normed Fit Index, acceptable if falls between 0 and 1)=.30, TLI (Tucker Lewis Index,



acceptable if it falls between 0 and 1) = .34, and CFI (Comparative Fit Index, acceptable if falls between 0 and 1) was .15 indicate that there is adequate fitness of the model. Hu and Bentler (1995:22) further argued that the RMSEA (Root Mean Square Error of Approximation) falling between 0.05 and 0.08 with a higher PClose can be considered as acceptable. It is indicated in Table 2 that the RMSEA was .07 with a higher PClose of .149. Using Hu and Bentler's (1995:22) interpretation, it can be stated that the RMSEA falls within the acceptable range and indicates that the application Bourne's (2005: 101) six main steps in the benchmarking process may result into the improving performance of the municipalities in the Eastern Cape Province. It was also argued in this study that successful benchmarking may never be achievable through the use of different types of benchmarking and the application Bourne's (2005: 101) six main steps in the benchmarking process only, but also through the extent to which certain accompanying measures or strategies are used to ensure that the entire benchmarking process is successful.

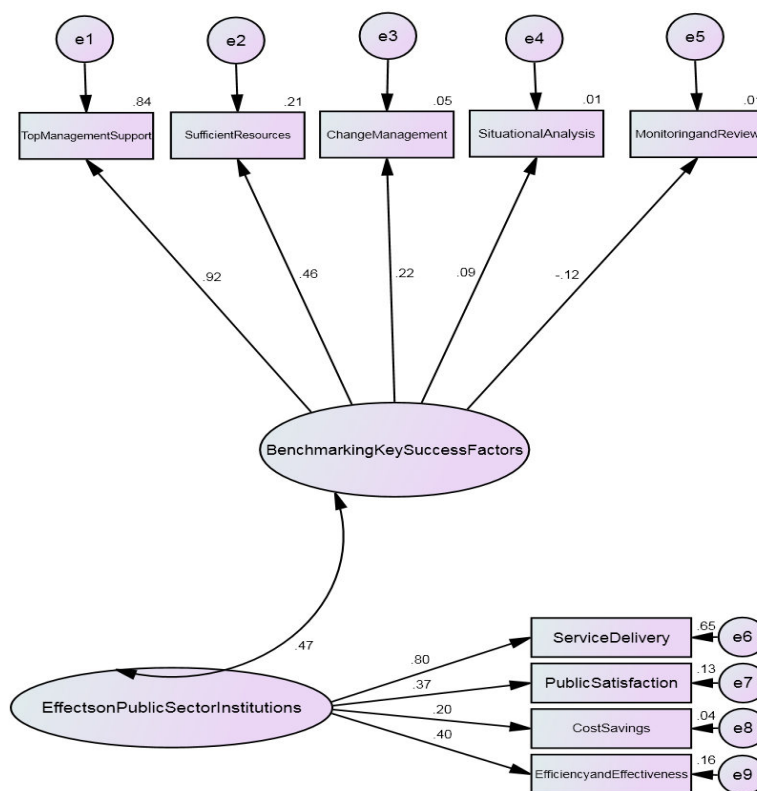
Basing on such argument, the hypothesis was formulated and it reads;

**H<sub>0</sub>**; The use of certain measures may result into the successful undertaking of the benchmarking process and subsequently improving performance of the municipalities in the Eastern Cape Province.

**H<sub>1</sub>**; The use of certain measures may not result into the successful undertaking of the benchmarking process and subsequently improving performance of the municipalities in the Eastern Cape Province.

It is indicated in Figure 3 that key measures which must be considered during benchmarking processes in the municipalities in the Eastern Cape Province include; top management support, the allocation of sufficient resources, the application of accompanying change management strategies, analysis of the organization's business environment, and constant monitoring and review of the benchmarking processes.

Figure 3: The use of certain measures may result into the successful undertaking of the benchmarking process and subsequently improving performance of the municipalities in the Eastern Cape Province.



It is further noted in Figure 3 that it was hypothesized that the application of these measures for improving benchmarking processes results into improving service delivery, cost savings, customer satisfactions, and improving efficiency and effectiveness. The results of Standardized Regression Weights (Factor Loadings) and Square Multiple Correlation Coefficient ( $R^2$ ) which are contained in Figure 3 reveals that nexus between the application of these measures for improving benchmarking processes and resulting positive effects is significant at .5.

When construed within Wgener's (2010:407) interpretations, it can be concluded that the results of Standardized Regression Weights (Factor Loadings) and Square Multiple Correlation Coefficient ( $R^2$ ) imply that the use of these measures during benchmarking in the municipalities in the Eastern Cape Province would significantly contribute to the kinds of positive results that they are able to experience after the accomplishment of the

benchmarking process. The findings are in line with the argument of Hesham (2008: 764) that things such as top management support, the allocation of sufficient resources, the application of accompanying change management strategies, analysis of the organization's business environment, and constant monitoring and review of the benchmarking processes determine the extent to which the organization's benchmarking process will be effective. Hesham (2008: 764) stated that it is difficult to obtain sufficient resources and to have recommendations arising from the benchmarking process implemented without significant commitments from top managers. In addition, he noted that despite the existence of top management support and sufficient resources, benchmarking may not also be a success due to lack of commitment from employees to implement the required changes.

In such situations, Hesham (2008: 764) suggested that benchmarking must be accompanied with the application of appropriate change management strategies in order to facilitate smooth transformations from the status quo to the new situation recommended after the benchmarking process.

Table 3: Modification Indices (Alternative Fit Indices)

Chi-square =53 ; Degrees of freedom = 27 ; Probability level = .002; CMIN/DF=1.9		
Modification Indices (Alternative Fit Statistics)	Obtained Value	Interpretation
GFI ( Acceptable if falls between 0 and 1)	.76	Acceptable
PNFI (Parsimony Normed Fit Index, acceptable if falls between 0 and 1)	.12	Acceptable
TLI (Tucker Lewis Index, acceptable if it falls between 0 and 1)	.1	Acceptable
CFI (Comparative Fit Index, acceptable if falls between 0 and 1)	.00	Acceptable
RMSEA (Root Mean Square Error of Approximation, acceptable if falls between 0.05 and 0.08)	.1(PClose=.024)	Unacceptable

Hesham's (2008: 764) and the null hypothesis that links the application of these measures to resulting positive effects on the municipalities in the Eastern Cape Province is further confirmed in the results of the Chi-Square analysis and the modification fit indices. It is indicated in Table 3 that Chi-square =53 ; Degrees of freedom = 27 ; Probability level = .002; CMIN/DF=1.9. Using Wheaton's (1987:2) and Carmines and McLver's (1981:1) interpretation that a ratio of 2 to 1 implies that the CMIN/DF indicates a model fitness, it can be concluded that CMIN/DF=1.9 falls within acceptable limit to signify that the hypothesized benchmarking model reproduces the sample data. Although the RMSEA of 1 with a PClose of .024 is unacceptable, the Goodness of Fitness Index (GFI) of .76, PNFI (Parsimony Normed Fit Index, acceptable if falls between 0 and 1)=.12, TLI (Tucker Lewis Index, acceptable if it falls between 0 and 1)=.1, and CFI (Comparative Fit Index, acceptable if falls between 0 and 1) was .00 indicate that there is adequate fitness of the model. On that basis, the null hypothesis that the use of certain measures may result into the successful undertaking of the benchmarking process and subsequently improving performance of the municipalities in the Eastern Cape Province is accepted, and the null hypothesis is rejected.

## 5. CONCLUSIONS AND RECOMMENDATIONS

Despite less use of benchmarking as a performance measurement and improvement mechanism, the findings of this study has proved that the use of benchmarking would result into significant improving performances of the municipalities in the Eastern Cape Province. However, the results of confirmatory factor analysis indicate that such improving performances may only be realized if the municipalities in the Eastern Cape Province apply a balanced combination of different types of benchmarking. As theories on benchmarking revealed, these different types of benchmarking include; internal, external, process and functional benchmarking. The findings also revealed that extent to which benchmarking will result into improving performances of the Eastern Cape Municipalities will only be measured by the extent to which the municipalities are able to follow certain critical steps outlined in the Bourne's (2005: 101) six main steps in the benchmarking process. Bourne (2005: 101) revealed that the six main steps are; Step 1; Understand and measure critical success factors, Step 2; Select area of performance for benchmarking, Step 3; Select a benchmark partner, Step 4; Collect data in partner organization, Step 5; Compare data and Step 6; Mark strength to be built. Besides the use of a balanced combination of different types of benchmarking and Bourne's (2005: 101) six main steps in the benchmarking process, the findings of the study also indicated that benchmarking effectiveness is also determined by certain key success factors. The discussions of the literature on benchmarking reveals that the key success factors are; top management support, the allocation of sufficient resources, the application of accompanying change management strategies, analysis of the organization's business environment, and constant monitoring and review of the benchmarking processes determine the extent to which the organization's benchmarking process will be effective. In order to effectively implement benchmarking in the Eastern Cape Municipalities, it is important that the management in local government must consider using a combination of above discussed types of benchmarking and Bourne's (2005: 101) six main steps in the benchmarking process in conjunction with considering the benchmarking key success factors.

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