

PERCEPTIONS ON THE APPLICATION OF COST ACCOUNTING IN THE BUDGETING PROCESS OF A MUNICIPALITY: A CASE OF THE CoT

ABSTRACT

This study analysed perceptions on the application of cost accounting in the budgeting process, a case of the City of Tshwane (CoT) municipality. Employee perceptions were analysed to determine whether recognised costing techniques were being applied, and if so, were those costing techniques being efficiently and effectively applied. An analysis of the employee perceptions of the reliability of the currently implemented costing techniques for the preparation of budget estimates, together with the employees' perceptions of management's implementation and maintenance of the budget estimates, as required by legislation, was also conducted.

The research instruments comprise questionnaires that were distributed to all municipal officials at CoT who are responsible for budgeting within their municipal department or division, and semi-structured interviews were conducted with selected officials. Data collected from the participants were descriptively analysed. This study identified a performance gap between the potential of the costing techniques nominally being used and the manner in which CoT budget officials actually apply them. Based on the conclusions drawn from the analysis of the data, recommendations were made. Some of these recommendations include that officials of the CoT should improve training on the proper application of currently used costing techniques and that the CoT should conduct a pilot study aimed at introducing transfer pricing (TP) and standard costing as their next-generation budget costing techniques. In addition, including decision-making tools, such as cost-volume and profit (CVP) analysis in the costing process can add value to the budget costing process if applied as a cost-volume and service (CVS) analysis.

Key words:

Costing techniques, budgeting process, municipality.

INTRODUCTION AND BACKGROUND

A priority of any municipality in South Africa is to provide basic services within its local boundaries using available financial resources (Joseph & Van Rensburg 2002:7). In order to comply with the governance provisions of the Municipal Finance Management, Act 56 of 2003 (MFMA), amongst others, many government organisations endeavour to use costing techniques in their budgeting and decision-making processes. Cost accounting uses costing techniques such as activity-based costing (ABC), marginal costing, standard costing, and transfer pricing (TP), which have been developed to provide a basis for an organisation to control costs of the available resources set out in the budget estimates, and in so doing to support effective decision-making (Hirsch 2000:157; Seal, Garrison & Noreen 2012:22).

The primary objective is to provide management with the information needed to ensure optimal use of available resources and to manage costs associated with achieving the organisation's strategic goals (CoT 2004a:4; Hilton & Platt 2011:39). Costing techniques and budget estimates, as part of cost management in a manufacturing organisation, are used for planning, organising and controlling costs. These techniques enable the calculation of estimates of probable profit margins, and the provision of early warnings of less desirable break-even or even financial loss (Dominiak & Louderback 1997:145). In terms of a public sector organisation such as a municipality, similar costing techniques can be applied to determine accurate and reliable budget estimates that then enable appropriate charges and tariffs to be levied in order to recover costs in completing their budgeting process. However, if these cost estimates are not available and/or are not properly applied, incorrect decisions regarding the cost of a service are almost inevitable and may lead to dissatisfaction among the officials. Therefore, proper costing of services using proven costing techniques, is an important component of performing the baseline examination and providing ancillary information about cost estimates (National Treasury 2008a:6). The resultant properly prepared budget will result in the virtual elimination of unnecessary expenditure and should increase the efficiency of collection and preservation of municipal revenue (Tassonyi 2002:181).

Budget estimation in a municipality is affected by various external factors including inflation, national government policy directives, international factors, and local and national politics, as well as the demographics of residents in a municipal area, particularly the employment and

income parameters as they affect affordability (CoT 2005:12). Individuals seek employment in municipalities with the aim of positively transforming their areas, but rapidly discover just how difficult this task is, as financial resources are seldom adequate (Joseph & Van Rensburg 2002:7). On the other hand, where effective costing techniques have been utilised in the preparation of budget estimates to the resultant financial information on the utilisation of available financial resources has proved to be useful and appropriate (Chadwick 1998:149). Accurate and consistent costing permits better-informed price-setting and simplifies competitive tendering and contracting decisions. It is important to note that, even though the costing techniques may be useful for reliable budget estimation, without informed efforts from management to cost a service, taking all its components into account, could just as easily compromise the budgeting process. Municipal management should therefore also make themselves familiar with the preferred costing techniques and their uses for cost estimation, if they are to discharge their responsibilities effectively and optimise the use and management of public resources.

For a municipality to maintain its credibility, the ability to utilise available financial resources effectively is important, and costing is the process of gathering and reporting information on the most likely costs of providing a service or performing a duty on an activity. Because costing is vital to establishing the accuracy of the estimates that affect the budget of the organisation, it is important to review the way these costing techniques and systems are applied (Lind 2001:77). Determining how costs are allocated to a service and how the service is influenced and controlled by the available budget, are crucial issues in a public sector organisation (Fisher, Taylor & Cheng 2006:352). To repeat: it is imperative that estimates of services are based on reliable costs. The main objective of the municipal budget is to estimate, using approved costing techniques, the amount of funding required over a specified period of time for the execution of functions assigned to it through legislation (Govender 2000:47-67). Stated slightly differently, tariff-setting plays a major role in ensuring that cost estimates that feature in the compilation of a credible and balanced budget are accurate, thereby improving basic service levels, and enabling alignment with the five-year strategic Integrated Development Plan (IDP) (CoT 2007).

In addition, municipal budgets must be reliable as it is the basis for the performance measurement of the public sector organisation. The department delivering the service being

measured has the responsibility, to the municipality and to themselves, to provide budget officials with accurate and relevant information on that service. The focus of the application of costing techniques in the budgeting of a municipality should be to determine whether it has sufficient income to cover its intended expenses (Bendrey, Hussey & West 2003:218). This study conducted an analysis of employee perceptions of the cost accounting being applied by the CoT in its budgeting process.

RESEARCH PROBLEM

The method the City of Tshwane Metropolitan Municipality (CoT) uses in estimating cost are based on historic cost allocations, and not on rigorously researched current cost estimates. This disconnect continues to create uncertainties. A budget that is based on unreliable costing is likely to provide inaccurate cost estimates. Even if tariffs were to be increased, it is unlikely that this will generate sufficient revenue to cover the costs incurred in the proposed budget. Due to the budgeting process being overly optimistic, and combined with management uncertainty, inaccurate cost estimates may lead to very serious cash flow and service delivery problems. This inability to estimate could also create problems in the operational plan (IDP).

In the process of achieving the research objectives, this study endeavoured to conduct an analysis of the CoT's employee perceptions regarding the application of costing techniques and decision-making tools to their departmental budgeting process, and of the reliability of the final budget estimates. It also attempts to determine whether, when costing a service, management follows the budgeting process requirements of the National Treasury whose aim is to improve the control of expenditure, financial decision-making and ultimately financial accountability at municipal level.

RESEARCH OBJECTIVES

The objectives of the research were to determine the employees' perceptions on the following issues:

- Are any recognised costing techniques and decision-making tools being applied, and if so, are those properly applied;
- what is the reliability of those costing techniques and decision-making tools relative to final budget estimates and their implementation; and
- is management implementing the budget and maintaining their ongoing budget estimates in accordance with the requirements of recognised budgeting processes.

RESEARCH METHODOLOGY

The case study method is an effective way of observing phenomena which exist within a specific area of data. In the case of this study the case study method offered a cost-effective way of investigating the policies and attitudes of the municipality's management regarding the application of costing techniques to budgeting (Stake 1995:2; Stoner & Holland 2004:37). A prerequisite for understanding the case study method is to accept its ambiguity and multivalence: there are no absolutely correct readings, a situation that implies that the task of the researcher is to develop and justify a content-rich reading (Thomas 2009:99).

In the questionnaire closed-ended questions were used. In a closed-ended question only one answer is required, selected from a list of mutually exclusive, pre-selected answers, one of which is representative of, or at least significantly close to the respondent's likely answer had he or she been presented with an open-ended question (Adler & Clark 2003:251). The questions required respondents to respond according to a 5-point Likert scale and dichotomous scale, thus providing data that is categorical and is of ordinal or nominal type. Fifty (50) respondents were targeted from the CoT and only thirty one (31) responses were received. Responses thus reflected sixty two percent (62%) of the targeted population. The researcher believes that with the spread between job levels and departmental offices, the response was sufficiently diverse to be representative of the whole municipal budgeting process.

Interviews were also conducted with selected respondents, to gain an overview of the municipal officials' understanding of the use of costing techniques for the budget estimates and also to confirm some key responses received from the questionnaire. The researcher conducted

interviews with 4 respondents in the CoT's finance division. Descriptive statistics were used to analyse the data collected.

LITERATURE REVIEW

In Cost accounting, costing techniques are used to solve different costing problems such as determining the price for the service on whether it over or under priced. Therefore the availability and proper application can provide reliable and accurate information which can be used for budgeting (Wordsworth, Ludbrook, Caskey, MacLeod 2005:38). Costing techniques and decision-making tools can also be used for performance measurement and boost decision making.

Most importantly is how these costing techniques are applied depending how stakeholders are qualified or well informed. However, in terms of public sector organisations, the whole aim of a municipal budget is to use available financial resources for service delivery efficiently, effective, adequate and transparent. This allows the municipality to determine tariffs and rates on services and whether the available budget is being spent. As such, costing techniques can also assist officials to report on the progress of the municipality. In that manner, each department must prepare its budget estimates through the use of costing techniques, then assess and reviewing before submission to the finance department for consolidation (National Treasury 2002). Therefore, these entire budget inputs must be supervised by superiors with sufficient knowledge to avoid any discrepancies. This will eliminate the quality of municipal finances being compromised due to lack of uniform classification of budget estimates, as most municipal budget do not contain narrative information (National Treasury 2009:3).

Financial management in the public sector must be performed by or under supervision of personnel with the necessary technical training and proficiency to apply a wide spectrum of available costing techniques (National Treasury Sa.:4). As such, municipal officials or councils may make uniformed decision in the absence of credible data and poor advice from other officials, which could affect consistent information across the IDP and budget. Therefore this may compromises the municipality's ability to use costing techniques as a redistribution tool for budgeting (National Treasury 2009:3).

The history of cost accounting in a municipality

Historically there may have been problems with managing municipal finances as the traditional accounting systems were not designed to collect and store specific information about the goods and services delivered to or by municipalities, the accurate determination of costs of services was simply not possible, making the effective management of municipal resources difficult (Yereli 2009:573). As a result, reformers in the late 1800s identified the need for a uniform accounting system, appropriate for a municipality to track the cost of service delivery (Seal *et al.* 2012:9). Over the past century cost accounting methods have been used for monitoring the total cost of municipal services and for calculating the efficiency of service delivery. However, cost accounting has never been implemented in any systematic way across all municipalities within an administrative area (Rivenbark 2005:217).

As a result Chatters (1939:48) and Drury (2011:20) have asserted that the best way to increase efficiency in a municipality is to employ unit cost accounting. In 1910 unit cost accounting was introduced in the United States of America (USA) through the efforts of the New York Bureau of Municipal Research. This changed the whole accounting perspective in estimating of public sector costs. Thus, when modern cost accounting developed during the industrial revolution for large scale organisations (Gunasekaran, Williams & McGaughey 2005:524), municipal financial management simply adopted techniques seen to be useful to public sector management.

The need for and application of cost accounting in a municipality

There is growing evidence that municipal services are under-priced relative to the cost of production. This may be due to the absence of costing techniques or the inability to properly apply the prescribed costing techniques, exacerbated by inflationary pressures (National Treasury 2004:8; National Treasury 2008a:4). This may in turn lead to dissatisfaction among municipal officials when these costing techniques are applied, as unreliable costing data could result in sub-optimal management decision-making.

Therefore, the availability and appropriate implementation of costing techniques will ensure consistent, reliable and accurate cost-based estimates based on available resources, thereby encouraging efficiency by associating specific costs with delivery of individual services (Kelley 2002:3; Wordsworth, Ludbrook, Caskey & McLeod 2005:38). Furthermore, costing techniques

can also be used to assess performance in important areas, and to use those measures to plan and control operations that will in turn improve efficiency and the overall effectiveness of organisational performance (Gunasekaran, Williams & McGaughey 2005:524). McLean (2006:98) and Cartwright (2008:303) agree that costing techniques are needed for the evaluation of service innovations, as well as for the establishment of criteria for performance measurement. Consequently, the use of costing techniques will enable public sector organisations to more accurately estimate specific project and general operational costs, to analyse and interpret costing decisions and to make more fully informed budget decisions (Yereli 2009:573).

Municipalities are expected to meet their service delivery targets and to strive to improve on these. Therefore a financial and operational plan (budget) focused on the achievement of goals, within the constraints of available resources, should be prepared and adopted (CoT 2008:10; National Treasury 2010b:8). This strategy implies that the application of costing techniques is essential as these costing will reflect in the budget inputs, outputs and outcomes (CoT 2003:4; Vennekens & Govender 2005:13). The application of costing techniques to determine the costs of municipal services is a management-orientated activity. Therefore once declared reliable, accurate cost predictions or forecasts are forwarded to management, were adjustments to these costs can be made (Kelley 2002:4; Wordsworth, Ludbrook, Caskey & McLeod 2005:38; Horngren, Datar, Foster, Rajan & Itter 2009:366). Municipalities will increasingly need to consider the application of costing techniques to improve the efficiency of their estimates when budgeting (National Treasury 2008a:10-11; National Treasury 2010a:4).

Budget systems and method used as costing techniques in a municipality

The use of costing techniques has become a primary form of costing methodology used by municipalities to determine budget estimates. Therefore, the proper application is important as it determines how reliable and accurate budget inputs are. As a result, Activity-Based Costing (ABC) can be used to cost per activity, Cost-Volume and Profit analysis (CVP) as a decision making tool, Regression Analysis as an estimation tool, Standard Costing as an essential cost element and control of future services through variances, Transfer Pricing (TP) to assign the cost of services that are exchanged between cost centers in the budgeting process. Also the use of Direct Costing and Absorption Costing for the treatment of fixed cost, where ABC can be applied on untraceable indirect cost when allocated (Drury 2008:502; Lanen, Anderson & Maher

2011:81; Mowen & Hansen 2008:478; Raiborn & Kinney 2011:260; Stevenson & Cabell 2002:80).

Traditionally, South African municipalities performed incremental budgeting as a common budgeting technique that was abolished in the late 1990s by the National Treasury as an improper practice, as it promotes accumulation of cost with no initiative to reduce estimates (Erasmus 2003:96). Furthermore, Zero Based Budgets (ZBB) were introduced with a view of eliminating some problems caused by incremental budgeting but was found to be expensive and time consuming when used on existing services (Drury 2000a:574). Consequently, it was recommended by the National Treasury in the late 1990's that ZBB be used on new projects and baseline amounts on existing services, taking into consideration the application of Activity Based Budgeting (ABB) to cost activities where estimates are based on anticipated consumption of cost drivers (Erasmus 2003:96). Line-item budgeting is also a traditional method of budgeting used in the public sector to provide daily guidance to departments, and for the preparation of the departmental operating budget (Tassonyi 2002:183). The planning programming based budget (PPBS) was established to overcome deficiencies in line-item budgeting, and apparently succeeded because it provided a sound basis for deciding how available resources should be allocated in an organisation (Collier 2006:244; Cairney, Chivaka, Fourie, Pienaar, Roos, Stack, Swartz & Williams 2008:349). From the PPBS flowed the Medium-term Expenditure and Revenue framework (MTERF) as a budgeting system in which expenses are identified, and thus limited for the next three to five years and it includes all budget estimates provided by elements of a planning programming budgeting system, together with operational and capital budgets in the IDP (Ford 2006:37; National Treasury 2006:3).

DATA ANALYSIS

The Statistical Package for the Social Science (SPSS) was used to analyse the data for the questionnaire and interviews were used to support key questions. SPSS is a comprehensive and flexible statistical analysis and data management tool that can take data from almost any type of file and use it to generate tabulated reports, charts and trends (Collier 2010:1-2). Descriptive

statistics were given for each variable in the survey within the case study with regard to measuring instrument.

Application of costing techniques and reliability of budget submissions

Table 1: Are officials aware of the range of costing techniques to be applied?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Strongly agree	19	61.29	19	61.29
Agree	12	38.71	31	100.00

Sample Size = 31

All the respondents agreed and strongly agree to be aware of the range of costing techniques that could be applied within the municipality. This is a good sign since the intelligent application of costing techniques ensures proper distribution of financial resources. Furthermore, all respondents have post high school qualifications and a significant majority (80%) had more than three years' work experience. This suggests that all of the respondents may have the required knowledge and skills to discharge their employment responsibilities effectively, including those requiring the use of costing techniques for budget estimates, and be in a position to provide usable responses to the questionnaire.

Costing and budgeting techniques

Table 2: Do officials apply standard costing?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
No	24	77.42	24	77.42
Not sure	7	22.58	31	100.00

Sample Size = 31

Table 3: Do officials apply regression analysis?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	30	100.00	30	100.00

Sample Size = 30

Table 4: Do officials apply transfer pricing (TP)?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
No	8	34.78	8	34.78
Not sure	15	65.22	23	100.00

Sample Size = 23

Table 5: Do officials apply cost-volume and profit analysis (CVP)?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	30	100.00	30	100.00

Sample Size = 30

Table 6: Do official apply activity-based costing (ABC)?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
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Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	29	100.00	29	100.00

Sample Size = 29

Table 7: Do officials apply direct costing?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
No	19	61.29	19	61.29
Not sure	12	38.71	31	100.00

Sample Size = 31

Table 8: Do officials apply absorption/traditional costing?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
No	19	61.29	19	61.29
Not sure	12	38.71	31	100.00

Sample Size = 31

All the respondents in the survey indicated that they apply ABC, CVP and regression analysis as costing techniques and decision making tools. The majority of respondents (77.4%) indicated that there was no application of standard costing techniques and 22.6% were not sure. The minority (34.8%) offered a “No” response regarding the use of transfer pricing, while 65.2% were not sure. The majority of respondents (61.3%) responded “No” to the question regarding the application of direct and absorption costing, whereas 38.7% of respondents were not sure

whether they were being used or not. From this response it is evident that standard costing, transfer pricing, direct costing and absorption costing are not being applied, if at all.

It is evident from the responses that the budget compilers at the municipality do not apply a wide range of costing techniques. They cost per activity using ABC; they use CVP as a decision-making tool, and use regression analysis as an estimation tool where the fixed and variable cost split is unknown. Formal and efficient application of the correct costing techniques ensures that municipalities cost their services accurately and consistently during the allocation of fund, while the use of different costing techniques is intended to solve different costing problems and to ensure transparency and efficiency in the preparation and management of municipal finance.

Table 9: Do officials apply incremental budget?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
No	15	48.39	15	48.39
Not sure	16	51.61	31	100.00

Sample Size = 31

Table 10: Do officials apply activity-based budget (ABB)?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	6	19.35	6	19.35
No	3	9.68	9	29.03
Not sure	22	70.97	31	100.00

Sample Size = 31

Table 11: Do officials apply zero-based budget (ZBB)?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	31	100.00	31	100.00

Sample Size = 31

Table 12: Are you satisfied with the proper application of costing techniques?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Strongly agree	7	22.58	7	22.58
Agree	14	45.16	21	67.74
Strongly disagree	10	32.26	31	100.00

Sample Size = 31

Responding to the question as to which budget methods are being applied, almost half (48.4%) of respondents said “No” to incremental budgeting, while the majority (51.6%) were “not sure”. The majority (71%) was also not sure whether Activity-based budgeting (ABB) was being applied, yet everyone confirmed the application of ABC. All respondents also confirmed that they budget from zero according to the principles of Zero-based Budgeting (ZBB).

Incremental budgeting traditionally uses historical cost with an inflationary adjustment for the new budget year. If the previous incremental costs are incorrect, the budget estimates are inevitably unreliable. In South Africa this method has commonly been applied in the public sector, but following attempts during the late 1990s by the National Treasury to abolish this practice, budget compilers now regard this as an improper technique and as a result the response indicates that incremental budgeting is no longer being applied at the CoT.

As ABB goes hand in hand with ABC, costing as an activity will lead to a budget for that activity. From the response it appears safe to assume that respondents are not sure how ABB links with ABC. What may be familiar to them is ZBB that was advocated during the late 1990s by the National Treasury, as the primary budget preparation method to apply. ZBB is also linked to ABB as the proposed activities are cost from zero. The use of ZBB implies that every activity is cost from zero, and ABC can assist in identifying the correct activities to cost, which in turn will lead to accurate estimates within the budgeting process. The majority (67%) of respondents were individually satisfied with the municipality’s application of costing techniques as part of the budgeting process, nearly a third (32.3%) of respondents indicated that they were not satisfied.

The MFMA objectives states that requirements for ensuring transparent, accountable and appropriate lines of responsibility in the fiscal and financial affairs, as well as budgetary and financial planning processes of the municipalities, together with the co-ordination of these processes, must be sound and sustainable. Therefore the existence, consistent and accurate application of correct costing techniques are vital to ensure the smooth operation of the municipal financial processes, and is supported by staff members with the required knowledge and appropriate qualifications on how to apply the optimal costing techniques.

Budget estimates and budget input submission

Table 13: Does the costing techniques applied produce reliable financial data used?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Strongly agree	5	16.13	5	16.13
Agree	26	83.87	31	100.00

Sample Size = 31

Table 14: Are budget submissions extracted from costing technique applied?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Disagree	18	58.06	18	58.06
Strongly disagree	13	41.94	31	100.00

Sample Size = 31

Table 15: Does changes in costs not affect the reliability of estimates?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Disagree	9	29.03	9	29.03
Strongly disagree	22	70.97	31	100.00

Sample Size = 31

Table 16: Do properly applied costing techniques provide accurate data to cost municipal services?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Strongly agree	21	67.74	21	67.74
Agree	9	29.03	30	96.77
Strongly disagree	1	3.23	31	100.00

Sample Size = 31

Table 17: Are budget estimates being reviewed and evaluated to previous' year?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Strongly agree	26	83.87	26	83.87
Agree	5	16.13	31	100.00

Sample Size = 31

Table 18: Is necessary assistance provided on costing techniques' proper application?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Disagree	6	19.35	6	19.35
Strongly disagree	25	80.65	31	100.00

Sample Size = 31

All the respondents agreed that the proper costing techniques applied provide reliable cost estimates in the budgeting process. This opinion corresponds with the literature that indicates that correctly applying appropriate costing techniques provides reliable budget estimates. However, the opposite is also true: if there is no coordinated implementation of formal costing processes, it is unrealistic to expect reliable budget estimates to be produced for spending programmes.

All respondents disagree with the statement that the budget submission from their department or division is obtained through the proper application of costing techniques (*see table 14*). The literature supports the statement that cost estimates submitted by the department or division for the budget process must be reliable and must be obtained from the application of appropriate costing techniques (CoT 2009:734).

From the survey it emerges that the only costing techniques being appropriately applied are ABC, CVP and regression analysis. Consequently, it may be deduced that respondents feel that they properly apply certain costing techniques which lead to reliable budget inputs, but that the application is still limited. There is still much scope for the application of other costing techniques that may equally add value to the budgeting process.

Respondents were asked whether the budget estimates are reviewed by superiors, and compared with the previously approved operational and capital budgets, before submission. All the respondents agree that this is standard practice. Budget estimates must be properly reviewed to ensure that all existing financial commitments are accurately captured in the budget and that the allocations are correctly determined within the municipality and its divisions. Furthermore municipalities are expected to examine their current baseline costing closely to ensure that the funds that have been allocated are adequate to address service delivery targets.

The question may be asked whether the provision of supervision and policy guidance are still needed when costing techniques are properly applied, and where budget inputs are reliable and accurate. However, on a larger scale the MFMA, (Section 4(a)(ii-iii) and (b)) states that a provincial treasurer is obligated to monitor the process and to assist municipalities in their province with the compilation of their budgets as well as with the outcomes of those budgets. Furthermore, Section 20(b)(v-vi) of the MFMA also states that the Minister, acting in concurrence with other Cabinet members responsible for local government, may prescribe uniform norms and standards concerning the setting of municipal tariffs, assessing and addressing financial risks, as well as budgets of municipal organisations. In the absence of such norms and standards it is the responsibility of each municipality, stemming from good management practice, to draft its own policy and procedures to act as a structured guide for the budget compilers and their supervisors.

Table 19: Do officials spending according to the operational plan (IDP)?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	9	29.03	9	29.03
No	22	70.97	31	100.00

Sample Size = 31

Table 20: Are service delivery targets being achieved?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	29	93.55	29	93.55
No	2	6.45	31	100.00

Sample Size = 31

Table 21: Is there enough time to consolidate the budget estimates?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Not sure	8	25.81	8	25.81
Disagree	5	16.13	13	41.94
Strongly disagree	18	58.06	31	100.00

Sample Size = 31

Table 22: Are you satisfied with the application of costing techniques by the staff?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Agree	1	3.23	1	3.23
Disagree	12	38.71	13	41.94
Strongly disagree	18	58.06	31	100.00

Sample Size = 31

Respondents (71%) were of the opinion that they do not spend according to their operational plan (IDP) as required by legislation (*see table 19*). Budget estimates are based on the service delivery objectives and targets included in the IDP. If budget estimates are reliable, spending according to the operational plan (IDP) should happen, and would provide a municipality with its best chance of achieving its service delivery targets (National Treasury 2004:1).

Respondents (94%) agree that service delivery targets are being met (*see table 20*). Municipalities are expected to meet their service delivery targets recorded in the IDP. In fact, they should not merely meet the required targets but should be striving to improve on delivery. In the previous paragraph it was noted that respondents had indicated that the IDP was not being followed, yet in response they were of the opinion that IDP targets were in fact being met. The only reasonable explanation for this discrepancy appears to be that the budget submissions that should be based on the services and targets contained in the IDP, are not reliable. Without proper application of recognised costing techniques it is difficult to obtain information which can be used as reliable budget estimates (Mabunda 2006; Mabunda 2009; Greeves 2009).

Table 23: Is it the CoT’s objective to facilitate critical alignment of planning, budgeting and sustainable service delivery?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	31	100.00	31	100.00

Sample Size = 31

Table 5.52: Do officials align the IDP to operational and capital budgets?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Yes	31	100.00	31	100.00

Sample Size = 31

Table 24: Do officials collect estimated revenue every year?

Criteria	Frequency	Percent	Cumulative Frequency	Cumulative Percent
No	31	100.00	31	100.00

Sample Size = 31

All respondents agreed that they do align their IDP with their operational and capital budgets as required by the CoT municipal objectives. Aligning the IDP with the operational and capital budgets means that their service delivery targets within the allocated budget estimates are efficient (CoT 2004b:16; National Treasury 2011:41). However, the question may be asked: if this alignment takes place why did respondents indicate that they do not spend within the limits of their IDP? Similarly, it can be assumed that respondents do not collect the revenue that they have estimated every year as indicated in their IDP. The use of proper costing techniques can determine ways in which the municipality can ensure that expenses do not exceed revenue for its

activities (Cartwright 2008:303; National Treasury 2008b:35-36, National Treasury S.a.:6). Also, it appears obvious here that the incorrect and inappropriate application of costing techniques will result in incorrect budget estimates, even if service level targets are met. This is supported by comments made during an interview, to the effect that the application of costing techniques remains a problem even though they spend within their budget (Qomoyi 2010). The similarity of this question to a question posed at the beginning is asked towards the end of the questionnaire which resulted in a very interesting disparity in responses. The difference in the questions is in the subjects of the enquiry: table 12 – individual’ use of costing techniques, and table 22 – individual’ views on subordinates’ use of costing techniques. Whereas in table 12 only 32.3% of respondents were not satisfied with the application of costing techniques, in table 22 more than 95% of the respondents were not satisfied by the way subordinate staff members were applying costing techniques to estimate costs . Incorrect or no application of costing techniques will result in incorrect budget estimates that could lead to dissatisfaction among municipal officials, even if service level targets are met (National Treasury 2004:8; National Treasury 2008a:4).

CONCLUSIONS AND RECOMMENDATIONS

Conclusion to objective 1

The data indicated that respondents were initially of the opinion that appropriate formal costing techniques and decision-making tools were being applied. However, analysis of their responses to which costing techniques and decision-making tools were applied, were clear that only ABC, CVP and regression analysis were in fact being applied during the budget estimation process. TP and standard costing were either not applied or respondents were not sure whether they were being applied. Respondents also indicated to apply ZBB as a costing technique for estimating cost of new projects. Incremental budgeting was indicated not to be applied and most respondents were not sure whether ABB was being applied or not. A response to a statement indicated that respondents were mostly dissatisfied with the outcome of the application of costing techniques that resulted in the budget inputs they received. Although the majority of respondents were satisfied that the proper application of costing techniques was providing

acceptable input as part of the budgeting process, there was still a significant minority who were not satisfied with the process and its inputs and outputs. The data also indicated that the CoT had no policy and procedure regarding the use of costing techniques in the budgeting process, and also that budget officials did not receive much guidance from their supervisors.

Consequently, the evidence leads to the conclusion that only a limited number of costing techniques may currently be in use in the budgeting process, and that there remains a wide range of other, possibly more appropriate costing techniques that are being ignored.

Recommendation to objective 1

It is recommended that the application of TP in the municipality will enable managers to be more cost-aware in budget estimates. After having undergone intensive training in TP protocols, TP's employment in the budget preparation and management processes should provide information that is both operationally pertinent and accurate, while also being useful in evaluating managerial performance in the attempt to meet municipal objectives. Through the use of TP, departments would be certain that resources in their baseline allocation take account of any policy adjustments or priorities announced over a period of time by the government. Furthermore, efficient savings can be identified in their budgets, which would contribute to the setting of realistic targets that are linked to resources allocated to predetermined spending programmes (National Treasury 2006:10).

It was also found that variances were compared without first having applied standard costing (*see table 17*). Standard costing can also be used in both service and public sector organisations to provide essential cost elements and to control and manage future services. In addition, standard costing enables one to distinguish between situations, and to determine those that need attention by establishing acceptable upper and lower deviation limits for utilisation of scarce resources, and to implement corrective action (Barfield, Raiborn & Kinney 2003:403). This technique (standard costing) can also be applied when comparing the previous year's estimates with the current year's, a process that helps keep costs low and under control. These costing techniques are not limited only to estimating costs and achieving departmental goals, but can also be used for evaluating service innovations, and to gain an understanding of governmental expenditure when analysing and interpreting budget decisions. These additional recommended costing

techniques can be used in conjunction with the costing techniques currently in service as they are all budget-oriented. Furthermore, the MSA, Section 11(3)(i) also requires municipalities to exercise executive authority by setting budget estimates through the use of reliable costing methods. This authority could be more effectively exercised if budget preparations made use of additional and more focused costing techniques, including TP and standard costing methods.

As municipal legislation provides a principle based broad framework of general guidelines, it is therefore required from each municipality to draft its own detailed set of specific policies that are in line with the principles of the legislation. The CoT does not yet appear to have completed this task, and should hasten the drafting and approval of policies and acceptable procedures to guide employees in the proper use of costing techniques, thereby ensuring (as far as this research is concerned) that specific protocols are followed in determining budget estimates. This should improve the quality of CoT's budget costing since supervisors or managers will be empowered to provide meaningful guidance to budget officials by creating a culture of consultation and general communication on budget matters. This recommendation is in line with suggestions contained in the literature which advocates taking appropriate and effective measures to ensure that municipal finances are run efficiently.

Since most respondents indicated that they would be willing to attend a course on budget techniques it can be assumed that they feel their skills sets are not optimal, and acknowledge the need to become fully conversant with costing techniques in the budgeting process. As a result, it is recommended that further training, either in-house or external, be offered to the officials involved with budgeting.

Conclusion to objective 2

The CoT has a sound system of managing municipal finances as prescribed by the MFMA and Treasury regulations. This is apparent from the research results that officials are actively striving to comply with Section 16(3)(a) of the MFMA, which states that annual budgets must contain realistic estimates of the revenue expected to be received and the costs expected to be incurred during the financial year to which the budget relates.

Although respondents were of the opinion that their budget inputs were reliable, responses to other questions indicated the converse. Firstly, respondents indicated that they were not satisfied

with the ability of subordinates to apply costing techniques effectively or appropriately. Secondly the responses reflected that there was generally not enough time to consolidate budget inputs. As a result, spending did not proceed as had been intended in the IDP. If budget inputs are reliable, in theory, spending should take place according to their operational plan (IDP), as is required by legislation, while allowing for unanticipated changes in response to situations that were not present when the budget was compiled. Consequently, the conclusion of the researcher is that the budget inputs are not as reliable as they ought to be

Recommendation to objective 2

If a proper policy is approved, defining how the budgeting process should be conducted, and requiring it to be based on the application of appropriate and effective costing techniques, and with liaison between stakeholders, a sound foundation for a reliable budget will be laid. The policy document should provide detailed information on what constitutes a relevant costing technique and include instructions on how these techniques are to be applied in the budgeting process. Currently budget officials use ZBB for costing new activities, and a baseline from previous years for existing activities, adjusting these to account for proposed changes in the activity level and inflation.

The reliability of the budget inputs could be improved if budget officials were satisfied with budget inputs (as budget officials would have undergone recent and budget-related training), and if all budget inputs were submitted on time in a consolidated budget submission. This should then result in a situation in which departments would be able to analyse the spending patterns departments generate as they reach the targets indicated in the IDP.

Conclusion to objective 3

Respondents indicated that there was communication between the various stakeholders in the budgeting process and that the budget submissions were aligned with the IDP. Yet, it was also indicated that the spending did not take place according to the IDP. Taking into consideration the conclusions reached on the preceding research objectives, it can be concluded that management, on the macro-level, is practising what is required by the legislative framework for municipal budgeting. However, they are neglectful of their responsibility also to micro-manage

aspects of the budgeting process to achieve optimal accuracy and reliability. The response that no guidance is being provided by the managers to the budget officials underpins this statement.

Recommendation to objective 3

It is recommended that all managers should attend the proposed training with the budget officials so as to become well-versed in the budgeting process. This would equip municipal managers and officials with more confidence in and competence to use budgeting tools, and so enable the line functions to provide more efficient municipal services. If management were to implement a proper management strategy, with guidelines for their budgeting process, the issue of the dubious reliability of budget submissions should be reversed. Properly capacitated managers would also be in a position to add value to the review process. The submission of reliable budget inputs should then result in an IDP in which the budget is followed and effectively meets expenses during the year.

Managers would be able to reprioritise funds within the baseline without affecting the credibility of the budget. On the other hand, a fully credible budgeting process would ensure that IDP targets are reached on a more systematic basis, while on the other hand managers could monitor any activities that may have to be defended when accountability is demanded. The literature also supports the notion that officials should be held accountable if the municipality spends more than has been budgeted.

Every municipality has a predetermined period for the preparation of its budget. Similarly, management needs to ensure that the budgeted cost estimates are adhered to as planned and as stated in their budget requirements. This will ensure efficient use of available finances within the IDP, even though over-spending by departments can make realistic costing impossible. However the literature advocates that the municipality has to keep to allocations stipulated in the budget as calculated by the application of recognised and appropriate costing techniques. Those estimates need to be monitored to ensure accountability and control in the financial affairs of all the departments in the municipality.

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