



# A Survey of Management Techniques

*Implemented by Municipal Administrators*

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In an era of limited resources, governments are under great pressure to reform their administrative systems. Local governments have been forced to consider innovative management tools to improve service while financial resources shrink. The tools include Activity-Based Costing (ABC), Activity-Based Management (ABM), Total Quality Management (TQM), benchmarking, process reengineering and the balanced scorecard. Some government leaders believe they have found the answer to the challenge of improving quality and increasing productivity. Others dismiss these contemporary management tools as another fad that produces only failure in a cycle of grand promises and disappointment. In light of the prevalence of traditional budgeting and financial management techniques, such as revenue and expenditures forecasting and the monitoring of financial trends, we examine the effectiveness and usefulness of some contemporary management techniques: ABC, ABM, benchmarking, process reengineering, TQM and the balanced scorecard. This article describes a survey in which government administrators were asked about their use of and attitudes toward these contemporary tools.

### Tools Included in the Survey

Innovative management tools that have become more prominent over the last decade are included in the study. Traditional budgeting and financial management tools, such as line item budgeting and financial trend monitoring, are not included as they are proven tools that are necessary for the accountability of local jurisdictions. The following six tools are included in this study.

- **Activity-Based Costing (ABC):** A procedure that measures the cost of products, services and customers. ABC uses the costs of activities as building blocks. ABC first assigns resource costs to the activities performed by the organization. Activity costs are then assigned to the products, customers and services that benefit from or are creating the demand for the activities. The ABC concept was developed by Robin Cooper and Robert S. Kaplan from the Harvard Business School. They have published a series of articles advocating the use of ABC since 1988.<sup>1</sup>

- **Activity-Based Management (ABM):** The management processes that use the information provided by an activity-based costing analysis to improve organizational performance. ABM includes performing activities more efficiently, eliminating the need to perform certain activities that do not add value for customers, improving the design of products and developing better relationships with customers and suppliers.<sup>2</sup> The goal of ABM is to satisfy customers while making fewer demands on organizational resources. ABM was introduced in management accounting literature in 1992.<sup>3</sup>
- **Benchmarking:** The process of studying and comparing how other organizations perform similar activities and processes. The other organizations can be either internal or external and are selected because they are known to have excellent performance. Xerox coined the term benchmarking in 1979. The approach has been in use for a number of years, although it was often called by different names. An early benchmarking article appeared in *Harvard Business Review* in 1987.<sup>4</sup>
- **Process Reengineering:** "The fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical contemporary measures of performance, such as cost, quality, service and speed."<sup>5</sup> Process reengineering was first introduced by M. Hammer in 1990 but did not gain wide dissemination until after the publication of Hammer and J. Champy's book on reengineering in 1993.
- **Total Quality Management (TQM):** A commitment to quality that involves a clear vision of what the organization does, its quality values and goals, how it's going to achieve them, who its customers are, their needs, the needs of its employees and a focus on processes. Edwards Deming launched the TQM movement when he published his book *Quality, Productivity and Competitive Position* in 1982.<sup>6</sup> Success stories of TQM implementation were published in management literature around 1988.
- **Balanced Scorecard:** A balanced scorecard is a set of measures that give top managers a fast but comprehensive view of the business. It complements traditional financial measures with operational measures on customer satisfaction, internal processes and the organization's learning and growth activities—operational measures that are the drivers of future financial performance.<sup>7</sup> Four new management processes—translating the vision, communications and linking, business planning, and feedback and learning—along with the development of the balanced scorecard, form a management system that links the long-term strategic objectives of an organization to its short-term actions.<sup>8</sup> The balanced scorecard, introduced in 1992, is the newest management tool considered in this survey.

In the public sector, the use of management tools in local governments across the nation has been the focus of much budgetary and management research.<sup>9</sup> However, only one of the above contemporary management tools, TQM, was included in Poister and Streib (1994). Lee Mandell analyzed the management tools used in local governments in North Carolina.<sup>10</sup> Some of the innovative tools were included in his recent article. Nevertheless, newer tools such as the balanced scorecard were not included, and his results, based on a 1995 survey, may not apply to all local governments across the nation.

In the private sector, C. Gillies and D. Rigby examined the 25 most popular management tools in eight different countries.<sup>11</sup> TQM was ranked the third most commonly used tool from 1989 to 1993. The only tools more commonly used were mission statements and customer satisfaction surveys. TQM had dropped to the fourth position by 1994 and was expected to rank seventh in 1995. At the same time, the use of process reengineering appeared to be on the rise. It would be interesting to know if a similar trend applies to local jurisdictions.

### Research Method

A survey was used to understand the use of contemporary management techniques in municipal governments, the effectiveness of these tools and the

expectation of future use.<sup>12</sup> In addition, we collected information about the characteristics of the government unit, major barriers to successful implementation, and the management tools that may be helpful in developing Service Efforts & Accomplishments (SEA) Reporting for the municipal government.

Three hundred and ninety-two cities and counties from the United States and its territories were surveyed. Questionnaires were mailed to the chief administrative officers of each municipal jurisdiction in the summer of 1998. Seventy-six of these administrators (19.4 percent) returned completed questionnaires. A second mailing was done during fall 1998 with a 16.3 percent (64 returned questionnaires) response rate. Total response rate of the survey is 35.7 percent with 140 completed questionnaires. Questions were asked in the following areas:

- Satisfaction with overall efficiency and quality of services.
- Current use of contemporary management tools.
- Effectiveness of and enthusiasm toward management tools.
- Expectations of future involvement with management tools.
- Primary impediments to the adoption of management tools.
- Tools that may be helpful in developing SEA Reporting.

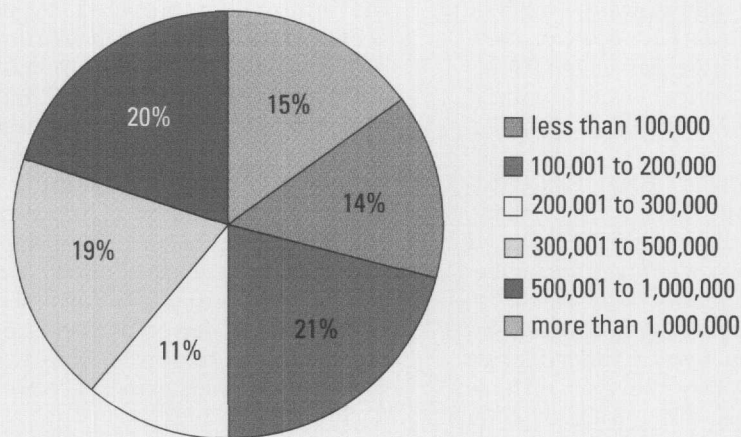
To determine the representativeness of the respondents, nonresponse bias was assessed. Consistent with the suggested methodology of J.S. Armstrong and T.S. Overton, early respondents were compared to late respondents across a number of key organizational characteristics, including population and number of employees.<sup>13</sup> No significant differences were found between these two groups on any of the above organizational variables. Because late respondents are generally considered to be similar to nonrespondents, nonresponse bias is not an issue in the study's findings.

## Survey Results

### Characteristics of Sample Respondents

Respondents were generally persons with broad administrative responsibilities.

Figure 1: Population of Sample Respondents



ties. Although some respondents were controllers, most were city or county executives or mayors. The populations of the municipalities were distributed somewhat evenly in the six population ranges in the sample, as shown in Figure 1. Jurisdictions also reported the number of employees, excluding school employees. The majority of respondents have fewer than 5,000 employees. Thirty-six percent have 1,001 to 2,500 employees. Twenty-six percent have 2,501 to 5,000 employees. Only about 10 percent have more than 10,000 employees.

### Current Use of Management Tools

The government executives were asked to identify the contemporary management tools used in their jurisdictions, either on a unit-wide basis or in selected department program areas. The distinction between unit-wide and selected areas is important to understand how often each tool was used. Respondents could also indicate whether their jurisdiction had tried and rejected the tool and if they planned to use it again. The summary results of the current use are reported in Figure 2. The most popular tool used on a unit-wide basis is TQM with a use rate of 20 percent.

Combining partial use (used in selected areas) with unit-wide use, benchmarking has the highest combined use rate of 82.2 percent, followed by process reengineering with a use rate of 80 percent. TQM has a combined use rate of 56.3 percent. ABC and ABM are used less often than TQM, with a combined use rate of about 50.8 percent and 45.7 percent. Based on the results, the

least prevalent tool is the balanced scorecard with a combined use rate of 18 percent (only 23 government respondents used the balanced scorecard). Since the balanced scorecard is the newest management tool included in the survey, many participants were not familiar with it and have contacted us to learn more.

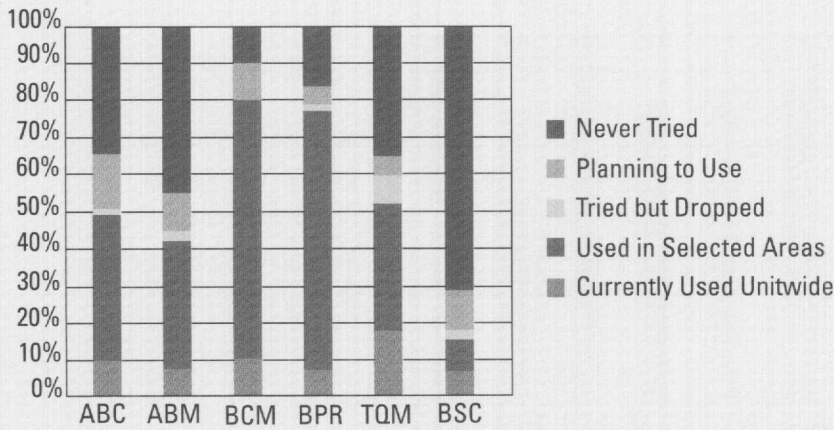
The results indicate a tendency for respondents to try the management tools on a smaller scale. After a period of transition, some of these tools might be used on a wider basis. There could also be areas where individual department heads have taken the initiative to experiment with different management tools.

In previous research on the use of management tools, it was reported that the degree of use increased with size, with larger jurisdictions using more of the management tools.<sup>14</sup> However, in this study, the results of the chi-square test of independence failed to support the size effect. There was no difference in the use of management tools between large and small jurisdiction subgroups based on population sizes.

## Comparisons with 1997 Mandell North Carolina Results

In 1995, Mandell asked North Carolina local governments to indicate their use of 20 budgeting and management tools, including ABC, benchmarking, process reengineering and TQM. (The Mandell survey was published in 1997.) A total of 108 local governments responded. Our study found a much higher and wider use of these four tools at the

Figure 2: Use of Contemporary Management Tools



**Effectiveness of Contemporary Management Tools**

For each of the contemporary management tools used in the municipal governments, respondents were asked to assess the effectiveness of the tools as an aid to program administration and decision-making. Using a five-point Likert scale, respondents ranked tools from 1 (mostly ineffective) to 5 (very effective). Figure 3 summarizes the perceived effectiveness of these management tools.

Of those using the balanced scorecard, approximately 95 percent of the municipal respondents report that it has been moderately/very effective as an aid to program administration and decision-making. About 94 percent of those using process reengineering consider it an effective management tool in their organizations, followed by ABM (90 percent), ABC (88 percent), bench-

national level by 1998. If we assume that North Carolina was typical for any city or county in the U.S. in 1995, the total use of benchmarking has increased by 48.2 percent, and process reengineering has

grown by 46 percent. The increase in TQM is about 23.3 percent, whereas ABC has the smallest gain, with only a 15.8 percent increase in the three-year period.



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marking (84 percent) and TQM (82 percent). Using a scale of five to represent different degrees of effectiveness, the mean response rate is 4.19 for balanced scorecard, 4.16 for process reengineering and 4.08 for ABM. The respondents consider the balanced scorecard and process reengineering the most effective tools. However, because only 23 jurisdictions are using the balanced scorecard, any inference should be made with caution.

### Enthusiasm and Future Involvement with New Management Tools

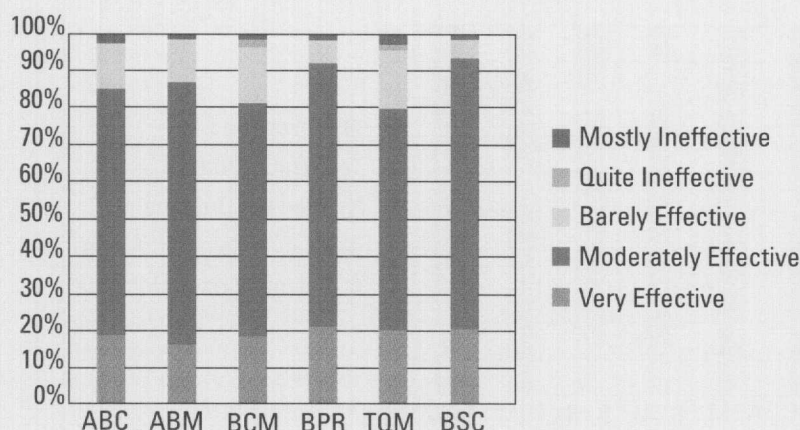
The government executives were also asked about their enthusiasm for using new management tools and the prospect of future use. A strong majority, 56 percent, reported that they are somewhat or significantly more enthusiastic about using process reengineering compared with one year ago (see Figure 4). Fifty-five percent reported that they were more enthusiastic about benchmarking, followed by ABM, TQM, ABC and balanced scorecard with percentages of 43, 36, 36 and 22, respectively. The mean responses for benchmarking and process reengineering are the highest with 3.61 followed by ABM at 3.51. The tool that respondents appeared hesitant to use was the balanced scorecard, but this may result from unfamiliarity rather than negative attitudes about the balanced scorecard itself.

With respect to the future role of new management tools in their organizations, most respondents (80 percent) expected the amount of benchmarking activities in their organizations to increase somewhat/significantly over the next five years. The expected use of process reengineering was slightly lower than benchmarking, with 77 percent expecting the use of process reengineering to increase in the next five years, followed by ABC (68 percent), ABM (64 percent), and TQM (58 percent). Again, only 43 percent of the respondents expected the use of the balanced scorecard to increase in the next five years.

### Primary Impediments to the Adoption of Contemporary Management Tools

Respondents were asked about the primary impediments to the adoption

Figure 3: Effectiveness of Contemporary Management Tools



of the management tools in the survey. For all but process reengineering, the top three factors cited were lack of buy-in from staff, lack of skills and know-how and aversion to change/too risky. The results underscore the need for communicating the benefits of the tools, as well as the importance of education and proper training. Lack of buy-in and aversion to change suggest that it is important to communicate effectively with staff people before introducing new management techniques. This may be especially important when considering the most radical of the tools, process reengineering, for which the respondents ranked aversion to change above lack of skills as an impediment.

In the private sector, businesses must often try the latest trends to stay competitive. In the government sector, however, entrenched bureaucracy is less likely to feel competitive pressures and perhaps more likely to have pressures of inertia. Nonetheless, these contemporary tools are potentially very useful in the government sector, where traditional financial measures are less relevant, and great gains are to be had if this resistance can be overcome.

Lack of skills and know-how was the second greatest impediment for all tools but reengineering. Education and proper training are especially important in smaller jurisdictions, as they ranked lack of skills and know-how as the No. 1 impediment to adopting ABC, ABM and the balanced scorecard. It may be that administrators of smaller municipalities are likely to have less training in business or public administration in general and thus are less confident to

adopt these techniques. Lack of knowledge about the balanced scorecard also suggests that publications aimed at government administrators may not be featuring this particular tool.

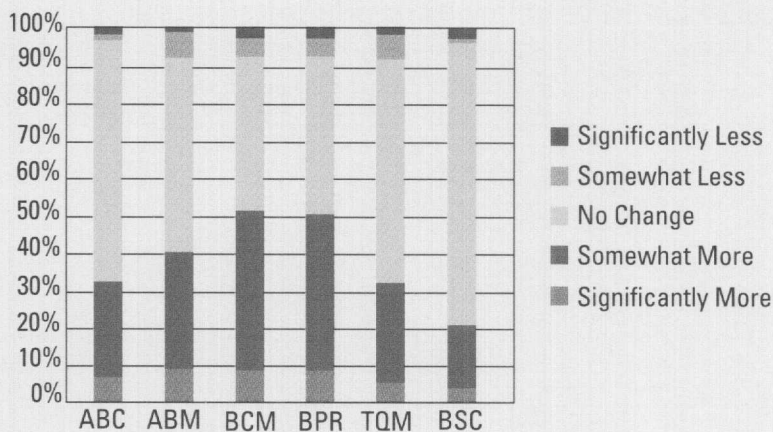
Additional impeding factors reported by the respondents were lack of data, not cost-effective, lack of staff time, lack of communication, short-term vision associated with day-to-day operations and lack of legislative buy-in. For contemporary management tools to be successfully implemented in the public sector, the following factors are considered important: leadership, a proper management strategy and an involved, educated electorate and legislators.

### Tools Helpful in Developing SEA Reporting

In 1994, the Governmental Accounting Standards Board (GASB) issued Concepts Statement No. 2, *Service Efforts and Accomplishments Reporting*.<sup>15</sup> This statement expressed the board's opinion that both financial and nonfinancial performance information were necessary aspects of reporting efforts and accomplishments of governmental entities. Although the Concepts Statement does not have the weight of an accounting standard, many municipalities have begun experimenting with ways to report such data. Several suggestions for performance measures are available (see for example GASB's Performance Measurement for Government website, [www.raw.rutgers.edu/Accounting/raw/seagov/pmg/index.html](http://www.raw.rutgers.edu/Accounting/raw/seagov/pmg/index.html)).

Approaches to reporting such measures are not standardized at this time. Therefore, respondents were

**Figure 4: Enthusiasm Toward Contemporary Management Tools**



asked to indicate the tools that may be helpful in developing SEA reporting. Benchmarking was ranked the most helpful tool with 90 votes, followed by ABC (72), process reengineering (67), ABM (66), the balanced scorecard (53) and TQM (46). Thus a significant proportion of the 140 respondents felt that contemporary management tools would be useful in developing new reporting methods.

### Summary and Conclusion

In the past decade, local governments have used many innovative management tools to enhance their ability to deliver services effectively and efficiently. Among the six tools surveyed in this study, benchmarking and process reengineering have become more prominent among local jurisdictions, followed by TQM, ABC and ABM. The least prevalent tool is the balanced scorecard. There is no difference in the use of management tools between large and small jurisdiction subgroups. On the other hand, local governments that are more involved with ABC, ABM, TQM and balanced scorecard appear to be more satisfied with their overall performance.

Only about 23 respondents have implemented the balanced scorecard, yet those who have consider it a very effective tool. The government executives are more enthusiastic about process reengineering and benchmarking and expect to use these tools more than ABC, ABM and TQM over the next five years.

The primary impediments to the adoption of these management tools are lack of buy-in from staff, lack of skills

and know-how and aversion to change/too risky. The results point to the importance of training and education in achieving a successful implementation of new management techniques. The educational issue is more critical for smaller jurisdictions, as the lack of skills and know-how was chosen as the No. 1 factor that stymied the implementation of ABC, ABM and balanced scorecard.

Finally, several of the contemporary management tools offer promise in the development of SEA reporting. Such reporting requires government executives to find new ways of reporting performance on financial and nonfinancial measures. These tools may be helpful in providing direction as managers decide not only what they should be measuring, but also how to report it. The vast majority of respondents was enthusiastic about the usefulness of these tools and expected to continue using them in the future. █

### END NOTES

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