

THE EFFECT OF BENCHMARKING ON PERFORMANCE
IN SECONDARY SCHOOLS IN NAKURU
MUNICIPALITY-KENYA

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Abstract:

This paper explored the effect of Benchmarking practices on performance of public secondary schools in Nakuru Municipality. The study used a cross-sectional survey to study the four Benchmarking practices i.e. Internal, Competitive, Functional and Generic /Process benchmarking. Pearson Correlation model was used to analyze the data to determine the effect of Benchmarking practices on performance. The specific objective of the study was to establish the effect of Benchmarking practices on performance of public secondary schools in Nakuru Municipality. Data was collected from 152 respondents who were Head teachers and Heads of Departments drawn from the 22 public secondary schools in Nakuru Municipality. Study findings indicate that practices of Benchmarking practices such as internal benchmarking, competitive benchmarking, functional benchmarking and process benchmarking were positively correlated to the level of performance achieved. The study was only limited to academic performance of schools.

Keywords: Benchmarking, performance , TQM, Competitive Advantage, Information Technology

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1.0 Introduction

The business environment in which organizations are operating in currently is highly competitive, rapidly changing courtesy of Information Technology thus organizations have been forced to consider, and adopt or implement, a wide variety of innovative management programs and techniques. One of the innovative management for Continuous Improvement is Total Quality Management (TQM). TQM only succeeds in organizations where management is committed and supports a life-long process of continuously improving in the quality of their services or products compared to their competitors by constantly benchmarking against the best practices in the industry. Benchmarking can be defined as “the continuous process of measuring products, services and practices against the toughest competitors or those companies recognized as industry leaders” (Camp, R. C., 1989). The essence of benchmarking is learning from others, understanding of whom and the benchmarking partners’ performance level both for comparison and for registering improvement, comparison of performance levels, levels of processes and practices to meet the obligation of making improvements on continual basis and improving efficiency with respect to best practices (Dewhurst F. 2001). Benchmarking, therefore, is a continual systematic measurement through comparison that frequently seeks fresh approaches, following implementation of improvements and reviewing the benefits (Leibfried et al, 1992).

Benchmarking is mostly used to measure performance using a specific indicator resulting in a metric of performance that is then compared to others. Conceptualization of benchmarking at its simplest level can be viewed as a strategy for enabling people to think outside the boxes they normally inhabit: the boxes being departments, services or functional units of institutions (Spendolini, 1992).

Also referred to as "best practice benchmarking" or "process benchmarking", it is a process used in management and particularly strategic management, in which organizations evaluate various aspects of their processes in relation to best practice companies' processes, usually within a peer group defined for the purposes of comparison. This then allows organizations to develop plans on how to make improvements or adapt specific best practices, usually with the aim of increasing some aspect of performance. Benchmarking may be a one-off event, but is often treated as a continuous process in which organizations continually seek to improve their practices (Leibfried, 1992).

Benchmarking is one of the methods that schools can use to help them achieve the objective of efficiency and cost- effectiveness in optimizing the resources available to support learning. Benchmarking processes that are focused on standards of learning might be directed towards: the intended outcomes; what the learners will be expected to know and be able to do (Magutu et al, 2011). Different schools have students with different expectations from the schools and different perceptions about the quality of education they receive from the schools. It is therefore necessary for schools to create objective benchmarks in order to know where they stand currently in satisfying the students and other stakeholder's expectations. Benchmarks can also be used to compare the performance of various schools (Kanishka and Sharma, 2006)

Secondary schools in Kenya fall into two categories - government funded and private sponsored. Government funded schools are divided into national, provincial and district levels. Private schools are run by private organizations or individuals. After the primary school leaving exam and successfully passing, government funded schools select students based on scores. Students with the highest scores gain admission into national schools while those with average scores are selected into provincial and district schools. Students who fail examinations either repeat the final school year or pursue technical training opportunities. A number of students also drop out of school by choice due to poor scores (Eshiwani, S.G., 1993). Under the current system, students attend secondary school for four years before sitting for the school leaving exam at the end of the fourth year. The first class or year of secondary school is known as form one and the final year is form four. At the end of the fourth year, from October to November students sit for the Kenya Certificate of Secondary Education examination (K.C.S.E). In 2008, the government introduced plans to offer free Secondary education to all Kenyans (Eshiwani, S.G., 1993). Private secondary schools in Kenya are generally high cost schools offering students an alternative system of education with better or more luxurious facilities compared to public schools. They are often favored for prestige. Most private schools in Kenya offer the British system of education which includes "O-levels" and "A-levels". Very few offer the American system of education and good number of them offer the Kenya system (Eshiwani, S.G., 1993).

In Kenya, responsibility for the education system is vested in the Ministry of Education, Science, and Technology (MoEST). Supervision by inspection has long been and still is a major method employed by the Ministry of Education to monitor the quality of education and performance in

the country. The major area of concern to the Ministry is teacher preparation and curriculum delivery, (Ogula, P., 2009). Evidence shows that the practice of Benchmarking has been taking place in schools informally. However, the extent to which schools have adopted and implemented Benchmarking practices has received little research attention from most researchers. This study therefore seeks to identify Benchmarking practices used and establish out their effect on the performance of public secondary schools in Nakuru Municipality.

2.0 Literature Review

Benchmarking was originally conceptualized as a type of competitive intelligence gathering that would allow one organization to understand how another organization's best practices operated in an effort to close the performance gap between the two. Public schools over the years have experienced changes which have complicated their management. These changes include; free secondary tuition, breakthrough in technology and climatic changes. Although schools that fall under the public sector have less opportunity to develop their own policies on quality improvement as this is defined by a political process outside the control of school management, (Macmillan & Tampoe, (2000). Weller (1996), noted that benchmarking, regardless of the type used, "is a firm foundation for any quality improvement programme" and can promote a paradigm shift in organizational thinking. According to Dale (2003), Benchmarking is an opportunity to learn from the experience of others. He goes ahead to say that it helps to develop an improvement mindset among staff, facilitates an understanding of best practices and processes, assists in setting goals based on fact and provides an educated viewpoint of what needs to be done rather than relying on the whim and gut of instinct. Benchmarking can and should be utilized as an essential element of a comprehensive quality Management (QM) strategy, it goes beyond just competitively analyzing the competition; it focuses on analyzing organizational processes and methods to assess how competitors achieved their positions. According to Zairi (2003), the benefit of benchmarking can be categorized into operational, financial and strategic benefits.

2.1 Types of Benchmarking

There are different types of benchmarking depending on what the organization wants to benchmark. Benchmarking can take any of the following types:

Internal Benchmarking: Benchmarking against internal operations is one of the simplest forms of benchmarking since most companies have similar functions inside their business units. The immediate benefit comes from identifying the best internal procedures, and subsequently transferring them to other parts of the organization (Johnston et al, 2007). Weller (1996), found that a particular value in benchmarking one's own organizations before searching outside for exemplars allows any type of organization to compare its performance and practices with the best performance standards available and help managers and administrators understand the processes used to achieve these standards. Within the school setup, this is the comparison between departments, between teachers and between students. One department can compare with another which is doing well; and teachers can compare their practices with those of other teachers within the same school who have managed to produce good results.

Functional Benchmarking or External Benchmarking: Industry (functional) benchmarking is the measurement of various facets of the company's functional operations and comparison of these to similar measurements from other companies (often industry leaders) within the industry group. Many industry groups publish comparative data either privately (for members of the group) or publicly or both. The benchmarking partners usually share some common technological and market characteristics. In the education sector, schools can compare with each other in terms of physical facilities like laboratories and libraries and teaching/ learning resources. For example a team can be sent to a school that performs well in sciences with the aim of collecting data on laboratory layout and equipment.

Competitive Benchmarking: This type of benchmarking is used against direct competitors. Performed externally, its objective is to compare companies offering competing products, services or processes in the same markets. According to KIM (2009), one can compare the performance of a school with other schools who are competitors. This provides like- for- like comparisons with other educational institutions and gives a very good idea about overall organizational performance. With direct competitors, information is not easy to obtain.

Process (generic) Benchmarking: Here, similar procedures at dissimilar companies are compared. Such comparisons may be of practices that are similar regardless of the industry. These can be in areas such as human resource management, team work, and information technology and quality assurance processes. The concept has also been referred to as generic benchmarking because it is not restricted to any industrial structure or market (KIM, 2009).

Generic benchmarking is effective in making quality improvements and assumes that generic practices exist which promote quality in any type of organization and are worthy of investigation. The main criterion for selection is their overall reputation for quality. Here, organizations find and study the best practitioners of a particular quality process or function regardless of the product or service nature of the organization (Weller, 1996).

2.2 Benchmarking in Education

Benchmarking has become a common practice in education, as well as in other sectors. According to Camp, R. C., (1989), to be successful, benchmarking must be continuous and systematic. It cannot be performed once and disregarded thereafter on the belief that the task is done. Curry et al, (2003), argued that Benchmarking is a powerful vehicle for quality improvement and a paradigm for effectively managing the transformation of ordinary schools into schools which are centres of academic excellence. For Head teachers and other school administrators who are aware of the benefits of the quality principles in the school setting and wish to duplicate these results, knowledge of benchmarking practices and the change process are essential. In essence, benchmarking can be used in schools as a powerful tool to improve quality, to learn first-hand the benefits of quality, and to serve as a source of implementing the quality principles. Weller (1996), argued that by familiarizing themselves with the benchmarking strategies and the change process, principals can make benchmarking a means of change rather than an end in itself

Benchmarking in schools involves a set of Key Performance Indicators (KPI's) which involve student results, resources and processes. According to Costa et al. (2006), benchmarking is performed for each indicator and the benchmarking team compares what they find out with what happens in their schools. Benchmarking is suitable for institutions of education since it will help to overcome resistance to change, provide a structure for external evaluation, and create new networks of communication between schools where valuable information and experiences on teaching and research can be shared. Conceptualization of benchmarking at its simplest level can be viewed as a strategy for enabling people to think outside the boxes they normally inhabit: the boxes being departments, services or functional units of institutions (Spendolini, M.J., 1992). Benchmarking provides a clear signal of success or failure as it has been widely recognized as a technique that can dramatically improve process performance to best practices level.

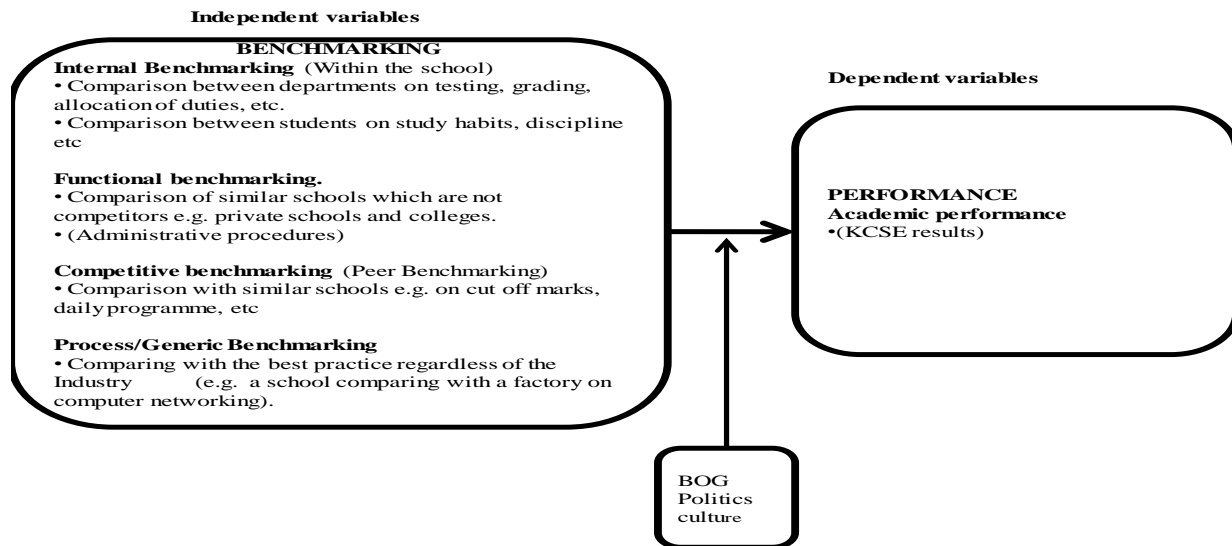
Benchmarking within continuous improvement and concluded that benchmarking is one of the methodologies that have emerged in corporate attempt to gain and maintain competitive advantage (Leibfried, 1992).

According to one north east regional development team (2008), benchmarking is the process of identifying alternative practice in order to better understand and evaluate the current performance as a means of implementing change to improve performance. It is therefore a form of objective self-assessment, focused on delivering results. They further argued that benchmarking involves looking both inward and outward to examine how others achieve their performance levels and to understand the processes they use. Benchmarking helps explain the processes behind excellent performance. When the lessons learnt from a benchmarking exercise are applied appropriately, they can facilitate improved performance in critical functions within an organization. According to Waudo and Ouya, (2010), Schools that are able to perform well have managed to do so through the following interventions: First, the teaching methods employed are planned based on the science of participatory learning and encourage the spirit of enquiry among learners. These results lead to more learning, reasoning and self confidence. This is indicated by outstanding performance in the national examinations. Results also indicate that performing schools have also realized that the existing student assessment system is inadequate to increase the competence and gauge the different degrees of excellence achieved by students. It is important to analyze the value added progress on performance including change in behavior and attitude. Second, facilitating intra-school and inter school teacher experience sharing activities or sessions enables teachers to adapt best practices practiced by other innovative teachers.

Benchmarking is fundamentally concerned with comparing an organization with others that are doing well with the objective of improving performance. Therefore, the concern in the research is the relationship between the elements that are benchmarked and performance. The question asked in the research on benchmarking is: "Is benchmarking practiced in the schools? If so which areas are benchmarked and what is the effect on performance?" On the other hand, organizational performance is considered be the dependent variables assessed in terms of indicators such as; infrastructural development (facilities), enrolment, Staff development and academic performance (quality grades). Agus and Hassan (2009), explored the role of benchmarking in association with product quality performance and business performance in the

Malaysian electronics and electrical industry. Lucio et al (1996) in their study on peer evaluation to develop benchmarking in the public sector observed that TQM Principles and tools were the most essential in improving and maintaining quality in the public sector. Bench marking being one of the principles of TQM, therefore it can be said that it has a positive influence on the performance of an organization. Public schools should also embrace TQM principles of which Benchmarking is one of them in order to improve their performance.

The results of the study indicated that there was a strong positive correlation between benchmarking and performance. The study concluded that by strengthening benchmarking in TQM, improvement in organizational performance will occur.



Moderating variables

Figure 1: The relationship between Benchmarking and organization performance.

Source: Author (2011)

3.0 Findings

Descriptive analysis

In regard to the effect of Benchmarking on performance, the respondents were asked to indicate the level of school performance in terms of: academics, enrollment, and development of physical facilities. The five point likert scale with levels strongly agree, agree, undecided, disagree and

strongly disagree was used to determine the relationship between benchmarking and schools performance. The results of data analysis and discussions are as follows:

Table 1: Level of performance in public secondary school (results are in percentage)

Statement	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Mean
Benchmarking has led to an increase in the number of students obtaining grade C+ and above	3.3	12.5	21.1	43.4	19.7	3.638
Benchmarking has led to an increase in the number of students who join the university and other colleges	3.3	11.2	19.1	45.4	21.1	3.697
Benchmarking has led to productive use of the available resources in the school.	5.3	15.1	20.4	42.8	16.4	4.026
Has increased retention rate where number of students graduating equals to number of students enrolled.	5.9	20.4	26.3	28.9	18.4	3.336
Benchmarking has led to acquisition of improved technology e.g. computers, teaching and learning aids e.t.c.	3.3	15.8	12.5	45.4	23.0	3.691

Source: Author (2012)

Study findings (Table 1), show that 63.1% of the respondents agreed that Benchmarking had led to an increase in the number of students obtaining grade C+ and above. This implies that if schools benchmark, the school enrolment will go up and it will lead to reduction in the level of illiteracy and increasing the number of students who join universities and other tertiary institutions which will in turn contribute towards the achievement of Millennium Development

goals and vision 2030 in Kenya. Further 66.5% of the respondents agreed that the number of students who joined Universities and other tertiary colleges had increased as a result of benchmarking (45.4% agreed while 21.1% strongly agreed). On the productive use of available resources in schools, 59.2% of the respondents agreed that it had been achieved through Benchmarking, with 42.8% agreeing and 16.4% agreeing strongly. The study results also found that 55.9% of the respondents agreed that Benchmarking had led to an increase in enrolment of students in their schools. This could be due to schools sharing ideas on how to improve enrollment levels and motivating students. The study further found that 47.3% (18.4% agreed strongly while 28.9% agreed) of the respondents agreed that Benchmarking had increased retention rate where the number of students graduating equals to number of students enrolled. This was due to structures put in place to ensure that there is proper guidance and counselling in the schools.

Table 2: Effect of Benchmarking on Performance.

Benchmarking practice	Performance
	Pearson Moment Correlation Coefficient (r)
Internal benchmarking	.443**
Competitive benchmarking	.503**
Functional benchmarking	.470**
Process benchmarking	.305**

Source: Research Data

Where:

** Correlation is significant at the 0.01 level (2-tailed).

The study indicated that Pearson's moment Coefficient for all the benchmarking types positively and significantly correlated to school performance (see above table 2). These findings indicate that increased application of any of the benchmarking types in public secondary schools will lead to improved academic performance.

4.0 Conclusions

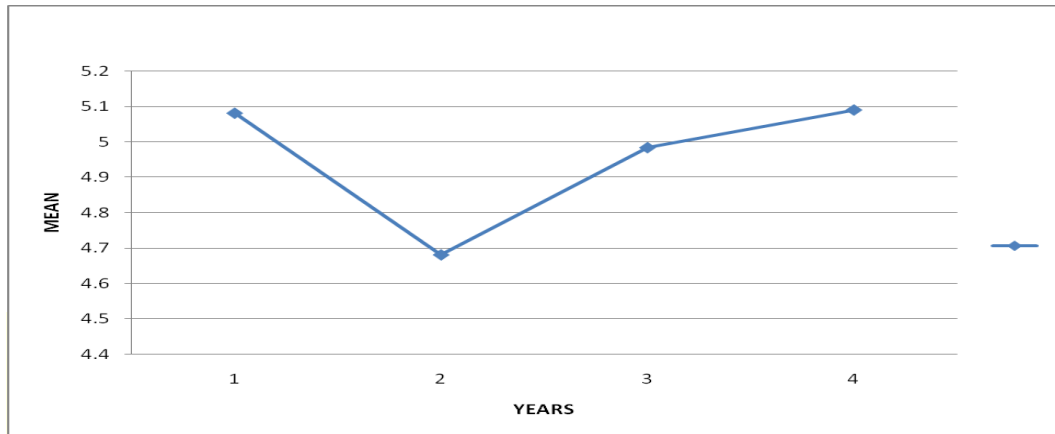
The study found that Benchmarking practices (Internal benchmarking, Competitive benchmarking, Functional benchmarking and Process benchmarking) were positively correlated to academic performance in the public secondary schools. Thus the conclusion was that Strategist and Managers in the education sector should ensure that they develop policies so as to ensure that schools benchmark with the other schools which may be in the same category or at a different level higher in the performance index. They can achieve this by training their Quality Assurance staff on the process of benchmarking. Quality Assurance staff should be part of the benchmarking staff so as to ensure that the schools reap maximum benefit from the benchmarking process. Policies should also be formulated to make benchmarking a compulsory activity in the quality management programmes in the schools. This study recommends that further studies should be done on other Total Quality Management practices that lead to improvement in performance in public and private secondary in the entire nation. The study did not investigate on the influence of moderating variables such as Board of Governors (BOG), politics and culture on the performance of public secondary schools in the study area, thus further research studies should consider investigating these moderating factors.

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Appendix 1: Graph showing trend of performance in Nakuru District from 2007 to 2010



	Year
1	2007
2	2008
3	2009
4	2010

Appendix 2: Correlations table

		Benchmarking practice	Internal benchmarking	Competitive benchmarking	Functional benchmarking	Process benchmarking	Benchmarking outcome
Benchmarking practice	Correlation co-efficient	1	.488(**)	.475(**)	.415(**)	.300(**)	.496(**)
Internal benchmarking	Correlation co-efficient	.488(**)	1	.619(**)	.448(**)	.218(**)	.443(**)
Competitive benchmarking	Correlation co-efficient	.475(**)	.619(**)	1	.564(**)	.357(**)	.503(**)
Functional benchmarking	Correlation co-efficient	.415(**)	.448(**)	.564(**)	1	.469(**)	.470(**)
Process benchmarking	Correlation co-efficient	.300(**)	.218(**)	.357(**)	.469(**)	1	.305(**)
Benchmarking outcome	Correlation co-efficient	.496(**)	.443(**)	.503(**)	.470(**)	.305(**)	1

** Correlation is significant at the 0.01 level (2-tailed).