

TOTAL QUALITY MANAGEMENT IN PUBLIC SECONDARY SCHOOLS AND PRINCIPAL DECISION MAKING FOR SCHOOL IMPROVEMENT IN AWKA SOUTH L.G.A

JOSEPH, AYODELE ABIODUN

**Department of Educational Management and Policy,
Nnamdi Azikiwe University, P.M.B 5025, Awka, Anambra State
Email: aj.ayodele@unizik.edu.ng
Phone No: +2348035670947**

&

EZE, ONYINYE ULOMA

**Department of Educational Foundations,
Chukwuemeka Odumegwu Ojukwu University, P.M.B 02, Igbariam, Anambra State
Email: onyiuloma@yahoo.com
Phone No: +2348060032106**

Abstract

This study investigated total quality management in public secondary schools and principal decision making for school improvement in Awka South L.G.A. Three research questions and two hypotheses guided the conduct of the study. Descriptive survey research design was adopted for the study. The population of the study comprised 20 male and female principals in all Public Secondary Schools Anambra State. The Sample size for this study is 20 male and female principals drawn from all public secondary schools in Awka South Local Government in Anambra State. The instrument for data collection was a structured questionnaire titled "Total Quality Management in Public Secondary Schools and Principal Decision Making for School Improvement Questionnaire" (TQMPSSPDMQ) designed by the researchers. The face and content validity of the instrument was established by two experts comprising one in Guidance and Counselling. The instrument was trial-tested on a representative sample of 10 principal Cronbach Alpha method was used to determining the internal consistency of a descriptive survey research. Mean and standard deviation were used to answer the research questions and Z-test was used to test the hypotheses at .05 level of significance. The findings of the study include: Principal perception on total quality management on decision making for school improvement in Awka South is high. Male and female principal' perception towards total quality management and principal decision making for school improvement is high. Principal in urban and rural areas indicate that total quality management and principal decision making for school improvement is to be high. There is difference in the perception of male and female teachers on total quality management of principal decision making for school improvement was not significant. There is difference in the perception of principal in urban and rural areas on total quality management and decision making for school improvement was not significant. The study recommends that every principal in secondary schools and any other institution should implement total quality management because total quality management improves the quality of teaching and learning in secondary schools. Male and female principals need feedback to improve on total quality management before making decision in public secondary schools. Principals in urban and rural areas should use total quality management in making decision for school improvement.

Keywords: Principal Total Quality Management, Decision Making, Gender and Location.

Introduction

Total quality management is a management philosophy and practice that aims at harnessing the human and material resources of any organization in the most effective way to achieve the organizational objectives. Many institutions are conducting organizational development programmes like seminars, workshops and conferences to enhance quality awareness and change the attitude of their employees towards total quality management. More recently, educational administrators have recognized the potentials of total quality

management in educational management. Total quality management is the cultivation and practice of quality in every person's tasks and activities through which the school system focuses on continuous improvement of all operations in the task areas. Total quality management could be seen as an administrative technique. According to Ojo (2006), it is a management style that is quality centered; customer- focused, facts-based, team-driven and seminar-led which aim at providing satisfaction to the realization of organizational objectives. Total quality Management is a systematic approach to education reform (Deming, 2004). This philosophy also provides a framework that can integrate many positive developments in education, such as teamwork, site-based management, cooperative learning and outcomes-based education. Total quality management emphasizes teacher competence, creativity, commitment, teamwork, effective communication, and how educational administrators are expected to lead in order to realize the full potentials of all personnel in the educational organization (Okorie & Uche, 2004). Its application to the education sector was propelled by the fact that educating people was viewed the same as the business of producing goods and services in an economy (Nicklin, 2001). If educational administrators could realize that failure in education is a problem and a waste to the nation, quality management may be regarded as an ideal process for making a change in the education system (Gertsen, 2001). Improving quality is probably one of the most important tasks any organization may be facing, whether private or public. Educational institutions are not foreign to this reality. The sources of quality education depends on teachers' commitment, effective leadership, adequate resources, application of the latest technology and appropriate curriculum, excellent examination results and the support of parents (Sallis, 2002). For the last 20 years, different economic circumstances have pushed education systems in many countries towards a system of privatization, transforming education into a new market and adapting education to the current demands of labour markets (Hirtt, 2004). Total quality management is a quest for quality at all times. Total quality management is applicable both in the industry and in education. One of the greatest concerns of Nigerians has been the issue of the standard and quality of the educational system. The development of any nation depends on the quality of its education hence conscious efforts are usually made to ensure educational quality at all levels. This explains why uniform educational standard in the Federal Republic of Nigeria (2004) was established and the various measures being taken by the federal government to ensure quality in the educational system. The establishment of specific bodies to control quality in the various levels of education is a clear indication of the commitment of the federal government to ensure quality. Some of these bodies include: The National Primary Education Commission (NPEC), the National Board for Technical Education (NBTE), the National Commission for Colleges of Education (NCCE) and the National Universities Commission (NUC). The effective achievement of the quality standards being envisaged is possible if total quality management is applied, especially in public secondary schools and principal decision making for school improvement.

Theories of how principals make decisions changed dramatically in the 1940s when the principals model of decision making began to replace the classic rational model of decision making. At that time, Simon's studies of principals decision-making processes indicated that most principals made decisions in a manner inconsistent with the classic rational model. The rational approach involves gathering data and using them to make decision about how to solve a problem. The model assumes that the person making the decision has all the information needed to consider possible alternatives and that the alternatives will address the problem. Instead, Sellers (2015) and Ariely (2018) found that many decisions are based on bounded rationality or satisfying. This approach to decision making occurs when the decision maker does not have access to all the information needed to make a rational decision or to measure the costs and benefits of various alternatives.

According to the concept of bounded rationality, the search for a solution is constrained by cognitive, informational, and resource limitations (Randall & Martelli et al., 2007). Decisions are flawed due to the inadequate treatment of decision-making stages. When the theory of bounded rationality was introduced, researchers in decision making devoted their efforts to demonstrating that people making decisions are not as rational as they claim (Randall & Martelli et al., 2007). Because the criteria for making a good decision are often vague and because managers 'information is often incomplete, most managers settle for a good enough decision, rather than an ideal, or perfect, decision. Given the wide variety of needs, personalities, and constraints on decision makers, decision makers are willing to compromise, i.e., make sacrifices, if they understand the reason or accept the purpose. In the context of bounded rationality, a decision maker will choose an incremental option and not create a novel solution (Sellers, 2015).

Sellers (2005) also described an interpretative approach to decision making, which involves making decisions based upon gut feelings. A person makes a decision based on internal factors, such as subconscious memories. The final approach Sellers describes is the garbage can approach to decision making. Garbage can decision making occurs when policies and goals are not clear and when participation in the decision is erratic (Sellers, 2015). The garbage can decision-making approach can create the sense of fear and insecurity noted by Abel and Hacker (2016) and Ngu (2016). However, even with garbage can decision making, school principals can develop creative solutions to the problems they face.

Various principals' factors can influence a decision-making process (Ruby, 2016). According to Ruby (2016), circumstances can affect the decision-making process, both the context in which the decision is made, such as the expectations of peers, and the clarity of the goals involved. Decision makers' personal beliefs and interests also impact decision making. Variations in these factors can cause decision makers to place different value or, even, moral weight on the decision-making process (Ruby, 2006). Constraints are often placed around the motivations of the decision maker, created by the methods leaders use to establish objective standards and a clear understanding of the mission (Ruby, 2006).

The culture and structure of the school affect how decisions are made. Some schools espouse the philosophy that problems are challenges and that members of organizations can learn to recognize novel problems. However, the decision-making processes and constraints, as well as the personal characteristics of individuals involved, also affect decision making. Klein (2015) argued that unexpected decisions in an organization make creating balance and order difficult. Similar to Wieck, Klein argued that good decision making can occur when an organization is loosely coupled and allows all members some autonomy in their decisions making. However, more often than not, school bureaucracies are closely knit structures with tightly linked internal units, which hinders individuals' abilities to make decisions. Thus, by their nature, education organizations inhibit productive decision-making.

Fortunately, with the multiple influences on education organizations, principals, and educators, multiple solutions are possible. As an example, Klein (2015) studied and demonstrated different approaches to school discipline. He found that differing decisions produced the same desired results and that no decision was superior. However, Klein (2015) concluded that the nature of the decision corresponded with the values of the decision makers. In this context, therefore, the term rationality refers to the ability to translate underlying principles into appropriate decisions.

Del Favero (2016) examined how policy environments can compromise the leadership capacity of leaders. To offset the negative effects of organizational complexity, he argued that leaders must develop complex thinking and the ability to view the organization from a variety of perspectives. Multiple perspectives allow a leader to have a broader sense of the organization, which expands the decision-making process and increases decision-making options. Effective leaders apply a variety of frames to interpret their actions and decisions, and their decisions tend to be more beneficial. In a study of college presidents, Del Favero found that although the presidents used multiple frames to discuss their decisions, community college presidents more often used only one frame to describe their decisions. In general, the more experience a president had, the more frames he or she used to describe decisions. In addition to using more frames, complex thinkers in complex environments move from one frame to another, progressively, in the course of their careers.

In contrast, Buchanan and O'Connell (2016) found that the most subtle, yet strongest, contexts are hidden within the decision makers, often in the form of constraints. They reported that some researchers, such as Howard Raiffa and Peter Drucker, espouse the philosophy that internal members cannot make effective decisions, whether due to organization constraints or lack of personal decision-making abilities; therefore, internal members seek external assistance. Human constraints that affect decisions include complex circumstances, limited time to make decisions, and inadequate computation power. Emotions, moods, and intuition also affect one's ability to make good decisions, leading to erroneous framing, bounded awareness, and excessive optimism (Buchanan & O'Connell, 2016). Within these contexts, and with these constraints and influences, leaders are expected to make decisions that benefit the secondary school and support the organization's goals and mission. The degree to which these conditions are addressed is an individual attribute of the decision maker. Researchers (Buchanan & O'Connell, 2016) concluded that intuition needs

to be balanced with analysis of the situation. Thus, principals need to analyze not only the problem at hand but also the context in which the decision must be made.

During the last five years, a great proportion of schools in Awka South LGA have continued to perform poorly. The mean scores for the schools show either very minimal positive index or a downward trend. This poor performance represents a challenge thus the need to gain an insight into the causes and possible solution to the problem. This study was seeking to collect qualitative and quantitative data to determine the possible influence of TQM principles to academic performance in Awka South LGA. Despite having previous research on TQM, the truth on the ground is that most secondary schools have not improved their secondary schools grades. The reason is lack of involving people in which Parents are left out during decision making and management of school processes, most schools have mission statements but are not reflected in the school's academic performance. They state the desired situations in schools but don't focus towards customer satisfaction and meet their needs hence poor academic performance. Although a number of studies have been done on the concept and context of quality management and education respectively, the outcome of the results in public secondary schools still remains a dream. There was need therefore for a study to be carried out focusing on the academic performance in conjunction with the TQM principles. Given the weaknesses of the past studies as identified above, the present study was trying to fill this knowledge gap by studying the influence of TQM principles in Public Secondary Schools academic performance, a case of Awka South LGA (Amawbia, Awka, Ezinato, Isiagu, Mbaukwu, Nibo, Nise, Okpuno and Umuawulu). It has been observed that public secondary schools in Awka South L.G.A of Anambra State over the years have been suffering due to inadequate facilities for effective teaching and learning, lack of maintenance of existing ones, lack of commitment by principals, lack of teamwork, poor communication method, lack of adequate funding, poor performance of students especially in external examinations and this has resulted to many parents registering their wards in other states for good results. Against aforementioned backdrop, the study investigate total quality management in public secondary schools and principal (male and female) decision making for school improvement in Awka South L.G.A (Empirical).

Method

The study adopted descriptive survey research design. According to Nwankwo (2010), a descriptive survey design is a research in which data are collected from sample of a population with a view of finding out the relative opinion, belief, attitude and statues of that population about a phenomenon.

The study was carried out in Awka South Local Government Area Anambra State. Awka South Local Government Area (LGA) is made up of nine towns, namely, Amawbia, Awka, Ezinato, Isiagu, Mbaukwu, Nibo, Nise, Okpuno and Umuawulu. There are three major streets that span this area, which are the Zik Avenue, Works Road and Arthur Eze Avenue. In the past, the people of Awka South LGA were well known for blacksmithing. Today they are respected among the Igbo people of Nigeria for their technical and business skills.

The population of the study comprised 20 principals in public secondary schools in Awka South Local Government Area of Anambra State. The population distribution is shown in Appendix B (Post Primary School Service Commission, 2017).

The sample of the study consisted of 20 principals which were drawn out from the population of the study. The entire population was used as the sample because of the manageable size.

The instrument for data collection was a structured questionnaire titled "Total Quality Management in Public Secondary Schools and Principal Decision Making for School Improvement Questionnaire" (TQMPSSPDMQ) designed by the researchers. The instrument consisted of two sections: A and B. Section A elicited information on the demographic information of the respondents while Section B with 30 items elicited information on the Total Quality Management and Principal Decision Making for School Improvement.

The face and content validity of the instrument were established by two experts comprising one in Guidance and Counselling and one in Measurement and Evaluation, all in the Faculty of Education, Nnamdi Azikiwe University, Awka. The purpose, research questions and hypotheses were presented to the experts to serve as

a guide. These experts were requested to validate the instrument relative to the appropriateness and coverage of the items, wordings and clarity of the instructions.

The instrument was trial-tested on a representative sample of 10 teachers randomly selected from five (5) public secondary schools in Enugu State. Enugu state was chosen because the inhabitants have similar characteristics with those of Anambra State. The scores obtained from the respondents were collated to determine the internal consistency of the scores for the items in each section. This was done using Cronbach Alpha method. The reliability co-efficient of 0.82, 0.78 and 0.87 were obtained from part 1, 2 and 3 respectively. These were considered high enough for the study. The choice of Cronbach Alpha is in line with Howith and Cranner (2011) who recommended Cronbach Alpha as proper statistical tool for determining the internal consistency of a descriptive survey research.

The researcher administered the instrument to the respondents with the help of three research assistants who were properly briefed on method of data collection. This enabled them to be familiar with the modalities for administering the instrument in an appropriate and effective way. The researcher and the assistants administered copies of the instrument on the teachers at their various schools using direct administration and retrieval method. The completed copies were collected on the spot and follow up visits were made where the respondents could not submit on the spot. The distribution and collection of copies of the questionnaire lasted for three weeks.

The means and standard deviation were used to answer the research questions. In analyzing the data, mean from 1.00-1.49=very low; 1.50-2.49=low, 2.50=3.49=high; 3.50-4.00=very high. In analyzing the data for the null hypotheses, Z-test was used to test the hypotheses at.05 level of significance. The choice of Z-test is in line with the recommendation of Howith and Cranner (2011) who recommended the use of Z-test for samples from 40 and above. Since the sample size is more than 40, the choice of Z-test is therefore appropriate for the study. As a rule, if the calculated Z-value is equal or greater than the table Z-value ($> .05$), the null hypotheses was rejected whereas if the calculated Z-value is less than the table Z-value, the null hypotheses was not rejected.

Results

The results were presented according to the research questions and hypotheses that guided the study.

Research Question 1: What is the perception of total quality management on principal decision making for school improvement in Awka South L.G.A?

Table 1: Mean score of total quality management on principal decision making for school improvement

	N	Mean	SD	Remark
Principal total quality management on Decision making	20	2.91	.55	High

The mean score of 2.91 shown in Table 1 indicates that principal perception total quality management on decision making for school improvement in Awka South is high.

Research Question 2: What is the perception of male and female principals towards total quality management and principal decision making for school improvement in Awka South L.G.A?

Table 2: Mean score of male and female principals on total quality management and principal decision making for school improvement

	N	Mean	SD	Remark
Male	282	2.93	.44	High

Female	399	2.90	.61	High
---------------	-----	------	-----	------

The mean score of 2.93 for males and 2.90 for females in Table 2 shows that male and female principal' perception towards total quality management and principal decision making for school improvement is high.

Research Question 3: What is the perception of principal in urban and rural areas towards total quality management and principal decision making for school improvement?

Table 3: Mean score of principal in urban and rural areas on quality management and principal decision making for school improvement

	N	Mean	SD	Remark
Urban	10	2.90	.56	High
Rural	10	2.96	.50	High

The mean scores of 2.90 and 2.96 for teachers in urban and rural areas indicate that principal in urban and rural areas perceive quality management and principal decision making for school improvement is high.

Hypothesis One: Male and female principal do not differ significantly in their perception of total quality management on principal decision making for school improvement.

Table 4: Z-test comparison of male and female principal's mean scores on total quality management on principal decision making for school improvement

Source of variation	N	Mean	SD	DF	Z-Cal	Z-Crit	Decision
Male	10	2.93	.44	697	.90	1.96	Not Sig
Female	10	2.90	.61				

The result in Table 5 shows that the calculated z-value (.90) is less than the critical value (1.96) at alpha level of 0.05 and degree of freedom (df) 697. This is an indication that the difference in the perception of male and female principal on of total quality management on principal decision making for school improvement was not significant. The null hypothesis therefore was not rejected.

Hypothesis Two: Principal in urban and rural areas do not differ significantly in their perception on total quality management and decision making for school improvement.

Table 5: Z-test comparison of urban and rural teachers' mean scores on total quality management and decision making for school improvement

Source of variation	N	Mean	SD	DF	Z-Cal	Z-Crit	Decision
Urban	10	2.90	.56	679	1.17	1.96	Not Sig
Rural	10	2.96	.50				

As indicated in Table 6, the analysis shows that the z-cal value of 1.17 is less than the critical value of 1.96 at alpha level of 0.05 and degree of freedom (df) 679. This shows that the difference in the perception of principal in urban and rural areas on total quality management and decision making for school improvement was not significant. Therefore, the null hypothesis of no significant difference between the groups was not rejected.

Discussion

The findings of the study are discussed according to the specific purposes of the study under the following sub headings:

Principals Perception of Total Quality Management on Decision Making for School Improvement

The findings of this study shows that principals have a high perception total quality management on decision making for secondary school improvement in Awka South in Anambra state. The finding of this study is in line with the findings of Eremie (2014), who in his study found that principals perceived that total quality management on decision making for secondary school improvement is high. The finding of this study also supports that of Nyan (2014) who in his study about principals perceive that total quality management on decision making for secondary school improvement found to be positive. This finding is also consistent with that of Beesley and Frey (2014). Whose study revealed that principals reported overall satisfaction with perception of total quality management on decision making for secondary school improvement in secondary school.

Male and Female Principals' Perception towards Total Quality Management and Decision Making for School Improvement

This study found that male and female teachers have a high perception towards perception towards total quality management and principal decision making for school improvement in Awka south LGA in Anambra State. This finding supports that of Eremie (2014), who found that male and female teachers perceived that total quality management and principal decision making for school improvement is high. The finding also revealed that male and female teachers perceived total quality management and principal decision making for school improvement in needs. The findings are also in conformity with Duncan and Darrells (2017) wherein they stated that total quality management and principal decision making for school improvement is high.

Perception of Principals in Urban and Rural Areas towards Total Quality Management and Principal Decision Making for School Improvement

The finding in Table 3 shows that Principal in urban and rural areas perceived total quality management and principal decision making for school improvement to be high. The findings of this study did not agree with that of Ubana (2018) who found that urban principals rated perceive total quality management and principal decision making for school improvement higher than counterparts in the rural areas. To a reasonable extent, majority of principals in the rural secondary schools feel that the programme is only for students with physical problems, hence little patronage from most students.

The location of the school is one of the strong determinants of total quality management in schools. Principals in urban schools are predisposed to total quality management and principal decision making for school improvement services than those in rural schools. It could be argued that principals in the urban schools must have had more awareness of total quality management and principals' decision making for school improvement.

Conclusion

From the data interpretation and discussion of results from findings of this study, the following conclusions were drawn. Principals' perception of total quality management on decision making for school improvement in Awka South is high. Male and female principals' perception towards total quality management and principal decision making for school improvement is high. Principals in urban and rural areas indicate that principals in urban and rural areas perceived quality management and principals' decision making for school improvement to be high. The difference in the perception of male and female teachers on total quality management of principals' decision making for school improvement was not significant. The difference in the perception of principals in urban and rural areas on total quality management and decision making for school improvement was not significant.

Recommendations

Based on the findings of the study, the following recommendations are made:

1. Every principal in secondary schools and any other institution should implement total quality management because total quality management improves the quality of teaching and learning activities in secondary schools.
2. Male and female principals need feedback to improve on total quality management while making decision in public secondary schools.
3. Principals in urban and rural areas should use total quality management before making decisions for school improvement. More academic and sporting benchmarking tools need to be used at urban and rural secondary school levels.
4. Government of Anambra State should endeavour to establish total quality management benchmarking tools in each secondary school, and should be functional to meet the needs of teachers.

References

- Abel, C. F., & Hacker, H. J. (2018). Local compliance with Supreme Court decisions: making space for religious expression in public schools. *Journal of Church and State*, 48(2), 355–377.
- Ariely, D. (2018). *Predictably irrational: The hidden forces that shape our decisions*. New York: Harper Collins Publisher.
- Buchanan, L., & O'Connell, A. (2006, January). A brief history of decision making. *Harvard Business Review*.
- Del Favero, M. (2016). An examination of the relationship between academic discipline and cognitive complexity in academic deans' administrative behavior. *Research in Higher Education*, 47, 281–317.
- Klein, J. (2015). The contribution of a decision support system to complex educational decisions. *Educational Research and Evaluation*, 11(1), 221–234.
- Ngu, J. C. (2016). Understanding the impact of accountability on preservice teachers' decisions about where to teach. *The Urban Review*, 38, 353–374.
- Randall, T.G., Martelli, P.F., Arrouo, L., R., Graetz, I., Neuwirth, E.B., Curtis, P., Schmitteill, J., Gibson, M. & Hsu, J. (2017). The informed decisions toolbox: tools for knowledge transfer and performance improvement. *Journal of Healthcare Management*, 52, 325-349.
- Ruby, T. Z. (2016). Making moral targeting decisions in war: The importance of principal-agent motivation alignment and constraining doctrine. *Journal of Military Ethics*, 5, 12–31.
- Sellers, M. (2015). Moogole, Google and garbage cans: The impact of technology on decision-making. *International Journal of Leadership in Education*, 8, 365–374.
- Shaul, M. S., & Ganson, H. C. (2005). The No Child Left Behind Act of 2001: The federal government's role in strengthening accountability for student performance. *Review of Research in Education*, 29.