

# **The Impact of Total Quality Management on Firm's Organizational Performance**

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*This paper investigates the impact of Total Quality Management (TQM) on Organizational Performance. Data are collected from manufacturing firms in the republic of Cameroon. Variables used to capture Total Quality Management (TQM) are management commitment through leadership, Quality control, inspection, employee training, customer focus, benchmarking as the basis for enhancing product quality. Organizational performance is measured by Customer Satisfaction, Corporate Social responsibility, Cost Reduction, and Employee Satisfaction. We run a series of multiple regressions of organizational performance variables on explanatory variables defining TQM. Our results show that only employment training and empowerment has a significant impact on financial performance and corporate social responsibility; leadership commitment, quality control and inspection have a significant impact on cost reduction. However, none of the TQM practices appear to have a significant effect on customer satisfaction.*

## **INTRODUCTION**

During the last few decades, organizations all over the world have been trying to cope with a rapidly changing business environment in which management have to be more and more astute in finding ways to sustain or gain competitive advantage. To withstand new global challenges, most manufacturing businesses have adopted new philosophies such as Concurrent Engineering, Lean Production, Just-In-Time (JIT) strategies, Total Quality Management (TQM), Business Process Re-engineering (BPR) and others, to become more effective in the way they conduct business. The main driver behind these philosophies is the optimization of the organization's performance both internally and externally within its respective market targets.

Given the competitive pressures due to increasing input prices, high interest rates, high cost of research and development as well as high customer expectation on the quality of products and services, many manufacturing companies continuously seek ways to improve quality and remain cost-effective. Product quality is the degree to which the product or service meets the specifications and the needs of customers. TQM is a concept based on continuous improvement in the performance of processes in an organization and in the quality of the products and services that are the outputs of those processes. Quality advocates have identified several critical principles for successful TQM practices which among others include: top management commitment, customer focus, supplier relationship, benchmarking, quality-

oriented training, employee focus, zero-defects, process improvement and quality measurement (Saraph et al, 1989).

*Top management* acts as the main driver for TQM implementation, creating values, goals and systems to satisfy customer expectations and improve an organization's performance path (Ahire et al., 1996). *Customer focus* keeps the business aware of the changes taking place in its environment and provides the knowledge needed to adapt the product. *Benchmarking* is a process in which an organization continuously compares and measures itself against business leaders anywhere in the world to gain information and provide a guideline for rational performance goals (Boone & Wilkins, 1995). As of late, it has been widely accepted that the most valuable resource within a company is the set of people who work within it (*employee focus*). Indeed, people in the organization should be continually trained and be given adequate education on prescriptions, methods and the concept of quality, which usually includes QM principles, team skills, and problem solving (quality related training) strategies. Setting a goal of *zero-defect*, and continuing to renew one's commitment to moving ever closer toward that goal, will lead to improvements that continue to approach absolute perfection over time (Richman & Zachary, 1993). Simultaneously, *process improvement* requires everyone in an organization to work towards doing the right things the first time and every time. Lastly, *quality measurement* is a goal-orientation with constant performance measurement, often with the use of statistical analysis. The analysis process ensures that all deviations are appropriately considered, measured and consistently responded to (Shores, 1992). TQM refers to management methods used to enhance quality and productivity in business organizations. TQM is also a comprehensive management approach that works horizontally across an organization, involving all departments and employees and extending backward and forward to include both suppliers and clients customers.

All enterprises and organizations hope to expand and grow in the future. For organizations to successfully achieve their growth objectives products must be well planned and their quality must be ensured to meet up with the needs of consumers. That is, total quality management is an approach to ensure that the product adequately reach the needs of final consumers.

It has become well known that poor quality control, poor quality activity and system failure are foe to industries and might lead to loss in competitive advantage and market share. TQM could then be an appropriate solution to remain competitive in an ever-aggressive global market.

The problems of manufacturing enterprises all over the world and Cameroon in particular have been compounded in recent years due to changes in customer behavior and increased competition from newly established companies and importers, the effects of system failures, poor product design, delivery delays, untrained staff and ignorance of quality. The change in consumer behavior has increased competitive pressure and this has compelled most producers of goods and services to tailor their products to meet the requirement of potential buyers. Thus, most organizations are concerned about how to satisfy or even exceed the expectation of their customers.

Even as organizations strive to meet customer's expectation, there still exist some flaws in the process involved. Thus, there is a need for change in organizational culture and structure to give room for a new approach to service delivery. The implementation of TQM could be beneficial to manufacturing when the principles are effectively adopted.

The objective of this study is to examine how TQM practices affect firm organizational performance in the Cameroonian manufacturing sector. Firm organizational performance is understood here as financial performance as well as performance in terms of satisfying the customer, corporate social satisfaction, efficiency in cost reduction, and employee satisfaction.

The importance of this study is two-fold: first, studies of TQM practices in the Republic of Cameroon are inexistent. The present paper intends to fill the vacuum by making a contribution to the extremely scarce existing literature. Second, the result of the study could motivate more organizations to engage in TQM practices.

This paper is organized as follows: in the next section, we discuss some background information on the concept of Total Quality Management. We then examine the current trend in the theoretical and

empirical literature. Next, we present the methodology of the paper. The section that follows discusses the results. In the final section, we present our concluding remarks and recommendations.

## BACKGROUND OF THE STUDY

There seems to be no consensus on the date and original source for TQM innovation, but most literature reports that the founders include Feigenbaum, Ishikawa, Deming, Juran, and Crosby. Its origin could be traced back to 1926 although the concept of TQM seems to have evolved from *quality circles* developed by Edward Deming in the 50s. Quality circles were *work groups* within the organization ranging from 4 to 15 voluntary members that met regularly to discuss quality-related issues, recommend solutions to problems, and in some cases take action to implement changes. Quality circles did not really have any impact on management in the USA until after the model was exported to Japan, and then reintroduced to the USA in the 1980s. The successful application of the method in Japan had significant and undeniable results in the quality of products made in Japan and its subsequent worldwide dominance in exports. The Japanese success led to the spread of the quality movement across the world. In the late 1970s and early 1980s, U.S. producers scrambled to adopt quality and productivity techniques that might restore their competitiveness. Deming's approach to quality control came to be recognized in the United States. Researchers agree that about 90 percent of Fortune 500 companies began implementing quality circles between 1980 and 1981.

TQM is more of an evolutionary approach to managing that builds on the ideas of organizational designs that have failed, most notably QCs, but changes them to fit a new approach or philosophy. TQM is presumed to have emerged in place of Total Quality Control (TQC), which was originated by Feigenbaum (1960). Feigenbaum sees TQC as an effective system for integrating the quality development, quality maintenance, and quality-improvement efforts of the various groups in an organization. The aim is to produce at the most economical levels and obtain full customer satisfaction. It was argued that further control must start with the design of the product and end only when the product has been placed in the hands of the customer, with product satisfaction guaranteed. Feigenbaum believes that all departments in a company have some responsibilities for the achievement of quality, but his conceptualization of TQC did not include other management ideologies like people empowerment, teamwork, and supplier development relationships. These management ideologies were later incorporated into the TQM concept. Thus, TQM is an alternative to management by control.

Kaoru Ishikawa (1990) shaped the Japanese style of TQC and initiated an alternative concept known as *Companywide Quality Control (CWQC)*. The term "companywide quality control" was introduced in Japan in 1968 some ten years after Feigenbaum introduced the term "Total Quality Control". This quality control consists of developing, designing, producing, marketing, and servicing products and services with optimum cost-effectiveness and usefulness, which customers will purchase with satisfaction. Ishikawa insists on the necessity of all the separate parts of a company to work together to achieve quality.

In Cameroon today, many Chief Executives are at various stages of implementing the concept of TQM and this is an evidence of quality consciousness. The need to realize quality products and its effects have taken up many firms to accepting TQM as a control measure.

TQM is just one of many acronyms used to label management systems that focus on quality. Other acronyms include CQI (continuous quality improvement), SQC (statistical quality control), QFD (quality function deployment), QIDW (quality in daily work), TQC (total quality control), etc. Like many of these other systems, TQM provides a framework for implementing effective quality and productivity initiatives that can increase the profitability and competitiveness of organizations.

Total Quality Management (TQM) refers to all aspects of quality services rendered by an organization to their customers and these include quality of goods, delivery, price, or services. It therefore differs from the traditional quality concepts of quality control and Quality assurance, which are the current aspect of quality within the manufacturing industry. Total Quality Management involves preventing errors at the very point where services are rendered. As a result, it implies that every person from the Managing Director to the lowest staff in the structure of an organization is involved in Total

Quality Management as it plays a great impact on operational excellence, customer intimacy and product leadership. Customer intimacy requires market segmentation and targeting of specific customers in order to provide tailor-made-services, which exactly meet the needs of each segment.

The objective of TQM is also to make the executives learn new rules, methods and lifestyles. Total Quality Management includes the participation of the entire personnel in seven perspectives: the leading of the business and the operational philosophy, the innovation and the strategy management, the customers and the market development, the human resource and the professional skill management, the information strategy, the application and management, and the procedural management. Through these, an enterprise will satisfy or reach beyond the customers' expectations, and become an everlasting business through continuous improvements.

## **BRIEF REVIEW OF THE LITERATURE**

### **Review of Theories and Principles on TQM**

The development of total quality management from 1950 onwards can be credited to the works of various American experts such as Edward Deming, Joseph Juran and Philip Crosby

#### *Deming's Theory*

In his theory of Total Quality Management, Deming identified fourteen points of management. He also developed a system of "*profound knowledge*" which consists of the following four points:

- ✓ System Appreciation - an understanding of the way a firm's processes and systems work;
- ✓ Variation Knowledge - an understanding of the variation occurring and the causes of the variation;
- ✓ Knowledge Theory - the understanding of what can be known;
- ✓ Psychology Knowledge - the understanding of human nature from the above points of view.

In order to help managers improve the quality of their organizations, Deming has offered the following 14 management principles:

- *Constancy of purpose*; create constancy of purpose for continual improvement of product and service.
- *New philosophy*: adopt the new philosophy that has been created in a new economic age.
- *Cease dependence on inspection*: eliminate the need for mass inspection as a way to achieve quality.
- *End 'lowest tender's contracts*: end the practice of awarding business solely on the basis of price tag.
- *Improve every process*: improve constantly and forever every process for planning, production and service.
- *Institute training on the job*: institute modern methods of training on the job.
- *Institute leadership*: adopt and institute leadership aimed at helping people and machines to do a better job.
- *Drive out fear*: encourage effective two-way communication and other means to drive out fear throughout the organization.
- *Break down barriers*: break down barriers between department and staff areas.
- *Eliminate exhortations*: eliminate the use of slogans, posters and exhortations.
- *Eliminate targets*: eliminate work standards that prescribe numerical quotas for the workforce and numerical goals for people in management.
- *Permit pride of workmanship*: remove the barriers that rob hourly workers and people in management of the right to pride of workmanship.
- *Encourage education*: institute a vigorous program of education and encourage self-improvement for everyone.

- *Top management commitment*: top management must be permanently committed to improving quality and productivity.

While Deming's principles were stressing on the internal role of the organization, Juran (1980) was more interested on the customer's point of view of products' fitness for use or purpose. According to Juran, a product could very well meet all the Deming's specifications and still not be fit for use or purpose.

#### *Juran's Theory*

Joseph Juran is responsible for what has become known as the "Quality Trilogy." The quality trilogy is made up of quality planning, quality improvement, and quality control. If a quality improvement project is to be successful, then all quality improvement actions must be carefully planned out and controlled.

Juran's 10 Quality improvement steps are the following:

- *Build awareness of the need and opportunity for improvement.*
- *Set goals for improvement.*
- *Organize to reach the goals* (establish a quality council, identify problems, select projects, appoint teams, designate facilitators).
- *Provide training.*
- *Carry out projects to solve problems;*
- *Report progress.*
- *Give recognition.*
- *Communicate results.*
- *Keep score.*
- *Maintain momentum by making annual improvement part of the regular systems and processes of the company.*

If both Deming and Juran were in favor of using statistical process control for the understanding of total quality management, Crosby (1982) on the other hand was not keen to accept quality which related to statistical methods.

#### *Crosby's Theory*

According to Crosby, quality is conformance to requirement and can only be measured by the cost of non-conformance. Crosby provides four "*absolutes*" and 14 *steps* for the quality improvement process.

The Crosby's *four absolutes* are:

- ✓ *Quality* is adherence to requirements;
- ✓ *Prevention* is the best way to ensure quality;
- ✓ *Zero Defects* (mistakes) is the performance standard for quality;
- ✓ *Quality* is measured by the price of nonconformity

From the above, Crosby elaborated fourteen steps for continuous increase in quality.

- *Management commitment*: to make it clear where management stands on quality.
- *Quality improvement team*: to run the quality improvement process.
- *Measurement*: to provide a display of current and potential nonconformance problems in a manner that permits objective.
- *Cost of quality*: to define the ingredients of the cost of quality (COQ) and explain its use as a management tool.
- *Quality awareness*: to provide a method of raising the personal concern felt by all employees toward the conformance of the product or service and the quality reputation of the company.
- *Corrective action*: to provide a systematic method for resolving forever the problems which are identified through the previous action steps.

- *Zero defects*: to examine the various activities that must be conducted in preparation for formally launching zero-defects day.
- *Employee education*: to define the type of training all employees need in order actively to carry out their role in the quality improvement process.
- *Planning and zero-defects day*: to create an event that will let all employees realize, through a personal experience, that there has been a change.
- *Goal setting*: to turn pledges and commitments into action by encouraging individuals to establish improvement goals for themselves and their groups.
- *Error-cause removal*: to give the individual employee a method of communicating to management the situations which make it difficult for the employee to meet the pledge improve.
- *Recognition*: to appreciate those who participate.
- *Quality councils*: to bring together the appropriate people to share quality management information on a regular basis.
- *Do it all over again*: to emphasize that the quality improvement process is continuous.

### *The TQM Pyramid*

The TQM pyramid is an adaptation of the Kanji and Asher pyramid model. It is a proper pyramid with a foundation and four sides and TQM is characterized by five principles:

1. Management's commitment (leadership).
2. Focus on the customer and the employee.
3. Focus on facts.
4. Continuous improvements (Kaizen).
5. Everybody's participation.

The base or foundation of the pyramid represents management's commitment (leadership) and the four sides are the remaining four principles. A vital task for any management is to outline quality goals, quality policies and quality plans in accordance with the four sides of the TQM pyramid. These goals and policies should be clear and meaningful to all employees in the firm. It is extremely important that the firm's quality goals signal to employees that the firm's principal task is to satisfy its external customers and that this can only be achieved if the firm is able to exceed customers' expectations. Quality goals and quality policies must be followed by meaningful action plans. Experience from firms which have understood and realized the TQM vision shows that firms ought to concentrate on short-term plans (one-year plan) and long-term plans, and the long term plans are often being three-year plans and are revised annually in connection with an annual quality audit.

The annual quality audit is an essential part of the TQM vision and is much too important to be left to a central quality department. Only through active participation in the quality audit can top management acquire the necessary insight into the problems the firm has experienced. The annual quality audit gives top management the opportunity to put a number of important questions to department managers. Apart from the usual questions about quality problems and defects, they should include the following four questions:

- ✓ How have customers been identified (both internal and external customers)?
- ✓ How have customers' requirements and expectations been identified?
- ✓ How have managers and employees tried to satisfy customers?
- ✓ What do customers think of our products and services and how has this information been collected?

These questions allow top management to check whether employees are in fact seriously trying to fulfill the firm's quality goals. By actively participating in the annual quality audit, top management shows that it has understood the TQM message, which is an essential condition for making and realizing new, meaningful quality plans. Such active participation by top management also makes its commitment

highly visible which will have an extremely important effect throughout the organization when new action plans are drawn up-among other things.

### **Review of Empirical Literature**

Most empirical studies seem to agree with those of Powell (1995), Tamimi (1995), Hendricks and Singhal (1997), Lemak and Montgomery (1996) that TQM practices have a positive impact on organizational performance. In Powell's study (1995), data from 166 American firms were used to show that overall performance of TQM correlated positively and significantly with both implementing TQM and its degree of advancement or organizational performance. Although the empirical literature suggests a positive link between TQM and organizational performance, the level of contribution attributed to TQM was not large, suggesting that there could be other variables at play. Those variables could be the differences in the processes of implementing TQM with respect to economic trends, the type of industry, the business environment including technology, competitiveness and market, corporate strategy, resources of firm, etc. Prajogo and Brown (2004) conducted an empirical study on Australian organizations to investigate the relationship between TQM practices and quality performance. The results indicated a strong and positive linkage between those two variables. Another study on ISO9000 certified organizations of Taiwan performed by Jeng (1998) examined the linkage between six Quality Management practices and quality performance. He found customer focus as the most powerful discriminating practice of quality performance while the remaining five practices showed low discriminating powers. Brah and Tee (2002) examined the relationship between TQM constructs and organization performance by measuring the quality performance of Singapore companies. They found that TQM and performance were positively correlated.

Another wave of research has focused on the study between TQM and financial performance. Demirbag (2005) and Fotopoulos et al (2009) studies show that firms that focus on improving the quality of their product and processes improve revenues and reduce costs. So the financial performance of a firm as a result of quality initiatives can be measured by the increase in the level of sales and revenues, the level of cost reduction, the return on investment, and by the increase in market share.

Hendricks & Singhal (1997) compare recipients of quality awards with a group of "control companies". Using operating income, sales, return on assets, return on sales as a measure of performance, they found that companies that had received a quality award outperform those that did not receive the awards. These results were confirmed by Lemak and Reed (1997), Handsfield (1998), Easton and Jarrell (1998), as well as Wrolstad and Kreuger (2001) studies.

Our research work differ from previous research on that we use a different set of quality practices and a different data set in a country that has only experienced TQM more recently.

### **METHODOLOGY AND DATA**

The main hypothesis in this study is that TQM practices have positive impact on organizational performance in the manufacturing sector. The model used is a multiple linear regression that links organizational performance variables to TQM practices. Thus, the model is of the form:

$$Y = \beta_{ij}X_{ij} + \beta_0 + \mu_{ij}$$

Where Y represents the dependent variable of organizational performance, X represents a vector of TQM practices,  $\beta_s$  are parameters,  $\beta_0$  is the constant term, and  $\mu_{ij}$  represents the error term.

A review of previous studies on TQM shows that researchers have defined TQM constructs in numerous ways. However, several scholars have used the criteria of the Malcom Baldrige National Quality Award (MBNQA) which represents TQM using six elements of quality practices and one criterion of organizational performance. The six elements retained for quality practices are the following: leadership, strategy and planning, customer focus, information and analysis, people management and process management. The constructs used in this study are similar to the MBNQ criteria, except for the

criteria involving information and analysis, and strategy and planning which were not used and for criteria pertaining to benchmarking, employee training, quality control and inspection which were included in our study.

The study also uses five types of organizational performance namely, financial performance, Customer Satisfaction, Corporate Social responsibility, Cost reduction/efficiency, Employee Satisfaction. Hence, the five different variants of the model tested in the paper are:

**Model**

Financial performance ( $Y_{FP}$ ) and Total Quality Management Practices (1)

$$Y_{FP(1t)} = \beta_0 + \beta_{11}X_{LC(1t)} + \beta_{12}X_{QCIA(2t)} + \beta_{13}X_{ET(3t)} + \beta_{14}X_{CF(4t)} + \beta_{15}X_{BM(5t)} + \mu_{1t}$$

**Model**

Customer satisfaction ( $Y_{CS}$ ) and Total Quality Management Practices (2)

$$Y_{CS(2t)} = \beta_0 + \beta_{21}X_{LC(1t)} + \beta_{22}X_{QCIA(2t)} + \beta_{23}X_{ET(3t)} + \beta_{24}X_{CF(4t)} + \beta_{25}X_{BM(5t)} + \mu_{2t}$$

**Model**

Corporate social responsibility ( $Y_{CSR}$ ) and Total Quality Management Practices (3)

$$Y_{CSR(3t)} = \beta_0 + \beta_{31}X_{LC(1t)} + \beta_{32}X_{QCIA(2t)} + \beta_{33}X_{ET(3t)} + \beta_{34}X_{CF(4t)} + \beta_{35}X_{BM(5t)} + \mu_{3t}$$

**Model**

Cost reduction ( $Y_{CR}$ ) and Total Quality Management Practices (4)

$$Y_{CR(4t)} = \beta_0 + \beta_{41}X_{LC(1t)} + \beta_{42}X_{QCIA(2t)} + \beta_{43}X_{ET(3t)} + \beta_{44}X_{CF(4t)} + \beta_{45}X_{BM(5t)} + \mu_{4t}$$

**Model**

Employee satisfaction ( $Y_{ES}$ ) and Total Quality Management Practices (5)

$$Y_{ES(5t)} = \beta_0 + \beta_{51}X_{LC(1t)} + \beta_{52}X_{QCIA(2t)} + \beta_{53}X_{ET(3t)} + \beta_{54}X_{CF(4t)} + \beta_{55}X_{BM(5t)} + \mu_{5t}$$

Data were obtained from 30 manufacturing firms in Cameroon. Questionnaires were sent to a total of 300 employees and 100 managers working in the area of TQM. Those workers had knowledge of past and present organizational practices relating to continuous improvement and innovation in the organization. Most managers interrogated were quality managers and/or production/operations managers. The response rate of the survey was 67% for employees and 70% for managers generating a final sample of 270 respondents. The manufacturing sectors surveyed were as followed: 17% in the construction industry, 20% in the plastics, 33% in food and beverage, 17% in basic metal, and 13% in the textile industry. Respondents were asked to select the types of TQM practices being implemented in the organization, the reasons for carrying out TQM, the objectives pursued by the implementation of TQM, and whether those objectives were achieved. Answers were provided by respondents on a Likert scale ranging from 1 to 5 categorized as followed: 1 for strongly agree; 2 for agree; 3 for disagree; 4 for strongly disagree; and 5 for undecided.

**THE RESULTS**

The tables below provide descriptive statistics and correlations for the independent and dependent variables.



**TABLE 1**  
**DESCRIPTIVE STATISTICS FOR INDEPENDENT VARIABLES**

	Mean	Std. Deviation	N
Leadership Commitment	1.66	1.072	270
Quality control, inspection and Ass.	1.37	.528	270
Employee Training, and Empowerment	1.30	.461	270
Customer focus	1.48	.740	270
Benchmarking	1.71	1.201	270

**TABLE 2**  
**CORRELATIONS COEFFICIENTS FOR TQM VARIABLES**

	LC	QCIA	ETE	CF	BM
Leadership Commitment	1.000				
<b>Spearman's rho</b> Quality control, inspection, Ass.	.564**	1.000			
Employee Training and Emp.	.468**	.574**	1.000		
Customer focus	.847**	.654**	.606**	1.000	
Bench marking	.399**	.310**	.225**	.500**	1.000

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

**TABLE 3**  
**DESCRIPTIVE STATISTICS FOR TQM PERFORMANCE**

	Mean	Std. Deviation	N
Financial performance	2.06	1.239	270
Customer satisfaction	1.11	.530	270
Corporate responsibility	2.01	1.246	270
Enterprise cost reduction	3.76	.468	270
Employee satisfaction	3.97	.217	270

**TABLE 4**  
**CORRELATIONS FOR ORGANIZATIONAL PERFORMANCE VARIABLES**

		FP	CS	CSR	ECR	ES
Spearman's rho	Financial performance	1.000				
	Customer satisfaction	.107	1.000			
	Corporate responsibility	.951**	.120*	1.000		
	Enterprise cost reduction	.131*	.078*	.100	1.000	
	Employee satisfaction	.173**	.043*	.138*	-.082	1.000

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

\* . Correlation is significant at the 0.05 level (2-tailed).

**TABLE 5**  
**ANOVA for Model 1**

Model		Sum Squares	df	Mean Square	F	Sig.
1	Regression	71.037	5	14.207	10.967	.000
	Residual	342.015	264	1.296		
	Total	413.052	269			

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Benchmarking, Employee Training and Empowerment, Leadership Commitment , Quality control, inspection and assurance, Customer focus

**TABLE 6**  
**COEFFICIENTS FOR MODEL 1**

MODEL 1	Unstandardized	Standardized t	Sig.
	Coefficients	Coefficients	
	B	Beta	
<b>(Constant)</b>	.483	0	<b>.045</b>
<b>Leadership Commitment</b>	.106	.092	.251
<b>Quality control, inspection and assurance</b>	.240	.102	.197
<b>Employee Training and Empowerment</b>	.940	.350	<b>.000</b>
<b>Customer focus</b>	-.100	-.060	.579
<b>Benchmarking</b>	-.004	-.004	.956

a. Dependent Variable: *financial performance*

From the table above, employee training and empowerment is found to positively and significantly affect financial performance. That relation looks strong: allocating firm resources to training on quality tools advanced statistical techniques, concepts of quality and firm's processes may boost profitability. Besides, treating employees as a valuable resource increases their loyalty to the firm, motivates them and makes them proud of their jobs, leading to increases in work effort and performance. It also reduces absenteeism and job turnover and the associated costs. Educated employees will increase quality, reliability, and timely delivery of the products/services. With effective training, employees know the industry and the structure of the firm better. Effective training on quality also increases employees' skills to work effectively and efficiently. Furthermore, it will improve employees' loyalty to the firm, their motivation, and work-related performances. Employees' training on delivering high quality and reliable products and/or services reduces customer complaints. Leadership commitment and quality control and inspection also seem to have a positive impact on financial performance. But that effect is not strong enough to be significant.

## MODEL 2: TQM PRACTICES AND CUSTOMER SATISFACTION

**TABLE 7**  
**COEFFICIENTS FOR MODEL 2**

Model 2	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
<b>(Constant)</b>	1.010	.111		9.087	.000
<b>Leadership Commitment</b>	-.035	.043	-.071	-.814	.416
<b>Quality control, inspection A</b>	.150	.086	.149	1.740	.083
<b>Employee Training and E.</b>	.059	.094	.052	.634	.527
<b>Customer focus</b>	-.051	.083	-.071	-.608	.544
<b>Bench marking</b>	-.027	.031	-.060	-.867	.387

The results suggest that customer satisfaction is not highly explained by the model. This can be explained by the fact that, manufacturing firms in Cameroon do not pay much attention to what is going on in the market after they have produced the good. The firm may just lack information or feedback on the product quality after it is delivered to customers.

**MODEL 3: CORPORATE RESPONSIBILITY AND TQM**

**TABLE 8  
ANOVA FOR MODEL 3**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	79.522	5	15.904	12.407	<b>.000</b>
	Residual	338.419	264	1.282		
	Total	417.941	269			

a. Dependent Variable: corporate responsibility

b. Predictors: (Constant), Bench marking, Employee Training and Empowerment, Leadership Commitment, Quality control, inspection and assurance, Customer focus

**TABLE 9  
COEFFICIENTS FOR MODEL 3**

Model 3	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
<b>(Constant)</b>	.405	.238		1.698	<b>.031</b>
<b>Leadership Commitment</b>	.126	.092	.108	1.372	.171
<b>Quality control, inspection and A.</b>	.104	.185	.044	.565	.572
<b>Employee Training and Empow.</b>	1.000	.201	.370	4.968	<b>.000</b>
<b>Customer focus</b>	-.003	.179	-.002	-.018	.986
<b>Bench marking</b>	-.024	.066	-.023	-.361	.718

Dependent Variable: Corporate Responsibility.

Corporate social responsibility is significantly and positively enhanced by employee training and empowerment. Employee training and empowerment improves the relationship between the firm and the other stakeholders creating a synergy along the whole supply chain. Leadership commitment and quality control also appear to affect CSR positively though not significantly. Customer focus and benchmarking seem to have no effect, if any, a negative one.

## MODEL 4: COST REDUCTION AND TQM PRACTICES

**TABLE 10**  
**ANOVA FOR MODEL 4**

<b>ANOVA</b>					
Model	Sum Squares	of df	Mean Square	F	Sig.
Regression	2.971	5	.594	2.808	<b>.017</b>
Residual	55.859	264	.212		
Total	58.830	269			

a. Dependent Variable: cost reduction

b. Predictors: (Constant), Benchmarking, Employee Training and Empowerment, Leadership Commitment , Quality control, inspection and assurance, Customer focus

**TABLE 11**  
**COEFFICIENTS FOR MODEL 4**

Model 4	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
<b>(Constant)</b>	3.601	.097		37.160	<b>.000</b>
<b>Leadership Commitment</b>	.091	.037	-.207	-2.426	<b>.016</b>
<b>Quality control, inspection and A.</b>	.176	.075	.198	2.340	<b>.020</b>
<b>Employee Training and Empow.</b>	-.013	.082	-.013	-.162	.872
<b>Customer focus</b>	.020	.073	.031	.274	.784
<b>Benchmarking</b>	.035	.027	.089	1.300	.195

Dependent Variable: Enterprise cost reduction

Leadership Commitment appears to have an impact on cost reduction. Also the firm's costs seem to decrease when quality control, inspection and assurance are carried out. However, cost-cutting seem to be a little bit of a problem because they may lead to temporary gains in efficiency but fail to sustain improvement in the firm's competitive position. Therefore, the firm's leadership must commit to align cost management with part of corporate growth strategies. This can be achieved through the following four principles: (1) ambitious sales and earnings growth targets, (2) tailored cost-reduction targets, (3) selective cost-cutting, (4) improved organizational capabilities.

## MODEL 5: EMPLOYEE SATISFACTION AND TQM

**TABLE 12**  
**COEFFICIENTS FOR MODEL 5**

Model 5	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
<b>(Constant)</b>	3.883	.046		84.941	.000
<b>Leadership Commitment</b>	.016	.018	.078	.903	.367
<b>Quality control, inspection\$ assurance.</b>	.034	.035	.083	.966	.335
<b>Employee Training and Empowerment</b>	.038	.039	.080	.978	.329
<b>Customer focus</b>	-.052	.034	-.177	-1.522	.129
<b>Benchmarking</b>	.022	.013	.123	1.764	<b>.039</b>

Dependent Variable: Employee satisfaction

Our result shows that benchmarking enhances employee satisfaction. Benchmarking is the practice of comparing the firm's methods to the best ways of achieving a given performance target in an industry. By benchmarking, a firm is forced to reevaluate its processes and take the necessary means to better train its employees to catch up with the industry's best practices. This would effect on employees 'satisfaction.

### CONCLUDING REMARKS AND RECOMMENDATIONS

The objectives of the study were to explore the degree of effectiveness of TQM practices in organizational performance. The main hypothesis of the study was that TQM has a positive impact on organizational performance. The findings show that although some measures of organizational performance could be significantly impacted by TQM practices, all elements of TQM do not contribute to enhanced performance.

TQM practices that seem to play a major role in enhancing performance are employee training and empowerment, quality control and inspection, leadership commitment, and to a lesser extent benchmarking. Customer focus does not appear to contribute to higher performance.

Employee training and empowerment is a factor in improving financial performance and corporate social responsibility while having no bearing on customer focus, cost reduction, or employee satisfaction. Quality control and inspection is a major determinant in cost reduction. Management Leadership is needed to boost cost reduction while benchmarking plays a role in employee satisfaction.

Overall, the findings clearly show that TQM can significantly improve the organizational performance of manufacturing enterprises in Cameroon. TQM practices in Cameroonian manufacturing enterprises include employee involvement in quality decisions, quality control, assurance and inspection, employee training, customer focus, benchmarking and leadership.

TQM recognizes that a perfectly produced good has little value if it is not what the customer wants. Therefore, we can say that quality must be customer-driven. From our results, customer satisfaction is not well explained by the model. A company should be organized to obtain the necessary information for the identification of customer requirements and to obtain reliable and fast feedback on the quality levels of currently available products/services. Employee motivation plays a vital role to focus on customer satisfaction. Motivated employee can perform better than non-motivated ones. Customer expectations

often vary from one customer to another. As part of the continuous improvement, customers' requirements must be consistently measured and satisfied. Therefore, a company should establish a reliable and fast customer feedback system.

Management should engage its time and efforts to identify several low-cost, qualified suppliers and select the appropriate one(s) for delivering materials. It should also make sure that it satisfies all those who contribute one way or the other to the attainment of the objectives of the organization. An unrealistic deadline can lead to poor selection based on incomplete information about supplier qualifications and stakeholders. Improved communication between purchasing and other departments, such as engineering and quality control, is needed when those departments must provide information to assess supplier qualifications and the suppliers manufacturing process. It is difficult to develop the level of credibility and trust needed to establish tight working relationships. Companies should apply appropriate tools, techniques and systems to make a suitable relationship with its suppliers, incorporating appropriate procurement systems and advanced planning and scheduling, and transportation planning systems.

A firm is likely to reduce its costs by carrying out quality control, inspection, assurance and also putting in place a strong leadership. As evidenced by our results, commitment of top management is mandatory for the creation of quality management environment. Management must lead the implementation process within the organization and clearly communicate with key members of the organization.

It has become obvious that there is a need for employee involvement in any successful strategy implementation. Meaningful involvement of employees requires employee empowerment, which creates a work environment where people have the ability, the confidence, and the commitment to take the responsibility and ownership to improve the process and initiate necessary steps to satisfy customer requirements within well-defined boundaries in order to achieve organizational values and goals. All members involved in the TQM implementation process must receive training in communication skills, quality awareness (TQM in particular), and specific problem solving techniques such as Statistical quality control, safety, and technical aspects of the job. It is necessary to involve front line employees in decision making at their workplace as they are the ultimate actors for producing quality products.

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