### THE EFFECT OF TOTAL QUALITY MANAGEMENT ON STUDENTS' (CONSUMERS') SATISFACTION IN TERTIARY INSTITUTIONS. (A STUDY OF FEDERAL POLYTECHNIC, ILARO, OGUN STATE)

F.U. Abiaziem & Z.F. Bako

Department of Marketing The Federal Polytechnic Ilaro, Ogun State, Nigeria. E-mail: (brandfortifiers@yahoo.com)

**Abstract** The purpose of this research work was to ascertain the effect of Total Quality Management (TQM) on Consumers' Satisfaction in Tertiary Institutions. This study was tailored to meet some objectives (i.e), to ascertain the positive relationship between Top Management Commitment, Customer service level and Employee Involvement on consumer's satisfaction in tertiary institutions. Hence, descriptive survey research design was used while the population of the study was the entire students of The Federal Polytechnic, Ilaro, Ogun State. A sample of 100 respondents was deduced via stratified random sampling technique considering 20 students from each of the five faculties. Primary data were collected through interviews and administration of questionnaire whereas secondary data were obtained from the institution's journals, website, and other relevant materials. Frequency and percentage analysis was adopted for the socio-demographic information of the respondents while weighted average was used to score the responses gotten from respondents on Total Quality Management and consumers' satisfaction of tertiary institution view of the significance of the hypotheses. It was discovered that Total Quality Management tend to influence positively on consumers' satisfaction. It was then recommended that Students' Satisfaction level should be continuously observed and the level of employee involvement be increased to improve their level of productivity in the Polytechnic.

Keywords: Total Quality Management, Customer Satisfaction, Tertiary Institutions, employee Training, Customer Focus

#### **INTRODUCTION**

Total Quality Management (TQM) is a management strategy that saturates the usage and exploitation of all human, money and technology assets in accomplishing corporate objectives. The most significant objective of instructive organization management is to use staff abilities, which can be effectively accomplished through TQM framework. The importance of the idea of TQM is to utilize physical and intellectual abilities of staff in various degrees of an organization. Rather than one individual or unit being accountable for instructing or learning, TQM best enhances members inside the organization at all levels. TQM utilizes representative abilities in all exercises and procedures and makes collaboration practical and substantial (Schargel, 1994). In spite of extraordinary endeavors in industry, education, and health to improve quality of life, our educational organizations and focuses' skill experiences low quality in numerous perspectives, including education. TQM improves educational organizations from numerous points of view, for example, improving the education process, making educational condition gets inspiring, improving the educational program, boosting the speed of preparing services and lessening the cost (Peak, 1995). Companies today face staggering pressure to ceaselessly improve the nature of their products while all the while diminishing costs to meet consistently expanding legal and environmental prerequisites and abbreviate item life cycle to meet changing customer needs and stay competitive.

Improving the consumers' satisfaction with tertiary institutions is basic and proposes the use of total quality management as a quality model. Total Quality Management tends to two significant parts of quality in Nigeria Leadership and governance framework and understudy

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fulfillment. Visionary and inventive administration is basic to the change of tertiary institutions. The rebuilding of the authority, governance and management arrangement of every institution ought to be a need (Chepkechi & Cheluget, 2007). With regards to students with an enabling academic and learning environment Chepkechi, and Cheluget (2007), noticed that the basic issue was to encourage building capacities of students and cause them to prevail as intellectuals, pioneers' experts, scientists, and inventive HR. Chepkechi, and Cheluget (2007), further contended Page | 2 that the principles governing students' direct and discipline ought to be implemented decently and that students' disciplinary regulations should be checked on to show, among others, the least period for settling cases, announcing and requests.

The procedure towards total quality in tertiary institutions and educational centers' is a gradual procedure. Change in TQM needs time, this change can be accomplished with persistence, corporation, and assistance. Tertiary organizations could be fruitful in executing the TQM techniques, on the off chance that they have the participation of the directors, which means having information, conviction, certainty, and aptitudes towards TQM. In any case, the backing of senior and mid-level directors of educational centers is successful. The absence of help from supervisors does not mean the failure of TQM; it just slows down the procedure of accomplishment. Participation, interest, information, and duty of tertiary institution representatives, particularly lecturers and faculty individuals in TQM could enormously diminish the impact of the absence of support. Their support implies that they are devoted and submitted in the usage of TQM (Frong, 2007).

This research is conducted to point out the effect of students' satisfaction in tertiary institutions. A system must have an aim. "Without an aim, there is no system (Varghese, 2013). To gain the competitive edge, companies try to adopt quality, management programs and productivity improvement programs. Total Quality Management issues which are likely to affect the quality of leadership include: Top management commitment, process management (Personnel) and customer focus. In an organization, the leader establishes the mission, vision, and core value of the organization. A quality leader should create and maintain the internal environment in which people can become fully capable in achieving the quality objectives.

Process management involves adopting a preventive strategy to quality improvement, for example, planning processes that are idiot proof and that give stable production timetables and work appropriation to decrease process variety by building quality into the item during the production stage. Customers' center starts with workers minds. This requires a frame of mind of putting customer first and a conviction that this rule is the object of one's work.

The general objective of this study was to determine the effect of total quality management on consumers' (Students) satisfaction in tertiary institutions.

The following specific objectives:

- To determine the effect of top management commitment on consumers' satisfaction in i. tertiary institutions.
- Also, the researchers try to ascertain the positive relationship between customers centric ii. on consumers' satisfaction in tertiary institutions and assess the effect of employee involvement on consumers' satisfaction in tertiary institutions.

#### **Literature Review**

#### **Total Quality Management**

It is a management approach of an organization focused on quality, in view of this participation of every one of its individuals and focusing on long haul accomplishment through customer satisfaction and advantages to all individuals from the organization and society. Total quality management (TQM) comprises of organization wide exertion to introduce and make changeless an atmosphere in which an organization ceaselessly improves its capacity to convey high-quality products and services to customers. While there is no broadly settled upon approach, TQM endeavors ordinarily draw vigorously on the beforehand created instruments and procedures of quality control. Total Quality Management (TQM) is a technique for constantly improving execution at each level, and in every aspect of duty. It consolidates essential management methods, existing improvement endeavors, and concentrated specialized apparatuses under a disciplined structure concentrated on persistently improving all procedures. Improved execution is aimed at fulfilling such wide objectives as cost, quality timetable, and mission need and appropriateness. Expanding client satisfaction is the superseding objective. A term originally used to portray a management way to deal with quality improvement. From that point forward, TQM has taken on numerous implications. Basically, it is a management way to deal with long haul accomplishment through customer satisfaction. TOM depends on all individuals from an association taking an interest in improving procedure, items, services, and the way of life wherein they work (Arawati, 2005).

There are some organizational practices necessary for total quality management (Arawati, 2005). First is customer focus: The study states that the customer ultimately determines the level of quality. No matter what an organization does to foster quality improvement-training employee, integrating quality into the design process, upgrading computers or software, or buying new measuring tools-the customer determines whether he efforts were worthwhile. Second is employee involvement. All employees participates in working toward common goals. Total worker responsibility must be gotten after dread has been driven from the working environment, when strengthening has happened, and management has given the best possible condition. Superior work's frameworks incorporate constant improvement endeavors with ordinary business activities. Self-guided work groups are one type of strengthening. The third practice is being process focused. It expresses that a major piece of TQM is an attention on process thinking. A process is a progression of steps that take contributions from suppliers (inner or outer) and changes them into yields that are conveyed to customers (once more, either internal or external). The means required to do the process are characterized, and performance measures are consistently observed so as to distinguish sudden variety. The last stage is effective communication (Arawati, 2005). During times of hierarchical change, just as a major aspect of everyday activity, viable communication has a huge influence in keeping up resolve and in motivating workers at all levels. Communications involve strategies, method, and timeliness. These elements are considered so essential to TQM that many organizations define them, in some format, as a set of core values and principles on which the organization is to operate.

#### **Consumer Satisfaction**

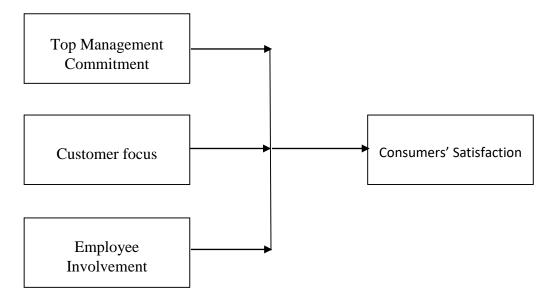
Consumer Satisfaction includes the genuine yield or aftereffects of an organization as estimated against its proposed yields (or objectives and objectives). Consumer satisfaction envelops three explicit territories of firm results: money related execution (benefits, return on resources and rate

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of return), product market performance (sales, market share), and shareholder return (total shareholder return and monetary worth included). Pros in numerous fields are worried about organizational execution including vital organizers, activities, money, legitimate, and organizational development. As of late, numerous organizations have endeavored to oversee customers execution utilizing the balanced scorecard methodology where execution is followed and estimated in different measurements, for example, monetary execution, (for example, Page | 4 shareholder return), customer service, social duty, (for example, corporate citizenship and network effort) and worker stewardship (Richard, Tontini, & Kumar, 2009).

Consumer satisfaction is a definitive dependent variable of enthusiasm for analysts worried about pretty much any region of management. This expansive build is basic in permitting specialists and chiefs to assess firms after some time and contrast them with rivals. To put it plainly, organizational execution is the most significant rule in assessing organizations, their activities, and situations. This significance is reflected in the unavoidable utilization of organizational execution as a dependent variable.

### **Conceptual Model**



### Source: Researchers self-construct, 2019

### **Top Management Commitment**

TQM stresses that quality is an organizational effort. To encourage the taking care of quality issues, it places extraordinary accentuation on cooperation. The utilization of groups depends on the familiar maxim that "two heads are superior to anything one." Using techniques, for example, brainstorming, talk, and quality control devices, groups work consistently to address issues. The commitments of groups are viewed as indispensable to the accomplishment of the organization. Hence, organizations put in a safe spot time in the workday for group meetings. Teams change in their level of structure and convention, and various kinds of teams take care of various sorts of problems. One of the most widely recognized kinds of teams is the quality circle, a team of volunteer production representatives and their chiefs whose design is to tackle quality problems. The circle is generally made out of eight to ten individuals, and choices are made through gathering

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agreement. The teams normally meet weekly during work hours in a spot assigned for this reason. They follow a preset procedure for investigating and taking care of quality problems. Open talk is advanced, and criticism is not permitted.

## **Customer Focus**

The first, and superseding, highlight of TQM is the organization's attention on its customers. Page | 5 Quality is characterized as meeting or surpassing customer expectations. The objective is to initially distinguish and afterward address customer issues. TQM perceives that a flawlessly delivered product has little worth on the off chance that it isn't what the customer needs. Subsequently, we can say that quality is customer driven. Hansson (2003) clarifies that TQM centers around fulfilling and surpassing customer expectations. In this way, organizations need to constantly accumulate data by methods for center gatherings, showcase reviews, and customer interviews so as to remain on top of what customers need. They should consistently recollect that they would not be in business on the off chance that it were not for their customers.

# **Employee Involvement**

Some portion of the TQM reasoning is to engage all employees to search out quality issues and right them. With the old idea of quality, employees were hesitant to recognize issues for dread that they would be criticized. Frequently low quality was given to another person, so as to make it "another person's concern." The new idea of quality, TQM, gives impetuses to employees to distinguish quality issues. Employees are compensated for revealing quality issues, not rebuffed. In TQM, the job of employees is totally different from what it was in traditional systems. Laborers are enabled to settle on choices comparative with quality in the creation procedure. They are viewed as an indispensable component of the push to accomplish high caliber. Their commitments are profoundly esteemed, and their recommendations are executed. So as to play out this capacity, employees are given nonstop and broad training in quality measurement apparatuses. TQM separates among external and internal customers. External customers are those that buy the organization's products and ventures. Internal customers are employees of the organization who get products or administrations from others in the organization. Employees are alluded to as internal customers of the organization (Oakland, 2005).

# **Theoretical Framework**

# **Structural Contingency Theory**

This study was guided by the structural contingency theory proposed by Donaldson (1996). The key component of structural contingency theory is that organizations must accommodate their structure to the contingency factors so as to keep up and improve performance. Structural contingency theory holds that there is no single, successful structure for all organizations. Rather, organizations must adjust their structures to fit the contingency factors and the environment as they influence the association. Contingency factors include: procedure, size, task, vulnerability, parent association, public accountability, basic resources and innovation. In proposing the significance of the theory to improving hierarchical performance, Donaldson (2006) utilizes the 5-stage structural adjustment to recapture fit (SARFIT) model. To start with, association is in fit as it has acclimatized to its environment. In the second stage there is in contingency change where the hierarchical environment changes. Subsequently in the third stage, the association is in rebel and performance endures. The fourth stage is the place the association does structural adjustment

to address the condition of oddball and to reestablish its degree of performance. In the last stage, the association accomplishes another fit and performance recuperates. Vital choice likewise assumes a job in Kenyan tertiary institutions in that they bow to the basic of adopting another structure that accommodates its new degree of the contingency factor so as to stay away from loss of performance from misfit. It is along these lines the onus of this study to analyze the connections between all out quality management and authoritative performance of tertiary institutions in Page | 6 Nigeria.

# **DEMING'S THEORY OF TQM**

Deming's theory of Total Quality Management rests upon fourteen points of management he identified, the system of profound knowledge, and the Shewart Cycle (Plan-Do-Check-Act). He is known for his ratio – Quality is equal to the result of work efforts over the total costs. If a company is to focus on costs, the problem is that costs rise while quality deteriorates. Deming's system of profound knowledge consists of the following four points:

- i System Appreciation an understanding of the way that the company's processes and systems work
- ii Variation Knowledge an understanding of the variation occurring and the causes of the variation
- iii Knowledge Theory the understanding of what can be known
- iv Psychology Knowledge the understanding of human nature

By being aware of the different types of knowledge associated with an organization, then quality can be broached as a topic. Quality involves tweaking processes using knowledge. The fourteen points of Deming's theory of total quality management are as follows:

- 1. Create constancy of purpose
- 2. Adopt the new philosophy
- 3. Stop dependencies on mass inspections
- 4. Don't award business based upon the price
- 5. Aim for continuous production and service improvement
- 6. Bring in cutting-edge on the job training
- 7. Implement cutting-edge methods for leadership
- 8. Abolish fear from the company
- 9. Deconstruct departmental barriers
- 10. Get rid of quantity-based work goals
- 11. Get rid of quotas and standards
- 12. Support pride of craftsmanship
- 13. Ensure everyone is trained and educated
- 14. Make sure the top management structure supports the previous thirteen points.

Plan-Do-Check-Act (PDCA) is a cycle created for continuous improvement. In the planning phase, objectives and actions are outlined. Then, you do your actions and implement the process improvements. Next, you check to ensure quality against the original. Finally acting requires that you determine where changes need to occur for continued improvement before returning to the plan phase.

# **Crosby Theory of TQM**

Philip Crosby is another person credited with starting the TQM movement. He made the point, much like Deming, that if you spend money on quality, it is money that is well spent. Crosby based on four absolutes of quality management and his own list of fourteen steps to quality improvement. Page | 7

Crosby's four absolutes are:

- i We define quality as adherence to requirements
- ii Prevention is the best way to ensure quality
- iii Zero Defects (mistakes) is the performance standard for quality
- iv Quality is measured by the price of nonconformity

The fourteen steps to continuous quality improvement, for Crosby, are:

- i Attain total commitment from management
- ii Form a quality improvement team
- iii Create metrics for each quality improvement activity
- iv Determine cost of quality and show how improvement will contribute to gains
- v Train supervisors appropriately
- vi Encourage employees to fix defects and keep issues logs
- vii Create a zero-defects committee
- viii Ensure that employees and supervisors understand the steps to quality
- ix Demonstrate your company's commitment by holding a zero defects day
- x Goals are set on 30, 60, or 90 day schedule
- xi Determine root causes of errors, remove them from processes
- xii Create incentives programs for employees
- xiii Create a quality council and hold regular meetings
- xiv Repeat from step one

# Joseph Juran's Theory of TQM

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 believed there were ten steps to quality improvement. These steps are:

- 1. An awareness of the opportunities and needs for improvement must be created
- 2. Improvement goals must be determined
- 3. Organization is required for reaching the goals
- 4. Training needs to be provided
- 5. Initialize projects
- 6. Monitor progress
- 7. Recognize performance
- 8. Report on results

- 9. Track achievement of improvements
- 10. Repeat

# Ishikawa's Theory of TQM

Creator of the last theory, Dr. Kaoru Isikawa is often known for his namesake diagram, but he also Page | 8 developed a theory of how companies should handle their quality improvement projects. Ishikawa takes a look at quality from a human standpoint. He points out that there are seven basic tools for quality improvement. These tools are:

- 1. Pareto Analysis Pareto analysis helps to identify the big problems in a process.
- 2. Cause and Effect Diagrams Cause and effect diagrams help to get to the root cause of problems.
- 3. Stratification Stratification analyzes how the information that has been collected fits together.
- 4. Check Sheets Check sheets look at how often a problem occurs.
- 5. Histograms Histograms monitor variation.
- 6. Scatter Charts Scatter charts demonstrate relationships between a variety of factors.
- 7. Process Control Charts A control chart helps to determine what variations to focus upon.

# **Empirical Framework**

## **Impact of Total Quality Management on Customer Satisfaction**

Wang, and Lo, (2002) assert that TQM has been proposed to improve customer satisfaction and received considerable attention among managers and researchers. Mehra and Ranganathan (2008) also argued that TQM substantially increase customer satisfaction across diverse industrial and cultural settings. Tari and Molina (2002) asserts that ISO 9000 certified firms implementing TQM not only achieve significant improvements in customer satisfaction but also improves employee satisfaction, social impact and increase business results. While concurring with Mehra and Ranganathan (2008) and Tari and Molina (2002), Hanna and Newman (2009) posit that there is enough empirical evidence to suggest that firms seeking a more globalized level of customer satisfaction, one which includes cost competitiveness and environmentally sound products and process can only do so having TQM in place. Another study by Parasura and Fotopoulos (2010) also assert that a company's quality improvement is the primary factor that leads to customer satisfaction.

### The Relationship between Service Quality Attributes and Customer Satisfaction

Iglesias and Guillen (2004) concluded that service quality attributes have a direct and positive impact on the level of customer satisfaction. However, Awwad (2012) was of the notion that customer perceptions, perceived quality and perceived value are important predictors to customer satisfaction which results in customer loyalty. Sivadas and Prewitt (2000) points out that service quality attributes influences relative attitude of customer satisfaction and fosters store loyalty in retail department store context. According to Pezeshki, Mousavi and Grant (2009) they argued that each service quality attribute has a different impact on customer satisfaction regardless of their classification. The assertions above digress from the notion that service quality has the same impact on customer satisfaction. Chen and Ting (2002) concur with Pezeshki et al, (2009) that

each quality factor has a different effect upon customer satisfaction. Cheng and Ting (2002) assert that quality factor and customer satisfaction are different constructs in the minds of consumers. Tari, and Molina, (2002) concurs with Chen and Ting (2002) and Pezeshki et al, (2009) when they point out that there is growing evidence that service quality attribute fall into categories that have a different impact on the formulation of customer satisfaction. According to Chen, Chang, Hsu and Yang (2011) customer satisfaction is positively correlated with different types of service Page | 9 attributes. The authors pointed out that customer of different gender have significantly different views to quality elements. Gabbie, and O'Neill, (1996) concur with Chen et al, (2011) that the relative importance of drivers of satisfaction varies among service attributes.

### Methodology

The researchers adopted descriptive survey research design owing to its economic value and visibility in addressing the research problem at hand. The population comprised the entire students of Federal Polytechnic Ilaro in Ogun state Nigeria totaling 10,775. Data were collected through the use of well-structured questionnaires, interviews and other secondary data sources. For the purpose of this research study, sample of 100 questionnaires (comprising of 20 respondents from each of the five faculties of the Polytechnic) was selected. The researchers made use of stratified simple random sampling technique to arrive at the sample size. The questionnaires were pre tested to ascertain its validity and it conformed to reliability standard having obtained 0.94 co efficient closer to 1. Analysis of the research study was carried out using descriptive and inferential statistics technique. The descriptive part of the analysis comprises of frequency and percentage and weighted average technique. Frequency and percentage analysis was adopted for the socio-demographic information of the respondents while weighted average was used to score the responses gotten from respondents on 5 point Likert scale in order to know the category of responses the respondents belongs.

Multiple linear regression method of inferential statistics was adopted to test the significance of the aforementioned hypotheses using the t-statistic of coefficients of the multiple linear regression model and the generated P-values with the aid of SPSS statistical tool.

### **Discussion/Regression of Results**

Variables of question 7, 8 and 11 serves as independent variables of TMC, CF and EI while question 21 represent the dependent variable of consumer (students) satisfaction.

### **Model Summary**

R	R Square	Adjusted R Square	Std. Error of the Estimate
.660 <sup>a</sup>	.4356	.339	.933
Predicto	ors: (Constant),	TMC, CF and EI	

Source: Extracted from SPSS, Version 20.

The R of 0.660 indicates the high positive degree of relationship between the "Top Management Commitment", "Customer Focus", "Employee Involvement", and Consumer (students) Satisfaction" in tertiary institution. This implies joint increase in measured variables of TQM tend to an increase in performance of tertiary institution through students satisfaction on amenities provided for conducive learning. R-Square of 0.4356 shows that 43.6% variation of students

satisfaction can be accounted for by Total Quality Management taking into consideration of top management commitment, customer focus and employee involvement. The adjusted R-square of 0.339 indicates that the coefficient of determination will be 33.9% when other measured variables of Total Quality Management are added to the model.

Model		Sum of	Df	Mean	F	Sig.	Page   1
		Squares		Square			
	Regression	10.620	3	3.540	2.500	.039 <sup>b</sup>	
1	Residual	135.890	96	1.416			
	Total	150.000	99				

Dependent Variable: Satisfied employees will influence the productivity of the organization will lead to achieving the organization's vision and goals. Source: Extracted from SPSS, Version 20.

The overall test of model significance reports the F-statistic of 2.500 on d.f (3, 99) and an associated sig. value of  $0.039 < \alpha = 0.05$  level of significance implies that, the model is adjudged a good fit and can be adopted to test the significant impact of Total Quality Management on consumer (students) satisfaction. In addition, it indicates that there exist joint effect of TMC, CF an EI on Consumer Satisfaction (CS).

### **Regression Model Coefficients and Test of Significance**

Model	C	t statistic	Sig	
Model	В	Std. Error	t-statistic	Sig.
(Constant)	6.033	1.332	4.528	.000
TMC	.429	.163	2.631	.010
CF	.5027	.159	3.162	.016
EI	.673	.122	5.510	.000

### (**Dependent = Consumer Satisfaction**)

Predictors: (Constant),

Source: Extracted from SPSS, Version 20.

Substituting the coefficients, we have;

CS = 6.033 + 0.429(TMC) + 0.5027(CF) + 0.673(EI)(4.1)

The intercept of 6.033 in equation 4.1 shows the autonomous mean response of consumer satisfaction when the predictors (independent variables) are held constant as extracted. This implies that significance of performance was found to be statistically significant without the influence of other predictors variable (Sig.  $0.000 < \alpha = 0.05$  level of significance). In addition, a unit increase in TMC, CF, and EI results to 42.9%, 50.3% and 67.3% increase in Consumer Satisfaction when other measured variables are held constant.

More so, positive influence of the variables of TQM practices is within the a priori opinion as TQM should have positive influence on consumer satisfaction.

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## **Hypotheses Testing**

The hypotheses of this research work were tested using F-test of overall model significance and ttest of model coefficients as extracted from the parameter estimates.

### **Decision rule:**

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Reject H<sub>0</sub> if  $\alpha$ =0.05 level of significance is greater than the probability value (P-value) generated for the T-statistic value. Otherwise, fail to reject H<sub>0</sub>. For the purpose of this research work, the hypotheses was tested at 95% confidence level i.e.  $\alpha$ =0.05.

## **Hypothesis One**

Ho1: Top management commitment does not have significant effect on students' satisfaction.

 $H_{11}$ : Top management commitment has significant effect on students' satisfaction.

Parameter estimate of TMC with t-statistic value of 0.429 and associated P-value of  $0.000 < \alpha = 0.05$  in table 4.5 indicates the rejection of H<sub>01</sub>. This implies that Top Management Commitment of TQM practices have significant effect on students' satisfaction. However, the positive coefficient is within the a priori as TMC should have positive influence on Students Satisfaction.

## Hypothesis Two

Ho2: Customer focus does not have significant influence on students' satisfaction.

 $H_{12}$ : Customer focus has significant influence on students' satisfaction

Parameter estimate of customer focus (CF) with t-statistic value of 3.162 and associated P-value of  $0.000 < \alpha = 0.05$  indicates the rejection of H<sub>02</sub>. This also implies that customer focus has significant effect students' satisfaction. In addition, this shows that increase in customer focus tends to an increase in consumer satisfaction taking into account Total Quality Management practices.

# **Hypothesis Three**

Ho3: There is no positive effect between employee involvements on students' satisfaction.

 $H_{13}$ : There is positive effect between employee involvements on students' satisfaction.

Parameter estimate of Staff Practice (SP) with t-statistic value of 5.510 and associated P-value of  $0.000 < \alpha = 0.05$  indicates the rejection of H<sub>03</sub>. We can therefore conclude that employee involvement in TQM practices has significant effect on consumers' satisfaction which in turn improves the institution goodwill and production of consumable products (students) from which the society can rely on. However, it can be evidenced that employee involvement was found to be positively inclined on consumer satisfaction.

### **Interpretation of Results**

This research study was based primarily on "The Effect of Total Quality Management (TQM) on Consumers' Satisfaction of Tertiary Institution" taking Federal Polytechnic Ilaro as case study. Empirical analysis of the research study indicates that the institution practices TQM and other quality practices that makes the citadel of learning one of the best in the world as opined by Page | 12 respondents on average.

It was likewise proven that respondents were of the acceptable opinion that institution apply TQM control and furthermore fulfill the necessities and needs of the students. Additively, they additionally opined that TQM requires constant data collection and examinations so as to settle on precise expectations and educated choices. Likewise, quality administration ought to be a standard procedure so as to approve the vow to quality and constant improvement, commitment in application and accreditation.

Significance of the tested hypothesis was found to be statistically significant at 95% level of significance. This thereby shows that Top Management Commitment, Customer Focus and Employee Involvement directly influence consumer satisfaction.

Based on the set objectives of this research study, we cannot overemphasize Total Quality Management has directly influenced students satisfaction as tested in the stated hypotheses of this research study.

#### **Conclusion and Recommendations**

This study analyzed the connections between top management commitment, employee involvement, customer focus and Customers' Satisfaction of Tertiary Institution. From this study discovering, this study reasoned that top management commitment was basic for Customers' satisfaction level. The study likewise found that top management in the institution under survey was happy to commit organizational resource in supporting total quality management. Results additionally showed that institutional procedures and techniques were institutionalized to meet absolute quality management necessities. Concerning employees' involvement, this study reasoned that employee involvement had an immediate association with hierarchical execution. Employees were associated with basic leadership inside their individual units, employees are given satisfactory preparing and training to play out their undertakings, and there were clear correspondence channel among employees and ranking directors tuned in to employee's assessments and empowered cooperation among employees. The study likewise inferred that customer focus was basic for Institutional performance. The results demonstrated that the Institution constantly endeavored to meet its customer needs (understudies' need), address students' protests as a priority for the Institution. The Institution effectively connects with the students to identify their needs to empower them with clear channels of communication to them consistently.

Total Quality Management Practices (top management commitment, employee involvement and customer focus) have been found to have positive effects on consumers' satisfaction of Tertiary Institution. The study therefore recommends as follows:

i. TQM as a quality management model being adopted via SERVICOM in the Federal Polytechnic Ilaro should be sustained.

- ii. The Federal Polytechnic Ilaro Management should be enlightened on the importance of total quality management practices on Customers' Satisfaction to enhance the level of top management commitment for greater institutional performance.
- iii. The Federal Polytechnic Ilaro should also increase the level of employee involvement in the institution's decision without ceding greater powers to the students.
- Since customer focus has an effect on organizational performance, it is necessary for Page | 13 iv. managements of The Federal Polytechnic Ilaro to conduct a research to find out customer needs (students' needs), provide clear channels of communication and address students complaints on time.
- Total Quality Management must be clear so that the Students and Staffs of the Federal v. Polytechnic Ilaro can also understand them through consistent and well thought out orientation programmes.
- Students Satisfaction should be continuously observed and its outcomes incorporated in vi. the decision management model for greater efficiency of the Polytechnic.

### References

- Arawati, A. (2005). The Structural Linkages between TQM, Product Quality Performance, and Business Performance: Preliminary Empirical Study in Electronics Companies. Singapore Management. Review 1(1)
- Awwad, M. (2012). An Application of the American Customer Satisfaction Index (ACSI) in the Jordanian Mobile Phone Sector: The Total Quality Management Journal, 24 (6).
- Chen, C. N. & Ting, S. C. (2002). A study using grey system theory to Evaluate the Importance of Various Service Quality factors, International Journal of Contemporary Hospitality Management, 16(6).
- Chen, M. C., Chang, K. C., Hsu, C. L. & Yang, L. (2011). Understanding the Relationship between service Convenience and Customer Satisfaction in home delivery by Kano model, Asia Pacific Journal of Marketing and Logistics, 23 (3).
- Chepkech, W.K & Chelugot, D.C (2017). Total Quality Management practices on Organizational performance in Tertiary Institutions. International Journal of Economics, Commerce and Management; 5(2), 1-13
- Chepkech, W.K & Chelugot, D.C (2017). Total Quality Management Practices on Organizational performance in Tertiary Institutions. International Journal of Economics, commerce and *management; 5*(2), 10-32
- Frong, L.M (2007). Get Ready for Total Quality Management implementation, Journal of Operations Management, Tokyo.
- Gabbie, O. & O'Neill, M. (1996). Servqual and the Northern Ireland hotel sector: A Comparative Analysis, Journal of Managing Service Quality, 7(1), 43-49
- Iglesias, M. P. & Guillen, J. Y. (2004). Perceived Quality and Price: Their Impact on the Satisfaction of Restaurant Customers, International Journal of Contemporary Hospitality Management, 16(6)
- Mehra, S. & Ranganathan, S. (2008). Implementing Total Quality Management with a Focus on Enhancing Customer Satisfaction, International Journal of Quality and Reliability Management, 25(9)
- Oakland, J. (2005). From Quality to Excellence in the 21st Century, Total Quality Management Journal, 16 (8), 1053-1060

- Peak, M.H (1995). Total Quality Management Transforms the Classroom. *Management Reviews*, 84(9), 13-19.
- Pezeshki, V., Mousavi, A., & Grant, S., (2009). Importance of Performance Analysis of Service Attributes and its Impact on decision making in the Mobile Telecommunication Industry, *Measuring Business Excellence Journal*, 13(1)
- Parasura & Fotopoulos (2010). SERVQUAL: A multiple- item scale for measuring consumer Page | 14 perceptions of service quality, *Journal of Retailing*, 64(1), 12-37
- Richard, L., Tontini, G., & Kumar, U. (2009). Determining the Degree of Satisfaction of Customer Requirements: a Modified Kano method, *California Journal of Operations Management*, 1 (1), 95 -103
- Schargel, F.P (1994). Transforming Education through Total Quality Management: A practitioner's guide. Princeton, NJ: *The Leadership Management Series*.
- Sivadas, E., Jamie, L. & Baker, P. J. B. (2000). An Examination of the Relationship between Service Quality, Customer Satisfaction, and Store Loyalty, *International Journal of Retail* and Distribution Management, 28(2)
- Tari, J. & Molina, J. (2002). Quality Management results in ISO 9000 certified Spanish firms. The Total Quality Management Magazine, 14(4)
- Varghese, N.V. (2013). —Governance Reforms in Higher Education: a study of selected countries in Africa" UNESCO; 43(3), 1-4
- Wang, Y. & Lo, H. (2002). Service Quality, Customer Satisfaction and Behaviour Intentions: Evidence from China's Telecommunication Industry, *Journal of Marketing*, 4 (6).