



Tertiary and Vocational Education Commission

Effectiveness of Quality Management System in CoTs

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Effectiveness of Quality Management System in CoTs

By

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Agarwal,E.D.(1982) Organization & Management –Fifteen Reprint- Tata McGraw Hill Publishing

Allen,L.A,(1983) Management and Organization-First Publish- McGraw Hill Kogakusha Ltd

Bartol,K.M., and Martin,D.C., (1997)- Management- First publish McGraw Hill Inc.

Certo,S.C and Trevis,S (2007) Modern Management –Tenth Edition-Prentice Hall

Chandran,J.S(2006) Management Concepts and Strategies First Publish- Vikas Publishing

Davis, D., and Cosenza, R.M., (1988). Business Research for Decision Making- Second Edition

PWS-Kent Publishing.

Davis, K and Newstrom,J.W, (1989)-Human Behavior at Work-Eighth Edition-McGraw Hill

Hall.Drucker,P.F, (1997) Management –First Publish- Pan Books

Griffin,R.W., (1999). Management- Fifth Edition- AITBS Publishers

Gunther,J and Hawkins,F-Total Quality Management-(2006) Forth Edition-Springer Publishing

Hardy,B.O., and McWhorther,R.C., (1988) – Management Dimension-Aspen Publication

Higgins,J.M –(1995) –The Management Challenge-Macmillan Publishing Co.,

Hicks,H.G and Gullett,C.R, (1972) The Management of Organizations-Third Edition-

McGraw Hill Kogakusha, Ltd

Howard,M.C (1976) Management Concepts & Situations-First Publish- Science research Associates

Kandula, S.R., (2006). Performance Management-Prentice Hall.

Kempner,T, (1983) .Management- Third Edition –Penguin Books

Koontz,H and Weihrich, H. (1999) Essentials of Management- Fifth Edition-Tata Mc Graw-Hill Publishing

Koontz,H, Donnell,O.C and Weihrich(1980)-Management –Seventh Edition – Mcgraw Hill

International

Mainiero,L.A and Tromley,C.L.(2005) Developing Managerial skills in Organizational Behavior

-Second Edition-Prentice Hall

Manz,C.C. and Sims,H.P.,-(2002)- The New Special Leadership – Viva Books

Mohanty,R.P and Lakhe,R.R-(2005)- Total Quality Management –Fifth Edition-JAICO Book

Moorhead,G (2007) Management People & Organizations-Fifth Edition-AITBS Publishers

Newman,W .H, and Warren ,K.E., -(1997) –The Process and Management- Fourth Edition

Prentice Hall of India

Noe,R.A.Hollenbeck,J.R., Gerhart,B. and Wright,P.. (2005) management –Eight Edition

Mary Coulter

Robbins,S.P. and Couler M., (2005) –Management –Eight Edition-Mary Coulter

Robert L.T and Newport,M.G.- Management functions & Behavior –(1979) Revised Edition-

Business Publications Inc.

Stones,J.A.F., Freemon,R.E., and Gilbert,D.R., (2005). Management-Sixth Edition- Pearson

Education.

Trewatha, R.L.,and Newport,M.G., (1979). Management Function and Behavior –Revised Edition

–Business Publications

CHAPTER ONE

INTRODUCTION

Any organization main role is to provide the service or product to the society in best level. For this purpose organization uses the resources. For this process organization need to establish systems and procedures for give the maximum satisfaction to the customers as customer is the main factor to the organization. Then organization should needs to consider customer expectations. Customers expectations are not stagnating so organization needs to continue improve the customer requirements as changing systems and procedures.

QMS mainly depend on

- Customer Satisfaction
- Continuous Improvements

The goal of the Quality Management System (QMS) is to establish an organizational development that fosters continue improvements. Generally QMS addresses the principles, standards, goals and activities fundamental to the quality functions of CoTs and QMS are specific core Quality System Essentials (QSE) for the finally satisfy the customer

CoTs emphasize the importance of documenting and optimizing the operation of workflow. This path of workflow begins outside the CoTs boundaries, with a provider's request for enroll sometime with entrance examination, and ends outside the CoTs boundaries as grandaunts enter to the industries,

QMS need to seek ways to improve the customer's requirements adding value for the customers. Innovation, collaboration, leadership and integrity are the keys to successes for the continuous process improvement.

The concepts contained within this document are a roadmap to achieve these goals

Within the structure of the QMS, to include the Quality Management Program (QMP) and division Quality Plans we address both the human and system factors.

1.1 EFFECTIVENESS OF QUALITY MANAGEMENT SYSTEM

Create an organizational policy which states the company's intent with regard to measuring the effectiveness of the quality system. This should be a broad view of the overall quality system which touches on the areas you will monitor such as waste reduction, process improvements and error proofing. Ensure that your management review agenda accounts for review of the current quality performance against historical performance and company benchmarks.

Document all of the areas where will be measured quality against a baseline of existing data. If the organization doesn't have a baseline, establish one at the outset of your planning for this initiative. Your quality objectives need to be measurable and relevant to your quality policy. Some suggestions include: waste reduction, both internal and external; cycle time improvements; request for quotation turnaround times; supplier development; and inventory reduction. Choose areas which offer the most long-term benefit to your company.

Review and document the progress of every category. Regular review of the effectiveness of organizational quality initiatives forms the basis of measurement for the overall effectiveness of the quality system. Negative outcomes aren't necessarily indicative of an ineffective system. How your organization responds with corrective actions and shows demonstrable improvement over time will yield positive results.

Audit organizational program regularly. While the internal auditing program itself is one of the metrics for determining the effectiveness of the quality system, the program should review the progress of all quality objectives as a sub-component of the same effort by checking employee performance on the floor and review of quality records. It will serve as exceptional objective evidence that your organization is taking overall quality very seriously and that you have quality records demonstrating both monitoring and measurement of your quality management system.

1.2 QUALITY MANAGEMENT SYSTEM

Quality Management is a detailed structured system and is used in order to satisfy the internal and the external customers and suppliers. This is achieved with the combination of the business environment, continuous improvement, and innovations through development, and maintenance cycles while changing organizational processes and systems

1.3 RESEARCH PROBLEMS

Department of Technical Education and Training should be major vocational training providers with quality education and training in the state sector. The TVET sector is facing many challenges at present in Sri Lanka especially in government control agencies. The traditional training programmes, systems do not meet the aspirations of the youth population. Mainly younger generation is not interesting for existing training. They are isolated. There are many students who failed GCE O/L and A/L in every year but there not interest to come to the CoTs .There should have proper system to identify their needs. CoTs should identify youth attractive, market oriented course with the interest and conduct the courses with identifying there requirements. At present some students are not participate for courses and their fail rate is high.

Then there should have proper Quality Management System to every CoTs but existing QMS also in CoTs not fulfilled expected targets and should be identified the facts.

CoTs (Symptoms)

Low No. of Students,

Less Courses,

Less Applications,

Higher Dropouts,

Staff Low Performance,

Staff Low Commitments,

More Competitors with success

1.4 RESEARCH QUESTIONS

- What are the problems in existing work systems in CoTs.
- What are the difficulties to the staff by QMS?
- What are the staff attitudes for QMS
- What are the necessary improvements to the work Systems in CoTs?
- What are the implementing problems of existing Quality Management System?

1.5 OBJECTIVES

- Find the problems in implementing existing Quality Management System in CoTs
- Find the improvements in the work systems of the CoTs relevant to the QMS
- Find the effective factors for implements the Quality Management System in CoTs

1.6 VARIABLES OF QMS

Leadership

Employee attitudes

Org. Internal Communication

Employee benefits in QMS

Suitability of Working System

Product Design

Customer satisfaction

CHAPTER TWO

LITRATURE REVIEW

“Quality is fitness for use” Juran 1974

2.1 SERVICE QUALITY

Tangibles:

Appearance of physical facilities, equipment, personnel, printed and visual materials

Reliability:

Ability to perform promised service dependably and accurately

Responsiveness:

Willingness to help customers to provide prompt service

Competence:

Possession of required skill and knowledge to perform service

Courtesy:

Politeness, respect, consideration and friendliness of contact personnel

Credibility:

Trustworthiness, believability, honesty of the service provider

Security:

Freedom from danger, risk, or doubt

Access:

Approachability and ease of contact

Communication:

Listening to customers and acknowledging their comments; Keeping customers informed in a language they can understand

Understanding the Customer:

Making the effort to know customers and their needs.

2.2 QUALITY AND PERFORMANCE

There is high relationship between performance and quality. Performance is the output and quality is the how output should be. Then in organizations with following QMS it should be quality performance or quality should be inside the performance. When organization thinks to performance, it should be consider about quality also. Performance Improvement in individual, group, or organizational performance cannot occur unless there is some way of getting performance feedback. Feedback is having the outcomes of work communicated to the employee, work group, or company. For an individual employee, performance measures create a link between their own behavior and the organization's goals. For the organization or its work unit's performance measurement is the link between decisions and organizational goals.

It has been said that before the organization improve something, organization have to be able to measure it, which implies that what organization want to improve can somehow be quantified. Additionally, it has also been said that improvement in performance can result just from measuring it. Whether or not this is true, measurement is the first step in improvement. But while measuring is the process of quantification, its effect is to stimulate positive action. Managers should be aware that almost all measures have negative consequences if they are used incorrectly or in the wrong situation. Managers have to study the environmental conditions and analyze these potential negative consequences before adopting performance measures.

2.3 TYPES OF PERFORMANCE MEASURES

Performance measures can be grouped into two basic types: those that relate to results outputs or outcomes such as competitiveness or financial performance and those that focus on the determinants of the results inputs such as quality, flexibility, resource utilization, and

innovation. This suggests that performance measurement frameworks can be built around the concepts of results and determinants.

2.4 MEASURES QUALITY AND PERFORMANCE

Money, usually measured as profit

1. Output/input relationships or productivity
2. Customer emphasis such as quality
3. Innovation and adaptation to change
4. Human resources

Within the operations area, standard individual performance measures could be productivity measures, quality measures, inventory measures, lead-time measures, preventive maintenance, performance to schedule, and utilization. Specific measures could include:

1. Cost of quality: measured as budgeted versus actual.
2. Variances: measured as standard absorbed cost versus actual expenses.
3. Period expenses: measured as budgeted versus actual expenses.
4. Safety: measured on some common scale such as number of hours without an accident.
5. Profit contribution: measured in dollars or some common scale.
6. Inventory turnover: measured as actual versus budgeted turnover.

While financial measures of performance are often used to gauge organizational performance, some firms have experienced negative consequences from relying solely on these measures. Traditional financial measures are better at measuring the consequences of yesterday's actions than at projecting tomorrow's performance. Therefore, it is better that managers not rely on one set of measures to provide a clear performance target. Many firms still rely on measures of cost

and efficiency, when at times such indicators as time, quality, and service would be more appropriate measures.

To be effective, performance yardsticks should continuously evolve in order to properly assess performance and focus resources on continuous improvement and motivating personnel. In order to incorporate various types of performance measures some firm's develop performance measurement frameworks. These frameworks appear in the literature and vary from Kaplan and Norton's balanced scorecard to Fitzgerald's framework of results and determinants.

Kaplan and Norton's balanced scorecard approach operates from the perspective that more than financial data is needed to measure performance and that nonfinancial data should be included to adequately assess performance. They suggest that any performance measurement framework should allow managers to ask the following questions:

- How do look to shareholders? (financial perspective)
- What must excel at? (internal business perspective)
- How do customers see? (customer perspective)
- How can continue to improve and create value? (innovation and learning perspective)

However, the balanced scorecard is flawed as it does not allow for one of the most important questions of all:

- What are competitors doing? (the competitor perspective)

Keegan proposed a similar, but lesser known, performance measurement framework titled the "performance matrix." The performance matrix is more flexible, as it is able to integrate different dimensions of performance, and employs generic terms such as internal, external, cost, and non cost.

2.5 DESIGNING THE PERFORMANCE MEASUREMENT SYSTEM

A number of suggestions have been offered by various experts on the subject of designing performance measurement systems. Below is a list of suggestions derived from a number of these experts. Some of these apply to all measures and some apply to a limited number of a firm's measures. A firm's performance measures should:

- Be simple and easy to use.
- Have a clear purpose.
- Provide fast feedback.
- Cover all the appropriate elements (internal, external, financial and nonfinancial).
- Relate to performance improvement, not just monitoring.
- Reinforce the firm's strategy.
- Relate to both long-term and short-term objectives of the organization.
- Match the firm's organization culture.
- Not conflict with one another.
- Be integrated both horizontally and vertically in the corporate structure.
- Be consistent with the firm's existing recognition and reward system.
- Focus on what is important to customers.
- Focus on what the competition is doing.
- Lead to identification and elimination of waste.
- Help accelerate organizational learning.
- Help build a consensus for change when customer expectations shift or strategies and priorities
- Evaluate groups not individuals for quality and performance to schedule.
- Establish specific numeric standards for most goals.
- Be available for constant review.

2.6 DEVELOPMENT QUALITY WITH PERFORMANCE

1. Data collection and methods of calculating the performance measure must be clearly defined.
2. Quality Objectives, performance criteria are preferable to subjective ones.
3. Recognize that measures may vary between locations; situations, resources etc.,.

“Wisner and Fawcett” provide a nine-step process for developing a performance measurement system:

1. Clearly define the firm's mission statement.
2. Identify the firm's strategic objectives using the mission statement as a guide (profitability, market share, quality, cost, flexibility, dependability, and innovation).
3. Develop an understanding of each functional area's role in achieving the various strategic objectives.
4. For each functional area, develop global performance measures capable of defining the firm's overall competitive position to top management.
5. Communicate strategic objectives and performance goals to lower levels in the organization.

Establish more specific performance criteria at each level.
6. Assure consistency with strategic objectives among the performance criteria used at each level.
7. Assure the compatibility of performance measures used in all functional areas.
8. Use the performance measurement system to identify competition, locate problem areas, assist the firm in updating strategic objectives and making tactical decisions to achieve these objectives, and supply feedback after the decisions are implemented.
9. Periodically reevaluate the appropriateness of the established performance measurement system in view of the current competitive environment.

Finally, it is important that the performance measurement systems used by managers be continually reviewed and revised as the environment and economy changes. Failure to make the necessary modifications can inhibit the ability of the organization to be an effective and efficient global competitor.

2.7 THE NINE PRINCIPLES OF QUALITY CUSTOMER SERVICE

1. Attracting New Customers Costs More than Retaining Existing Customers

A satisfied customer stays with a company longer, spends more and may deepen the relationship. For example a happy credit card customer may enlist the company's financial services and later take travel insurance.

This is an easy "sell", compared with direct marketing campaigns, television advertisements and other sophisticated and expensive approaches to attract new customers.

2. Customer Service Costs

Real costs are associated with providing customer service and companies spend in line with a customer's value. If you are a high value customer or have the potential of being high value, you will be serviced more carefully.

Companies reduce the cost of customer service by using telephone voice response systems, outsourcing call centers to cheaper locations, and self-servicing on the internet. However, companies risk alienating customers through providing an impersonal service.

Some internet banking companies are bucking the trend by charging customers to contact them. In exchange, customers receive better interest rates due to reduced overheads and are satisfied with that.

3. Understand Customer' s Needs

How organization can meet customers' needs, if you don't know them? To understand customer's needs, just listen to the "voice of the customer" and take action accordingly.

Customer listening can be done in many ways, for example feedback forms, mystery shopping, and satisfaction surveys. Some companies involve senior employees in customer listening to ensure decisions benefit the customer as much as the company.

4. Good Process and Product Design

Good quality customer service is only one factor in meeting customer needs. Well designed products and processes will meet customers' needs more often. Quality movements, such as Six Sigma, consider the "cost of quality" resulting from broken processes or products. Is it better to service the customer well than to eradicate the reason for them to contact you in the first instance?

5. Customer Service Consistent

Customers expect consistent quality of customer service; with a similar, familiar look and feel whenever and however they contact the company.

Say you visit an expensive hairdressing salon and receive a friendly welcome, a drink and a great haircut. You are out of town and visit the same hairdressing chain and get no friendly welcome, no drink and a great hair-cut. Are you a satisfied customer who will use

that chain again? Probably not, as you did not receive the same customer service – which is more than a good hair-cut.

6. Employees are Customers:

The quality management movement brought the concept of internal and external customers. Traditionally the focus was on external customers with little thought given to how internal departments interacted. Improving relationships with internal customers and suppliers assists delivery of better customer service to external customers, through reduced lead-times, increased quality and better communication.

The “Service-Profit Chain” model developed by Harvard University emphasizes the circular relationship between employees, customers and shareholders. Under-staffed, under-trained employees will not deliver good quality customer service, driving customers away. Equal effort must be made in attracting, motivating and retaining employees as is made for customers, ultimately delivering improved shareholder returns. Better shareholder returns mean more money is available to invest in employees and so the circle continues.

7. Open all Communications Channels

The customer wants to contact you in many ways – face to face, by mail, phone, fax, and email - and will expect all of these communication channels to be open and easily intermingled.

This presents a technical challenge, as it requires an integrated, streamlined solution providing the employee with the information they need to effectively service the customer.

7. Every Customer Contact

If a customer contact concerns a broken process, then empowered employees will be able to resolve the complaint swiftly, possibly enhancing the customer's perception of the company. Feeding back this information allows corrective action to be made, stopping further occurrences of the error.

If you inform customers about new products or services when they contact you, you may make a valuable sale, turning your cost centre into a profit centre. This is only possible when you have a good relationship with your customer, where you understand their specific needs. A targeted sales pitch will have a good chance of success, as the customer is pre-sold on the company's reputation.

9. Good Customer Service.

Think about an average day – you travel on a train, you buy coffee, you work. You expect your train to be on time, clean and be a reasonable cost. You expect your coffee to be hot and delivered quickly. You expect your work mates to work with you, enabling you to get the job done. People become frustrated when their expectations are not met, and increasingly demand higher service quality in more areas of their lives.

Providing outstanding customer service at the right price is the holy grail of most companies. It is worth remembering that we all experience customer service every day. We can learn from these and apply them in our own line of work, whatever it may be. The quality of customer service will make you stand out from your competitors – make sure it's for the right reason

CHAPTER THREE

METHODOLOGY

3.1 RESEARCH QUESTIONS

What are the problems in existing work systems in CoTs.

What are the difficulties to the staff by QMS?

What are the staff attitudes for QMS

What are the necessary improvements to the work Systems in CoTs?

What are the implementing problems of existing Quality Management System?

3.2 POPULATION OF STUDY

Selection of the population is the one main success factor for this research. They should be active part for this research. This research is the find the effectiveness of the Quality Management System (QMS) in CoTs. Then population was mainly targeted to the CoTs which are QMS was functioned. For this research consider as the population very close beneficiaries as students, academic staff, non academic staff, directors of the CoTs QMRs, Internal Auditors. All of them are in the CoTs receiving the services and providing the services then they were the target population for this research.

3.3 SAMPLE POPULATION

QMS is one main function to the organizations and there should have the feel the activities of the QMS to everyone and they were feeling slightly different this QMS functions. Then for this research all the population was taken as the sample for reduce the research errors. CoTs all the population was large and even it was the difficult task selected all the populations as the samples. That was the all the students, all the academic and non academic staff etc., For this research the sample setting was in natural setting without manipulations or artificial setting.

3.4 RESEARCH INSTRUMENTS

Data collection methods are the drive factor of the research. For this research use several instruments for the data collection. Questionnaires are the main instruments. Not only the questionnaires use for this research but also used interview and observations also.

Questionnaires were used as the instrument obtains the data from the students, academic staff and non academic staff. Those samples were in mass amount then very difficult to use other methods. For get the data from the directors, additional directors, QMRs, internal auditors etc; were used interviewing with the structured questionnaires.

All the questionnaires were designed considering research objectives, research problems and variables. In this research used primary and secondary data. For the secondary data used internal and external audit reports, attendance of the staff and students, NCRs

All the questionnaires except to the interview used in Sinhala medium as most of the students and staff were Sinhalese.

3.5 COLLECTION OF DATA

Method of Data collection is very important factor as efficiency of the research is mainly depend on method of the data collection. In this research safe guard the overall efficiency, for the data collection visited the CoTs gave the questionnaires to the students, academic staff and non academic staff with verbally explained them, reasons for research, confidence etc. and collected all questionnaires on that time. Collection of data from the directors, additional directors, QMR, auditor were used structured questionnaires with interview and collected all the materials on that time.

CoT	No of Students	No of Academic Staff	No of Non Academic Staff
A	125	21	22
B	151	14	18
C	191	24	28
D	209	12	17
E	168	10	12
F	156	10	14

Table:3.1 Actual Population Distribution

3.6 ANALYSIS OF DATA

Data was tabulated and presented in relevant graphical form. For minimize the errors and get the proper data analysis used the SPSS computer software package. Data analysis was done by using SPSS package and data is found using questionnaire, interview, Even there are many methods for data analysis in this research data analysis is done by finding mean, regression and correlation analysis.

As secondary data source, expected to find internal and external audit reports, Management Review meeting reports, and Student intake data, student pass out data, Corrective actions and preventive action reports, staff attendants. But it was very difficult to find those data with proper evidences. Then this research was mainly done with questionnaires to students, academic staff, non academic staff, QMRs, Directors/Addl. Directors, and Internal auditor.

Data analysis was done categorizing variables as Leadership, Employee attitudes, Org. Internal Communication, Employee benefits in QMS, Suitability of Working System, Product Design and Customer satisfaction. Some of the questionnaires were not used as there was no effectiveness for this research.

CHAPTER FOUR

ANALYSIS OF DATA

Data were collected from the students, academic staff, non academic staff, Directors, QMRs, auditors as primary data and as secondary data source used internal and external audit reports, Management Review meeting reports, Student intake data, student pass out data, Corrective actions and preventive action reports, staff attendants.

4.1 STUDENT DATA

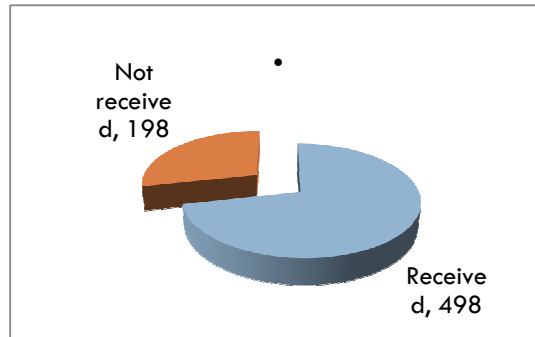
Data were collected from six CoTs & named them as CoT A, CoT B, CoT C, CoT D, CoT E , CoT F

4.1.1 SOLUTIONS FOR COMPLAINS/PROBLEMS

In Q No 4 asked receiving of sufficient solutions for your problems. They answered as,

	Frequency	%	Cumulative Per.
Strongly Agreed	175	18.7 %	18.7
Agreed	323	34.6 %	53.3
Uncertain	238	25.5 %	78.8
Disagreed	147	15.7 %	94.5
Strongly Disagree	51	6.5%	100.0
Total	934	100%	

Table 4.1: Solutions for Complains



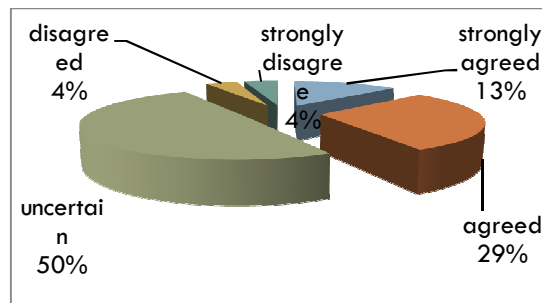
Graph 4.1 Solutions for Complains/Problems

Generally students agreed as they received solutions as 53% students mentioned they received sufficient solutions. Students mentioned in negatively only 12% as mentioned they didn't received solutions. But about 25.5% are in uncertain level in this question. Then generally customers were not in satisfactory level for receiving solutions for their problems.

4.1.2 CORRECT DECISION TO ENTER THE COURSE

	Frequency	%	Cumulative Per.
Strongly agreed	131	13.2%	13.2
Agreed	288	29.1%	42.3
uncertain	491	49.6%	91.9
Disagreed	39	3.9%	95.8
Strongly disagree	41	4.2%	100.0
Total	990	100%	

Table 4.2: Correct Decision to Enter the Course



Graph4.2 : Correct Decision to Enter the Course

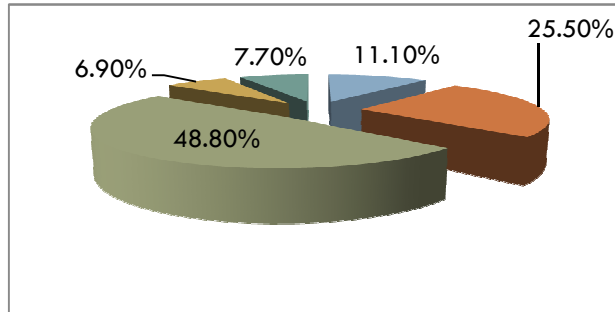
In this question more students said their decision was correct. But there were considerable numbers said there were in mid position. Disagree only about 8%.

4.1.3 COURSE RECOMMENDATIONS

Using Q No 11 asked from students, do you recommend this course to any brother/friend to follow in CoT? (St Q11)

	Frequency	%	Cumulative Per.
Strongly Agree	109	11.1%	11.1
Agreed	252	25.5%	36.6
uncertain	482	48.8%	85.4
Disagreed	69	6.9%	92.3
Strongly Disagree	75	7.7%	100.0
+Total	988	100%	

Table:4.3 Percentage of Course Recommendation



Graph 4.3 Course Recommendation

In this question about 36% students mentioned they were agreeing to recommend this course to any relatives/friend. But about 48% students are in mid position for this recommendation. Generally customers were in unsatisfactory level .

4.1.4 LEADERSHIP

Leadership was measured by Q1, Q2, Q10, Q17, Q18, Q19, Q21, Q22, Q24, Q25 and Q26..

The value of the mean is tabulated as follows.

CoT	Mean
A	2.52
B	2.09
C	1.87
D	2.21
E	1.97
F	2.29

Table: 4.4 Mean value of Leadership

COT Leadership was in mid position. But for the launch the QMS leadership should be in close to the one. Only two CoTs relied in positive level.

4.1.5 EMPLOYEE ATTITUDES

CoT	Mean
A	2.27
B	2.19
C	1.82
D	2.06
E	1.97
F	2.10

Table: 4.5 Mean Value of Employee Attitudes

Employee attitudes also drastically affect to the implement the QMS in positive level. Attitudes of the employees of the CoTs should be higher than this level for effectiveness of the QMS.

4.1.6 ORGANIZATIONAL INTERNAL COMMUNICATIONS

CoT	Mean
A	2.58
B	2.34
C	2.10
D	2.54
E	2.27
F	2.35

Table: 4.6 Mean value of Internal Communication

Internal communication of the CoTs was also not in more positive level. It is very essential to improve the internal communication than this level. Generally all the CoTs are in mid level as internal communications.

4.1.7 CUSTOMER SATISFACTIONS

CoT	Mean
A	2.59
B	2.55
C	2.32
D	2.57
E	2.31
F	2.41

Table: 4.7 Mean value of Customer Satisfaction

All the CoTs are in middle position for Customer satisfaction and it also should be increased than this level. This factor also more essential for effectiveness of the QMS.

4.1.8 PRODUCT DESIGN

CoT	Mean
A	2.36
B	2.25
C	1.96
D	2.20
E	2.06
F	2.12

Table: 4.8 Mean value of Product Design

Product design also not in positive level. Probably the courses duration and content was not in satisfactory level to accept the customers. But this factor not applicable for NVQ courses as course design is done by TVEC. CoT can decide which courses are suitable for their college considering customer satisfaction

4.1.9 Preference to Study in Another CoT for Current Course (SQ9)

	Frequency	%	Cumulative Per.
Strongly Agreed	75	7.5%	7.5
Agreed	378	38.4%	45.9
Uncertain	201	20.3%	66.2
Disagreed	248	25.1%	91.3
Strongly Disagree	86	8.7%	100.0
Total	988	100%	

Table 4.9 Preference to Study in Another CoT

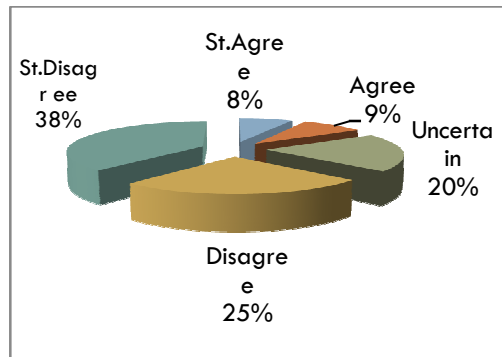


Figure 4.4 Preference to Study in Another CoT

For this question asked they like to study in another CoT. About 56% student respond they like to study in present CoT. But there were 20% uncertain

4.1.10 Reliability for Find a Job (SQ16)

	Frequency	Per.
Strongly agreed	211	21.6%
Agreed	436	44.6%
Uncertain	182	17.9%
Disagreed	81	8.2%
Strongly Disagree	76	7.7%
+Total	986	100%

Table 4.10 Reliability for Find a Job

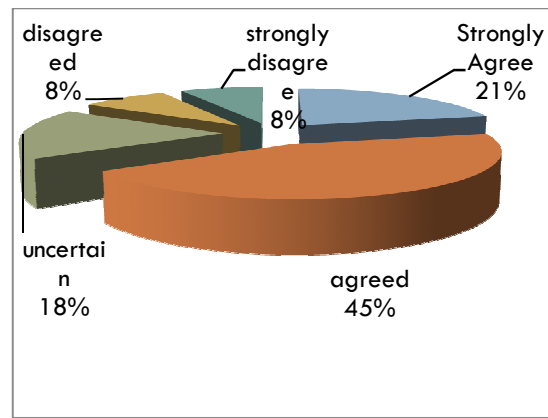


Figure 4.5 Reliability for Find a Job

Students has some reliable as they can find out suitable job as result of following this course. They realized there is considerable satisfaction as they can find a job after following this course.

4.2. IDENTIFY THE INTERNAL PROBLEMS IN EXISTING QMS IN CoTs (FIRST OBJECTIVE)

4.2.1. LEADERSHIP PROBLEMS

Students of the CoTs were responded there was a formal method to forward their problems. But it is necessary to improve the leadership participation

4.2.2. QMS DUTY ALLOCATIONS TO LEADERS

Directors were responded there were no regular discussions for QMS by DTET

All directors were responded as there was no regular duty requirement or target allocation for QMS by DTET

4.2.3 RELATIONSHIP BETWEEN LEADER AND STAFF

Academic staff responded as follows for as there is good relationship with leader.

4.2..4 PERFORMANCE APPRAISAL

Directors responded there was no compulsory requirement of QMS activities in performance appraisal

4.2.5 RESOURCES FOR QMS

QMRs responded there was lack of resource allocation for QMS

CoT	RESULT
A	Yes
B	Yes
C	Yes
D	Yes
E	Yes
F	Yes

Table: 4.11 Resources for QMS

All the QMRs agreed there resource allocation was not sufficient. Then it was very essential supply the at least minimum level resource allocation for implement the QMS

4.2.5 ORGANIZATIONAL MANAGEMENT

Academic and non academic staffs were responded on Q. No 3 in CoTS and they responded as there was any systematic planning for the work.

	Frequency	Per.
Strongly agreed	27	10.2%
Agreed	52	19.6%
Uncertain	87	32.9%
Disagreed	54	20.4%
Strongly Disagree	44	16.6%
+Total	264	100%

Table: 4.12 Organizational Management

For this question about 29% agreed as there was good planning in there CoTs. But about 36% disagreed as Planning and about 32% was in uncertain for this regard.

4.2.6 ORGANIZATIONAL RESPONSE TO STAFF

Academic and non academic staffs were responded on Q. No 5, in CoTs formally find out your errors and responds it

	Frequency	Per.
Strongly agreed	22	7.8%
Agreed	52	18.6%
Uncertain	91	32.6%
Disagreed	65	23.4%
Strongly Disagree	49	17.6%
+Total	279	100%

Table: 4.13 Organizational Respondent

For this question about 25% responded as they agree to the CoT receive their errors and respond it. But 40 % responded as there was no such mechanism to identify the errors. As well as there are 32% in uncertain level.

4.3. IDENTIFY THE DIFFICULTIES TO STAFF BY QMS IN CoTs

(SECOND OBJECTIVE)

4.3.1 WORK PLANNING, IMPLEMENTATION AND MONITORING

Academic and non academic staffs were responded on Q. No 3 in CoT there was any systematic planning for the work.

Academic and non academic staffs were responded on Q. No 3 in CoT there was any systematic planning for the work. One problem was there were no co operation for systematic planning, implementations and monitoring in CoTs with staff

	Frequency	Per.
Strongly agreed	30	10.9%
Agreed	54	19.7%
Uncertain	85	31.3%
Disagreed	61	22.4%
Strongly Disagree	43	15.7%
+Total	273	100%

Table: 4.14 Work Planning, Implementation and Monitoring

4.3.2 QUALITY DOCUMENTS

By Q21,22 and 23 asked about quality documents. Q No 21and 22 asked the quality manual and procedural manual, and they positively responded it. But Q No 24 asked, Do you have the procedures and their relevancy. But someone not satisfied the language as it was in only English.

	Frequency	Per.
Strongly agreed	15	5.6%
Agreed	47	17.8%
Uncertain	76	28.7%
Disagreed	65	24.6%
Strongly Disagree	61	23.3%
+Total	264	100%

Table: 4.15 Quality Documents

4.3.3 RESOURCE ALLOCATIONS

In Q No 26 asked satisfaction of receiving the resources. They responded as follows and they not satisfied about that.

	Frequency	Per.
Strongly agreed	16	5.9%
Agreed	39	14.3%
Uncertain	85	31.5%
Disagreed	67	24.7%
Strongly Disagree	64	23.6%
+Total	271	100%

Table: 4.16 Resources Allocation

4 IDENTIFY NECESSARY IMPROVEMENTS FOR SUCCESS OF QMS (THIRD OBJECTIVE)

4.4.1 WORK PLANNING

Academic and non academic staffs were responded on Q. No 3 in CoT there was any systematic planning for the work. It is very essential planning the college activities to achieve organizational goals.

	Frequency	Per.
Strongly agreed	28	10.6%
Agreed	52	19.7%
Uncertain	87	32.9%
Disagreed	54	20.4%
Strongly Disagree	43	16.4%
+Total	264	100%

Table: 4.17 Work Planning

4.4.2 MANAGEMENT REVIEW MEETING

Directors/Addl. Directors respond QMR meetings were conducted less numbers annually. It is essential conduct the QMR meetings regularly and follows up decisions.

4.4.3 QMS MONITORING SYSTEM BY DTET

By Q 02 asked from the directors, have you been aware about QMS by the DTET and had you been influenced to implement QMS by DTET. All the directors responded there were no such like monitoring system to conduct QMS activities in CoT. QMS was not the DTET direct activity.

4.4.4 MONITORING OF LEADERS

All the leaders responded, as there was lean co ordination by DTET for QMS. Then there were no motivation to the leaders. There was no any appreciate for QMS activities. Leader motivation is very essential for changing activities.

4.4.5 POWER OF QMR

All the QMRs responded there were no any authorized power to QMR for implements the QMS in COT. Not only that at least no recognized appointed letter also not issued to them by DTET. Without any recognition to the QMR how QMR do the QMS activities in CoT. There were no resource allocation for the QMRs as at least computer, photo copy machine etc.,

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1 INTRODUCTION

Today there are high competent among training organizations with the government and private organizations. Now more and more private organizations also come to the market as training providers. Then for exist in the market it is very essential to implement QMS system in the organizations. There is a high competition among competitors.

This study is the find the effectiveness of the QMS in CoTs.

5.2 SUMMARY OF CONCLUSION

This study was received data using questionnaires from the students, academic staff, non academic staff and QMRs. Questionnaires were structured relevant to the QMs variables and objectives. All the structured data were analyzed following variables and objectives. After the analyzing the data following conclusions were found.

5.3 CONCLUSION

5.3.1 Solutions for Complains/Problems

Students were unhappy for receiving solutions for their problems. If there no solutions for their problems they would no forward their problems in initial stages. Then it is very difficult to identify the problems in grass root level.

5.3.2 Satisfaction of Course Committee

Conducting of course committees were not in satisfactory. This is very essential to get student's feed backs/complains etc. by conducting the course committees. This is good tool find the students complaints in grass root level. **5.3.3 Leadership**

Leadership of the CoTs was not in satisfactory level. Leadership of the organization is one key point for the organizational success. That is the drive force. But leadership was not in enough level for drive the QMS in CoTs. Drive the QMS is changing of the organizational culture. Leadership development is very essential to gat the effectiveness in QMS.

5.3.4 Employee Attitudes

Employee attitude was also not in CoTs in satisfactory level. This was the one factor difficult to drive the QMS. Employees with bad attitude are developed the bad culture in organizations.

5.3.5 Identify the Implementing Problems in Existing QMS in CoTs (First Objective)

There were several barriers for implement the QMS in CoTs. There was no good leadership development in CoTs. Good leadership is essential for the effectiveness of the CoTs. All of the leaders were in subject specialists but they didn't have the managerial training or experience. This factor also a major issue to implement the QMS.

Relationship between leader and staff also wasn't in required level especially in organizational activities. One main factor for attract the staff to the organizational activities was performance appraisal. But CoT's performance appraisal wasn't in satisfactory level.

Resource for the QMs wasn't in adequate level. This also one major issue to proper implementation of QMS.

5.3.6 Identify the Difficulties to Staff by QMS in CoTs (Second Objective)

Work planning is essential part to develop the QMS. This activity was also not in proper level. It should be start with strategic planning with following pre prepared activity plan. Other one is all staff members should follow this plan and they should have proper idea /interest to follow the plan.

Quality documents also not in satisfactory level as quality manual and procedure manuals were in English medium. Higher number of paper work also one major issue to the staff.

Internal audits also one major factor for implement the QMS as measurement. There should have identified the drawbacks and errors with non competency. Identify the corrective actions and followed by implementation of corrective action.

5.3.7 Identify Necessary Improvements for Success of QMS (Third Objective)

Work planning was not in satisfactory level it also one major issue to make problems to QMS. Work planning was most related to the QMR meeting and QMR meetings also not in satisfactory level. In that meeting all the planning works should be identify and should give the responsibilities to relevant officers.

QMS subject monitoring system by DTET was in unsatisfactory level. Then leaders could neglect the QMS activities. Motivations of leader for the QMS activities weren't in satisfactory level. Power of the QMR wasn't in good level. Then there should have power to implement the QMS. Even organizational structure QMR was is higher level there weren't any power at least same to HoDs.

5.4 RECOMMENDATIONS

For this study following recommendations are given

There should have proper system to identify customer complains. Suggestion box may be one method other than that course committees and one small questions are asked from them at least one for term. After that identify the problems find the solutions and implement it. Not only that that solutions should be informed to the students as well as possible. Implementation of solutions actions it is necessary find the feed backs and clarify the actions.

There should have leaders training for organizational management and QMS and awareness for value of QMS. There should have some targets to the leaders in QMS activities. Motivation activities also necessary to achieved the targets CoTs. There must be a subject to the DTET for QMS. DTET should co ordinate and lead the QMS activities regularly. It is very better if there should the ministry subject for the QMS and DTET should answer to the ministry.

Employees are necessary to the QMS activities. Then director and QMR should make the compulsory activities to the staff members to do in free time. It is better if there are any motivation activities to the staff members. Some time it can mention in performance appraisals as one task.

It is very essential prepare action plan for QMS as college wise and get the approval. Beginning of the year director and QMR should identify required resources and activities for QMs. DTET should study that requirements and should allocate the resources to the CoTs. It is better if the DTET can identify and allocate annual funds to the QMS.

It is very better preparation of manuals in Sinhala medium also and consider reduce paper work also. One internal audit for one term as three audits for year is suitable to the CoTs. Internal audits should be in formal way than exist. It should be an essential factor receives the internal audit/quality certificate by every section/staff member issuing by the QMS after the internal audit.

It is better to prepare quality documents in Sinhala language also. If there Tamil people it should be in Tamil medium also, especially quality manual and procedure manual. Corrective actions are formalized than current level. It must be followed and measure the success or unsuccessful with making planning.

It is essential to make the arrangements to get suitable authorized power to QMR for implement the QMS activities in CoTs. If it is not all the QMS activities are depend on leaders of the CoT.