



Enhancing the Quality of Financial Reporting considering Total Quality Management (TQM) Concepts: A Proposed Model

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Abstract. This study examines the role (TQM) concepts in enhancing the quality of fiscal reports through a proposed model that links TQM requirements with the qualitative attributes of accounting data. The importance of the study stems from the growing need to improve financial reporting in a rapidly changing business environment and under increasing reliance on information systems and digital technologies. The study adopted a descriptive and analytical approach based on reviewing relevant accounting and management literature and analyzing the theoretical dimensions of both TQM and financial reporting quality. No field sample was used, as the study is conceptual in nature. The findings indicate that the application of TQM contributes to improving financial information security, enhancing the quality of financial inputs, processes, and outputs, and strengthening control and continuous improvement mechanisms. The study concludes that integrating TQM principles into accounting and information systems represents an effective approach to improving financial reporting quality and supporting more reliable economic decision-making.

Keywords: Total Quality Management, Financial Reporting Quality, Accounting Information, Financial Information Systems, Internal Control

1. Introduction

Today, our world is seeing some big developments in the business environment, and the result of these developments was a huge amount of financial and commercial transactions. This has made it necessary to issue some financial reporting standards to match these transactions. Looking at these transactions, we find that the way these are handled is quite flexible and

is blessed with many options to keep up with these changes, aiming to provide information that is both relevant and reliable, which supports the overall goal of accounting, and basically determines the quality of monetary reports and how useful it is for decision-makers.

We can see that TQM in state-possessed firms is especially important because it plays a key role in economic activity. It is a big piece of enhancing the quality of monetary reportage by better controlling information security, focusing on areas that could pose major risks for errors or fraud. Above all that, it can bring efficiency and objectivity to the fold, and can also boost the quality of information delivery. Nowadays, these processes are often carried out in an automatic way through IT systems storing and sharing data among entire parties according to regulations. This improves the quality of inputs, processes, and outputs of financial data, which is then analyzed through accounting information controls. One can notice that there are three levels of application controls in financial IT: preventive controls, detective (diagnostic) controls, and corrective controls.

Based on what was mentioned earlier, a virtual model was built to show the link among the independent variables (TQ performance requirements) and the dependent variable (FR quality). TQM aligns completely with financial reporting quality since it is basically a cultural shift. This is because it changes how the managers and the employees think. So, they start to focus more on the customers and on always making things better. And also, good leadership is very important for this. Another point is that the employees need to be involved in their work. It is also worth

paying attention to training, so everyone can learn the Total Quality Management methods properly.

1.1 Research Methodology

We will present the research contents according to the following approach:

Why This Study:

With all the changes we are witnessing in the management world today, in comes the importance of total quality management and financial reporting as pretty clear. They directly have an effect on how economic units operate. Sticking to quality activities also means keeping an eye on costs in a way that makes sense in a competitive business environment. Focusing on total quality management, especially in terms of financial reporting, helps create new and extra information that's useful for planning, monitoring, and evaluating performance in economic units. This, in turn, leads to continuous improvement, cost reduction, better product quality, and smarter decision-making.

1.2 Research Problem Statement:

If economic units do not measure financial reporting quality based on total quality management and fail to disclose it, their effectiveness and efficiency can be questioned. In today's fast-changing environment with many ongoing shifts, there is a real necessity for novel performance indexes and measures that better match such changes, especially metrics related to total quality management costs.

So, we can say that the problem to be addressed here is about how much economic units in today's environment care about the term of monetary reportage quality and its association with TQM, particularly in terms of accounting information quality.

1.3 Research Objectives:

According to the research problem and its rationale, it is our objective in this study to identify and define the relationship and impact of TQM on monetary reportage quality, explain the contents and restrictions of this association at the level of a proposed model. It is also our objective here to describe the necessities of TQM and FR quality, analyze them in the proposed model, and determine the overheads of monetary reportage quality in light of TQM concepts and how to disclose them in financial reports.

1.4 Research Hypothesis:

This study aims to test the main hypothesis: It is hypothesized here that stronger financial reports are a direct result of implementing total quality management, which in turn steadily improves accounting data.

2. The Conceptual Framework of FR Quality

The Concept of Financial Reporting (FR):

In general, it can be said that the quality of FR refers to the accuracy of FR data in reflecting the reality of the firm's operations, its economic status, and business results. Thus, the quality of accounting data will be linked to and impact either the balance sheet as well as the income statement (Salakjit, 2011, pp. 155-156).

The conceptual framework of accounting helps in boosting the FR quality, as it is a base in making high-quality fiscal reports. As (Jan) states:

"FR quality will significantly increase if accounting criteria, as well as decisions made in practice, are based on a set of logically interconnected concepts. Moreover, through sharing our viewpoints and skills with standard-setters and others who may be part and parcel of this matter, we hope to contribute to preparing a comprehensive and high-quality accounting conceptual framework, which will enable those in charge of setting the standard as well as practitioners to locate better solutions for the issues that will face financial reporting preparation." (Jan McCahey, 2013, p. 2)

We can see that the FR quality is very important for stakeholders, and especially for the shareholders. They are important because the shareholders need to use the data from financial reports to make their decisions. So, when the financial information is more useful for making decisions, we can say that the quality of that information is better. Indeed, Ferrero (2014) notes in this regard that FR quality is the 'accurate representation of financial report information' (p. 52). We can understand financial reporting quality in a few ways. The Financial Analysts Federation describes it as the clarity and transparency of reports and having information available at the right time. And the Special Committee on Financial Reports of the AICPA sees quality as how much the information can be used for predictions and if it is relevant for its purpose. Another way to see it is from Verdi (2006), who says that quality is how accurately reports display information about a company's operations and its expected cash flows. This can be translated as an outcome in which stock investors can use this information properly.

We can find another explanation of what financial reporting quality means in a study by Lewis and Pendrill (2001, p. 10) who had to note that it is activities for the needs of external users. These users need accounting information, but they do not have the power to decide what financial information they need. So, they must use the information that the management gives to them.

Goals of FR:

The Trueblood Committee issued Financial Accounting Concepts No. 1, which suggests that outside fiscal reports issued by companies are considered a source of beneficial data provided by the organization to users of fiscal statements who cannot obtain the data in any other way. It also points out that the main goal of financial reporting is to give users the ability to select among substitute uses of restricted resources, which is more essential than the auditors' requirements in boosting accounting criteria.

The goals of FR are:

To bring investors especially current and potential ones, creditors, and further users with good data to invest, lend, and other prudent decisions.

To help investment companies make decisions that suit their investment goals, allowing them to earn profits while keeping their capital safe.

To provide information that gives a vivid picture of the company's returns and financial performance so one can understand the potential of the targeted company.

To provide information about the firm's economic resources, their sources, and how they are used.

To give information about the management's relationship with shareholders and monitoring the firm's resources.

Quality of FR:

The quality of somewhat decision basically rests upon the quality of the data provided. It is like the steeringwheel that drives the firms and their decision-makers. Accounting data serves as the link between firms and external parties, as firms present their fiscal reportages after measuring and processing fiscal events. So, the quality of accounting data flow, as outputs of the accounting data system, is not just a need taken lightly. Rather, it is important for the company's operations and is closely tied to its success and sustainability.

Various expert accounting bodies have tried to recognize factors that determine the quality of FR. One of the most precise conclusions was reached by (FASB) in the U.S. through the issuance of Accounting Concept No. 2 (Qualitative Characteristics of Accounting Information). This included recognizing, measuring, and reporting of financial statement elements in detail. For accounting information produced by the system to have the required quality, the usefulness criterion must be met; that is, the information should be able to fulfill specific decision-making needs. And the usefulness of information should continuously be evaluated in relation to the decisions it was meant to support.

The Basic Qualities of Accounting Data

The basic qualities relate to usefulness of accounting data in decision-making, which is achieved through one or both of two fundamental conditions: contributing to reducing uncertainty for the decision maker and/or enhancing the decision maker's level of knowledge. (IASB / FASB, 2010, p. 23)

Relevance:

Items QC6-10 of the Conceptual Framework made by the joint projects make it clear that related data that can influence users' decisions.

Some characteristics that represent the specificity of relevance in the draft conceptual framework are as follows:

Predictive Value:

Financial information can make some predictions, and users can use these results for thinking about the future (Barua, 2005, p. 7).

Confirmatory Value:

We can see that this process confirms if our old expectations were correct or if we need to give them a second thought. This is basically the same as the idea of feedback. Actually, the FASB and IASB worked in a collaborative fashion on a project. From this work, they decided that confirmatory value is a part of relevance, as Ferdy et al. (2009, p. 9) have explained.

Relative Importance:

The relative importance of accounting information is a necessary characteristic that goes hand in hand with relevance. It is not meant to limit a company's ability to report accounting information, and it does not affect standard-setters' decisions either, as Kathleen & Jon (2011, p. 20) explain further here.

Faithful Representation:

This is the second basic qualitative characteristic of accounting information. Ying Zhang, (2014, p. 21) notes that this characteristic reflects how accurately financial statements represent economic phenomena, which is a must for any decision-making process to move forward. Accounting information here have to be correct, precise, and free from material errors.

3. Replacing the Relevance Principle with the Faithful Representation Principle

The process of replacing the relevance principle with the faithful representation principle took a long time. Before the issuance of Statement No. (SFAC 8), the relevance principle was one of the fundamental qualities of accounting data quality, while faithful representation was considered a secondary aspect of relevance. However, the definition of relevance was not clear enough, which led to different interpretations. Fair value accounting estimates were often blamed for lacking reliability since they were not always precise. But with the release of Statement No. 8, “reliability” was substituted with “truthful representation,” clarifying the implications of this change. As a result, this shift helps in better understanding accounting estimates, especially those related to fair value.

Completeness:

This means that financial statements fully include all the necessary information to accurately represent economic phenomena, helping users understand the economic facts and issues they need from financial information.

Neutrality:

This means not favoring one party over another or prioritizing the interests of one group over another, since neutrality is very close in connection to all concepts of fairness.

Freedom from Errors:

This involves ensuring the accuracy of the available information and avoiding mistakes to prevent misinformation. This should not be taken that the information provided is perfectly accurate and this is because most fiscal data depend on estimations and judgments (Stice & Stice, 2013, p. 25).

Key Support Characteristics

It represents four characteristics defined by the conceptual framework of the joint project (Lianna, 2012: 1).

Comparability:

Comparability stands for the capability of comparing fiscal data from one accounting period with financial data from a previous period or another accounting period for the identical company, or to compare the fiscal data of one company with that of another company for the same accounting period. Users of financial information take advantage of comparability for purposes like making investment and financing decisions, tracking company performance and financial position over time, and comparing different companies.

Verifiability:

Verifiability means how much people agree with each other when they do an evaluation and use the same method. In simple words, this is about how much accountants can be consistent and get the same conclusions about economic events when the accountants utilize the same evaluation method, and this comes with the idea of faithful representation. (Nobes, 2014, p. 29).

Right Timing:

This feature means to give accounting and economic data to the decision-makers at a time that allows it to impact their decisions in a clear way. In other words, the information should be ready and available to them before losing its prominence in affecting the decisions. (Beste, 2009, pp. 2-21).

Understandability:

Understandability is a key quality of fiscal data. It works under the assumption that users own some knowledge of accounting and economic activities and desire to look at the data carefully. Important data relevant to decision makers should not be left out of financial reports just because it might be complex and hard for the average user to grasp. Since the conceptual framework guides the creation of accounting standards, making information understandable is crucial to ensure issues are properly addressed through these standards. This results in clear and understandable reporting and disclosure (Nobes, 2014, p. 29).

Factors Affecting the Quality of FR

The quality of fiscal reporting is influenced by numerous factors. Accounting studies have mentioned numerous factors that are possibly to impact the quality of fiscal reports, with the most important being integrate governance and the quality of accounting criteria, as outlined below:

Corporate Governance:

Following the economic breakdowns and fiscal crises experienced by numerous states around the world, as well as the financial scandals of major companies i.e. Enron and WorldCom in the U.S. in 2002, corporate governance has gained a lot of attention from professionals and academics in accounting. This is to restore investors' confidence in the stock markets. The OECD defines corporate governance as "a system of direct oversight aimed at maximizing the value of enterprises through mechanisms that promote transparency and efficiency" (Chen et al., 2009, pp. 35-37).

Quality of Accounting Data:

On July 19, 2002, the European Parliament issued EU Regulation No. 1606, which requires EU countries to apply (IFRS). These standards are issued by (IASB), previously identified as (IASC). The main goal of the IASB is to improve global accounting standards that provide transparent and comparable data to help users of financial reports make sound economic decisions. Using IFRS has another added advantage in that it also helps reduce information gaps between management and stakeholders. For example, International Accounting Standard 1 (Presentation of Financial Statements) requires proper disclosure of information such as management's assumptions and estimates regarding accounting items, especially those with high uncertainty, as well as disclosure of estimates that could significantly affect the monetary position and results of the entity.

We also need to find and identify the items in the financial statements that can be impacted by accounting estimations, and it is important that accounting data shows the subsequent fiscal aspects and the possible effects of risks that we know and expect. When we use international standards in financial reporting, this helps to reduce the earnings management activities, as per Latridis (2010, pp. 149–195).

4. Theoretical Framework for Total Quality Management Concepts

The Concept of TQM

concept of (TQM) is relatively modern, as writers and researchers are paying attention to it for over 3 decades. Quality is not yet just about the quality of the goods in hand. When defining the concept of TQM, it is necessary to look at what some writers and researchers have said. Crosby and Aguilaroo (2000, p. 36) see TQM as "an organized methodology to warrant the planned activities are carried out, helping to avoid

problems by encouraging and promoting proper managerial behavior to achieve the intended performance efficiently by material and human resources."

Aquileno et al. (2001, p. 260) explain it as "managing the organization as a whole to enhance all aspects of goods and services that matter to the customer." We can also find another definition in the literature and that is by Heizer and Render (2001, p. 175) who define it as "quality assurance that involves every part of the organization and all its processes, starting from trading with suppliers to delivering the goods or services to the customer." Packard (2002, p. 3) emphasizes that total quality management is "a process of changing the organization's culture, values, beliefs, and operational activities so that everyone in the organization takes responsibility for quality, ensuring that the outputs, be it goods or services, meet the customers' requirements."

Goals of TQM

There are numerous objectives that can be achieved through applying TQM. According to Beer (2003, p. 623), the goals include clearly understanding customer necessities and choosing suppliers who focus on quality. Other goals of Total Quality Management include satisfying customers, reinforcing the idea that the customer essentially runs the bank, creating an environment supporting continuous improving and developing, and not just concentrating upon the quality of outputs, whether goods or services, but also on the quality of inputs and processes. Moreover, it emphasizes how important it is to involve employees when it comes to repairation and implementation the organization plans to deliver goods and services to customers at the right cost and quality and place.

Principles of Total Quality Management

Researchers and writers have different views on defining the principles on which an integrated quality management system is based, each having their own perspective. However, there is a consensus on numerous points to be tried to outline as much as possible in this area. These can be taken as the core through which a comprehensive quality management system can be established (Knowles, 2011, pp. 11–12; Russel & Tayelor, 2000, p. 87).

Customer Focus:

If economic units want to create value for their customers, they lack being on the same page about understanding their customers, their needs, and

expectations. Customers are the core and driving force behind the work of these units, whether in production or services. After all, assuming there can be no production without a customer, the stability and progress of any economic unit primarily depend on the customer. Based on this, any economic unit must know the current and subsequent requirements of its patrons and work hard to achieve their desires and expectations.

Leadership:

TQM begins with top management's commitment. Without this commitment, quality just becomes a slogan or a sign without any real impact or effectiveness in building quality. There is no way forward without top management's dedication. The leadership of the business unit is responsible for setting clear and unified goals and directions for the unit in a consistent and integrated way. They also need to create and maintain a good work setting for employees to make sure their active partaking in achieving these goals.

Employee Contribution:

Employees at entire organizational levels are the core of the business unit. Their active participation allows them to showcase their abilities and talents and use them for the benefit of the business, which in turn benefits the entire unit.

Basics of the Process Model

Management Style as a System:

Management is seen as an integrated system that works to achieve goals efficiently and effectively while improving performance and increasing productivity. This is done by combining key concepts and looking at the economic unit as a whole, which helps create alignment between different elements.

Continuous Improvement:

Continuous development should be incorporated and considered a constant, ongoing goal for the economic unit in all situations, aimed at enhancing processes that lead to better quality.

Decision-Making Based on Impactful Choices:

Decisions with positive outcomes should be based on verified data, facts, and realistic studies.

Mutual Benefit Relationship with Suppliers:

Improving the quality performance of the economic unit and its suppliers rests upon having a mutually beneficial relationship. Properly managing this link enhances the potential for shared benefits through increasing added value.

Strategic Focus:

There needs to be a real commitment to strategic quality tools. If businesses need surviving and growing, they ought to provide value to their clients and treat this as a core part of their strategic goals. They should create and use a strategic vision throughout the organization to achieve related goals and actions. This focus involves a longterm commitment.

Importance of QM:

These days, businesses pay a lot of attention to quality. This focus on quality comes from its impact on the competitive position of the business and its legal responsibilities for any potential harm caused by products or services. This can be clarified through the following points that highlight the significance of quality (Heizer & Render, 2011, p. 223).

Reputation of the Economic Unit:

Any economic unit is expected to own a reputation for quality (worthy or not). The prominence of quality may be explained by looking at the new products of economic units, the practices of employees, and relationships with suppliers.

Legal Responsibility of the Producer:

The government holds economic units responsible for designing, producing, or distributing defective products or harmful services, making them legally liable for any damage caused by their use.

Global Outcomes:

With technological advancement, quality has become a global concern. Competing economic units within a country affect the national economy, so these units need to produce high-quality products that meet global quality standards, design expectations, and price expectations. Bad products harm both the profit of the country and the individual economic unit, negatively affecting the balance of payments.

Elements of Total Quality Costs and Their Classification

Most researchers agree that total quality costs embrace prevention costs, appraisal costs, inner failure costs,

and outer failure costs, and these vary from one economic unit to another owing to the differences in their activities (Rodchua, 2006, p. 4; Omachonu et al., 2004, p. 278).

First: Prevention Costs:

The quality pioneer Juran sees prevention costs as the expenses incurred to keep appraisal and failure costs as low as possible. Hence, the most effective way to reduce total quality costs and maintain high quality is to avoid quality problems from the start. This is the purpose of prevention costs, as these costs involve activities that reduce or eliminate the production of defective goods or the provision of substandard

services. Economic units have found that prevention costs are lower than the costs of fixing defects after they occur (Garrison & Noreen, 2006, p. 996). Therefore, these represent the costs paid to inhibit the production of non-compliant products (Drury, 2008, p. 176) or the costs related to preventing defective products that do not live up to what customers need and expect from the products (Krajewski et al., 2010, p. 176).

As to the elements of prevention costs, they consist of a set of components that may be outlined according to the opinions of some authors, as shown in Table 1:

Table 1: Elements of Prevention Costs based on Some authors.

NO	SOURCE	PREVENTION COST ELEMENTS
1	(Russell & Taylor, 2000:96)	Russel & Tayelor, 2000:96, Qualityplanning – Product design – Operation costs – Quality training – Information – Other prevention costs.
2	(Aror ,2008, p. 835)	Arora,2008, p. 835, Quality planning – Preventive maintenance – Product design – Training – Operations.
3	(Horngren,et.al, 2009, p. 693)	Horngren,et.al, 2009, p. 693, Design Engineering - Operations Engineering - Preventive Maintenance of Equipment - Quality Training - Ensuring the Required Levels of Quality are Achieved.

Source: Prepared by the researcher based on the referenced sources.

Second: Evaluation Costs: In order to detect products that do not conform to specifications, one needs to spend costs so as to keep the quality level through official evaluation methods for product quality, or these are inspection and testing costs to make sure that the process or product is in an acceptable manner when it comes matching with the quality standards that are specified (Chase et al., 2001, p. 269). According to Krajewski and others, evaluation costs represent the costs that we get as a result of checking and assessing how well the processes and products work as well as the result of their quality level in the economic unit (Krajewski et al., 2007, p. 207). As for the elements of evaluation costs, they might be clarified based on the views of some researchers through Table 2:

Table 2: Elements of Evaluation Costs based on the perspectives of Some Researchers.

NO	SOURCE	EVALUATION COST ELEMENTS
1	(Drury, 2008, p. 549)	Raw material inspection - Inspection of production under operation - Inspection of finished production - Calibration and maintenance costs of inspection and testing equipment.
2	(Horngren,et.al, 2009, p. 693)	Inspection and testing of raw materials - costs of inspecting processes and manufacturing products on production lines - inspection and testing of finished products.
3	Jackson,et.al, (2009, p. 446)	Raw material inspection - Process inspection during production - Final inspection of finished products - Other prevention costs.

Source: Relying on referenced sources.

Third: Inner Failure Costs:

Such type of costs occur when a product does not achieve its design specifications. According to what Juran said, these costs could be cut if no flaws in the product noticed before it gets shipped to the customer. So, we can say that these costs have a close connection to errs or flaws that occur inside the business unit. They are the costs that we spend to find and detect defective products before they get sent to the customer as Horngren et al. (2009, p. 662) mentioned.

These defective products do not meet the quality standards, so the customer might reject them if they receive them in that shape. The defects are usually found and discovered during the production process or after it finishes but before the product finds its way to the customer as Krajewski et al. (2010, p. 177) said.

As to the elements of inner failure costs, they consist of several components, which might be detailed based on some writer's views, as shown in Table 3:

Table 3: Elements of Inner Failure Costs based on Some writers.

NO	SOURCE	INTERNAL FAILURE COST ELEMENTS
1	(Russell & Taylor, 2000, p. 96)	Scrap - Remanufacturing - Re-examination - Process Failure - Failure Analysis - Production Process Downtime.
2	(Stevenson, 2007, p. 410)	Remanufacturing - Problem Solving - Production and Material Losses - Scrap - Lost Time to Address Failure - Price Reduction
3	(Horngren, et.al, 2009, p. 693)	Scrap - Re-operation - Breakdown Maintenance - Process Engineering - Internal Failure Related Manufacturing.

Source: Relying on the referenced sources.

Fourth: External Failure Costs:

External failure costs take place when customers get a product that does not meet the specifications and cannot satisfy their needs and what they expect. According to what Juran pointed out and mentioned, these costs vanish in the case there are no defects outside the organization (Krajewski, 2005, p. 196).

As to the elements of external failure costs, they consist of several components that could be outlined based on some writer's views, as shown in Table 4:

Table 4: Elements of External Failure Costs based on Some writers

	SOURCE	EXTERNAL FAILURE COST ELEMENTS
1	(Drury, 2008, p. 549)	Customer support - Warranty - Repair of returned products - Lost contribution income due to lost sales.
2	(Horngren, et.al, 2009, p. 693)	Customer Support - Process Engineering and Manufacturing Related to External Failure - Repairs During the Warranty Period -
3	(Jackson, et.al, 2009, p. 446)	Warranty costs - Replacement or repair costs of defective parts - Compensation claims - Lost sales.

Source: Prepared by the researcher based on the referenced sources.

After getting to know the main elements of total quality costs, we can show the stages in which these cost elements arise before, during, and after production, as well as after sales. This can be illustrated through Figure 1 and Figure 2:

Figure 1: Stages of Total Quality Costs Development

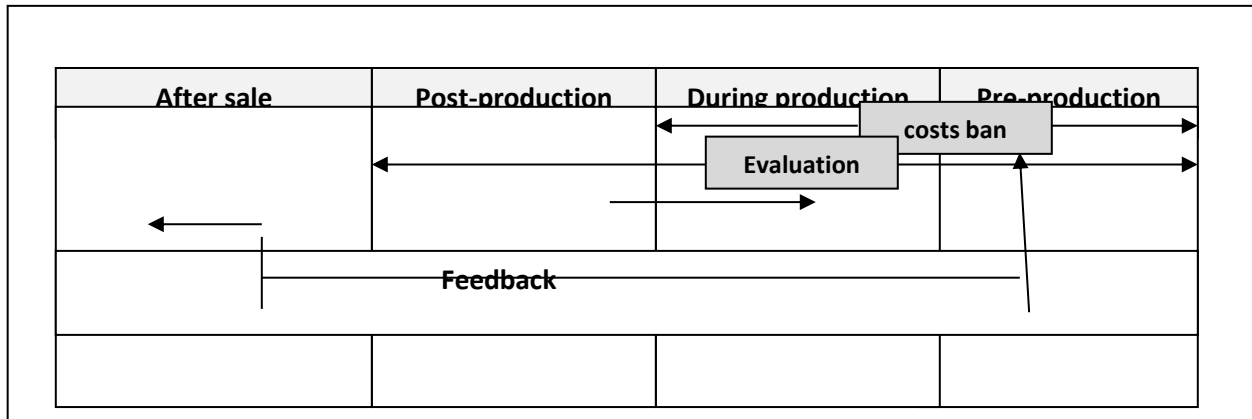
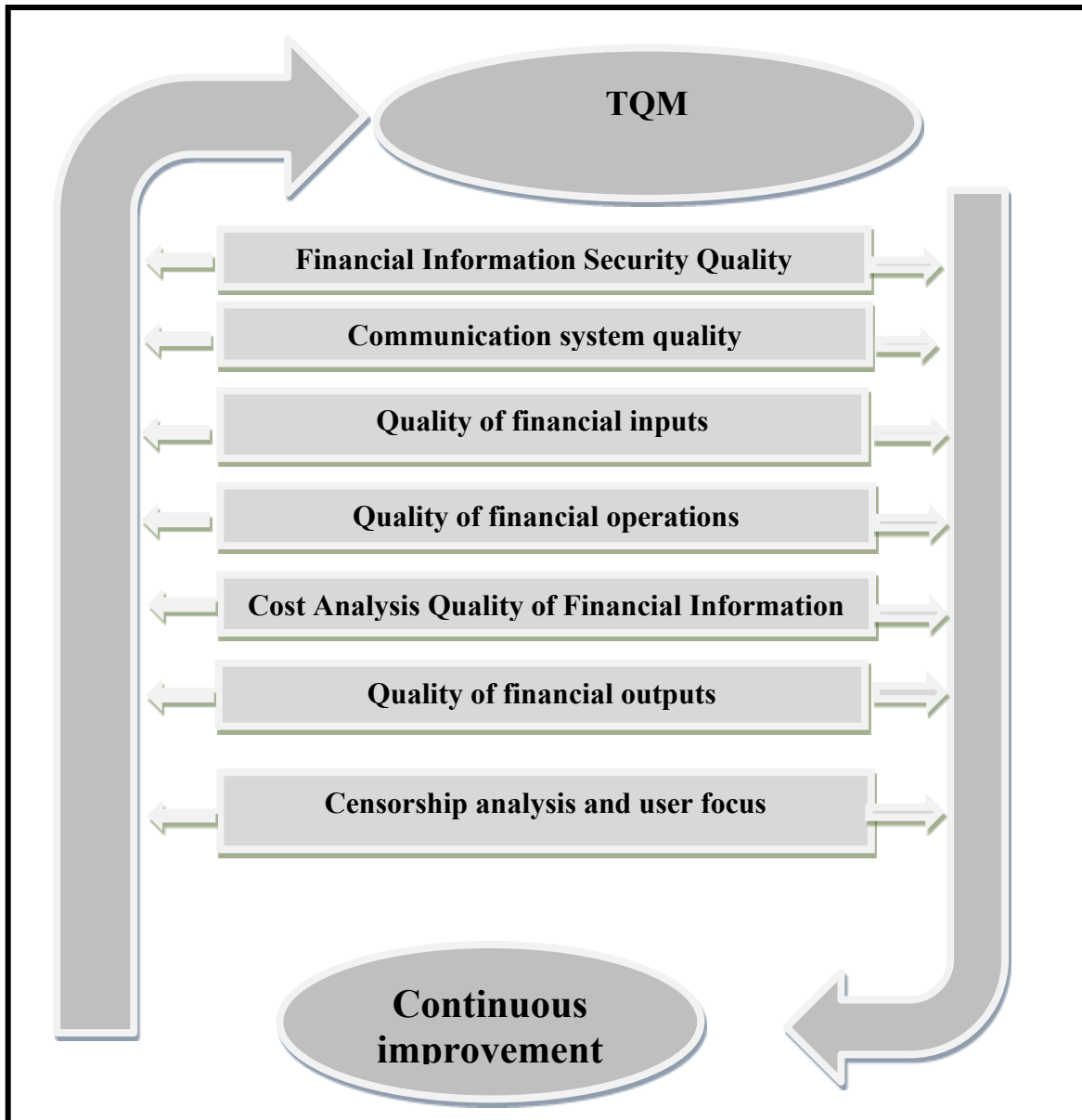


Figure 2: Continuous improvement of FR quality based on TQM concepts.



Quality in Financial Information Security

Ensuring Quality in Financial Information Security

Ensuring quality in financial information security requires having enough controls on IT resources to make sure management gets information that meets seven key standards.

Effectiveness:

This is about the capability of actually producing a perceptible or intangible product. For an information system to be considered effective, it should provide the information the organization requirements to attain its strategic and operational goals. The data should be relevant and delivered on time.

Efficiency:

This concept is of an economic angle, and by this we mean effective IT should give the organization good economic value by doing a series of tasks such as maximizing ROI, offering services within acceptable operational costs that fit with what firm's capacity and requirements are, and lastly making good use of available physical and human resources at their disposal.

Confidentiality: This includes measures to prevent unauthorized access to sensitive or confidential data. The organization must be fully aware of the sensitivity of information and adopt the principle of granting Minimum necessary access to users, ensuring that access is rested upon the user's requirement for data according to their job necessities.

Integrity (Security): This covers numerous aspects, including that the data system should have a level of honesty and independence. It should maintain the accuracy of the data it collects and stores, and not allow any modifications or breaches, whether in the systems or infrastructure. The technical team should also be honest and independent. Data should be saved, retrieved, modified, or deleted only by authorized parties without overstepping boundaries. The concept also includes the completeness, coherence, and unity of the information system, providing accurate data on time and through any access channel, which builds trust among information users and gives the organization and its staff credibility. Yet, the data system is weak and untrustworthy without verification. Achieving this standard requires proper planning and full coordination among leaders, executives, and technicians.

Availability: This concept is all about how data system can provide data to those who lack of it, exactly when and where they need it, based on business needs. Basically, it means giving access to information during working hours or around the clock with minimal service interruptions. It also involves the tech teams being able to get everything back online after sudden issues, which could be caused by technical failures, operational mistakes, tech team negligence, overloading the system's resources, security incidents, and other factors. Management needs to identify and tackle these risks with proper solutions, plan for business continuity, and train employees on handling different situations that might come up.

Compliance: This concept stands for working hand in hand with information quality standards, and these standards should align with a set of institutional, model, and legislative standards. The data system ought to first comply with the organization's policies and strategies, like procurement and hiring policies, as well as strategic technical directions. It should also stay loyal to regulations and laws made by official authorities to avoid any issues or violations that could negatively impact the firm. The writers believe that the organization should identify any existing or emerging requirements and strive to align with them to achieve IT governance.

Reliability: This concept entails the integration and cohesion of the different parts of the information system so that it builds the foundation of the organization's business. It should be dependable for daily operations and for producing outputs like data, statistics, and reports that support both operational and strategic activities. It also helps in decision-making by relying on the quantitative data provided by the data system after it is entered, processed, and presented in formats that can help with the organization's strategic planning.

Thus, technology is an operative tool for the firm, contributing to the achievement of sustained competitive advantage. As reliance on technology is gaining momentum, the concept of dependability extends to include the system's ability to scale and accommodate the evolving needs of business management, with balanced horizontal and vertical extension in data, applications, equipment, and human resources as a result of this inevitable expansion in the organization's activities. Then, the data system be a hindrance to the carrying out of the organization's operations and activities.

Quality of Financial Inputs

These mean giving reasonable assurance that the inputs got officially ratified before the computer processes them, and that they have been prepared in such a proper way and recorded correctly in the data files without any loss or addition or duplication or wrong changes that undermine them. These also mean that the errors have been watched and corrected at the right time.

There are a set of methods to achieve the quality of financial inputs:

Using financial totals by matching the sum of the entered transactions with the overall total.

Using formal totals (codes) by matching the sums of some input numbers to a specific number.

Logical checks, like testing whether the program can handle more than 24 hours in a day.

Checking numerical sequences, like verifying if the program accepts invoice numbers that break the regular ascending order.

Quality of fiscal Operational Processes

Operational data represents shortcomings in the availability of information or mistakes in data processing, which can negatively impact the firm's reputation and shake trust in its leadership and management. Leaders should therefore pay attention to the importance of handling the institution's electronic system accurately and transparently.

There are several methods to ensure the quality of fiscal operations.

Data Matching Process: Data from two or more items must match in some cases before taking any action.

File Names: File names need to be checked to ensure the files are correct and updated. All file names, both external ones that people can read and internal ones that machines and data recording devices can read, should be used.

Recalculating Batch Totals: Batch totals can be recalculated whenever an action is taken on any transaction entry, and then these are compared with the values in the record. Any discrepancies that surface would mean errors.

Cross-Check Balance Test: Totals can be calculated in different ways, like adding up a column of row totals or a row of column totals, and both methods ought to provide the same result.

Write Mechanisms of Protection: Such mechanisms help guard against overwriting stored data files on magnetic media or erasing them.

Database Operation Safety Procedures: Pre-prepared databases, set up by a responsible person, are used, and synchronized updates are performed to ensure operational integrity. The data dictionary makes sure that the data items are clearly defined and employed unswervingly.

Financial Output Quality: Providing reasonable assurance that processing results (outputs) are accurate and that output delivery is limited to authorized personnel at the right time.

Methods to ensure financial output quality include:

Checking computer outputs against manual control totals.

Comparing the number of units processed with the number of units submitted for processing.

Matching a sample of output with the original input documents.

Correcting dates and the number of processing times to identify any out-of-sequence processing.

Analysis of fiscal data Quality Costs

Having high-quality fiscal data comes at a cost. Adopting FR quality is not free in that it involves expenses related to aspects such as hardware, tools, equipment, software, staff salaries, operations, and training. These are detailed in Table 5 below.

Table 5: Costs of FR Quality from the Perspective of TQM

NO	STATEMENT	Costs of FR quality in light of the concepts of TQM
1	Prevention and control costs	Costs of identifying the needs of accounting information users Information system personnel training costs Software costs System component testing and inspection costs Software maintenance costs.
2	Evaluation costs	Costs of examining and evaluating processes related to measuring, collecting and entering data Operations inspection and evaluation costs Internal controlling costs of data system outputs to maintain they meet user needs Software testing costs
3	Costs of internal failure	The costs of maintaining duplicate data for storage Costs of retaining incorrect data The costs of correcting errors, re-operating, re-producing reports, and the costs of re-examining and auditing them to ensure their accuracy.
4	External failure costs	Costs of resolving system user complaints Professional and judicial accountability costs resulting from users' reliance on unfair and incorrect outputs Costs of system loss to users if they switch to other alternative sources The costs of restoring confidence in the system and resounding users to back to the system again

Monitoring and Focusing on Users

The levels of application controlling in an IT environment are divided into: preventive controlling, detective (diagnostic) controlling, and corrective controlling.

Preventive Control: This acts as the 1st line of defense in the controlling structure and helps reduce the negative impacts of designed technologies. Its main goal is to lower the frequency of unwanted events. The strong point of this controlling lies in following the specified or required procedures, which helps avoid unusual (undesired) events. When designing control procedures, it is important to remember that “an ounce of prevention is worth a pound of cure,” meaning preventing errors and fraud is much more cost-effective than fixing problems after they surface. At this level, most unwanted events can be minimized in effective fashion.

Monitoring Controls (Diagnostic):

These are considered the 2nd line of defense after preventive controls. They include devices, techniques, and procedures aimed to identify and detect undesirable events that bypass preventive controls. This type of control detects certain types of errors by comparing realistic events with pre-set standards. If a discrepancy is found between these two aspects, an alarm is triggered to flag up the issue.

Corrective Controls:

These are the actions taken to halt the impacts of omitted errors. It is crucial to differentiate between monitoring controls and corrective controls.

Monitoring controls identify undesirable events and highlight them, while corrective controls deal with fixing the problems for all detected errors. Marshall and Steinbart note that corrective controls work in such a way that deals with control issues, first figuring out the root cause, then rectifying errors and difficulties, and finally putting modifications to the system to lower or wipe out similar problems in the future.

5. Conclusions and Recommendations

Here are the conclusions presented:

There are many ways to boost data systems and enhance the quality of FR, including continuous improvement. It is important to have alignment in IT infrastructure and a strategy to ensure the success of TQM.

The focus of professional bodies and those accountable for setting accounting criteria is often on clarifying the measurement and fiscal reporting process. This can shift attention away from the technical aspects of accounting work and towards future-oriented orientations of the process, considering TQM concepts, as these directly affect the quality characteristics of FR disclosed in the statements and its reliability.

The quality of FR, in light of TQM concepts, depends on the characteristics of accounting information, which are based on having a coherent conceptual framework.

TQM aligns with the quality of data systems as a kind of cultural revolution, mainly as it changed how management and employees think, focusing on the customer, practicing continuous improvement, exercising managerial leadership, engaging employees, and paying attention to training and education on total quality management methods.

The core activities in economic units rely on data technology and systems, and re-engineering these systems involves TQM, which is essential for work.

Now for the most vital things that this research recommends and suggests:

The accounting information system needs to be improved all the time continuously and we need to watch and notice any new developments that happen in the work environment when we think about total quality management concepts. We should watch the variations in the equipment and the software programs and the files or the steps and procedures to fix the mistakes and to satisfy the novel prerequisites or to make the work effectiveness better.

There is also a need to care about the quality of financial reporting when we think about total quality management concepts but in a way that does not hurt the competitive position of the company because when we share and disclose the important information to the users it makes the information users trust the company more and it raises the company value and it affects the stock price in a good and positive way. Also the accounting standards need to care about making the information better through the concepts of focusing on goals and business reportage.

To make the quality of FR better when we think about total quality management concepts, we need the combined efforts of many different parties to do their jobs with good efficiency and effectiveness by paying attention to these following things:

We need to focus on data security emphasizing on the areas that stop big risks of wrong information or manipulation from happening, and also having the efficiency and objectivity and following the opposite procedures to make these bad practices less. It is imperative to make the quality of data delivery work better that became possible through automatic procedures now, and this happens through data systems that keep the data safe and share it between all the parties while controlling how the operations happen in order and making the procedures on the transaction follow the rules and controls.

The focus should also be on the quality of inputs from financial data work better by giving reasonable assurance that the inputs got official approval before the computer processes them.

There is a need to make the quality of operations in financial data work better by treating the E-system in the firms as the utmost vital strategic assets, and they need to aid it and give it the technical things and human things and leadership things it needs, and understand how important it is to keep it going and protect it from different risks.

There is also a need to make the quality of outputs from financial data work better by making sure that giving the outputs happens only to the authorized specialized employees who have permission and at the right time.

There is also a need to focus on the cost of accounting information, which includes things like the costs of equipment, tools, devices, programs, employee costs, operation costs and training costs in a way that gets total quality.

There is also a need to analyze the control over accounting data where the controlling levels over applications in the fiscal data technology environment got divided into three levels which are preventive controlling and monitoring control which is also called diagnostic control and corrective control.

It is also important to spread the culture of depending on technology and make the professionals know about the methods of modern technology and also try to make the investors know at least the minimum about this technology which will make it easier for them to interact with it and understand the results that the monetary data gives in a way that gets holistic quality.

The professional bodies and academic bodies should try to apply TQM in fiscal data and use its different tools to solve the difficult and complex accounting issues in FR.

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