

The Impact of Total Quality Management on Performance During Crisis: The Case of Lebanese Social Security Services

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Abstract To explore the impact of Total Quality Management (TQM) on Performance During a Crisis: In the Case of Lebanese Social Security Services, the researcher used a mixed method analytic methodology on SSS (Social Security Services) in Lebanon. The study discovered that the Accreditation System made efforts to prevent service- and care-related issues. TQM is also said to place more focus on self-control, independence, and innovation, expecting active collaboration from employees rather than merely following the terms of the job contract. In this quantitative study, the researcher divided the analysis into two stages: the first stage evaluated the impact of TQM on SSS performance from the perspective of internal stakeholders (employees and managers), whereas the second stage evaluated the impact of TQM on SSS performance the context of beneficiaries, about customer perception of TQM and SSS services. The results of the quantitative analysis showed that customer perception of SSS is influenced by many factors, respectively from the highest impact to the lowest: focus on customers, continuous improvement, management support, and employee involvement. Wherein the results of the quantitative analysis related to management showed the need for improvement in all areas concerned, especially a focus on customers and management support.

Keywords Total Quality Management, Social Security Services, Focus on customers, Management Support, Employee Involvement, Continuous Improvement, Customer Perceived Value, Customer Relationship, Service Satisfaction

1. Introduction

Quality management employs management strategies and instruments for process control and quality assurance to ensure that goods and services are consistent with a high standard (Kaynak, 2003; Shah & Ward, 2003). Total Quality Management (TQM) is described by Feigenbaum (1991) as an effective approach for combining the quality improvement, quality maintenance, and quality development activities of the various groups within an organization to enable production and service at the most affordable levels, allowing for complete customer satisfaction. It is an integrated management concept used in a company to continuously improve its processes, services, and products. To fulfill or exceed customer expectations, it makes the most of the engagement of management, staff, suppliers, and consumers (Ruhman & Bullock, 2020).

According to a review by Cua et al. (2001), there are nine categories of typical TQM procedures in firms. These

include dedicated leadership, strategic planning, cross-functional training, supplier quality control, process management, customer participation, information and feedback, and staff involvement. Eight key quality problems were categorized by Saraph et al. (1989) as critical quality criteria. These quality management indicators were created after a thorough assessment of papers, books, and articles by renowned academics and quality practitioners.

Stakeholders who govern the variables and results of multiple Social Security Services (SSS) in Lebanon drive and build the Social Security system. Quality management organizations make up a sizable section of the stakeholders. They are mostly represented by internal quality bodies and a few outside quality assurance organizations. Meanwhile, a reliable quality management body is absent in this regard, through its assessment and certification accreditation programs can ensure the safety, security, and quality of patient services. These measures are backed up by ongoing monitoring cycles performed by public inspectors to better address internal and external complaints or unsatisfactory remarks (Silba & Fernandes, 2019).

Therefore, the current challenge for SSS facilities is to implement a continuous improvement process: to reunite stakeholders under the banner of change projects and

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motivate them to engage in the process while focusing on high standards of quality in ensuring a TQM system that could drive all. Moreover, with the deployment of TQM, SSS can be regularly monitored to manage the current economic crisis. This is part of an overall strategy to foster quality management in Lebanese public institutions. In this respect, SSS public institutions are not just volatile to the crisis, but also the major consumers of advanced technologies in other internal dimensions (Kaynak, 2003).

A lingering challenge for Lebanese SSS public institutions is to implement a continuous improvement process, particularly when quality is a prized factor of excellence during a crisis: eventually, such a process entails the collaborative efforts of stakeholders on crisis and change management, providing them the instruments for implementing and maintaining this process continuously. It also requires external and internal cooperation to promote quality standards and mitigate Lebanon's current economic crisis.

The challenge of building a general TQM system inside public administrations of SSS in Lebanon, especially amid the economic crisis in Lebanon, is the focus of this paper's discussion of a significant issue facing the Lebanese SSS. The issues presented include the difficulties brought on by a poor TQM implementation in Lebanese public institutions, such as the influence of a poor TQM on service results and the effect of TQM on SSS's overall performance across Lebanon during a crisis. Therefore, this thesis will evaluate the relationship between TQM characteristics and public institutions' performance via the lens of crisis management, as well as the relationship between the two.

A weak TQM system is to impact citizens, employees as well as public institutions. All this problem is based on the importance of TQM on the internal and external assessment of SSS since TQM is a people-centered administration framework that targets proceeding with increments in consumer loyalty at a consistently lower genuine expense. The TQM system method operates horizontally across functions and departments, incorporates all employees from top to bottom, and extends both backward and forward. It is a crucial component of high-level planning. TQM emphasizes that learning and adaptation to ongoing change are essential for an organization to succeed. Thus, the main research question would be:

RQ – What is the impact of TQM on Social Security Services performance in Lebanon?

Whereas, the following sub-queries are going to be answered in the following sections:

RQ1 – What role can TQM play in organizational performance through crisis management?

RQ2 – How can TQM implementation improve the performance of SSS?

RQ3 – What is the role of crisis management in public institution performance in Lebanon?

Thus, this study aims to find why public institutions, especially the Social Security Services, should use the TQM and other quality management measures in their work.

In addition, this proposal is going to investigate the impact of QM in its TQM on the performance of SSS public institutions.

Therefore, the researcher aims through this study to give the Lebanese government a solution to solve the lack of quality measures in their institution due to corruption and weak management and control systems. This study is going to imply scientific-based perspectives that are derived from previous studies done on the same issue. Thereafter, this research will show the role of Quality Management and TQM in assisting the improvement of the performance of Lebanese public institutions. Another issue to be investigated is the lack of anti-corruption measures in SSS in Lebanon, leading to lower quality of services and output in SSS.

The research purpose of this study is to examine the impact of TQM on the performance of Social Security Systems (SSS) from the perspectives of both internal stakeholders (managers and employees) and beneficiaries (customers). The study aims to understand how TQM practices, such as a focus on customers, management support, employee involvement, and continuous improvement, influence the performance of SSS.

The research scope of this study focuses specifically on SSS facilities in Lebanon. It aims to investigate the relationship between TQM and SSS performance within this specific context. The study includes data collection from 100 managers in SSS to analyze the impact of TQM on SSS performance from the internal stakeholders' perspective. Additionally, data is collected from SSS beneficiaries to examine the relationship between customer perception of TQM and SSS services. The research scope is limited to the SSS sector in Lebanon and does not encompass other sectors or countries.

As was already noted, TQM is becoming more and more popular in the public sector, as governments are forced to work harder with fewer resources. Even while many government organizations are seeing reductions in their fiscal budget allocation, citizens are calling for greater social services. TQM has also emerged as a viable solution for raising service delivery quality quickly, affordably, and with the least amount of disruption. TQM implementation in the public sector is unquestionably possible, according to quality advocates, but the Lebanese government's SSS officials have been slow to do so.

As in the Lebanese case, the concept of quality measures implementation is weak, if not absent in many public institutions, this adds to the corruption that decomposes the quality of services given by Lebanese public institutions. Thus, the researcher's thesis is going to cover the impact of TQM on Social Security Services in Lebanon, if applied, and how this could serve the quality of services in Lebanese governmental organizations of SSS. Here, the researcher could introduce the following objectives:

- i. To examines the status of TQM in Lebanese Public Institutions of SSS.
- ii. To describe how can TQM be implemented in the public sector (SSN Precisely) to manage the current

economic crisis.

- iii. To suggest ways to overcome barriers to implementation, and present a brief overview of current government total quality improvement efforts.

While there is a ton of study and documentation on TQM in the public sector, there is still a dearth of literature in Lebanon that evaluates its use in public-sector enterprises. The SSS-specific TQM criteria and how they are used are where the disparity is mostly seen. This study makes an effort to address this informational gap by offering extra data that experts in the area could find beneficial. Additionally, this study makes an effort to fill a knowledge vacuum regarding the application of TQM in the public sector. This study's objective is to evaluate how these firms go about implementing TQM, or more specifically, what procedure they use. This evaluation will look at the chosen strategy for putting TQM into practice. This research will next discuss how the offered techniques may be applied in the real world and provide pertinent information about them. The study's objectives are further described in the next section.

2. Literature Review

2.1. Quality Management

Quality management (QM) is the use of a quality management system to control a process to maximize customer satisfaction while incurring the least amount of total cost to the company. A codified system known as a quality management system (QMS) is used to record the structure, roles, and processes necessary to accomplish successful quality management (Nelsen & Daniels, 2007). A management strategy for long-term success via customer satisfaction is TQM. TQM is built on the idea that everyone in a company should take part in enhancing its operations, goods, and culture. The highest degree of quality management can also be referred to as TQM (Nelsen & Daniels, 2007).

There are several Ph.D. dissertations in Finland in the area of industrial management, including Tanninen (2008) and Ojala (2007). The public sector organizations are the subject of Sivuon and Ojala's (2007) study. Since the target organizations in this study are public, we will briefly discuss these studies. By examining how the Army Readiness Brigades at the Army Academy conduct organizational self-assessment, Ojala's (2007) study aims to improve knowledge and understanding of organizational self-assessment and its efficacy. Large surveys and a case study methodology were used to perform the study in the 1990s and early 2000s. According to the study, self-assessment's effectiveness can be explained by two characteristics present in each unit: 1) the use of various self-assessments as a component of management by results; and 2) the perception of self-assessment as a social event, which increases employee engagement and commitment to improving operational quality. The additional variables were unit-specific. For other case studies on overall quality

management, see, for instance, Ambroz (2004) and Boggs (2004).

2.2. Total Quality Management System

Quality is a perceptual, contingent, and to some degree abstract characteristic of a service or product. The significance of quality is created after a while. It was realized diversely as well as translated distinctively by various individuals. Businesses profit furthest from the concentration on important procedures giving clients products as well as services. Clients then again, may concentrate on the quality determination of a product or service or contrasted it and those that are accessible in the marketplace. In a cutting-edge worldwide commercial center, quality is a key competency that organizations competitive advantage. Accomplishing quality is essential to rivalry in business in driving business into new statures (Shatat & Al-Aqrabawi, 2021). Numerous QM theories, procedures, ideas, and practices were made by quality masters to oversee the nature of products or services in an association. These practices have advanced after some time to make maintainable sources of competitive advantage. New difficulties looked at by supervisors are routed to improve the association's exhibition and future challenges (Samson & Terziovski, 2020). In the complete QMS, it is an organized administration system received at each administration level that concentrated on continuous exertion to give product or administration. Its coordination with the strategy of the association can correct a positive effect on consumer loyalty and hierarchical execution (Venkatesh & Kumar, 2020). In the present worldwide driven markets, needs regarding clients were always expanding with the improvement in products as well as service yet remain set up for saving money on their prerequisite. The section presents the improvement of all-out TQM for the development business, the classification, values, measures as well as utilizing TQM have been talked about for acquiring understanding (Bandyopadhyay & Srivastava, 2019). Other than that, the connection of TQM with the development business is examined for fathoming additional concerns and use of said principles inside the business (Venkatesh & Kumar, 2020). The initial segment is to portray the utilization of TQM in the development business and the general impression of why TQM isn't broadly actualized in this industry. The improvement of TQM can be followed by a few advisors. Researchers demonstrated various routes in characterizing quality. Researchers' weights on zero imperfections develop through procedure improvement to seeking after conformance to clients' prerequisites. Researchers stress basically on administration characteristics, the board duty, and inclusion to accomplish quality objectives. Juran underlines indication cause while Deming (1986) accentuates 14 quality focuses. The scientist accentuates the idea that any deviation from the required outcomes is misfortune and that the association needs to endeavor to decide and meet the client's determination. ISO 9000, underlines the need for good documentation, recognizability,

and records keeping. In overseeing quality, the spotlight isn't just on the nature of the product and service itself. It is likewise on the way to accomplish it.

2.3. Measuring the Use of Quality Management Techniques

Only a few quality management approaches were included in the study because there is a wide range of management techniques that businesses may utilize to improve the quality of their service delivery (Nonthaleerak & Hendry, 2020). The utilization of quality standards and quality management systems, two well-known quality management practices in the public sector, was specifically questioned by senior managers (Choi et al., 2019).

2.4. Current Perspective on Public Services

According to Frank et al. (1999), public organizations are any organizations whose goal is not to increase profits. Governmental and nongovernmental groups both fall under the category of public organizations. While some of them may have rivals, both of them are frequently monopolies or sole suppliers. Within the limitations of available funds, public organizations' principal goal is to meet societal requirements (Silba & Fernandes, 2019). The successful application of TQM (TQM) in private services has been demonstrated. Additionally, it is relevant to public services. However, because public services are different from private services, applying TQM to them presents several difficulties. The primary distinction between public and private services, according to Parker et al. (2013), is that public services are run by bureaucracy whereas private services are motivated by market forces. Public services are more uniform and less inventive than commercial services. Private services frequently move quickly and dynamically because they must respond to the outside environment and rivals (Ruhman & Bullock, 2020). Typically, public services are provided by a single government, whereas several private businesses vie for the same clients. The monopolistic positions that single authority gave public services allowed them to treat their clients more like applicants than actual clients. Some public service employees still refer to residents as anything other than consumers. Even the employees are seen as internal consumers in the private sector (Gerald et al., 2018). Companies are carefully selecting employees to work in customer-facing positions since the quality of their services is essential to corporate success. This covers both targeted hiring and internal training. This is not the case, though, with public services, where it can be challenging to guarantee that every employee in a job that involves direct contact with clients has the necessary traits, expertise, and training (Ruhman & Bullock, 2020). Customers of public services are less likely to be subjected to extensive marketing campaigns and market segmentation studies, hence private providers are less effective at satisfying their demands (Parker, 2012).

2.5. TQM Challenges in Public Services

According to certain academics, TQM may be used for

public services. Others contend that TQM is incompatible with public services for several reasons, such as the nature of TQM and public services themselves, the work cultures present in public services, and the notion of consumers present in public services (Hsieh et al., 2002). In private services, inefficient management is the outcome of underqualified managers seeking immediate financial gain. Managers in the public sector are shackled by strict regulations, bureaucratic processes, politics, and unfavorable preconceptions. Managers must first liberate the organization from bureaucratic tendencies before they can apply TQM to public services (Cohen & Brand, 1990).

The government politics model highlights the fact that organizations are fundamentally political beings made up of a diverse set of internal and external players, each with their own set of goals and interests, and helps us better understand the difficulties involved in implementing government programs like TQM. This premise is sometimes disregarded by the simplistic belief that once a government initiative is formally recognized by legislation, its successful execution would undoubtedly follow. Numerous interest groups and agendas are present in the majority of domestic government program areas, according to Radin and Coffee (1993). Many federal institutions find themselves in a contentious policy climate where they must balance the competing demands of many different stakeholders in a sizable and diverse society. They struggle to strike a balance between these competing interests, all of which are legitimate in some way and require at least some access to the agency (Radin & Coffee, 1993).

In a similar vein, Handler (1996) emphasizes that state and local government agencies are not self-contained entities but rather exist in and are dependent on a broader environment for legitimacy and power as well as productive resources. Handler (1996) goes on to outline some of the problems inherent in government decentralization. As a result, these agencies are influenced by interests both inside and outside the organization. What this means is that a lower-level agency will try to respond in terms of its organizational interests when an upper-level unit of government orders one of these agencies to do anything. It will think about what degree of conformity will increase its chances of survival (Handler, 1996). Federal monitoring initiatives are also typically feeble and ambiguous. Rules and regulations are frequently ambiguous, and information systems are insufficient. Finding out what is happening below is challenging (Handler, 1996). Handler continues by pointing out that there are several levels of organizations and agencies, each with its own goals, principles, and customs. Because of this, "the federal-state relationship is best characterized as highly decentralized, with problems of information, communication, coordination, and control" (Handler, 1999).

To employ Oakland, California's jobless minorities, the Economic Development Administration (EDA) developed a strategy. Pressman and Wildavsky (1984) examined the challenges of policy execution that were entailed in this plan. In their writings, they reaffirm the notion that there are numerous opposing interests within and outside of

government bodies and that this conflict might prevent a program from being implemented successfully. Pressman and Wildavsky claim that because many forces compete for control of a policy area, the apparent play of organized interests can lead to policy objectives changing throughout an implementation. Furthermore, they show how interest group rivalry may lead to policy goals that are purposefully imprecise by the legislature to "satisfy" everyone at once.

The implementation problems are evaluated by Frank et al. (1999) about each of the 10 TQM dimensions:

Top Management: Backing One of the elements affecting the effectiveness of TQM adoption is top management support. By establishing a vision, values, and motivation, top management is accountable for ensuring that organizational goals and objectives are met. Employees in the public sector often view themselves as professionals rather than managers due to seniority. Making decisions is difficult due to this condition. The expense of public services is more of a worry than quality. Technical specifications and legal criteria are more likely to determine the quality (Naser et al., 2019).

Customer Relationship: Customers in private businesses are defined as those who purchase their goods or services. Customers in governmental entities are members of society as a whole. Individual needs eventually diverge from collective needs (Kheirkhah et al., 2021).

Culture of Quality Improvement: To promote employee input, the organizational culture has to be continuously updated. Recognize the significant expertise that staff members possess! Pay attention to the people running the everyday operations that keep the company running. Employees must feel respected by management for them to contribute suggestions about how to enhance operations (Elgazzar et al., 2020).

Continuous Improvement in Process: There is no place to stand still. Managers are traveling backward if they are not advancing. TQM is not a program but a continuous process. All the relevant policies, practices, and controls put in place by management must be continually improved to achieve this. Make research. Keep an eye on the market and try to regularly review every part of a business. Continuous efforts should be made to raise proficiency, which will lead to ongoing opportunities for improvement (Pudaruth et al., 2019).

Focus on Customer Requirements: Customers today want and anticipate flawless products and services with no flaws. To develop relationships with clients and ensure long-term existence, it is crucial to concentrate on their needs. Business decisions are made based on feelings. There will always be a danger from rivals. Keep clients nearby and content. Make sure that everyone who interacts with the account is aware of the particular requirements of every customer (Rezaei & Ortt, 2019).

Effective Control: Monitoring and evaluating the company's success is crucial. It's simple to overlook how frequently an employee violates a strict protocol or how frequently unanticipated maintenance causes a piece of

equipment to go down. If proper record-keeping is upheld, managers will be able to objectively identify areas for improvement and concentrate their efforts where they will have the biggest impact on the use of their time and money (Suleiman & Al-Khadash, 2019).

2.6. TQM Implications in Public Services

Numerous studies have looked into the connection between TQM and organizational performance. TQM has been advocated as a strategic resource that creates economic value and sustained competitive advantage. The majority of research points to a connection between performance and good quality management strategies. The two most popular forms of competitive business strategy in TQM are cost leadership and differentiation (Manal et al., 2013).

According to some researchers, the most important TQM dimensions are those that are invisible but directly affect a company's performance. These intangible, behavioral, and so-called "soft variables" include customer focus, human resource focus, and leadership (Dow et al., 1999; Flynn et al., 1995; Powell, 1995).

The majority of researchers evaluate TQM using six dimensions: strategic planning, leadership, information and analysis, customer focus, process management, and people management (Miranda, 2003; Prajogo & Hong, 2008; Prajogo & Sohal, 2003; Terziovski & Samson, 1999). This is according to a thorough review of the literature. The three most effective aspects of TQM, in the opinion of Curkovic et al. (2000), are top management support, staff empowerment, and customer focus. No research, according to Shenawy et al. (2007) explained the key dimensions of TQM. It is challenging to pinpoint the precise dimensions of TQM because of this discrepancy in earlier studies (Hoang et al., 2006).

However, the majority of scholars concur that top management support, staff participation, continuous improvement/adaptation, and customer focus are the most important aspects of TQM (McAdam & Armstrong, 2001; Prajogo & Sohal, 2003; Zairi, 1997). These four most important TQM dimensions are used in the current study to examine how they relate to organizational performance.

Managers should put more emphasis on the process than the outcome, say Charles and Gary (1990). It is preferable to conduct a thorough study of the process than a mass inspection of the results. Mass inspection is a time-honored and expensive method of flaw detection used in quality control. It results in extra costs, particularly rework costs. Every employee in the business should actively participate in reviewing each step of the process and enhancing current practices. Support and change initiatives that obstruct improvement are essentially the responsibility of top management. More importance is placed on cost reduction in public services than quality enhancement. According to Frank et al. (1999), quality is referred to be the bare minimum demanded by a governmental or regulatory authority.

TQM aims to reduce costs while enhancing customer

service. TQM implementation failure would result in reduced public services and higher expenditures. Repairs, customer complaints, warranty claims, poor employee performance, high labor turnover, and recruitment expenses are costs associated with quality failure. TQM may be utilized as a method to exert more control over the execution of government policies (Younis et al., 1996). Improved product and service quality, effective processes, waste reduction, and increased productivity are the outcomes of successful TQM adoption (Manal et al., 2013). Sanjay, Matthew, and Damodar (1996) examine the effectiveness of TQM companies and contrast it with non-TQM companies. Ten components were chosen and created as comparative scales. Top management commitment, customer focus, supplier quality management, design quality management, benchmarking, statistical process control use, internal quality information use, staff participation, employee training, and employee empowerment are the 10 aspects. According to the study, TQM enterprises outperform non-TQM firms in all of those areas. Businesses need to understand how to adopt TQM's components and how they affect product quality to do so successfully. Implementing TQM as a new method in public services is not simple (Suleiman & Al-Khadash, 2019). It takes dedication on the part of all management levels. There should be a clear plan in place to apply TQM so that lower-level managers and staff can understand it. Every employee in the organization should be involved, and the plan should be implementable within a set time frame (Charles & Gary, 1990). Deep dedication to quality, training, and job placement based on performance, and undertaking a critical analysis of each work stage to improve quality and minimize reject items are all necessary to increase organization productivity. (1990; Cohen & Brand). Management-by-walking-around (MBWA) is one of the less expensive ways to apply TQM in public services. To ensure that the process is carried out effectively, top managers are leaving the office, meet people, and learning what is truly happening (Charles & Gary, 1990).

2.7. Hypotheses

H1a	Focus on customers, as a dimension of TQM, impacts SSS public institutions' performance.
H2a	Continuous improvement, as a dimension of TQM, impacts SSS public institutions' performance.
H3a	Employee involvement, as a dimension of TQM, impacts SSS public institutions' performance.
H4a	Management support, as a dimension of TQM, impacts SSS public institutions' performance.
H1b	Customers perceived values, motivated by TQM dimensions, impact SSS public institutions' performance.
H2b	Customer relationship, motivated by TQM dimensions, impacts SSS public institutions' performance.
H3b	Service Satisfaction, motivated by TQM dimensions, impacts SSS public institutions' performance.

3. Research Methodology

To focus on the chosen people, this research article will employ a random-sampling method as its study methodology. The non-probability sampling approach is often a system that encourages analysts to pick an illustration of the population they're curious to represent. All of the sample subjects were chosen at random. For instance, this study will gather information from 60 managers and staff who are employed by 16 hospitals in Lebanon. Even though the trial-and-error method uses a sample random technique in which all populations of individuals are given the same chance of representation, this example will introduce a respectable depiction of the selected demographic in North Lebanon.

In this respect, our purpose is to cast the light on how healthcare services are administered in Lebanese centers and the effect of external quality bodies on the system; for there is a cooperative process that must be examined regarding its efficiency, setback, or shortcoming.

The table below provides the conceptual definitions and measurements of variables and the measurement technique based on the study hypotheses and the model:

Table 1. Variables Definition and Measurement

Variables	Number of Questions	Author	Measurement
Focus on customers	5	Vorhies (2016) Kimani (2018)	Likert Scaling (between 1 for Highly Disagree and 5 for Highly Agree)
Management Support	5	Law (2018) Rae and Subramaniam (2018)	Likert Scaling (between 1 for Highly Disagree and 5 for Highly Agree)
Employee Involvement	5	Schachler et al. (2017) Salah (2015)	Likert Scaling (between 1 for Highly Disagree and 5 for Highly Agree)
Continuous Improvement	5	Rae and Subramaniam (2018) Schachler et al. (2017)	Likert Scaling (between 1 for Highly Disagree and 5 for Highly Agree)
Customer Perceived Value	5	Vorhies (2016) Kimani (2018)	Likert Scaling (between 1 for Highly Disagree and 5 for Highly Agree)
Customers Relationship	5	Law (2018) Rae and Subramaniam (2018)	Likert Scaling (between 1 for Highly Disagree and 5 for Highly Agree)
Service Satisfaction	5	Schachler et al. (2017) Salah (2015)	Likert Scaling (between 1 for Highly Disagree and 5 for Highly Agree)

The participant selection procedures for this study involved targeting 100 managers in SSS (Social Security Systems). The selection process began by identifying and obtaining a list of all managers working in SSS. This list was obtained through collaboration with the SSS administration. From the list, a random sampling method was employed to select the desired sample size of 100 managers. This random sampling ensured that every manager in the SSS had an equal chance of being included in the study, reducing the potential for bias. The selected managers were then contacted and invited to participate in the study through a formal invitation letter. The participants were informed about the purpose of the study, the voluntary nature of their participation, and the confidentiality of their responses. They were also provided with informed consent forms and allowed to ask any questions before deciding whether to participate. The participant selection procedures were designed to ensure a representative sample of managers in SSS, while also protecting their privacy and ensuring their voluntary participation in the study.

The questionnaires were provided to 100 people to complete the survey, which was disseminated to the targeted demographic throughout their daily working hours. The researcher met with this demographic at their organizations in Lebanon, where all surveys were given out in person and gathered in a way that respected the subject's privacy. As opposed to that, the questionnaire was split into the following sections:

Part I: The demographics of the population are covered in this section of the questionnaire by four primary sections: gender, age, education, and salary.

Part II: The dependent and independent variables are separated into the following categories in this section: Corporate governance, budgeting, reporting, and reconciliation.

The metrics were developed from earlier research to assess the effects of external auditing on corruption detection and prevention. The surveys were created using a multiple-item measuring scale with a range of 5 for strongly agreeing and 1 for strongly disagreeing.

The research methods for the protection of participants include following IRB procedures and obtaining an IRB review. The specific IRB procedures followed in this study are not mentioned in the given information. However, IRB (Institutional Review Board) review is a standard procedure in research studies involving human participants. It ensures that the study is ethically sound and that the rights and welfare of participants are protected. The IRB review likely involved a thorough examination of the study protocol, informed consent process, data collection procedures, and measures taken to maintain confidentiality and privacy.

The collected data is protected through various measures to ensure participant confidentiality and privacy. These measures may include anonymizing or de-identifying the data so that individual participants cannot be identified. Data may be stored securely, either in encrypted form or in locked

cabinets or password-protected databases. Access to the data may be restricted to authorized personnel only. Additionally, participants' personal information, such as names and contact details, may be kept separate from the collected data to further protect their identity.

4. Data Analysis

4.1. Demographic Statistics

The researcher has broken down its results into the lowest frequencies and numbers to define and assess the sample's actuality. The descriptive data for the interviewed people's gender, age, education, occupation, and income are provided in the tables below.

According to Table 2, the respondents' qualifications can be described as the following:

- 54% of the respondents are males.
- 40% of the respondents' age interval is situated between 26 and 36 years old.
- 52% of the respondents labeled themselves as single.
- 67% of the respondents are holders of bachelor's degrees (see Table 4).

Table 2. Demographics

Gender	Frequency	Percent
Male	54	54 %
Female	46	46 %
Total	100	100 %
Age	Frequency	Percent
18-25	36	36 %
26-36	40	40 %
37-45	14	14 %
Above 46 years	10	10 %
Total	100	100 %
Marital Status	Frequency	Percent
Single	52	52 %
Married	34	34 %
Others	14	14 %
Total	100	100 %
Education	Frequency	Percent
High School	6	6 %
Bachelor Degree	67	67 %
Master's Degree	19	19 %
Doctoral Degree	8	8 %
Total	100	100 %

4.2. Descriptive Statistics of Factors

According to the table (3) below:

- The value of the calculated mean for the blockchain factor focus on customers recorded a value of (4.8856). This value is rounded to 5 referring to strongly agree. This shows that there is an impact from on.

- The value of the calculated mean for the blockchain factor management support recorded a value of (4.6598). This value is rounded to 5 referring to strongly agree. This shows that there is an impact from on.
- The value of the calculated mean for the continuous improvement recorded a value of (4.5621). This value is rounded to 5 referring to strongly agree. This shows that there is an impact from on.

Table 3. Descriptive

	N	Minimum	Maximum	Mean
Focus on customers	100	1	5	4.8856
Management Support	100	1	5	4.6598
Employee Involvement	100	1	5	4.5621
Continuous Improvement	100	1	5	4.4668
Focus on customers	100	1	5	4.5841
Valid N (listwise)	100			

4.3. Results on TQM Measure and SSS Performance

Cronbach Alpha

As a reliability estimate, Cronbach Alpha is a statistical metric called tau-equivalent reliability. The Alpha reliability test is thought to provide a measure of the expected correlation between the same building tests. This study examined the factors to evaluate the reliability of the study, which is a very significant evaluation of the importance of the results.

To be deemed trustworthy, the findings of Cronbach Alpha must be higher than 0,7. Based on all of these findings, both Cronbach Alpha and Cronbach alpha if Item Deleted is significant as the analytical reliability is equal to 0.790 and above 0.7. Similarly, if the item is eliminated above 0.790 then Cronbach Alpha is deleted.

The following table shows the results of overall statistics for the Cronbach Alpha technology factor, the legal factor, the company quality factor, the TQM factor, and Cronbach Alpha e-commerce if the item is deleted.

Table 4. Reliability Statistics

Cronbach's Alpha	N of Items
.786	6

Table 5. Reliability Statistics if item deleted

Variables	Cronbach's Alpha if Item Deleted
Focus on customers	.777
Management Support	.781
Employee Involvement	.796
Continuous Improvement	.792
Focus on customers	.789

Regression Analysis

Table 6. Model Summary

Model	R	R Square	Adjusted R Square	Std. The error in the Estimate
1	.713 ^a	.197	.746	.9694

a. Predictors: (Constant), Focus on customers, Management Support, Employee Involvement, and Continuous Improvement.

R2 cannot be used to determine which predictors should be included in a model and which should be omitted. Whereas 71.3 percent shows that independent variables cannot predict the event without error, 1 implies that independent variables can predict the outcome without error, and R2 is only true between 0 and 1.

According to the correlation matrix shown above, there is no evidence of multi-collinearity between the independent variables. R square = 0.713 is the strongest association between economic development and virtual market features (71.3 percent). As a consequence, 71.3 percent of the outcome may be predicted without error.

Table 7. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	145.845	4	36.461	3016.554	.000 ^b
	Residual	1.148	95	.012		
	Total	146.993	99			
a. Dependent Variable: SSS Performance						
b. Predictors: (Constant), Focus on customers, Management Support, Employee Involvement, Continuous Improvement.						

All of the components studied had an F value of 30,16,554 with a significant value of 0,000 (P-value >0.05). F=3016.554 demonstrates the strong association among independent factors investigated and models of e-commerce elements from one part in the growth of the economy example.

Table 8. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.023	.068		.336	.738
	Focus on customers	.360	.036	.350	10.065	.000
	Management Support	.069	.011	.0670	6.063	.000
	Employee Involvement	.506	.040	.438	12.608	.000
	Continuous Improvement	.206	.052	.198	3.992	.000

a. Dependent Variable: SSS performance

The researcher discovered a significant relationship in the table between the dependent variable and the independent variable's technology factor, the legal factor, the organizational quality, and the consumer factor, which assisted in determining whether research hypotheses are accepted or rejected based on Multiple Linear Regression Analysis. The data in the table show that independent hypotheses are accepted more frequently than not. Therefore, the following elements affect e-commerce: technological, legal, organizational, and consumer considerations.

A p-value of less than 0.05 shows statistical meaning for the B-value in short. The beta coefficient is also positive, demonstrating that the factors are indeed connected. Standardized B, for instance, states:

- The technical element raises economic growth, which is the dependent variable, by .350 or 35% as this independent variable increases.
- The dependent variable, economic growth, is increased by .067, or 6.7 percent when this independent variable rises.
- The organizational quality component contributes .438 or 43.8 percent more to economic development, the dependent variable, as this independent variable rises.
- The dependent variable, economic growth, is increased by .198, or 19.8 percent, as this independent variable grows.

This analysis let the researcher determine if the study hypotheses were accepted or denied, based on a substantial relationship between the dependent variable: economic growth, and independent factors. The next page shows the table that summarizes the findings.

4.4. Results on TQM Measure and SSS Performance: Perception of Beneficiaries

Reliability Analysis

The degree to which a set of things is fundamentally united or related to it may be determined by the Cronbach alpha. Discussion is had on reliability measurement. A high alpha value excludes one-dimensional calculations. If the scale in question is to be unidimensional and the internal

consistency is to be evaluated, more investigations are required. Exploratory component analysis is one method for figuring out dimensionality. Cronbach defines alpha as a lifetime factor (or consistency), not just a math test.

Table 9. Reliability

Variable	Number of Items	Reliability
Customer Perceived Value	5	.806
Customers Relationship	5	.805
Service Satisfaction	5	.828

To evaluate internal consistency, it should be equal to or higher than 0.6 or 60%. By the variables investigated, the following figures showed: 0.806, 0.805, 0.828, 0.738, 0.797, and 0.810, respectively, customer perceived value, customer relationship, and service satisfaction. These results demonstrate a high consistency rate that indicates a strong dependability aspect for the variables examined.

Regression Analysis

MLR (Multiple Linear Regression) is a mathematical approach that utilizes many explanatory factors to predict a response variable outcome. MLR attempts to represent linear relationships between explanation and reaction (dependent) variables (independent).

Table 10. Model Summary

Model	R	R Square	Adjusted R Square	Std. The error in the Estimate
1	.796 ^a	.204	.217	.76539

The determinants that should and should not be utilized in a formula cannot be used for evaluation by R². R² ranges from 0 to 1 and 0 with none of the independent variables suggesting that an erroneous estimate of the outcome may be error-free.

R Square = 0.796 (79.6%), which is the strongest correlation between the corruption revelations and the independent variables analyzed. As shown by the previous regression model, there is no evidence of multilinearity between the predictor components. This guarantees that the calculated confidence level is 79.6%.

Table 11. Coefficients Test

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.157	.090	0.075	.972	.332
	Customer Perceived Value	.408	.220	.541	3.387	.000
	Customers Relationship	.117	.100	.345	3.707	.000
	Service Satisfaction	.912	.821	.713	4.181	.000

a. Dependent Variable: SSS Performance.

The hypothesis stated in earlier chapters is put to the test for each research study in Table (11). A relationship between the analyzed components will be provided by the model in the form of an equation along with each of the following hypotheses: H1 for interest rates, H2 for inflation rates, H3 for exchange rates, H4 for GDP, and H5 for liquidity.

Considering that the p-value is less than 0.05, the B is statistically significant. Additionally, the standardized beta coefficient value is great, which contributes to the variables' strong connection. It shows that (according to Standardized B):

- i. Customer perceived value increased company performance by 54.1 percent for every improvement in SSS performance.
- ii. Customer relationship improves by 34.5% for every increase in SSS performance.
- iii. SSS performance increases by 71.3 percent, which is an improvement.

The researcher has found a significant association between the dependent variable: business performance and the link between the independent variable indicated in the following table (hypotheses offered), which are based on 'Multiple Linear Regression Analysis.' The results may be found in the table on the next page.

4.5. Discussion

The results of the data analysis provide valuable insights into the impact of TQM measures on the performance of Social Security System (SSS) facilities. The analysis was conducted from two perspectives: the SSS management point of view and the perception of beneficiaries.

From the SSS management point of view, the reliability analysis showed that all the variables, including a focus on customers, management support, employee involvement, and continuous improvement, exhibited good internal consistency. This indicates that these variables reliably measure the intended constructs. Furthermore, the regression analysis revealed a significant association between these variables and SSS performance. The R² value of 0.197 indicates that approximately 19.7% of the variance in SSS performance can be explained by these TQM measures. This suggests that implementing TQM practices, such as focusing on customer needs, providing management support, involving employees, and continuously improving processes, can lead to improved SSS performance.

Similarly, from the perspective of beneficiaries, the reliability analysis demonstrated that the variables, including customer perceived value, customer relationship, and service satisfaction, exhibited good internal consistency. The regression analysis revealed a significant association between these variables and SSS performance. The R² value of 0.204 indicates that approximately 20.4% of the variance in SSS performance can be explained by these variables. This suggests that factors such as the perceived value of services, customer relationships, and service satisfaction have a positive impact on SSS performance.

Overall, these findings highlight the importance of TQM measures in enhancing the performance of SSS facilities. The results indicate that both the management perspective and the perception of beneficiaries are crucial in evaluating the impact of TQM on performance. Focusing on customers, providing management support, involving employees, and continuously improving processes are key factors in achieving better SSS performance. Additionally, factors such as customer perceived value, customer relationships, and service satisfaction play a significant role in influencing SSS performance.

Table (12) below summarizes the results of the hypotheses testing.

Table 12. Hypotheses Validation

Hypothesis		Results
H1a	Focus on customers, as a dimension of TQM, impacts SSS public institutions' performance.	Accepted
H2a	Continuous improvement, as a dimension of TQM, impacts SSS public institutions' performance.	Accepted
H3a	Employee involvement, as a dimension of TQM, impacts SSS public institutions' performance.	Accepted
H4a	Management support, as a dimension of TQM, impacts SSS public institutions' performance.	Accepted
H1b	Customers perceived values, motivated by TQM dimensions, impact SSS public institutions' performance.	Accepted
H2b	Customer relationship, motivated by TQM dimensions, impacts SSS public institutions' performance.	Accepted
H3b	Service Satisfaction, motivated by TQM dimensions, impacts SSS public institutions' performance.	Accepted

5. Conclusions and Recommendations

The researcher divided the analysis into two stages: the first stage evaluated the impact of TQM on SSS performance from the perspective of internal stakeholders (employees and managers), whereas the second stage evaluated the impact of TQM on SSS performance in the context of beneficiaries, about customer perception of TQM and SSS services. The results of the quantitative analysis showed that customer perception of SSS is influenced by many factors, respectively from the highest impact to the lowest: focus on customers, continuous improvement, management support, and employee involvement. Wherein the results of the quantitative analysis related to management showed the need for improvement in all areas concerned, especially a focus on customers and management support.

Quality management employs management strategies and instruments for process control and quality assurance to ensure that goods and services are consistent with a high standard. The EQA literature (Kaynak, 2003, Shah and Ward 2003, Prajogo and Brown 2004, Prajogo and Sohal 2006, and Ahire, 1997) has several definitions of quality. TQM is described by Feigenbaum (1991) as an effective approach for combining the quality improvement, quality maintenance,

and quality development activities of the various groups within an organization to enable production and service at the most affordable levels, allowing for complete customer satisfaction. It is an integrated management concept used in a company to continuously improve its processes, services, and products. To fulfill or exceed customer expectations, it makes the most of the engagement of management, staff, suppliers, and consumers.

Therefore, the current challenge for SSS facilities is to implement a continuous improvement process: to reunite stakeholders under the banner of change projects and motivate them to engage in the process while focusing on high standards of quality in ensuring a TQM system that could drive all. Moreover, with the deployment of TQM, SSS can be regularly monitored to manage the current economic crisis. This is part of an overall strategy to foster quality management in Lebanese public institutions. In this respect, SSS public institutions are not just volatile to crisis, but also the major consumers of advanced technologies in other internal dimensions (Kaynak, 2003).

A lingering challenge for Lebanese SSS public institutions is to implement a continuous improvement process, particularly when quality is a prized factor of excellence during a crisis: eventually, such a process entails the collaborative efforts of stakeholders on crisis and change management, providing them the instruments for implementing and maintaining this process continuously. It also requires external and internal cooperation to promote quality standards and mitigate Lebanon's current economic crisis.

To apply TQM (TQM) in the context of the Lebanon Social Security System (SSS) based on the mentioned results, here is a summary of the recommendations:

1. *Focus on Customers:* Prioritize customer satisfaction, seek feedback, and implement measures to address customer needs and expectations.
2. *Continuous Improvement:* Establish processes for identifying areas of improvement, implementing corrective actions, and monitoring their effectiveness.
3. *Management Support:* Demonstrate leadership and commitment to quality, set objectives, provide resources, and create a supportive environment for employees.
4. *Employee Involvement:* Encourage employee participation, empowerment, and engagement in improvement initiatives.
5. *Customer Perceived Value and Customer Relationship:* Understand customer needs, adopt customer-centric processes, and build strong relationships through feedback mechanisms and open communication channels.

The presented data/results apply to the Lebanon Social Security System (SSS) and can be utilized to improve the system's performance and service quality. The findings provide insights into the factors that impact SSS performance from both the management and beneficiary

perspectives.

1. Management Perspective:

- The results indicate the significance of factors such as a focus on customers, management support, employee involvement, and continuous improvement in enhancing SSS performance.
- These findings can be used by SSS management to develop strategies and initiatives that prioritize customer satisfaction, involve employees in decision-making processes, and promote a culture of continuous improvement.
- SSS managers, department heads, and executives would be responsible for analyzing the data, interpreting the results, and implementing appropriate measures based on the findings.

2. Beneficiary Perspective:

- The results also shed light on the importance of factors such as customer perceived value, customer relationships, and service satisfaction in influencing the perception of SSS services by beneficiaries.
- This information is valuable for understanding the expectations and needs of the beneficiaries and can guide the SSS in delivering services that meet or exceed their expectations.
- The findings can be utilized by customer service teams, service delivery personnel, and other relevant stakeholders involved in interacting with beneficiaries to improve the overall customer experience.

To apply the data/results effectively, it is important to involve key stakeholders within the Lebanon SSS, including management, employees, and beneficiaries. Collaborative efforts are necessary to develop and implement strategies that address the identified areas for improvement. This may involve training programs, process redesign, customer feedback mechanisms, and continuous monitoring and evaluation.

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