
Total Quality Management and ISO 9001 Implementation at a Central Luzon Office of a National Government Agency

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Abstract

This study investigates the sustainability of Total Quality Management (TQM) and ISO 9001 implementation at the Central Luzon Regional Office of a national government agency. It also investigated (1) why and how TQM and ISO 9001 were implemented in the agency, (2) what TQM and ISO 9001 meant to officials and staff, (3) what factors affected their implementation, and (4) what were the costs and benefits of their implementation? The qualitative and quantitative data required for the study were gathered through face-to-face interviews with the agency's seven officials and 40 staff members from May to December 2024. The study found that the agency's TQM and ISO 9001 implementation was suspended or not sustained because the new Regional Director prioritized the delivery of services to their clients, given their limited manpower. The study also found that: (1) TQM and ISO 9001 were implemented to achieve operational efficiency and client satisfaction; the agency went through 10 steps in implementing TQM and ISO 9001, from the conduct of an orientation to the award of the ISO 9001 Certificate; (2) for the agency's officials and staff, TQM meant a process of continuous improvement and a means for achieving operational efficiency and client satisfaction; ISO 9001, on the other hand, meant an international Quality Management System (QMS) standard that the agency needs to meet in order for it to be considered world-class; (3) senior management commitment or the presence of a driver or champion and sense of ownership were the main positive factors that affected the agency's TQM and ISO 9001 implementation, while the initial resistance of 10 staff members to the programs was the lone negative factor; and (4) the agency's TQM and ISO 9001 implementation incurred a total cost of P1,593,750.00, while the benefits included operational efficiency, continuous improvement of processes and services, evidenced-based decision making, and upholding of public interest. This study concludes that the nature and frequency of leadership changes are sustainability factors for TQM and ISO 9001 implementation. The study recommends the submission of a manifesto to the incoming Regional Director, upholding the importance of TQM and ISO 9001 to the agency, and quantification of the benefits of TQM and ISO 9001 to ensure that these programs receive the priority they deserve and minimize resistance from staff members.

Keywords: *ISO 9001, productivity and performance measurement, quality improvement, total quality management, sustainability*

INTRODUCTION

Total quality management (TQM) is a comprehensive management methodology for ensuring that jobs and processes are carried out correctly, first time, and every time (Morgan & Murgatroyd, 1994; Andres, 1996). The seeds were planted by American quality gurus, such as Shewhart, Deming, and Juran (Ramasamy, 2005). However, Japanese quality gurus such as Ishikawa, Taguchi, and Shingo have also made significant contributions to TQM (Besterfield et al., 2003).

Manufacturing and private firms first adopted TQM. In Japan, workplace problems have been solved using TQM applications (Hosotani, 1992). TQM adoption in Japanese companies follows four stages: introduction, company-wide promotion, company-wide implementation, and thorough dissemination (Asao, 1992). TQM has helped Japanese companies eliminate waste from overproduction, transportation, waiting, motion, processing, inventory, and other defects (Gemba Research, 2002). Private organizations outside Japan have also implemented TQM. For instance, hospitals in India and Iran have adopted this approach (Gorji & Farooque, 2011).

Philippine manufacturing firms, banks, and educational institutions have adopted TQM. Some of the most successful cases of TQM implementation were those of San Miguel Corporation (Perez, 1992), the Bank of the Philippine Islands (Bank of the Philippine Islands, 1994), and maritime schools (Azanza, 2003).

TQM has spread from its industrial origins to public-sector organizations (Mangahas & Leyesa, 1998). Naga City was a successful case of TQM adoption, while Malalag and Davao del Sur were successful cases of TQM-based experience (Mariano, 1998). Other implementors of TQM in the Philippine public sector include the Government Service Insurance System (Constantino, 2004), the Board of Investments (Mangahas & Leyesa, 1998), the University of the Philippines Institute for Small-Scale Industries (Botuyan et al., 1993), and the Philippine Science High School (Legaspi II, 2005).

The ISO 9001 is one of the most commonly used TQM models. It is used when an organization seeks to establish a quality management system (QMS) that provides confidence in the organization's ability to manufacture products that meet the needs and expectations of its customers (International Organization for Standardization, 2009). ISO 9001, together with the quality excellence model and citizen charter, are the three commonly used quality assessment instruments in the public sector (Loffler, 2001).

TQM and ISO 9001 have been part of the Philippine Government's evolution of productivity, performance measurement, and quality improvement programs. On the one hand, Administrative Order No. 161 required national government agencies (NGAs), local government units (LGUs), and government-owned and -controlled corporations (GOCCs) to have an ISO-aligned QMS. On the other hand, Executive Order No. 605 ordered the adoption of ISO 9001 in by all government agencies. In addition, GQMC MC No. 2016-1 required ISO 9001 certification or an ISO-aligned QMS to grant a performance-based bonus to government employees (De Leon, 2017a).

There were no questions regarding the ability to implement TQM and ISO 9001. The question was whether they could sustain themselves or not. Calapan was able to sustain them because their previous and current local chief executives, although political opponents, were able to set aside politics and ensure the continuity of the program (De Leon, 2017b). San Fernando was able to sustain them because the preceding and succeeding local chief executives belonged to a single political family (De Leon, 2018). In contrast, Muntinlupa was unable to sustain its programs because the preceding and succeeding local chief executives failed to go beyond politics (De Leon, 2020a). These cases show that the frequency and nature of political change are important factors for the sustainability of TQM and ISO 9001 implementation. However, these sustainability factors were not found in SUCs (De Leon, 2017c) and GOCCs (De Leon, 2020b).

This study investigated the sustainability of TQM and ISO 9001 implementation at the Central Luzon Regional Office of a national government agency. However, there is a gap in the literature that needs to

be addressed. The study also investigated (1) why and how TQM and ISO 9001 were implemented in the agency, (2) what TQM and ISO 9001 meant to officials and staff, (3) what factors affected their implementation, and (4) what were the costs and benefits of their implementation? This study serves as a guide for implementing and sustaining TQM and ISO 9001 in national government agencies and other governmental or public sector organizations.

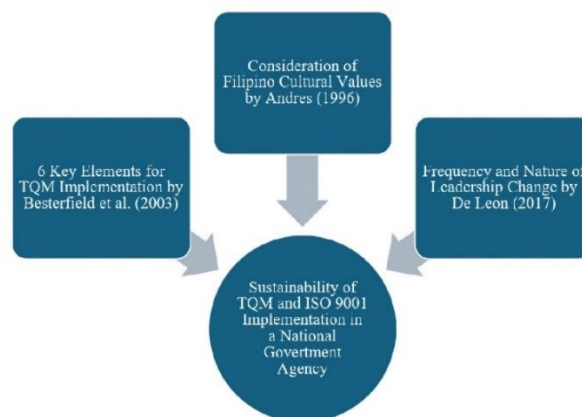
Framework

This study used the following concepts as elements of its framework: (1) sustainability of TQM implementation by Holzer (1995), (2) the six key elements for TQM implementation by Besterfield et al. (2003), (3) consideration of Filipino cultural values by Andres (1996), and (4) the frequency and nature of leadership change by De Leon (2017a).

Holzer (1995) defined sustainability of TQM implementation as the capacity or resources of an organization to implement TQM properly. On the other hand, Besterfield et al. (2003) identified the key elements of TQM implementation in an organization: (1) senior management commitment or the presence of a TQM driver or champion, (2) quality council, (3) middle managers or supervisors, (4) communication, (5) training, and (6) customer, employee, and supplier surveys.

According to Andres (1996), it is imperative to positivize negative Filipino cultural values that could hinder TQM implementation, such as excessive amor propio (having a sense of self-worth or pride), gaya-gaya (copying from others), and pagtatakip sa kakulangan (hiding the shortcomings of others). However, they could be positive for quality assurance and control. For instance, gaya-gaya can enable workers to produce the best products. Pagpupuno sa kakulangan (making up for the shortcoming of others) could replace the neglect value of pagtatakip sa kakulangan.

Finally, the frequency and nature of leadership changes could determine whether the implementation of TQM and ISO 9001 would be sustainable. If leadership change is less frequent and occurs between two individuals coming from the same family or political party, TQM and ISO 9001 implementation are likely to be sustained. Even if the leadership change is between two unrelated individuals coming from different political parties, TQM and ISO 9001 implementation can still be sustained as long as the two individuals transcend politics and prioritize the continuous implementation of TQM and ISO 9001 a priority (De Leon, 2017a).



Source: Adapted from De Leon (2017a)

Figure 1. Sustainability of a Total Quality Management and ISO 9001 Implementation in a National Government Agency

METHOD

This study uses a combination of qualitative and quantitative approaches. A qualitative approach is needed to identify the factors that sustain the implementation of TQM and ISO 9001. Similarly, a qualitative approach is needed to explore the reasons for TQM and ISO 9001 implementation, describe the agency's process of TQM and ISO 9001 implementation, and identify the factors that affect their implementation. However, a quantitative approach is required to determine the costs and benefits of implementing TQM and ISO 9001.

This study uses a combination of case studies and a survey research design. A case study is used when the objective is to capture how an organization has evolved, constituted, or performed its activities, such as implementing TQM and ISO 9001. On the other hand, a survey is used when the objective is to observe an event or phenomenon in its natural setting (Portus et al., 2020), such as TQM and ISO 9001 implementation at the regional office of a national government agency. The unit of analysis in this study was the Central Luzon Regional Office, a national government agency. The agency name was anonymized upon request from officials.

The qualitative and quantitative data needed for the study were obtained through face-to-face interviews with the agency's seven officials and forty staff members. Site visits to the Central Luzon Regional Office of the National Government Agency were also conducted to observe the facets of its TQM and ISO 9001 implementation. The data collection process ran from May to December 2024. Permission to conduct the study was obtained from the regional director of the agency, while free prior and informed consent from the interviewees was obtained on the first page of the interview guide questionnaire.

The interview questionnaire had four parts. The first part focuses on why and how TQM and ISO 9001 were implemented in the case of the national government agency in Central Luzon. This part included questions on the TQM and ISO 9001 driver or champion, and the composition of the TQM and ISO 9001 teams. The second part concerned what TQM and ISO 9001 meant to the agencies' officials and staff members. The third part focuses on the positive and negative factors that affect the agency's implementation of TQM and ISO 9001. This part included the identification of the factors that affected the sustainability of TQM and ISO 9001 implementation. The fourth and last part concerned the costs and benefits of TQM and ISO 9001 for the agency.

The interview responses were encoded and summarized in a spreadsheet to facilitate analysis. For each qualitative question, the modal or the most frequent response was considered an emerging theme. On the other hand, for the quantitative questions, the mean or average values were considered and reported (e.g., the mean or average of the costs incurred due to TQM and ISO 9001 implementation).

RESULTS AND DISCUSSION

Brief History and Functions of the Agency

The national government agency traced its establishment to Presidential Decree No. 1 on September 21, 1972. The decree ordered the implementation of the Integrated Reorganization Plan and the merger of two agencies: Presidential Economic Staff and the National Economic Council. Executive Order No. 230 of July 22, 1987, on the other hand, reorganized the agency into two distinct entities: the Agency Board and the Secretariat. Finally, Administrative Order No. 366 of October 4, 2014, reorganized the

agency into its current form and redefined its functions (National Economic and Development Authority, 2016a).

The agency serves the following four functions: First, it serves as a national and regional development plan and program coordinator by issuing planning guidelines and conducting multi-sectoral and regional consultations. Second, it serves as a public investment evaluator and programmer by coordinating Official Development Assistance (ODA) and appraising programs and projects. Third, it serves as a development plan, program, and project monitor through program and project evaluations, on-site reviews, and consultations. Fourth, it serves as a technical assistance provider to various national government agencies, regional development councils, and local government units (National Economic and Development Authority, 2016b).

Rationale and Process of TQM and ISO 9001 Implementation

Seven officials and 40 staff members of the national government agency consider their former Regional Director to be their TQM and ISO 9001 driver or champion. Before her transfer to the Central Luzon Regional Office, she served as Regional Director of the agency's Caraga Regional Office. She successfully implemented TQM and ISO 9001 in Caraga, and wanted to do so in Central Luzon. Through the implementation of TQM and ISO 9001, they wanted the agency to achieve operational efficiency and client satisfaction. She also wanted the agency to be more responsive to clients from different sectors (J. Ponio, personal communication, December 16, 2024).

The agency's TQM and ISO 9001 implementation followed ten steps. The first step was to conduct an orientation toward good housekeeping and ISO 9001:2015. The second step involves conducting a workshop on quality planning. The outputs from this workshop were the quality policy, quality objectives, and risk registers. The third step was to conduct a seminar on the implementation (QMS) implementation. The first three steps – orientation, workshop, and seminar – were facilitated by a consultant from the Development Academy of the Philippines (DAP). The fourth step was the implementation of the QMS. The fifth and sixth steps were training on internal quality audits (IQA) and the conduct of actual IQA, respectively. The seventh step is a management review. The eighth step was the issuance of a QMS Readiness Certificate after passing the IQA and management review. The ninth step was the conduct of an external audit, while the tenth and final step was the award of the ISO 9001:2015 certificate by an international certifying body. The implementation steps are listed in Table 1.

The ten steps undertaken by the agency are generally consistent with the five phases of TQM implementation by Andres (1996): preparation, planning, assessment, implementation, and diversification. They are also generally consistent with the nine ISO 9001 implementation steps of the United Nations (2001): identifying goals, identifying expectations, identifying core activities, assessing current status, collecting information on ISO 9001, applying ISO 9001, demonstrating conformance, independent audit and certification, and continuous review and improvement.

Table 1. TQM and ISO 9001 Implementation Steps Taken by the Agency

Step No.	Step Taken
1	Orientation on good housekeeping and ISO 9001:2015
2	Workshop on quality planning
3	Seminar on QMS implementation
4	QMS implementation
5	Training on IQA
6	Conduct of IQA
7	Management review
8	Issuance of QMS Readiness Certificate
9	External audit
10	Award of ISO 9001: 2015 Certificate

TQM and ISO 9001 were fully implemented across the agency's core processes: (1) planning and policy formulation, (2) project development, investment programming, and budgeting, (3) development and research, and (4) project monitoring and evaluation. Overall, the agency demonstrated what Holzer (1995) called capacity or resources to implement TQM (and ISO 9001). Whether the agency was able to sustain this implementation is another matter.

The Meaning of TQM and ISO 9001 to Agency Officials and Staff

For all seven officials and 40 staff members of the agency, TQM meant "a process of continuous improvement" and "a means of achieving operational efficiency and client satisfaction." This concept is consistent with the TQM definition of Morgan and Murgatroyd (1994) and Andres (1996), which is "a management methodology for ensuring that jobs and processes are carried out correctly, first time and every time."

The same officials and staff members agreed that ISO 9001 is "an international QMS standard that they need to meet so that their agency can be called world-class" (B. Franco, personal communication, December 16, 2024). This concept is consistent with the ISO 9001 definition of the International Organization for Standardization (2009), which is "an international QMS standard that provides confidence in the organization's ability to manufacture products that meet the needs and expectations of its customers." However, none of the seven officials and 40 staff members of the agency knew that ISO 9001, together with the quality excellence model and the citizen charter, are the three commonly used quality assessment instruments in the public sector, as pointed out by Loffler (2001).

Nevertheless, it can be observed that the agency officials and staff were generally knowledgeable on TQM and ISO 9001. This was attributed to the conduct of the orientation, workshop, and seminar on ISO 9001:2015, quality planning, and QMS implementation, respectively, which were facilitated by the consultant from DAP. It can also be observed that the staff members have already begun internalizing the TQM and ISO 9001 concepts because of the emphasis or reiteration of them by their Regional Director who is a TQM and ISO 9001 advocate and practitioner.

Factors Affecting TQM and ISO 9001 Implementation

All seven officials and 40 staff members of the agency considered the support of their top management to be the main positive factor affecting their TQM and ISO 9001 implementation. It really helped their Regional Director to be a champion of the TQM and ISO 9001 programs. As stated earlier, the official successfully implemented TQM and ISO 9001 in her previous assignment in Caraga. Therefore, they did

not start scratching. They benefited from the experience of their regional directors. All seven officials and half of the staff members considered sense of ownership as the secondary positive factor that affected their TQM and ISO 9001 implementation. As everyone in the agency was involved in the implementation, they felt that they collectively owned the programme.

Senior management commitment, or the presence of a TQM driver or champion, is the first of the six key elements for TQM implementation, as previously identified by Besterfield et al. (2003). The other five elements are the quality council; the role of middle managers or supervisors; communication; training; and customer, employee, and supplier surveys. The agency's TQM and ISO 9001 implementations also had these five elements, although they were not identified or articulated by the majority of officials and staff. They had a quality council composed of eight core team members, 15 IQA team members, eight document control team members, and six records team members (Esguerra, 2024). They had a brilliant and hardworking middle manager who was constantly communicating with all teams (A. Espiritu, personal communication, December 16, 2024). They benefited greatly from the orientation and training provided by the consultant at DAP (J. Ponio, personal communication, December 16, 2024). Finally, they had feedback forms for their customers (e.g., RDCs and LGUs), employees, and suppliers (B. Franco, personal communication, December 16, 2024).

Andres (1996) identified two Filipino cultural values as positive factors that affected TQM and ISO 9001 implementation. These Filipino cultural values include *amor propio* (having a sense of self-worth or pride) and *gaya-gaya* (copying others). Since agency officials and staff members have an *amor propio*, they always ensure that they deliver what is expected from them in connection with TQM and ISO 9001 implementation. They also copied the proactivity and quality consciousness of their fellow staff members. This *gaya-gaya* behavior served as a positive model for TQM and ISO 9001 implementation in the agency.

Six officials and 30 staff members identified the initial resistance of ten of their colleagues as the lone negative factor that affected their implementation. These 10 staff members initially viewed their involvement in TQM and ISO 9001 implementation as “added work with no additional compensation” (J. Ponio, personal communication, December 16, 2024). However, this kind of complaint or resistance to TQM and ISO 9001 adoption is expected and will disappear once programs gain a critical mass of acceptance (Carr & Littman, 1990). Through the efforts of the Regional Director and a middle manager to explain the benefits of TQM and ISO 9001, these programs gained a critical mass of acceptance halfway through their implementation.

Unfortunately, the agency's implementation of the TQM and ISO 9001 programs was suspended. The current Regional Director did not prioritize them. She argued that the agency's limited manpower should be dedicated to the delivery of services to their customers, such as RDCs and LGUs (J. Ponio, personal communication, December 16, 2024). Hence, this study confirms that the nature and frequency of leadership change, as originally argued by De Leon (2017a), is indeed a sustainability factor in the implementation of TQM and ISO 9001. Table 2 summarizes the factors that affect the agency's implementation of TQM and ISO 9001.

Table 2. Factors that Affected the Agency's TQM and ISO 9001 Implementation

Factor	Type of Factor	Identifier
Senior management commitment or the presence of a TQM and ISO 9001 driver or champion	Positive	7 officials, 40 staff members
Sense of ownership	Positive	7 officials, 20 staff members
Quality council or TQM and ISO 9001 team	Positive	1 official
Role of middle managers or supervisors	Positive	1 staff member
Communication	Positive	1 staff member
Training	Positive	1 official
Customer, employee, and supplier surveys	Positive	1 staff member
<i>Amor propio</i> (having a sense of self-worth or pride)	Positive	3 officials
<i>Gaya-gaya</i> (copying from others)	Positive	3 officials
Initial resistance of 10 staff members to TQM and ISO 9001	Negative	6 officials, 30 staff members
Nature and frequency of leadership change	Sustainability	1 official

Costs and Benefits of TQM and ISO 9001 Implementation

The officials and staff of the agency found TQM and ISO 9001 implementation, particularly ISO 9001 certification or registration, costly. ISO 9001 certifies that the body charges agency P300,000.00 per process. As TQM and ISO 9001 were implemented across four core processes or functions, the agency spent a total of P1,200,000.00% on ISO 9001 certification or registration alone. This huge amount of money does not include the consultancy fee of P200,000.00, maintenance and other operating expenses (MOOE) of around P100,000.00, or the opportunity cost of funds of P93,750.00. This opportunity cost was computed using the prevailing interest rate of 0.0625% per annum on regular savings accounts in the country's universal banks such as the Bank of the Philippine Islands and Banco de Oro. The total costs incurred by the agency are P1,593,750.00. Table 3 summarizes the costs incurred by the agency to implement TQM and ISO 9001.

Table 3. Cost Incurred by the Agency in Implementing TQM and ISO 9001

Type of Cost	Cost (in Philippine Pesos)
Consultancy fee	200,000.00
Maintenance and other operating expenses (MOOE)	100,000.00
Certification or registration	1,200,000.00
Opportunity cost of the funds	93,750.00
Total	1,593,750.00

Agency officials and staff cannot estimate the financial benefits of implementing TQM and ISO 9001. This difficulty or limitation gives the current Regional Director an additional reason to suspend TQM and ISO 9001 implementation at the agency. Recall that the first reason given by the top officials is the need to prioritize the provision of services to RDCs and LGUs, given the agency's limited manpower or human resources. Nevertheless, officials and staff have enumerated the following benefits of their TQM and ISO 9001 implementation: (1) operational efficiency, (2) continuous improvement of processes and services, (3) evidence-based decision-making, and (4) upholding of public interest (National Economic and Development Authority, 2024). Once the suspension of their TQM and ISO 9001 implementation is lifted, they intend to quantify these four non-financial or intangible benefits. They believed that the

quantification of benefits would result in fewer complaints or less resistance to the implementation of TQM and ISO 9001. Table 4 lists the benefits of implementing TQM and ISO 9001, which were identified by the agencies' officials and staff.

Table 4. Benefits of the Agency's TQM and ISO 9001 Implementation

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- A. Operational efficiency
 - B. Continuous improvement of processes and services
 - C. Evidence-based decision making
 - D. Upholding of public interest
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Summary and Conclusions

The study found that the implementation of TQM and ISO 9001 at the Central Luzon regional office of a national government agency was not sustained. It was implemented successfully under the previous Regional Director but was suspended under the current Regional Director. The current Regional Director cited the need to prioritize the delivery of services to clients, such as RDCs and LGUs, given the agency's limited manpower and the difficulty in quantifying the benefits of TQM and ISO 9001 as the reasons for their suspension. This finding validates De Leon's (2017) conclusion that the nature and frequency of leadership changes as a sustainability factor for TQM and ISO 9001 implementation in the public sector.

TQM and ISO 9001 were implemented in the agency to achieve operational efficiency and client satisfaction and to be more responsive to clients from different sectors of the regional economy. TQM and ISO 9001 were championed by the agency's previous Regional Director, who had successfully implemented the same programs in Caraga. The agency followed these ten steps in implementing TQM and ISO 9001: (1) conduct an orientation on good housekeeping and ISO 9001:2015; (2) conduct a workshop on quality planning; (3) conduct a seminar on QMS implementation; (4) implement the QMS; (5) conduct IQA training; (6) conduct IQA; (7) conduct management review; (8) issue the QMS Readiness Certificate; (9) conduct an external audit; and (10) award the ISO 9001:2015 certificate.

For the agency officials and staff, TQM refers to a process of continuous improvement and a means of achieving operational efficiency and client satisfaction. ISO 9001, on the other hand, meant an international QMS standard that the agency needed to meet for it to be considered world-class.

The majority of the agency's officials and staff members identified (1) senior management commitment or the presence of a TQM and ISO 9001 driver or champion and (2) a sense of ownership as the main positive factors that affected the agency's TQM and ISO 9001 implementation. A minority of them, however, have also identified (1) the quality council or the TQM and ISO 9001 teams; (2) the role of middle managers or supervisors; (3) communication; (4) training; (5) customer, employee, and supplier surveys; (6) *amor propio* or having a sense of self-worth or pride; and (7) *gaya-gaya* or copying from others as secondary positive factors that affected their TQM and ISO 9001 implementation. The initial resistance of ten staff members to TQM and ISO 9001 was the lone negative factor that affected their implementation.

The agency's TQM and ISO 9001 implementation incurred a total cost of P1,593,750.00. The largest component was ISO 9001 certification or registration, which amounted to P1,200,000.00. Currently, only the non-financial or intangible benefits of TQM and ISO 9001 can be identified by the agency's officials and staff: (1) operational efficiency, (2) continuous improvement of processes and services, (3) evidence-based decision making, and (4) upholding public interest.

Recommendations

This study showed that the implementation of TQM and ISO 9001 could be suspended (or not sustained) if it was not a priority for the agency's new leadership. To ensure that TQM and ISO 9001 will be prioritized whenever there is a change in the agency's leadership, the permanent or organic officials and staff members of the agency should submit a manifesto to the incoming Regional Director upholding the importance of TQM and ISO 9001 to their agency.

In addition, the incoming Regional Director will see the merits of sustaining TQM and ISO 9001 implementation more easily if the benefits of implementing these programs are quantified. Once the suspension is lifted, the officials and staff of the agency should study (1) how many more outputs were realized due to TQM and ISO 9001 implementation; (2) what processes and services are continuously being improved and how much cost savings from these efforts; (3) what pieces of evidence are usually used when making decisions at the agency and what are the opportunity costs of obtaining those pieces of evidence; and (4) how much it costs to uphold public interest? In short, they should endeavor to quantify the benefits of implementing TQM and ISO 9001 standards. Quantification will not only allow the incoming Regional Director to see the merits of sustaining TQM and ISO 9001, but also minimize the resistance of officials and staff to these quality assessment instruments and quality improvement programs in the public sector.

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