

An Essay on the Potential for Successful Adoption of Quality Assurance Practices at Ispahani Islamia Eye Institute and Hospital

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Abstract: Quality Management Systems (QMSs) have become a mainstay in today's industries, whether it is defense, frozen food manufacturing or healthcare. These systems, such as ISO, can be acquired and adopted after audits by a certifying body. These audits only check current compliance and not current performance. Only a minimum set of requirements are evaluated in order to gauge eligibility. However, there is no formal investigation into whether an organization can actually manage to successfully implement a QMS, whether ISO or any home grown system for that matter. Quality Management Systems are not silver bullets. They can only work when the organization as a whole is willing to accept it and more importantly has the knowhow, skills and intention to implement it. Implementing a QMS, when there is a lack of readiness to do so, will cause myriad troubles for any organization. This study focuses primarily on how to assess whether an organization, namely Ispahani Islamia Eye Institute and Hospital, has the capability or 'potential' to successfully implement a QMS. The study identifies six key elements that are crucial prerequisites for successful QMS adoption and uses these key elements to develop a questionnaire based tool for numerically measuring Islamia's potential to successfully implement and adopt a QMS. The method will be developed in such a way so as to be meaningful for other organizations in general and across multiple industries.

Keywords: Quality Assurance, Management, Implementation, Potential, Quantitative Measure

1. Introduction

Quality Management Systems (QMSs) have been around for a significant period of recent industrial history. In the late 20th and early 21st centuries a fairly distinguished group of certifying organizations has developed standards and definitions for quality. A large variety of organizations from around the world have sub sequentially 'acquired' and 'adopted' these QMSs, from organizations such as ISO. The formulae and processes for implementation of these QMSs can be obtained, as can the certificates of accreditation, with all the prescribed ceremony.

As the situation stands, there is no effective way to establish if the organization, which is about to implement a QMS, is actually capable of successfully using it or has the commitment from management, the skills required from

staff, the data capturing and analyzing mechanisms, the motivation amidst staff required for cooperation and most importantly the organizational culture required to get results from the implementation of the QMS. Dickenson and Campbell (1999) (as cited in Brown, 2013), claim that "The importance of improving competitiveness in main elements of quality management, e.g. continuous improvement, team working, benchmarking, "voice of the customer", etc., is widely accepted. What is more controversial is the concrete framework in which implementation of these concepts is attempted."

This study shall hence focus on management issues hampering the successful implementation of the QMS, instead of the actual QMS itself and related product/service specifications.

The study shall be conducted with primary information obtained from Ispahani Islamia Eye Institute and Hospital.

The study will propose some concepts which are potentially applicable for other organizations and industries but recognizes that these concepts may not be readily accepted by others.

It needs to be mentioned that the study does not put into question the merits of QMSs such as ISO. It recognizes that, if properly implemented, QMS systems can bring potentially huge benefits to industry, and these systems have done exactly that for many organizations. What this study targets is the organizations ability to maintain such systems and their ability to actually achieve something with their new QMS.

The study shall only attempt to identify the fact that the management capability or prowess to successfully use a QMS to your advantage is as important, if not more important, than the actual QMS itself.

The study will have been conducted with information from a single organization, and all the implications that it brings shall be implicit. However the author will go far enough to say that even though only one organization is being focused on, the study will invariably produce implications for the wider business community.

Additionally, in the pursuit for a numerical model, certain variables may be overlooked, due to lack of access to data or from practical limitations. Any such circumstances shall be identified, to the best abilities of the author, and explanation shall be provided, where possible, as to the accounting/discounting of such phenomenon.

2. Review of Related Literature

This section proceeds to cite relevant literature which is deemed to have practical connections to this paper.

The first area of analysis is focused on exactly what a Quality Management System means. This is vital as the study is focused on the potential for successful adoption of a QMS, and as such it is necessary to know exactly what a commitment to a QMS means. This means that the potential to successfully adopt and implement a QMS could then be equated to the potential to successfully fulfill those respective criteria.

ISO provides their own definition of a Quality Management System, which reads, 'A quality management system (QMS) is a set of interrelated or interacting elements that organizations use to formulate quality policies and quality objectives and to establish the processes that are needed to ensure that policies are followed and objectives are achieved. These elements include structures, programs, practices, procedures, plans, rules, roles, responsibilities, relationships, contracts, agreements, documents, records, methods, tools, techniques, technologies, and resources.' (http://www.praxiom.com/iso-definition.htm#Quality_management_system)

The above definition focuses on two key areas, which are as follows:

- I. Quality Policies and Quality Objectives
- II. And the processes that need to be established to ensure that policies are followed and objectives are achieved

ISO defines a Quality Policy as follows:

'A quality policy should express top management's commitment to the Quality Management System (QMS) and should allow managers to set quality objectives. It should be based on ISO's quality management principles and should be compatible with your organization's other policies and be consistent with its vision and mission. ISO's quality management principles ask you to focus on customers and interested parties, to provide leadership, to engage and involve people, to use a process approach, to encourage improvement, to use evidence to make decisions, and to manage corporate relationships.'

(http://www.praxiom.com/iso-definition.htm#Quality_policy)

The definition first and foremost states that the Quality Policy must reflect the management's commitment to the QMS. Brown (2013) states that "Before implementing a new Quality Control Program (QCP) it is important to understand the underlying facts and background of the organization. This is to ensure the QCP has the right focus and is implemented in appropriate way for a long term positive effect on the overall quality in the company."

Note that the Quality Policy is something that needs to be developed from within the organization and is bound to reflect of the organizations goals. Here we see that the definition mentions the organizations vision and mission. So we can say that each organizations quality policy will reflect its adopted vision and mission. Mosadeghrad (2005) (as cited in Brown, 2013) confirms this by saying that "...it is easier to achieve a successful implementation and to overcome barriers to change if the organization is aware of the need for the implementation."

This is an important reminder of why it is extremely important to adopt the right mission and vision.

The next area of discussion is the definition of Quality Objectives. ISO defines a Quality Objective as follows:

'A quality objective is a quality result that you intend to achieve. Quality objectives are based on or derived from an organization's quality policy and must be consistent with it. They are usually formulated at all relevant levels within the organization and for all relevant functions. The adjective quality applies to objects and refers to the degree to which a set of inherent characteristics fulfills a set of requirements; and an object is any entity that is either conceivable or perceivable. Therefore, a quality objective can be set for any kind of object.'

(http://www.praxiom.com/iso-definition.htm#Quality_objective)

The above definition clearly states how the Quality Objectives flow from the Quality Policy of the organization and reverting back to the previous definition, a direct connection can be we drawn right back to the organization's mission and vision.

Before producing citations from previous authors, some key ideas, which are pertinent to the discussion, must be identified.

Please note the following:

- The certification merely provides the groundwork for documentation of the QMS. The effectiveness and efficiency of implementation is not at all handled by the certifying body.
- There is no inspection of the activities of the organization on a regular basis by the certifying body, only annual or biannual visits to ensure compliance.
- The level of customer service is not addressed as part of the QMS implementation, only documentation.
- The morale of the workforce is not addressed. There will be documentation about everything from salary to performance evaluation to training needs assessment. However there will be no measure of whether the employees are happy with the new processes and procedures, or the whole QMS in general.
- There is also no evaluation of organizational culture, as it pertains to the application of the QMS.
- The certifying body will not tell the organization how to conduct quality audits and implement solutions.

The following sections include citations of previous works which have been identified as relevant to our study.

Bell (2010) says that “The ISO 9000 Standard contains a minimum set of elements that are considered necessary for a quality management system...”

Bell (2010) has also said that “some organizations experience positive results from implementing an ISO 9000 based quality management system while others do not.”

There is recognition that QMSs such as ISO only provide the backbone necessary (*a minimum set of elements*) for the establishment of an organizational QMS. The rest of the activities, plans, implementation strategies, review guidelines, etc need to be developed by the organization itself and cannot be bought or leased. Day to day compliance will require full organizational commitment on behalf of all the organizations employees. There is no rock solid way prescribed in any QMS regarding how to find out what the customer’s requirements are.

This is extremely vital, because of the following reasons:

1. The QMS will tell you to move according to the customer’s requirements but it will not tell you how to find out the customer’s requirements.
2. The QMS will only tell you to document whatever way you have found out to measure the customer’s requirements/expectations, regardless of whether it is effective or not.
3. The certifying body will not tell you how to be innovative and how to create creative products/services/solutions.
4. The certifying body will not tell you how to run your business in such a way so as to create better products/services.
5. Most importantly, the certification will not change management attitudes or capabilities, which will remain as it was pre-certification.
6. As a result of the above clause, the organizations ability to properly select the mission and vision and extend those down to appropriate strategy and furthermore to

appropriate quality policies and quality objectives will remain as before, not having changed as a result of the organizations new QMS.

We should not forget that Quality Policies and Quality Objectives will flow from the organization’s mission and vision. Hence if:

- I. The mission and vision is wrong and
- II. The wrong quality policies, and sub sequentially wrong quality objectives, are interpreted from the mission and vision, the organization will suffer, regardless of which quality management system has been adopted.

7. Hence the issue of potential or capability arises. The effectiveness of the QMS will solely rely on the organization, and more specifically management, as the certifying body will not tell you how to ensure that:

- i. The right content has been put into documentation
- ii. The control mechanisms are in place to ensure that Quality Policies and Quality Objectives are actually met, instead of just documented and laminated,

Kaziliūnas (2010) states that “ISO 9000 has been widely adopted as a quality management system for improving competitiveness around the world, but with mixed success.” He goes on to say that “ISO 9000 certification does not guarantee improved performance due to high explicit and implicit costs associated with its implementation. (Kaziliūnas 2010)”

Many organizations spend a lot of money thinking that their investment is somehow going to automatically translate into quality products and services.

Kaziliūnas (2010) also says that “The implementation of a quality management system, and its subsequent certification, is a voluntary process, supported by an organization’s own strategy, motivations, policies and goals. To obtain more benefits from ISO 9000 certification, organizations may take into consideration that the design and implementation of an organization’s quality management system is influenced by the organization strategy, its size and organizational structure, its organizational environment, changes in that environment, and the risks associated with that environment.”

In the above cited text, that Kaziliūnas (2010) has identified the very important notion that the certification process must be supported by the organizations own mission, vision and strategy. He also mentions the fact that size, structure and environment are important factors in both design and implementation of the Quality Management System.

Organizational culture will have to change with the implementation of the QMS, or must undergo certain modifications, if the QMS is to be successfully implemented. Osaywe & McAndrew (2005) (as cited in Brown, 2013) observe that “Producing superior product/service quality in a business takes long-term dedication and is a time consuming process of changing the culture of the organization.”

Kaziliūnas (2010) also says that “...managers in organizations should realize that ISO 9000 is capable of generating a competitive advantage only if top management

is fully committed to the program implementation from a strategic perspective. The most important factor is the way the certification is perceived by top/senior management, as this is classified as the most influential factor for implementing the standard. If certification is perceived in a negative way, top management will not implement the standard..."

The above paragraphs highlight some extremely crucial points, namely:

I. The perception of the QMS by senior management

This is extremely important, because if the top management believes it to be something that has been imposed upon them by the owners of the organization then they will not be committed to it. Additionally if they believe that their old way of doing things is better than the methods prescribed in the QMS, then the organization is in for some big trouble.

II. The importance of management commitment to the successful implementation of the QMS

This clause is similar to the point mentioned in the previous clause but is slightly different. The previous clause is connected to how they perceive the QMS itself. This means whether they think it is useful, not useful, superfluous, wanting, expensive, time consuming, inferior to previous processes, etc. This clause however is different as it pertains to how committed the management is to the implementation of the QMS, despite how they feel about it.

The next section discusses the issue of QMS maintenance, namely monitoring and controlling.

The issue of successful QMS implementation and quality auditing are very interrelated phenomenon. Kaziliūnas (2010) states that "Quality auditors are in a powerful position to increase the ability to unveil conformity and thus increase the value of certifications...but a vast majority of audits only produce data for use in granting a certificate... Most auditors have been exposed to conformity auditing where the sole objective is to establish if a specific requirement has been met"

He goes on to say "They invariably do not provide data for making managerial decisions concerned with staff development, technology, growth, product and processes because these decisions are based on current performance, and often all the audit reveals is current conformity, not current performance" . (Kaziliūnas 2010)

Basir et al. (2010) mentions in his paper named, 'The elements of organizational culture which influence the maintenance of ISO 9001: A theoretical framework,' that "...a QMS must constantly be dynamic to improve the quality of both the company's internal and external services. In line with this, they called for proper maintenance which includes constant monitoring, controlling, assessing and improving through both the technical and non-technical (behavioral) approaches."

Basir et al. mentions in the above paragraph the importance of a dynamic evolution of the QMS. They also put special emphasis on the functions of monitoring and assessing, and have identified these functions as important

components of the maintenance of the QMS.

The concept of organizational culture plays a significant role in the implementation of a QMS.

Wawak (2014) states that "Organizational culture may prevent the effective implementation of the system, if new principles of customer orientation are not accepted and adopted by the employees. Although the procedures and instructions will be applied in this case, however, it's difficult to treat it as a fully running system."

The above paragraph highlights very important observations from Wawak (2014). He points to the fact that organizational culture may actually prevent or hinder it from effectively gauging customer needs and expectations. If the organizational culture is actually preventing it from listening to customers, then it will mean the failure of the QMS. He then points to a very important line of thought-that the QMS actually means satisfying the customer, instead of having a folder of policies, guidelines and SOPs to hang on the wall for certifiers to see every six months.

Wawak (2014) goes on to say that if "management and employees are interested in preserving the status quo, there is no place to quickly adapt to customer needs, create innovative products or implement resources saving. Implementation of quality management system is possible, but you cannot count on its development and improvement."

Hence change management has been identified as being extremely crucial for effective implementation.

Basir et al. (2010) states that there are "many barriers in ISO 9000 maintenance which can be classified as the elements of organizational culture. These barriers are lack of teamwork, lack of top management commitment, a negative response from managers, ignorance on the part of employees on the quality management system itself, lack of quality awareness, lack of participation from staff, lack of training, lack of reward, lack of motivation programmes, lack of the understanding and misinterpretation of the standard, lack of coordination between departments and lack of communication."

3. Methodology of the Study

The study will aim to gather data from the responses to questionnaires. The questionnaires will be distributed amongst the whole population; that is there will be no sample; the whole target population will be part of the questionnaire. This is because only one organization is being considered and as such it is feasible to include all employees as part of the study.

The total number of responses is hence set at 400 individuals, otherwise 100% of the target population at the hospital. The questionnaires shall not be read to the respondents. They are expected to read the questionnaires themselves and write their answers without any assistance.

The questionnaire solves the main problem; that is the problem of how to measure potential. The questionnaire has been cleverly built to act as a measurement tool. It contributes directly towards the computation of a numerical

value to measure potential. The six sections of the questionnaire represent six key different phenomenon within the organization which have a tremendous impact on how well an organization is able to adopt quality practices.

The following represents an analysis of the questionnaire.

The questionnaire is divided into six sections. Each section is explained serially in the following paragraphs.

1. The first section is the most important section. It pertains to mission and vision, the most important component in any organization. This section asks whether employees are aware of the organization's mission and vision. Secondly it asks whether employees believe their department's current strategies and actions are in harmony with the organization's vision and mission.

It is of vital importance that employees in any organization know the mission and vision of that organization. It is not just sufficient that they memorize the mission and vision by rote, but they must also understand it. If organizational employees do not know and understand the reason for existence of the organization then it is very difficult to work together as a team for a united cause.

It is also of significance when it comes to matters of quality. This is because the definition of quality in a particular organization is a direct result of that organization's mission and vision. The definition of quality will directly impinge on the organization's Quality Objectives. The Quality Objectives will naturally lead to the Quality Policies. Now what this means is that a wrong understanding of the mission and vision will lead to wrong Quality Objectives and subsequently wrong Quality Policies.

The right way to do things can only be discussed after the right things to do have been discovered.

The mission and vision will tell employees, including management, what that right things to do are. Without this concept no QMS can exist.

2. The second section of the questionnaire gets to the issue of organizational culture. The first question asks how employees perceive their organizational culture, which is whether it is restrictive, flexible or adaptive.

The issue of cultural flexibility is a critical one. This is because the implementation of a QMS is bound to create change within an organization. If the organizational culture is not flexible enough to accommodate the change brought about by the implementation of the QMS then the organization will not be able to smoothly cope with the commitments of QMS implementation.

For example, QMS implementation may require regular performance appraisals or increased research in the field of customer satisfaction, but if the employees in that organization are not so sure about regular appraisals or do not believe that customer satisfaction is important, then it becomes difficult to comply with new systems and processes. Additionally, quality requires flexibility in areas such as work flow, human resource management, innovation and other key areas. If there is no flexibility in an organizations culture, then these areas will lack.

Furthermore, quality will mean dynamic management. The organization will have to adjust to customer's preferences and perceptions as they evolve rapidly and accommodate the fashion and trends of an ever changing world. If dynamic tendencies are not incorporated into management practices, the firm will not be able to satisfy customers, the end game of any QMS.

The questionnaire then asks whether employees thought that their organizational culture allowed them to express their opinions on important issues and be a part of the development process. This indicates whether the management is willing to listen to employees concerns, and this is just not concerns about salary structure but suggestions about how the organization can better run itself.

History is full of examples where employees at the operational level have provided solutions to organizational problems which have ultimately resulted in millions of dollars in savings. These things happened because people were willing to listen to their employees and took them seriously. If there is a culture where employees are punished for producing good ideas then they will simply stop providing them out of fear. Ultimately these issues may boil over and result in disillusionment, job dissatisfaction and ultimately high employee turnover; and not one of these things are conducive to quality.

Lastly the section ends by asking whether employees felt that the organization was interested in actually implementing any of the ideas that they had provided. This is a significant measure of potential as it provides a good idea of the perception of the organization that employees have. Again, if employees feel that their ideas and suggestions are never going to be implemented, then they are more likely to never provide these ideas and suggestions in the first place. There will be no ownership in the work they do and as a result creativity and innovation will suffer.

3. The third section goes directly to the core of the issue, the attitude towards quality. The third section kicks off by asking whether employees are aware of the fact that their organization is designing a quality assurance mechanism.

This is a very important question as it tests management's ability to keep employees informed of developments in the organization. If it turns out that the majority of employees are unaware of the fact that a QMS is being developed, then that's a big problem. The questionnaire then asks whether the employees actually believe a QMS is needed or not, 'AND' if they do think it is superfluous, what they would do if they were forced by management to adopt it.

This is meant to understand employee's attitudes towards the necessity of a QMS. If employees are not willing to accept that a QMS is needed in the organization, it can result in a lack of cooperation from their side, resulting in a drop in productivity.

The result will be a situation where performance is even lower than pre QMS implementation levels. So if employees are not willing to perform as per the requirements of the QMS, QMS implementation will have had the opposite

effect; that is performance and quality, as a whole, will suffer.

4. The fourth section tests customer satisfaction concepts.

It first asks whether respondents thought customer satisfaction was crucial to or an important component of quality. Secondly respondents were asked whether they believed that their department gave weight to the concept of customer satisfaction whilst designing/executing tasks or activities.

These questions are important as employees need to realize the significance of customer satisfaction. If a QMS is being implemented but most employees consider the concept of customer satisfaction as a far away topic then a QMS is being implemented for no good reason whatsoever, and things are all being done without the main goal or aim in target.

This goes directly to the heart of the definition of quality. Customer satisfaction is always the end game. For the customer quality is measured by satisfaction during and after the service/product usage. These basic yet massively salient concepts are critical to quality because if customer satisfaction is not accounted for during the design and execution of the QMS, the whole project will be futile.

5. The fifth section asks about clarity of targets in the departments. It goes on to ask whether targets have been established, whether they have been broken down into key performance actions and whether they are regularly appraised by management in regards to target fulfillment.

These are not directly related to quality but to work execution at the operational and mid-manager levels. Quality must always take into account not only concepts such as customer satisfaction and mission and vision but also day to day work processes. If staff are not given targets and made to chase them through incentives, then strategies and actions will not be able to have its intended and timely effect.

Hence in order for quality products/processes to be made, the employees at the operational level need to excel at their assigned responsibilities.

There is also another dimension to this argument. If targets are not designated and Key Performance Actions are not identified then employees will not be appraised properly, leading to poor performance slipping through and overall objectives being unfulfilled. Additionally the segregation of tasks means that there is no confusion regarding roles and responsibilities, no duplication of tasks, no cases of tasks being undone and most importantly employees know what they need to do to gain praise from supervisors; that will induce motivation.

6. The sixth and final section goes to the heart of the concept; that is standardized documentation. It firstly asks whether their department provides them with documented methods for achievement of targets. It also asks whether there is a mechanism for recording the progression and subsequent achievement of these targets.

The best thing is that the questionnaire relies on the members of the organization for the output.

This is crucial if results are to make sense. This is because

it is always the management who initiate things such as Quality Management Systems, targets and standards, often without consulting employees. Employees often have to comply with new standards. Understanding the opinion of employees will result in the development of an accurate picture as to the organizations readiness to implement a QMS.

3.1. Quantitative Measurement of Potential

The measurement of potential will stem from the six different sections, representing six different criteria, reflected in the questionnaire. The sections are grouped as follows:

Section 1: Identity and Purpose

This section reflects the employees' knowledge about the organization's mission, vision and values.

Section 2: Culture

This section focuses on organizational culture and management attitude.

Section 3: Attitude to Quality

Employee's attitude towards is the focus in this section.

Section 4: Customer Satisfaction

This section gauges employee's perception about customer satisfaction. It also measures how well the organization integrates customer satisfaction concepts into its activities.

Section 5: Performance Planning and Monitoring

This section relates to how well organizations plan for and measure targets.

Section 6: Performance Data Management

This section relates to how well organizations record performance metrics for future reference.

These six sections represent the six key areas that are absolutely vital for all organizations that wish to use a QMS. Without the organization performing well in these six key phenomenon, QMS implementation will be doomed.

However the organization must not be performing well in all of these six key criteria at the onset of implementation. In simple terms the six phenomenon can be segregated into two groups of phenomenon- Those that are absolutely necessary before implementation Vs. Those that can be developed alongside implementation, but with minimum delay.

The first three sections namely Identity and Purpose, Culture, and Attitude to Quality are prerequisites for QMS implementation. The performance in these three sections must be up to par if QMS implementation is to be successful. Satisfactory performances in these three criteria constitute the minimum threshold potential that was identified in the *specific objectives*. This minimum threshold is the red line.

If organizations are unable to perform well in these three criteria then they must understand that their organization is not ready for QMS implementation.

Organizations must understand that without the 'right knowledge of the vision,' 'a culture conducive to innovation' and 'the proper attitude towards quality,' no quality management system will ever work.

It needs to be understood that with the organization performing well in these three criteria, many of the problems of QMS implementation can be avoided. Some of the major

problems that may be avoided are as follows:

- Poor sense of company identity, resulting in lack of employee ownership of work: this ultimately results in low morale and productivity
- Poor selection of strategy, resulting in incorrect quality policies and quality objectives being adopted
- Inability to satisfy the target customer as employees do not know the reason for doing business
- Culture shock as new methods and practices are implemented
- Inability to convey ideas to management that would otherwise be conducive to product/service quality
- Employee resentment stemming from lack of opportunities to express themselves
- A halfhearted attempt to synchronize work according to the new policies of the QMS
- Frustration, drop in morale and job dissatisfaction as a result of being forced to do old things in new, often inconvenient (to the employee), ways
- Non compliance from employees who refuse to cooperate
- Increase in employee turnover

The above summarized problems can become serious issues in many organizations if implementation of the Quality Management System is done without serious consideration. Ultimately a combination of these problems may cause productivity and overall performance to degrade resulting in a scenario where the organization is actually worse off with the Quality Management System than without it to begin with. Such is the destructive force of unplanned QMS implementation.

Now let us consider the other three key phenomenon, namely 'Customer Satisfaction,' 'Performance Data Management' and 'Performance Planning and Monitoring.'

The area of customer satisfaction, though critically important, has been deemed to be in the category of things that 'MAY' be developed alongside the implementation of the QMS, where 'developed' means enriched. No organization completely ignores the concept of customer satisfaction. Organizations will simply need to increase their awareness of customers needs and incorporate those needs better into the organizations policies.

However, the concept of customer satisfaction is nevertheless an important issue and this is exactly why it has been placed immediately after the three mandatory criteria.

Performance Data management is a criteria where performance can be strengthened alongside the QMS implementation. Setting of targets and evaluation can be introduced. However, if this practice is implemented too quickly and if employees are made to feel that their work is being overly analyzed, then it can also create problems.

Performance planning and monitoring practices can be implemented alongside QMS implementation as well. This simply means documentation. It must be noted that these key criteria have been organized sequentially, that is in order of importance as it pertains to QMS implementation.

3.2. Measurement Technique

The measurement of potential shall be done by using the responses to the questionnaire. The responses will be used to calculate scores using weights. The calculation of overall score will only be done once all the respondees have responded to the questionnaires.

It needs to be noted that all the questions have exactly three options for an answer.

A tally will be carried out of every single response from every single questionnaire. This will enable the calculation of percentages of respondees who answered in a certain way.

For example, if out of 400 respondees a total of 250 responded 'Yes,' 100 responded 'Somewhat' and 50 responded 'No' then the percentages would be as follows:

$$\% \text{ of Yes voters: } [(250 / 400) * 100] = 62.5$$

$$\% \text{ of No voters: } [(100 / 400) * 100] = 25.0$$

$$\% \text{ of Somewhat voters: } [(50 / 400) * 100] = 12.5$$

In the end a table of final results will be produced (in percentages). This will represent the voice of the organization's employees. It will basically say 'what percentage of people think what' about the issues presented to them.

This gives us the data. This is where the weights will be used.

The respondent will have to choose any one answer from a group of three options, for any particular question. The options have been deliberately designed to range from most desirable answer to least desirable answer. The most desirable answer will be the answer which indicates readiness for QMS implementation.

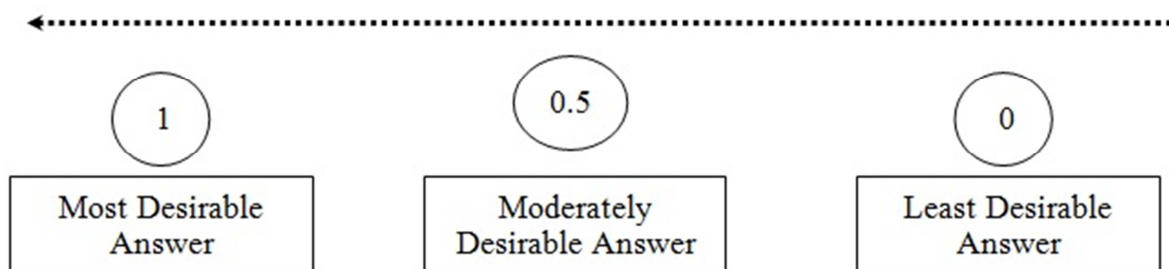


Figure 1. Allocation of weights to scores calculated from responses.

For example, the question 'Are you aware of the organization's mission and vision?' will have three options as answers, namely 'Yes,' 'Somewhat' and 'No.' The answer that will indicate readiness for QMS implementation is 'Yes,' and as such this is the most desirable answer. Meanwhile, the answer that indicates least readiness for QMS implementation is 'No.' and as such is the least desirable answer. The option 'Somewhat' indicates moderate readiness for QMS implementation.

The respondents will indicate their opinions by ticking or marking the boxes beside the answer which they think best represents their point of view. The answers will be assigned weights, with the most desirable answer having a weight of 1, the least desirable answer having a weight of 0 and the moderate answer having a weight of 0.5. This concept is represented in Figure 1.

NOTE:

- The respondents will not be aware about the system of weights represented above.
- The questionnaire will not indicate any distribution of weights.
- Respondees will simply tick as per their perception of the organization.
- Only the party administering the survey will know about the weights.
- The weights will only be multiplied when the final average results have been calculated for all respondents. See below for method of calculating final average results.

The employees of the organization will express different views regarding the matters that have been presented to them. Their responses shall be used to understand whether the organization is ready to implement a QMS or not.

The final percentages calculated using the technique outlined above will be multiplied with the weights.

Multiplying the final percentages with the weights will produce scores. The six sections will have six independent scores. Each question in each section will be scored out of 100. The total scores in each section will then be converted to 100. Hence the questionnaire, comprising of six sections, will have a total score of 600.

This protocol will reveal six average scores, each out of 100, representing the six key performance criteria that have been identified earlier.

The scores from the first three sections will indicate performance in those criteria that are absolutely necessary before implementation whereas the last three scores will indicate performance in those criteria that can be developed alongside implementation, but with no delay. Any organization intending to undergo QMS implementation will have to score a minimum average score of 80 in each of the first three sections.

This score of 80 in each of the first three sections namely, Identity and Purpose, Culture, and Attitude to Quality will act as the minimum threshold necessary for QMS implementation. If the score is below 80 in each of the first

three sections, then they are not eligible. If an organization scores 80 or above in each of the first three sections, namely Sections 1, 2 and 3, then they have met the minimum threshold for QMS implementation, however this is not an ideal situation.

It needs to be noted that satisfying the first three criteria will not necessarily mean that an organization is fit to successfully implement a QMS. It will mean that there will be much less destructive chaos and dissatisfaction as a result of the QMS.

The first three criteria cannot be changed overnight; these will require years of strategic orientation.

The last three criteria however can be developed relatively fast. An ideal situation would be a score of 80 or above in each of the six key performance criteria. The threshold, as mentioned above, is only there to act as a minimum necessity if QMS implementation needs to take place quickly for some reason, E.g. compliance to foreign laws, pressure from regulatory bodies, competition, etc.

This study proposes that the minimum threshold must be achieved before QMS implementation, regardless of the reasons for implementation. If the threshold is not met, then destructive forces can seriously hamper the organization and cause long lasting harm.

3.3. Beyond the Threshold

Organizations scoring 80 or above in more than the first three sections will obviously be more ready for implementation than organizations scoring only the bare minimum threshold.

As organizations score 80 or above in more sections beyond the first three, they become more capable of successfully implementing a QMS. Figure 2 demonstrates this concept.

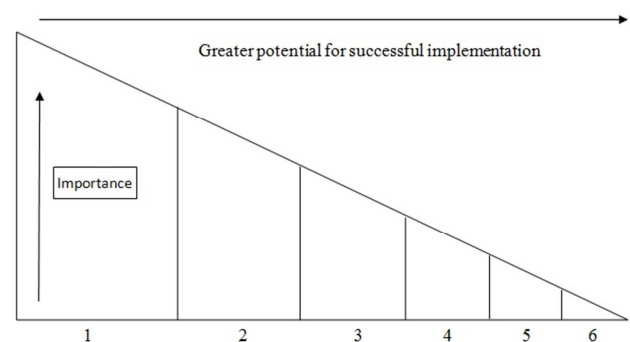


Figure 2. Quality Incline.

The diagram above is a right angle triangle. There is an incline going from left to right. This signifies the concept that all sections are not equally important for measuring QMS implementation potential. As we go from left to right we see that the height of the sections sequentially decreases. This signifies their diminishing importance, going from left to right, when measuring potential.

So we can say that Section 1 is most important whilst

Section 6 is least important.

This is called a Quality Incline model and it serves management with a straightforward tool to assess and even develop organizational capability to successfully launch a QMS.

This model sums up our entire concept of QMS implementation potential.

This incline, like any other incline in nature, induces acceleration as you descend it. In our case the acceleration is the potential to implement a QMS with success. However we can see some interesting concepts from this explanation. We see that Section 1 has a broader base than section 2, which in turn has a broader base than section 3, and so on and so forth.

The widths of the bases decrease as we move towards section 6 in the end. If we start descending from the apex of the right angle triangle (above section 1) and down the slope of the incline, we can see that by the time we reach the point above section 3, approximately 65% of the incline has been traversed, even though only three sections have been covered (sections 1, 2 and 3).

This demonstrates the concept that had been highlighted previously, that the first three sections are the main key criteria to measure potential and that mastering these three will mean that most of the groundwork has already been laid.

The Quality Incline Model states that as you reach the bottom of the incline you are more ready to adopt a QMS. This is based on the premise that to be successful in implementing a QMS; an organization needs to be already doing many of the things that are required once the QMS is implemented. We are referring to a phased approach.

4. Analysis and Interpretation of the Data

The data below highlights the responses from employees.

Section 1: Identity and Purpose

- i. Are you aware of your organization's mission and vision?

Table 1. Responses to section 1, i.

Yes	11%
Somewhat	7%
No	82%

The 11% who knew the organization's mission and vision proceeded to answer the next question, which was:

- ii. Do you believe that your department's current strategies and actions are in harmony with the organization's mission and vision?

Table 2. Responses to section 1, ii.

Yes	11%
Somewhat	2%
No	87%

Section 2: Culture

- i. How would you define the culture at your organization?

Table 3. Responses to section 2, i.

Restrictive, with no opportunity for flexibility	67%
Slightly flexible, with some chance for altered behavior	17%
Adaptive, with individuals having the ability to change behavior as per necessity	16%

- ii. Do you believe that you are *more or less free* to make suggestions/recommendations to middle/top management on work related issues?

Table 4. Responses to section 2, ii.

Yes	68%
Somewhat	23%
No	9%

- iii. Do you feel that the organization is interested to implement any of the advice and suggestions that you or your colleagues have offered?

Table 5. Responses to section 2, iii.

Yes	24%
Somewhat	9%
No	67%

Section 3: Attitude to Quality

- i. Are you aware that a Quality Management System is being designed at Islamia?

Note: (A Quality Management System (or QMS) is a system for managing service quality at our hospital)

Table 6. Response to section 3, i.

Yes	7%
Somewhat	10%
No	83%

- ii. Do you believe that the organization needs a quality management system?

Table 7. Response to section 3, ii.

Yes	87%
Somewhat	0%
No	13%

The 13% who answered 'No' were asked to answer the next question, which was:

- iii. If you have answered NO, what would your feelings be if the QMS is launched anyway, resulting in new ways of doing the same work that you do every day?

Table 8. Response to section 3, iii.

I would accept the changes with a positive attitude and do my best to comply	12%
I would try to adjust, even though I wouldn't like it	88%
I would feel annoyed with the new ways of working	0%

Section 4: Customer Satisfaction

- i. Do you believe that Customer Satisfaction is an important component of maintaining quality?

Table 9. Response to section 4, i.

Yes	87%
Somewhat	11%
No	2%

- ii. Do you believe that ‘your department’ seriously considers the concept of customer satisfaction whilst designing and/or executing tasks/actions?

Table 10. Response to section 4, ii.

Yes	21%
Somewhat	60%
No	19%

Section 5: Performance Data Management

- i. Does your department have targets that help it to contribute towards overall strategy achievement?

Table 11. Response to section 5, i.

Yes	30%
Somewhat	13%
No	57%

The 30% who said ‘Yes’ were asked to answer the next two following questions, which were:

- ii. Have these targets been broken down into key performance actions?*

Table 12. Response to section 5, ii.

Yes	0%
Somewhat	0%
No	4%

*Only 4% of the respondents actually understood the concept of Key Performance Actions

- iii. Are you regularly appraised by supervisors regarding target achievement?

Table 13. Response to section 5, iii.

Yes	7%
Somewhat	65%
No	28%

Section 6: Performance Planning and Monitoring

- i. Does your department regularly provide documented methods on how to achieve targets?

Table 14. Response to section 6, i.

Yes	13%
Somewhat	21%
No	66%

- ii. Does your department have a recording mechanism to track progression/achievement of those targets?

Table 15. Response to section 6, ii.

Yes	0%
Somewhat	34%
No	66%

We will now apply these results to the preformatted table that we highlighted in the previous pages to calculate QMS implementation potential.

5. Findings of the Study

The final average scores in each of the three sections are as follows:

Identity and Purpose: 13.3

Culture: 61.2

Attitude to Quality: 51.7

Customer Satisfaction: 71.8

Performance Data Management: 25.3

Performance Planning and Monitoring: 20.3

The organization scores least in the first section (Identity and purpose) with a score of 13.3 and most in the fourth section (Customer Satisfaction) with a score of 71.8.

As per the guideline laid out in the previous pages, the organization is not ready to meet the requirements necessary for QMS implementation. As such it would be unwise to hastily move ahead with QMS implementation without improving performance in the key performance criteria.

However there are some interesting concepts beyond the initial observations stated above. The organization’s performance was lacking in the first three key performance criteria, however the performance was actually ‘relatively well’ in the fourth criteria, namely ‘customer satisfaction,’ which is actually a more advanced criteria compared to the three initial criteria.

This does not mean that the organization is ready in any way whatsoever. The organization must still gather 80 in each of the first three performance criteria before it can even think about the later three criteria. Good performance in the first three is a mandatory minimum if they are to move with QMS implementation.

6. Conclusions

The conclusions reached in this study are highlighted with reference to the specific objectives listed at the beginning of this study and also in the internship research proposal submitted as per university degree requirements. What follows is the title of each of the specific objectives followed by a summary narrative of what solutions have been generated towards achieving said objectives.

- Develop/identify criteria for measuring management potential for successful implementation of a QMS.

The study has been able to identify six specific management criteria that may be used to measure management potential to successfully implement a QMS. They are as follows:

Section 1: Identity and Purpose

Section 2: Culture

Section 3: Attitude to Quality

Section 4: Customer Satisfaction

Section 5: Performance Data Management

Section 6: Performance Planning and Monitoring

Additionally the study has been successful in introducing a scale based on importance of the above criteria.

- Develop a quantitative measure for evaluating management potential.

The study then went on to developing a score based measurement tool to assess management potential. This has been derived directly from the six criteria that had been previously introduced. An average section score from each criterion has been designated to measure such potential. Additionally, these scores are calculated based on the responses from the organizations own employees.

A minimum arbitrary score of 80 in each of the six criteria has been identified as a prerequisite for organizations to consider themselves competent enough to successfully implement a QMS. However organizations may still adopt a QMS if they meet the threshold prerequisite.

- Attempt to identify a minimum management potential threshold which would qualify an organization for QMS adoption.

The study proposes that any organization score a minimum of 80 or above in each of the first 3 sections (criteria) in order to consider themselves eligible to implement a QMS.

- Develop a management model which will help to induce management potential.

The study has explicitly identified specific areas of performance which needs to be excelled at in order for QMS implementation to be successful.

The obvious implication for management is to take these criteria separately and develop strategies to improve and perform better in these said criteria. Such strategies will invariably involve a slow and long term overhaul of organizational culture and practices.

The author identifies this as the best way to move ahead. There can be no universal prescription as to how to perform better in these criteria. What this study has achieved is to identify the criteria where performance needs to be improved if the organization is to have a good chance at successfully implement a QMS.

Recommendations

The recommendations, based on the results of the study, for Ispahani Islamia Eye Institute and Hospital management are highlighted in the following sections.

The results of the study are as follows:

Identity and Purpose: 13.3

Culture: 61.2

Attitude to Quality: 51.7

Customer Satisfaction: 71.8

Performance Data Management: 25.3

Performance Planning and Monitoring: 20.3

From a quick glance we see that the performance in 'Identity and Purpose' is extremely poor. The majority of employees are unaware of the organization's purpose and there is a lack of sense of ownership.

This is an unfortunate turn of events as Islamia is a 55 year old organization that has a rich historical heritage.

This heritage must be leveraged to improve organizational ownership.

Some of the ways that this can be improved are as follows:

1. Making employees aware of the organizations heritage e.g. through a documentary.
2. Making employees aware of the noble and charitable intentions of the founder of the hospital, Mr. M. A. Ispahani. This will instill a sense ownership amongst staff.
3. If necessary, ask employees about their sentiments towards the organization's mission and vision in round table discussions with top management. The ambience should be casual and employees must be made to feel comfortable.
4. Ask Department heads to work with their employees to develop strategies that better reflect the organization's mission and vision. This will ensure compliance with the strategic direction as described by the mission and vision.

Next we can see from the results that the organization scored an average of 61.2 in Culture. If we go a bit deeper we can see from the original data that 68% of respondees thought that they had the platform to express their ideas but this has been downgraded by the fact that 67% of respondees also felt that management was not willing to seriously consider their ideas and implement them.

The organization must learn to listen to and accept the ideas of its employees where applicable. This will result in an environment where employees feel valued.

But how can we make the organizational culture more flexible?

There are two levels of barriers to having a flexible culture, owners and top/mid level management.

The owner/CEO/President/Chairman of the organization must want to have a culture that is responsive to employee's needs. If these people don't want such a culture then the top and mid level managers will in essence take that message to heart and convey that same sentiment to lower level managers and employees. In essence, if the owner/CEO/President/Chairman of the organization is not welcoming to the ideas of the people below them such as Assistant VP, Director, Assistant Director and Department Head then what will happen is that these people will treat their subordinates the very same way, and as a result great ideas will never be implemented and realized. These ideas will simply die in the conception stage.

So it begs the question, 'What will happen if the owner/CEO/President/Chairman of the organization decides to shut his/her door to ideas from employees and instead decides to make every decision by himself or herself or after consultation with special advisors?'

Even if the owner/CEO/President/Chairman of the organization is a pure genius comparable to the likes Newton, they will never completely understand the challenges facing the organization. These will only be understood by people like floor managers and department heads. Hence not listening to them will result in calamitous consequences. Suffice to say that if problems at the operational and

departmental levels are not addressed through regular and productive discussions with top management then this type of organization will face severe difficulties or even fail to survive. History is rife with examples of how industry giants collapsed over night due to this lacking.

So here are the possible scenarios:

If the owner/CEO/President/Chairman of the organization is not willing to change their practices then the organization will face trouble one way or another. There is nothing to be done there.

If however the owner/CEO/President/Chairman of the organization wants to adopt such a culture but is facing hindrances from authoritative directors who wish to centralize decision making in their departments, then the owner/CEO/President/Chairman of the organization must take the initiative to replace these persons with more flexible and benevolent individuals. At the operational level this can be very motivating for employees when they see the owners replace their authoritative bosses with kinder and more receptive characters. There is very little chance for remodification of behavior as this is more or less impossible. People are set in their ways.

The section on Attitude to Quality is an interesting phenomenon. The organization has scored 51.7 in this section but it is easy to understand why upon only superficial analysis.

If we go back to the original results from the survey, we can observe the following:

83% did not know about the fact that the organization was designing a Quality management System. When asked further, 87% thought that a QMS was needed in the organization, with 13% saying 'No' to its necessity and utility. Furthermore, 88% of this group of 13% who said 'NO' to the introduction of the quality management system said they would try to adjust to it if it was introduced anyway but that they wouldn't like it.

The main problems and recommendations are listed below:

Management failed to inform 83% of the workforce that a QMS was being designed. This could have been easily conveyed through a simple office order or through an announcement at one of the many staff meetings held monthly throughout the year.

Such information must be conveyed to staff in a timely and appropriate manner, preferably 1 to 2 years before implementation. This will allow staff time to adjust to the issue of quality practices and they will get the opportunity to actually think about the issue.

Ample time must be provided for such crucial information to sink in.

88% of the 13% who said 'NO' to the introduction of the quality management system said they would try to adjust to it if it was introduced anyway but that they wouldn't like it. 88% of the 13% is actually a small number. These individuals would not feel okay doing things in a new way. This issue can be handled in many ways, for example, these individuals can be trained to perform other work which would stay more or less unaffected by the implementation of the QMS. Additionally, if these people are unwilling to do

even that, they must be provided with flexible options to seek new employment opportunities years ahead, this is because quality cannot be compromised.

We can say that there is a direct link between the number of people who refuse to accept quality practices and the organizations potential to successfully implement a QMS.

The organization has performed relatively well in the section dedicated to customer satisfaction, with a score above 70.

Focus is instead shifted to the 4th and 5th sections, namely those sections related to performance planning, tracking and recording.

The organization scores below 30 in each of the above mentioned sections. This is indicative of the fact that performance planning, tracking and recording capabilities have not strongly developed in the organization.

These capabilities are the least important in our quality incline model. The reason for this is because performance planning, tracking and recording capabilities are not directly related to actual performance.

If employees are actually performing well, without any data management activities, then documentation will be relatively easy. However, if employees are not performing well, then no amount of planning, tracking and data management will improve their performance. So let us separate these issues.

We recognize planning is an important phase but the rest simply shows whether documentation has been done or not.

Strong Planning capabilities can be acquired relatively quickly by hiring experienced consultants who are specialists in developing business and Activity Plans.

Now let us come to the issue of documentation. This is a special challenge that haunts every organization implementing a QMS.

No employee likes to document their activities, especially after not having to do so previously.

There can be a simple solution. Make someone else do it. This is an initiative that is gaining ground at Islamia. There will be handful of employees whose job it will be to do everyone's documentation for them. This group will go from department to department taking notes of peoples verbal ideas and translating them into formal documents. These will be reviewed by those very people who dictated them and their directors and then finalized.

What this will do is that it will introduce a culture of acceptance.

Appendix

The following questionnaire was used in this study.

Section 1.

i. Are you aware of your organization's mission and vision?

☐ YES ☐ Somewhat ☐ NO

If your answer is NO, please skip the next question.

ii. Do you believe that your department's current strategies and actions are in harmony with the organization's mission and vision?

☐ YES ☐ Somewhat ☐ NO

Section 2.

i. How would you define the culture at your organization?

☐ Adaptive, with individuals having the ability to change behavior as per necessity

☐ Slightly flexible, with some chance for altered behavior

☐ Restrictive, with no opportunity for flexibility

ii. Do you believe that you are *more or less free* to make suggestions/recommendations to middle/top management on work related issues?

☐ YES ☐ Somewhat ☐ NO

iii. Do you feel that the organization is interested to implement any of the advice and suggestions that you or your colleagues have offered?

☐ YES ☐ Somewhat ☐ NO

Section 3.

i. Are you aware that a Quality Management System is being designed at Islamia?

Note: (A Quality Management System (or QMS) is a system for managing service quality at our hospital)

☐ YES ☐ Somewhat ☐ NO

ii. Do you believe that the organization needs a quality management system?

☐ YES ☐ Somewhat ☐ NO

If you have answered YES, please skip the next question.

iii. If you have answered NO, what would your feelings be if the QMS is launched anyway, *resulting in new ways of doing the same work that you do every day?*

☐ I would accept the changes with a positive attitude and do my best to comply

☐ I would try to adjust, even though I wouldn't like it

☐ I would feel annoyed with the new ways of working

Section 4.

i. Do you believe that Customer Satisfaction is an important component of maintaining quality?

☐ YES ☐ Somewhat ☐ NO

ii. Do you believe that 'your department' seriously considers the concept of customer satisfaction whilst designing and/or executing tasks/actions?

☐ YES ☐ Somewhat ☐ NO

Section 5.

i. Does your department have targets that help it to contribute towards overall strategy achievement?

☐ YES ☐ Somewhat ☐ NO

ii. Have these targets been broken down into key performance actions?

☐ YES ☐ Somewhat ☐ NO

iii. Are you regularly appraised by supervisors regarding target achievement?

☐ YES ☐ Somewhat ☐ NO

Section 6.

i. Does your department regularly provide documented methods on how to achieve targets?

☐ YES ☐ Somewhat ☐ NO

ii. Does your department have a recording mechanism to track progression/achievement of those targets?

☐ YES ☐ Somewhat ☐ NO

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