



Organizational behavior barriers in implementing ISO 9000 within the Malaysian local governments

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ABSTRACT

The Local Governments (LG) in Malaysia has certainly been accountable to implement, and subsequently achieve, the ISO 9000 accreditation. However, to date, most of the PBT organizations have still failed to accomplish this target. The purpose of this study is to identify the barriers of the main organizational behavior of ISO 9000 implementation in LG organizations. This study also seeks to determine whether or not these barriers are different between the types of LG organizations. The related data had been gathered through the questionnaire survey and was analysed using quantitative methods. As an output, the descriptive statistical analysis shows that there are three main barriers that have been faced by the LG organizations in implementing ISO 9000, those of which are the negative perception or attitude towards quality among employees, employees' culture towards quality programmes and the lack of cooperation among internal departments. This study has also found two additional organizational behavior barriers that have never been discussed previously, known as the change of the *Yang Dipertua*/Mayor and the non-existence of proper quality management department, division or unit.

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Introduction

In Malaysia, LG (local governments) is considered a unique organization because it does not only play the role as a government agency but at the same time functions as a government in the third tier of the larger hierarchical organization (after the federal government and state government). The responsibilities and the jurisdiction of the LG as a government have been stated clearly through the enactment of the 1976 Local Government Act. It has also been verified in the Act that a particular LG is fully placed under the state government's control. As a government, LG has been accountable to provide various services at local level. This statement is in line with Kuppusamy (2008) who has mentioned that the LG is a public agency that provides urban services to its communities. Generally, LG's responsibility can be categorized into five main objectives which relate to the aspects of national solidarity, democracy, freedom, adept administrative capabilities as well as economic and social development. Meanwhile, Skelcher (1992) posits that LG has a vast formation objective, so much so that their achieved success is difficult to be measured clearly.

At the same time, as a government agency, the LG administration has been a constant subject of administrative reforms in Malaysia (Salleh and Abdul Khalid, 2011). Therefore, the LG is responsible to follow and implement any improvement programme that is introduced and instructed by the Federal Government, including the instruction for implementing ISO 9000 in its organisation. According to Mohamad Sabri (2010), through the 9th Malaysia Plan, the federal government and its officials via their ministries, will be directly involved and will work collectively, in order to increase the number of LG which aims at reinforcing the ISO 9000 standard for their respective core projects. In the real situation, the issue concerning the service quality is frequently talked about and

given due attention, either within the private or the public sector. For the LG, the issue of quality is often expressed along the lines of the service being unsatisfactory, cases of delays, arising bureaucratic problems and others. Therefore, the directive issued on the implementation of the ISO 9000 quality management systems within the LG organizations is seen as bringing a new dimension to these agencies in enabling them to enhance their respective reputation and efficiency. The implementation of ISO 9000 will enable the LG organisations to benefit from other advantages such as gaining a continuous process of quality improvement (Mohd. Yusoff, 1997), a greater awareness of customer needs and improved customer relationships (Narayana and Goudar, 1999), savings in costs, time and effort (Halim and Manogran, 1999) and others.

However, after a decade, the ISO 9000 which was consecutively introduced by the government records as mentioned in the Ninth Malaysian Plan has shown that until the end of 2005, the number of LG with the obtainment of ISO 9000 (version 2000) accreditation was very limited, (only 8 LA organizations). If we look at this generally, this situation should have never occurred since it involves a long implementation timeframe, which was approximately 14 years (1996-2010) and the government had also provided a proper implementation guideline, as well as appointed MAMPU as an advisory and consulting body to be fully utilized by the LG in implementing the ISO 9000. This scenario indicates that there is a need to conduct a study regarding the ISO 9000 implementation process within the LG organizations, especially in order to discover the main barriers encountered by these localised organizations in implementing ISO 9000. The path to ISO certification is seldom pleasant and smooth (Yahya and Goh, 2001). Based on previous studies and discussions, such as in Kim (1994), Lipovatz *et al.* (1999), Chin *et al.* (2000), McAdam and Canning (2001), Withers and Ebrahimpour (2001), Magd (2008) and others, it

has been discovered that the ISO implementation in an organization, of the public or private sector, will indeed, have to confront a diversity of obstacles that can bring about certain negative effects such as the delay in getting the certificates, the time-consuming process which exceeds the timeframe decided, diminishing the motivation and so on. Therefore, a compatible study needs to be undertaken to identify the main obstacles faced by the PBT in Malaysia in implementing the ISO 9000. However, in this study, the focus only rests in the identification of the main barriers of the implementation of the ISO 9000 which relates only to the OB aspects. This is due to the fact that the barriers which involve OB (Organizational behaviour) serve as obstacles that often prevail in the implementation of improvement programmes for an organization. Even the uniqueness, which is synonymous with the LG as a government and a government agency, also as a unit placed under both influences (central and local governments) can rationalise why these OB-related barriers need to be studied as a whole.

The Malaysian Local Government and the Barriers of Organizational Behavior of ISO 9000 Implementation

The Local Authorities or (PBT) or local governments stand as one of the several government structures still practised in Malaysia. Although the local governments assume their rightful position in the Malaysian government structure, there is yet to be a fixed definition that has become practical in the understanding of local governments in the Malaysian context (Phang, 1989). In short, the PBT in Malaysia can be defined as a local-based establishment of a government for a particular district or specific area placed under legislative allocations and specified domain of authority, to enable it to prepare some specific services to the local community. In Malaysia, the main Act that stands as the pillar for the founding of an LG is known as the Local Government Act 1976 (Act 171). Through this Act, LG has been given the mandate to function as a government and authority at the local level to implement various specified functions which involve the aspects of city and rural planning, tax collection, the preparation of public facilities and infrastructure, area development management, preparation of township services, health and cleanliness, public property management and so on. According to Section 3(d) Act 171, in Malaysia the LG organizations have been categorized into two types which are the District Council and the Municipal Council. According to Ahmad Atory (1991) and Hazman Shah (1992), the district council is a council that is established in the form of "Rural-based" and is situated away from the main town centers, which have less than 100 000 residents, annual income of less than RM 5 million and have a restricted capability to execute any project due to the lack of facilities. Next, Ahmad Atory (1991) and Hazman Shah (1992) have come up with a summary of the characteristics of the Municipal Council, which is often situated in the city center like the state capital, has more than 100 000 citizens, has annual income which is not less than RM 5 million, and has an already-existing administrative center which is well-organised in the confinement of the central area.

Other than these two categories of LG, in Malaysia we also have another type of LG known as the City Council. Nonetheless, based on the allocation contained in Act 171, the City Council is actually not classified as one of the categories of LG, as it serves as an upgraded Municipal Council when its administrative area is declared a city. Based on this statement, to fulfill the aim of this paper, the Malaysian LG is divided into two categories namely the District Council and Municipal

Council only, whereby the City Council is regarded as part of the Municipal Council. According to the Local Government Department (2011), in the Malaysian Peninsula, as a whole, there are 99 LG which constitute 57 District Councils, 34 Municipal Councils and 8 City Councils.

In fulfilling its functions and roles at the local level, as a government agency, LG has thrived through various changes that it has made in improving their service quality and further satisfying the locals. These changes involve numerous aspects including the development and updating of job functions and fields, amendments to legalities, scope of authority, administrative and organizational restructuring, restructuring processes, management development and others. From the quality aspect, the ISO 9000 quality management system (QMS) was introduced by the Federal Government to be implemented within the LG organizations since the year 1996. The implementation of this QMS is compulsory to all government agencies including LG organizations as stated obviously in the Civil Administration Improvement Circular, no. 2 year 1996. Through this circular, the government has elaborated on its standpoint, to ensure that all its agencies have performed the ISO 9000 in two years. The main objective of implementing MS ISO 9000 in the public service is to develop an efficient and effective quality management system in order to provide the best service to the public consistently (Director General of MAMPU, 1997).

To ensure that the execution process is smooth-sailing, the government has drawn a specific guideline to be complied by the LG and its agencies, in order to obtain the ISO 9000 endorsement in the period that has been decided. The government's determination to ensure that all its agencies receive this approval is evident when the Modernization and Management Planning Unit (MAMPU) is specifically appointed by the government to guide and offer advice across LG organizations in the implementation process. The government's ongoing ambition to see that its agencies practice the latest quality management system that is acknowledged internationally has been manifested in the re-issuance of the Civil Administration Improvement Circular, no. 2 year 2002, where this new circular has announced the abolishment of the use of the ISO 9000:1994 standards and superceded it with the ISO 9000:2000 standards version, in line with the changes made by the governing International ISO Body. Then in 2010, through another circular dated 1 January 2010 entitled "*Panduan Perlaksanaan MS ISO 9001:2008*", the government again has instructed its agencies, including LG organizations to adapt their current ISO implementation to the latest version. This unending order from the government to ensure that LG and other government agencies implement and obtain the latest ISO 9000 certificate is because the government has been aware that the move will be beneficial to everyone involved. According to Pin *et al.* (2001), the success of achieving ISO 9000 certification within a public sector organization is considered "as a tool for improving organizational images and creating the structures to integrate changed responsibilities for public organizations."

Referring to the Malaysian scenario, it is found that the empirical studies on ISO 9000 in the public sector, specifically in the local government are lacking and limited because most of the papers are only presented as conceptual or discussion papers. However, internationally, numerous studies that have been conducted by previous researchers have established various findings that can be used as the variables in describing the

related barriers that were present during the implementation of ISO 9000 in versions 1994, 2000 or 2008 within an organization. In generality, such barriers can be associated with various aspects such as the lack of resources, or specifically technical and skill resources, politics, organisational idiosyncrasies and so on. However, for this study, the obstacles that are going to be probed are limited to those related to organizational behavior alone.

Based on previous discussions, various definitions have been circulating on Organizational Behaviour. Taken from Chung and Megginson (1981), Organizational Behaviour is the study of the Organizational components and their impact on human behaviour and organizational performances. Meanwhile, Morehead and Griffin (1995) explain that the organizational behavior is the study of human behavior in the workplace, of the interaction between people and the organization, and of the organization itself. On the same note, Robbins and Langton (2005) have defined organizational behavior as the field of study that investigates the impact that individuals, groups, and structures have on behavior within organizations, for the purpose of applying such knowledge towards improving an organization's effectiveness. From the definitions above, it has been discovered that the organizational behavior encompasses a study that investigates the impact that individuals, groups and structure have on behavior within an organization and therefore it covers three determinants of behavior in organizations which are individuals, groups, and structure. In this understanding, in the context of this study's implementation, the discussion on the barriers of the implementation of the ISO 9000 related to aspects of organizational behavior is fully referred to the existing obstacles and which intervene in the ISO 9000 execution process in an organization as the repercussion from attitude, assumption, knowledge, and human behaviour (involving employees, consumers, suppliers and so on), organizational administration and management structure, leadership factor, strategy, work procedure and system, communication and relationship in the organization and so on.

In talking about the idiosyncrasies prevalent in organizations, often, the main thing that is discussed is connected with the existential nature of the top management officers. This is because, the top management people have their own roles to play and a big responsibility in driving the success of an organization, especially with regards to fulfilling the aim or target that has been set. In reference to the ISO 9000 implementation in an organization, including LG, the commitment of the top management has been found to have a deep impact on the level of success of an organization. According to Wahid and Corner (2009), this stands out as one of the primary problems that stifle the implementation process of ISO 9000. This is in tandem with a discovery by (Magd, 2008) which explains that the most important barrier is perceived as top management commitment and this is due to the fact that without top management commitment, employees tend to put a low priority on the quality management system and the quality management system becomes static. Additionally, the top management commitment remains as one critical success factor already identified to warrant the success of ISO 9000 implementation in an organization. Furthermore, the level of success of this implementation is also influenced by the leadership factor demonstrated by these top officers. This is due to the fact that a successful leadership will be able to

generate a sense of adherence among the staff, in maximizing their role in meeting the target of the ISO 9000 accreditation.

Also, the obstacle can also be evident by referencing to the type of existing organizational structure for an organization. The formation of a structure will create power hierarchy and the fragmentation of work groups known as department, section or unit. The existence of the hierarchy and the work groups will be able to ensure that the execution of a particular task or work is given to the 'right' persons or section based on the scope and priority determined. In the ISO 9000 implementation process, an organizational structure is indeed, powerful enough to influence the efficacy of the implementation. This has been asserted by Phenol (1994) who elaborates that the formation of a construction firm's structural formation that depends on the project attributes, has impeded the smooth running of the implementation process as such structure is able to affect communication and internal relations between individuals working in the firm. Other than that, the arrangement of such organization is also found to affect the capability to work cooperatively, especially between the workers and agencies in an organization. This is due to the fact that the organizational structure serves as the main mechanism that determines the work scope and the kind of relationship that needs to be established in an organization. This is explained further by Andrews (1995) who clarifies that an organizational structure consists of job positions, their relationship to each other (e.g. independent, part of a work-group or team and reporting relationship) and accountability for process and sub-process deliverables.

Another obstacle associable with OB also comes in the form of humanity factor comprising of behaviour, attitude and the level of readiness among parties serving the particular organization towards implementing the ISO 9000. This particular factor does have a direct impact on the way the organization is molded, as the people or staff are the doers, who act out on certain things, decide on certain measures, which at the end shape the organizational idiosyncrasies the way they are. Through previous works, there have been a lot of researchers who have discussed the obstacles or barriers that surface in regards of the humanity factor. Bhuiyan and Alam (2005b), in their study on the implementation of ISO 9000 in small industrial firms, have outlined quality perception and resistance to change as part of the obstacles that have emerged against the implementation process. Meanwhile, Magd (2008) adds that the staff responsibility and authority, the readiness to change and staff participation are named as some of the main factors which make it difficult to execute the ISO 9000 other than the factors of resources and the quality system itself. To refer to the implementation of the program quality for the libraries in Malaysia, Osman *et al.* (1998) have divided the barriers for ISO 9000 implementation into 3 main groups, whereby two of them involve the factor of humanity, with the first one being obstacles related to issues concerning the staff (such as inefficacy, ignorance, lack of commitment, shortage of staff, being untrained and so on) and the second is the obstacle associated with the lack of time such as the staff being too occupied with administrative work, the implementation of quality not taken as a core activity by the staff, the occurrences of ad-hoc programmes which necessitate staff commitment and so on.

Next, another obstacle of the implementation of ISO 9000 which can be related to the aspect of OB is seen in those barriers that have a lot to do with strategy and organizational development. These two factors do play a part in the

implementation of ISO 9000 in an organization, including PBT organizations. The existence of the factors will determine the priorities, focus and efforts that have been specifically strategized towards obtaining the certification of ISO 9000. If a strategy and development does not target on ISO 9000 as a means to an end, as a clear objective and which needs to be given priority, then of course the process of implementation would have to brave various problems, which will finally delay the accreditation process or perhaps, dampen the whole series of efforts done. Among the barriers related to the factors of strategy and the organizational development are the lack of training and education of employees, lack of necessary guidance for certification, underestimation of efforts needed for registration, lack of implementation planning, lack of recognition or rewards system and others. Based on the consideration given on the scope and the need of this study, where the literature is concerned, there are 20 obstacles listed, found to be closely linked with the aspect of organizational behavior. Table 1 shows the following barriers.

Methodology

This is a survey study where the data was collected through questionnaire distribution. The development of the questionnaire's content was primarily based on the information that has been gathered from secondary resources especially from journal articles. The content of this questionnaire was divided into two sections, where in the first section, the questions that were asked carry the intention of gaining ample background information related to the respondents. In the second section, there are 32 statements on organizational barriers that were enlisted in 4 different categories which are organizational, resource, behavioural & cultural and technical categories. Each statement is provided with the five-point Likert scale answer format. These points are arranged according to 1 which denotes "Strongly Disagree", 2 for "Disagree", 3 for "Neutral", 4 for "Agree" and 5 for "Strongly Agree" as can be found in Bhuiyan and Alam (2005a). Other than that, a special column was provided in the questionnaire, to enable any respondents involved to list out any other barriers that they can come up with, according to their respective views.

The final draft of the questionnaire's content was then subjected to a pilot test by six quality leaders who have experiences in implementing ISO 9000, specifically in LG organizations. The determination on the number of people involved in this pilot test was made by making reference to the study that has been done, as stated by Lee *et al.* (2009). This pilot test had been conducted within approximately 3 weeks in March 2010. Through this pilot test, in order to improve the content of questionnaire, a few comments had been propounded by the quality leaders. However, all the comments only mentioned the needs to rephrase a few statements, to ensure that the actual respondents were going to understand the questions better. From the adequacy and accuracy aspects, they had not received any comment by the quality leaders. Based on the comment, the latest version of the questionnaire was produced and made ready for the actual survey.

This study was intended to have the respondents who constitute the quality leaders who are implementing ISO 9000 in LG organizations operating in the Peninsular Malaysia only (excluding Sabah and Sarawak). For the data collection, it had been decided that the quality leaders are those who represent PBT organizations. Currently, there are only 99 LG organizations in Peninsular Malaysia. As the number of

respondents is small (less than 100 respondents), then all quality leaders who are employed in the PBT organizations in the Peninsular Malaysia were chosen as the respondents for this research. It indicates that at most, 99 quality leaders would be directly involved in this study. Therefore, initially there were 99 LG organizations which had planned to be contacted for the aim of getting their quality leaders to take part in this survey. All these organizations were contacted through one of the following approaches, namely sending an official letter which explains about the importance of this study and the intention to involve quality leaders from PBT organizations, or through contacting quality leaders by phone based on the protocol prescribed for the organization. After all the PBTs were contacted, 53 had agreed to take part in this survey. Having obtained their agreement, the date and time which were mutually agreed (by researcher and leaders) had been set, during which the researcher had paid a visit to the premises of the organizations involved. During the meeting, the questionnaire form was distributed to the respondents and they were to fill in the forms on the spot. If there were any arising questions, then the respondents were allowed to ask the questions directly to the researcher. The range of time taken by the respondents to answer all the questions was roughly 45 minutes to 1 hour and 15 minutes.

Results and Discussion

Validity and Reliability

The survey instrument for this study was developed in a systematic and structured manner. It is because the content of questionnaire has been developed based on the previous study and after that, it was revised based on comments from a pilot-test, which was run to assure the content validity. Since the sample size of the data is small (only involving 53 respondents), according to Hair *et al.* (2006), it is not suitable for validity tests such as the exploratory factor analysis (recommended sample size: 100) or the confirmatory factor analysis (recommended sample size: 150). Besides that, in this study, the reliability test was also conducted using the Cronbach's Alpha coefficient in order to determine the consistency of a measure. Table 2 shows the Cronbach's alpha which corresponds to each of the barriers. Based on that table, it is revealed that the final reliability values of the Cronbach's alpha for this study is 0.805. The Cronbach's alpha reliability coefficient normally ranges between 0 and 1, but there is actually no lower limit to the coefficient. However, according to Nunnally (1978) and Litwin (1995), the reliability values of 0.7 or higher are considered to be adequate. Typically, the higher values of Cronbach's alpha imply a higher degree of reliability. Apart from that, seeing that all values for each barrier as stated in the column labelled "Cronbach's Alpha if Item Deleted" so it is not compulsory to delete any of the barriers in order to improve the reliability score of this scale. Therefore, it can be derived that the instrument used in this study is reliable and internally consistent.

Demographic data

From the analysis that has been done on the 53 returned questionnaires, there were 26 respondents who were representing the District Council category and 27 respondents representing the category of Municipal Councils. In reference to the 53 respondents involved, we have found only 13 PBT organizations (24.5%) which have taken the effort to establish a special unit or department towards administering the implementation of quality programmes, specifically ISO 9000 in their own organizations. Meanwhile, as much as 40 or 75.5 % of the total number of PBT organizations have placed the

responsibility of implementing quality programmes to individuals, units, departments or agencies. The outcome of the analysis has also indicated that those who are appointed as quality officers in a PBT organization possess the level of education, the suitable background and experiences in implementing a different quality programme, and which is shown in the following table (Table 3) below:

The Barriers of Organizational Behaviour

Next, table 4 shows the outcome of the descriptive analysis on the barriers of the organizational behavior which take place in the implementation of ISO 9000 among PBT organizations.

Referring to Table 4, it is found that from the 20 barriers that are enlisted, there are only 3 barriers which have noted the same mean and mode or those exceeding the value of 4.0. The outcome of analysis reveals that there are only three main barriers found to have really impeded the ISO 9000 implementation process in most local government organizations. The first main obstacle identified through the study finding is the negative perception or attitude towards quality among employees. In any organisation, including the PBT, workers are regarded as the most important asset to enable the organization involved to implement its role and functions. Therefore, the employees serve as the main movers of every activity or programme that has been decided for PBT organizations. In such a situation, positive and committed attitude and contribution can be a very good thing as for every implementation need can be performed well, in the time allocated and in sufficient amount. With the existence of negativity among employees on the implementation of ISO 9000, employees tend to feel that they are controlled by the system, hence their reluctance to adopt the change. A study by Koo *et al.* (1998) on staff attitude on the ISO 9000 implementation has revealed that employees feel the decline of quality success drivers in the midst of the ISO journey as compared to the start. Bearing this in mind, continuous positive attitude and motivation are very much needed by the staff to make sure that they are always enthusiastic about making ISO 9000 implementation process a reality, until the certification phase and further maintaining that position. This is in agreement with Yung (1997) who asserts that staff participation at all levels is important for the implementation to work successfully in an organization.

This paper also recognizes another factor- employees' culture towards quality programmes as one of the main barriers which disrupts the ISO 9000 implementation process in PBT organizations. This is actually a common barrier as has been discussed by Mo and Chan (1997), Amar and Zain (2002), also Yahya (2003). In a particular Malaysian PBT organization, in general there are various layers of employees, whereby they can be categorized into three main groups namely professional and administrative group comprised of staff who have at least a bachelor's degree, support staff who have diploma, Malaysian school certificate of education (STPM), or Malaysian certificate of education (SPM) and finally the labour group, whose members are those who have the Lower Certificate of Education or who pass primary level of education. From these three groups, most staff who work for the PBT organizations are members of the third group. In most occasions, with low level of education, the awareness on the importance of implementing a quality programme including the ISO 9000 among workers from this group has been limited and is apparently different from the other groups. According to Yaacob (2009), when the level

of awareness among the employees differs, then the agenda of implementation may matter only to some people, and not so much on others. This will further lead to those who do not really grasp the significance of such implementation, to adopt the too-laid back attitude and lose the seriousness in the effort to meet the target that has been established. In time, these elements of negativity will create an unhealthy culture amongst the staff, especially those cynics, who see the ISO 9000 implementation as trivial and only acts as a political gimmick for top officers. Actually, to institute the quality management system as a philosophy within an organization, all employees must come to realize that they need to have a shift of culture that leans more towards quality, as needed by their organization, leaders dan customers.

Next, the final obstacle or barrier which is something already anticipated and stands in the way of the ISO 9000 implementation process in PBT organizations would be the lack of cooperation among internal departments. This is rather imminent as a PBT organization has been structured in such a way that various departments in that organization have their own responsibilities and roles to play. The establishment of diverse sections is at par with the multifarious roles and functions and the wide scope of the PBT. This is to ensure that the organization is able to provide all services that they are supposed to deliver systematically and effectively. Nonetheless, In the context of the ISO 9000 implementation, the existence of these various departments has made the implementation difficult due to the fact that level of cooperation varies from one department to another. Meanwhile, according to Chu *et al.* (2001), good and consistent internal cooperation serves as a critical factor for the implementation to succeed, especially in public organizations. Various causes have come into the picture, among which are the lack of commitment and attention from the heads of the department (Schuurman, 1997), the low level of awareness and understanding on the importance of ISO 9000 implementation (Al-Zamany *et al.*, 2002), and weak internal communication (Vloeberghs, 1996), poor leadership and so on.

Then, all the above mentioned barriers were analysed using The Mann-Whitney test. This test which is also called the rank sum test, is a non-parametric test that compares two unpaired groups. This test is used, in order to find out whether or not there is any different finding regarding the barriers of implementing ISO 9000 based on the two types or categories of the local government which are known as the district council and the municipal council. The result that has been produced through this test is shown below:

With reference to Table 5 above, it is found that there are no values of the Kruskal-Wallis test smaller than the significant level of 0.05 for all three barriers under focus. This indicates that both categories of the local government involved in this study are in unison to state that the three barriers are indeed, the barriers related to the aspect of OB found to have disrupted the ISO 9000 implementation process in their respective organizations.

The Additional Barriers

Other than the 20 barriers listed previously, this study also validates two more organizational behaviour-based barriers namely the change of the *Yang Dipertua/ Mayor* and the non-existing proper quality management department. Looking at the table above, it has been discovered that they have noted the number of frequency of more than 50 percent.

Table 1: List of obstacles/barriers related to the organizational behaviour

No.	Organizational Barriers	Sources
1.	Lack of top management support and commitment	Chew and Chai (1996), Brown <i>et al.</i> (1998), Quazi and Padibjo (1998), Fuentes <i>et al.</i> (2000), Poksinska <i>et al.</i> (2002), Quazi <i>et al.</i> (2002), Bhuiyan and Alam (2005b), Magd (2008), Said <i>et al.</i> (2009).
2.	Lack of training and education of employees	Chew and Chai (1996), Mo and Chan (1997), Brown <i>et al.</i> (1998), Quazi and Padibjo (1998), Lipovatz <i>et al.</i> (1999), Quinlan (1996), Amar and Zain (2002), Bhuiyan and Alam (2005b), Singh and Feng (2006), Magd (2008), Said <i>et al.</i> (2009)
3.	Difficulty in the allocation of personnel responsibilities and authority	Lipovatz <i>et al.</i> (1999), Magd (2008),
4.	Lack of necessary guidance for certification	Zeng <i>et al.</i> (2007)
5.	Lack of cooperation among internal departments	Amar and Zain (2002), Singh and Feng (2006)
6.	Lack of leadership	Quazi <i>et al.</i> (2002)
7.	Underestimation of efforts needed for registration	Bhuiyan and Alam (2005a)
8.	Lack of implementation planning	Said <i>et al.</i> (2009)
9.	Lack of recognition or rewards system	Ngai and Cheng (1997)
10.	Lack of communication	Phenol (1994); Carlsson and Carlsson (1996), Al-Zamany <i>et al.</i> (2002)
11.	Resistance to change	Mo and Chan (1997), Quazi and Padibjo (1998), Gotzamani (2005), Erel and Ghosh (1997), Bhuiyan and Alam (2005b)
12.	Unclear benefits of obtaining certification	Mo and Chan (1997), Quazi and Padibjo (1998), Beattie (1999), Said <i>et al.</i> (2009)
13.	Lack of understanding over the importance of the ISO 9000	Lipovatz <i>et al.</i> (1999), Erel and Ghosh (1997), Said <i>et al.</i> (2009)
14.	Increased workload	Kim (1994), Mo and Chan (1997), Lipovatz <i>et al.</i> (1999), Tan and Gilbert (2001)
15.	Employees' culture toward quality programmes	Amar and Zain (2002), Yahya (2003)
16.	Negative perception or attitude towards quality	Mo and Chan (1997), Amar and Zain (2002), Bhuiyan and Alam (2005b)
17.	The attitude of the third party such as the users/consumers and suppliers	Brown <i>et al.</i> (1998), Fuentes <i>et al.</i> (2000), Chini and Valdez (2003), Magd (2008)
18.	Issues regarding the role and attitude of the evaluators or quality consultants.	Brown and Van der Wiele (1995), Brown <i>et al.</i> (1998),
19.	Lack of involvement, cooperation and commitment from employees	Osman <i>et al.</i> (1998), Tan and Gilbert (2001), Awam and Bhatti (2003)
20.	Lack of motivation	Ngai and Cheng (1997)

Table 2: Output of The Cronbach's Alpha Test From The SPSS

List of Barriers	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Lack of top management support and commitment	50.8868	66.602	0.453	0.663	0.792
Lack of training and education of employees	51.1509	70.438	0.333	0.654	0.800
Increased workload	50.7170	71.091	0.319	0.527	0.800
Difficulty in allocation of personnel responsibilities and authority	51.7736	69.294	0.581	0.722	0.785
Lack of necessary guidance for certification	52.0377	69.537	0.573	0.761	0.786
Lack of cooperation among internal departments	49.7358	73.698	0.266	0.598	0.802
Lack of leadership	51.6604	71.998	0.492	0.512	0.792
Underestimation of efforts needed for registration	51.8302	70.759	0.575	0.741	0.788
Lack of implementation planning	51.7547	69.689	0.427	0.581	0.793
Lack of recognition or reward system	52.0000	70.885	0.484	0.555	0.791
Lack of communication	52.0566	71.054	0.447	0.562	0.793
Resistance to change	51.2642	74.044	0.268	0.536	0.802
Unclear benefits of obtaining certification	51.0943	71.818	0.390	0.544	0.796
Lack of understanding the importance of the ISO 9000	51.0943	72.741	0.292	0.493	0.801
Employees' culture toward quality programmes	49.7358	71.506	0.328	0.568	0.799
Negative perception or attitude towards quality	49.6226	74.201	0.238	0.534	0.803
Negative attitude to quality among the customers and suppliers	51.1887	75.656	0.158	0.531	0.807
Problems regarding the role and attitude of quality auditors and consultants	51.4340	74.827	0.341	0.446	0.799
Lack of involvement, cooperation and commitment from employees	49.8491	71.323	0.381	0.453	0.796
Lack of motivation	51.1698	73.374	0.242	0.422	0.804
Reliability Statistics					
Cronbach's Alpha		Cronbach's Alpha Based on Standardized Items		N of Items	
0.805		0.814		20	

Table 3: The various levels of education, educational backgrounds and experiences in implementing quality among the respondents

Level of Education	Academic Achievement				
	Master Degree	Bachelor	Diploma	Lower than Diploma	
	Frequency and Percentage				
	2 (3.8%)	28 (52.8%)	17 (32.1%)	6 (11.3%)	
Educational Background	Study Field				
	Public Administration	Economy and Business	Management	Engineering	Others
	Frequency and Percentage				
	14 (26.4%)	3 (5.7%)	5 (9.4%)	4 (7.6%)	27 (50.9%)
Experience in Implementing Quality Programmes	Duration				
	> 10 Years	5-<10 Years	3-<5 years	1-<3 years	< 1 year
	Frequency and Percentage				
	20 (37.7%)	8 (15.1%)	5 (9.4%)	17 (32.1%)	3 (5.7%)

Table 4: Results of the descriptive analysis on organizational behaviour barriers

List of Organisational Behavioural Barriers	Mean	Mode	SD
1. Negative perception or attitude towards quality among employees	4.17	4.00	0.89
2. Employees' culture towards quality programmes	4.06	5.00	1.08
3. Lack of cooperation among internal departments	4.06	4.00	0.91
4. Lack of involvement, cooperation and commitment from employees	3.94	4.00	0.99
5. Increased workload	3.08	2.00	1.16
6. Lack of top management support and commitment	2.91	2.00	1.38
7. Lack of understanding over the importance of the ISO 9000	2.70	2.00	0.99
8. Unclear benefits of obtaining certification	2.70	2.00	0.91
9. Lack of training and education of employees	2.64	2.00	1.21
10. Lack of motivation	2.62	2.00	1.02
11. Negative attitude to quality among the customers and suppliers	2.60	2.00	0.84
12. Resistance to change	2.53	2.00	0.85
13. Problems regarding the role and attitude of quality auditors and consultants	2.36	2.00	0.60
14. Lack of leadership	2.13	2.00	0.73
15. Lack of implementation planning	2.04	2.00	1.09
16. Difficulty in the allocation of personnel responsibilities and authority	2.02	2.00	0.89
17. Underestimation of efforts needed for registration	1.96	2.00	0.76
18. Lack of recognition or reward system	1.80	1.00	0.86
19. Lack of necessary guidance for certification	1.75	1.00	0.87
20. Lack of communication	1.74	1.00	0.90

*Note: Scale 1= Strongly disagree, 2= disagree, 3= neutral, 4= agree and 5= strongly agree

Table 5: The results of the Mann-Whitney test between the district council and municipal council on the main organizational behaviour barriers

Organizational Behaviour Barriers	Mann-Whitney U	Sig.
1. Negative perception or attitude towards quality among employees	270.5	0.116
2. Employees' culture toward quality programmes	303	0.359
3. Lack of cooperation among internal departments	329.5	0.683

- * Significant level: set to 0.05

Table 6: The results of the Mean, Standard Division and Kruskal-Wallis Test based on the types of the local government for additional organizational behavior barriers

List of Additional Barriers	Respondents Involved	Mean	Mode	SD	Mann-Whitney U	Sig.
Change of the <i>Yang Dipertua</i> / Mayor	43	4.58	5.00	0.48	151	0.040*
Non-existing proper quality management department, division or unit.	43	4.78	5.00	0.47	158.5	0.604

- * Significant level: set to 0.05

This is because, from the 53 respondents who had contributed to this study, 43 did mention that the change of YDP or Mayor constitutes a form of barrier, and the fact that there is no proper quality management department, division or unit as another barrier which impedes the ISO 9000 implementation process. The issue concerning the replacement of Mayor is seen as an OB-related barrier, as it relates with the change in the administrative structure and leadership for the PBT organizations. The replacement frequently takes place in a brief

cyclical period which is around 2-5 years. Such a scenario has the capability to stunt the ISO 9000 implementation process in these organizations as every officer appointed as the YDP or Mayor tends to have a different interest, level of awareness and priority over the need to materialize the ISO 9000. Next, the second additional barrier related to organizational behavior that can also leave an impact on the ISO 9000 implementation process in PBT organizations is the non-existence of proper and specific department or unit for quality management. Without

specified departments for this, the responsibility to administer the ISO 9000 implementation process will inevitably be handed to various parties or other departments, although the departments already have their own core tasks. In this kind of situation, there is high likelihood that the ISO 9000 implementation process will not be treated as seriously as it should be.

Conclusion

The study that has been done through the survey method has successfully noted three primary barriers related to the aspect of organizational idiosyncracies, which further explains the failure of a lot of PBTs to obtain the certificate of ISO 9000. The barriers that have been mentioned include the negative perception or attitude towards quality among employees, employees' culture towards quality programmes and lack of cooperation among internal departments. If we examine very closely the existence of all the three barriers, indeed they are all intertwined with the weaknesses and the poor demonstration of attitude, commitment and work culture of the employees serving in the PBT organizations. In the execution of any improvement programmes, including that of the ISO 9000, the readiness, attitude and work culture of the PBT staff involved have a lot of influence on the ability to implement and meeting the level of accomplishment targeted. This is boiled down to the fact that the staff is acknowledged as the mechanism or prime movers who are able to ensure that all activities planned in an improvement programme can be fully implemented. What is more, in materializing the ISO 9000 there have been a lot of demands for all workers involved to give their utmost commitment, for instance in the implementation of documentation, adherence to work procedures, doing the audit and so on. Thus, to make sure that the programme can be done until the certificate is successfully obtained, it is crucial for PBT organizations to formulate and implement certain measures that can ensure all their workers fulfill their responsibilities and perform their roles effectively, and at best.

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References

- Al-Khalifa, K., Mohamed, T.A. and Al-Salem, (2008). ISO 9000:2000 quality management standard: experience in the state of Qatar. *International Journal of Productivity and Quality Management*, Vol. 3, No.4 pp. 457 - 471.
- Al-Zamany, Y., Hoddell, S.E.J. and Savage, B.M., (2002). Understanding the difficulties of implementing quality management in Yemen. *The TQM Magazine*, Vol. 14 Iss: 4, pp.240 - 247
- Amar, K. and Mohd Zain, Z. (2002). Barriers to implementing TQM in Indonesian manufacturing organizations. *The TQM Magazine*, Vol. 14 Issue: 6, pp.367 – 372
- Awan, H.M. and Bhatti, M. I. (2003). An evaluation of ISO 9000 registration practices: a case study of sports goods industry. *Managerial Finance*, Vol. 29 Iss: 7, pp.109 - 134
- Beattie K.R. and Sohal A.S. (1999). Implementing ISO 9000: A study of its benefits among Australian organizations. *Total Quality Management*, Vol. 10, No.1, pp. 95–106.
- Bhuiyan, N. and Alam, N. (2005a) A case study of a quality system implementation in a small manufacturing firm. *International Journal of Productivity and Performance Management*, Vol. 54. No.3, pp.172-186
- Bhuiyan, Nadia and Alam, Nadeem (2005b). An investigation into issues related to the latest version of ISO 9000. *Total Quality Management & Business Excellence*, 16: 2, 199 — 213.
- Brown, A. and Van Der Wiele, A. (1995) Industry experience with ISO 9000, *Asia Pacific Journal of Quality Management*, 4, pp. 8 -17.
- Brown, A., Van Der Wiele, T. and Loughton, K. (1998). Smaller enterprises' experiences with ISO 9000. *International Journal of Quality & Reliability Management*, Vol. 15 Iss: 3, pp.273 - 285
- Calingo, L. M., Leong Y.M., Chia, M.P. and Mohamed, H. (1995). Achieving Total Quality Management Through ISO 9000: A Research Note. *Accounting and Business Review*. Vol.2, No.1, pp. 173-186.
- Carlsson, M. and Carlsson, D. (1996). Experiences of implementing ISO 9000 in Swedish industry. *International Journal of Quality & Reliability Management*, Vol. 13 Iss: 7, pp.36 - 47
- Chew. Y. S and Chai.L.N. (1996). *ISO 9002 in the Malaysian Construction Industry Guide and Implementation*, MacGraw-Hill Book Co.
- Chin, K. W., Poon, G. K. K. & Pun, K. F. (2000) The critical maintenance issues of the ISO 9000 system: Hong Kong manufacturing industries' perspective. *Work Study*, 49, pp. 89–96.
- Chini, A.R. and Valdez, H.E. (2003). ISO 9000 and the US construction industry. *Journal of Management in Engineering*, Vol. 19 No. 2, ASCE, pp. 78-82.
- Chu, P., Huang, C., and Wang, H. (2001). ISO 9000 and Public Organizations in Taiwan: Organizational Differences in Implementation Practices with Organization Size, Unionization and Service Types. *Public Organization Review*, 1, 391-413.
- Chu, P., and Wang, H., (2001). Benefits, Critical Process Factors, and Optimum strategies of successful ISO 9000 implementation in the public sector. *Public Performance & Management Review*, 25(1), 105-121.
- Director General of MAMPU (1997). ISO 9000 in the Public Service of Malaysia, presented in *ASEAN Conference on Civil Service Matters* at 30 June- 4 July 1997, Singapore.
- Dzus, D. and Sykes, E.G. (1993). How to Survive ISO 9000 Surveillance. *Quality Progress*. October (1993), pp. 109-120.
- McBean, E. A. and Rovers, F. A. (1998) *Statistical Procedures for Analysis of Environmental Data and Risk Assessment*. Prentice-Hall Publishing Co. Inc., Englewood Cliffs, New Jersey
- Erel, E. and Ghosh, J.B. (1997). ISO 9000 implementation in Turkish industry. *International Journal of Operations & Production Management*, Vol. 17, N. 12.
- Fuentes, C.M., Benavent, F.B., Moreno, M.A. Cruz, T.G. and Val del, M.P. (2000). Analysis of the Implementation of ISO 9000 Quality Assurance Systems. *Work Study*. Vol. 49, No. 6, pp. 229-241.
- Gotzamani, K.D. (2005). The implications of the new ISO 9000:2000 standards for certified organizations - A review of anticipated benefits and implementation pitfalls. *International Journal of Productivity and Performance Management*, Vol. 54 No. 8, pp. 645-657.
- Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., and Tatham, R.L. (2006). *Multivariate data analysis* 6th Edition. Pearson Prentice Hall. New Jersey.
- Halim Shafie (1997). Pengalaman Pelaksanaan MS ISO 9000 dalam Perkhidmatan Awam: Institut Tadbiran Awam Negara (INTAN), presented in *Simposium Kebangsaan MS ISO 9000* at 6-7 January 1997, Kuala Lumpur.

- Halim Shafie and Manogran, P. (1999), *MS ISO 9000: A Practical Guide for Implementation in the Civil Service*. Kuala Lumpur, National Institute of Public Administration.
- Government of Malaysia (1996), *Garis Panduan Bagi Melaksanakan MS ISO 9000 Dalam Perkhidmatan Awam*. Kuala Lumpur: Jabatan Perdana Menteri.
- Government of Malaysia (2002), *Garis Panduan Bagi Melaksanakan MS ISO 9000:2000 Dalam Perkhidmatan Awam*. Kuala Lumpur: Jabatan Perdana Menteri.
- Government of Malaysia (2010), *Panduan Perlaksanaan MS ISO 9001:2008 Dalam Sektor Awam*, Kuala Lumpur: Jabatan Perdana Menteri.
- Kartha, C.P. (2007). An Empirical Analysis of the Impact of ISO Quality Standard Certification. *The Business Review, Cambridge*. Vol.8, No.1, pp. 252-257.
- Kim, Y. (1994), Making Companies Competitive. *Quality in Manufacturing*. November–December (1994), pp. 26.
- Koo, H., Koo, L.C. and Tao, F. K.C. (1998). Analysing employee attitudes towards ISO certification. *Managing Service Quality*, Volume 8 · Number 5 · 1998 · pp. 312-319.
- Kuo, Tsuang, Chang, Tsun-Jin, Hung, Kuei-chung and Lin, Ming-yuan (2009). Employees' perspective on the effectiveness of ISO 9000 certification: A Total Quality Management framework. *Total Quality Management & Business Excellence*, 20: 12, 1321 — 1335.
- Kuppusamy, S. (2008). Local Government in Malaysia: Back to Basics and the Current Scene. *Journal of Malaysian Chinese Studies*, Vol. 11, 2008: 77-96.
- Lee, S.F, Roberts, P. and Lau, W.S (1999). Survey on ISO 9000 quality management system implementation in Hong Kong. *Managerial Auditing Journal*, Vol. 14 No.1/2, pp.79-88.
- Lipovatz, D. Stenos, F. and Vaka, A. (1999). Implementation of ISO 9000 Quality Management Systems in Greek Enterprises. *International Journal of Quality and Reliability Management*. Vol.16, No.6, pp. 534-551.
- Lim, E.C., Alum, J. (1995). Construction productivity: issues encountered by contractors in Singapore. *International Journal of Project Management*, Vol. 13 No.1, pp.51-58.
- Litwin, M. (1995). *How to Measure Survey Reliability and Validity*. Survey Kit. Vol. 7. A. Fink. Beverly Hills, CA, Sage Publications.
- Local Government Department (2011). *Local Authority Name List*.
<http://jkt.kpkt.gov.my/en/main.php?Content=vertsections&SubVertSectionID=56&VertSectionID=43&CurLocation=43&IID=&Page=1>. (retrieved on 23rd January 2011)
- Löffler, E. and Vintar, M. (2003). The Current Quality Agenda of East and West European Public Services in *Improving the Quality of East and West European Public Services Improving the Quality of East and West European Public Services*. Aldershot, England: Ashgate, pp. 3-19.
- Low, S.P. and Chan, F.M. (1998) Quality management systems: a study of authority and empowerment. *Building Research and Information*, 25(3), 158-169.
- Magd, H.A.E (2008). ISO 9001:2000 in the Egyptian manufacturing sector: perceptions and perspectives. *International Journal of Quality & Reliability Management*, Vol. 25 Iss: 2, pp.173 – 200.
- McAdam, R. and Canning, N. (2001). ISO in the service sector: perceptions of small professional firms. *Managing Service Quality*, Vol. 11 Iss: 2, pp.80 - 92
- Mo, J, Chan, A (1997). Strategy for the successful implementation of ISO 9000 in small and medium manufacturers. *The TQM Magazine*, Vol. 9 No.2, pp.135-45.
- Mohamad Sabri Ahmad (2010). *Hubungan Pusat Khidmat Setempat (OSC) Dengan Jabatan-Jabatan Di Dalam Pihak Berkuasa Tempatan (Kajian Kes : Negeri Perak)*. MSc. Dissertation, Universiti Teknologi Malaysia. Unpublished
- Mohd. Yusoff Zakaria (1997), Penambahbaikan Kualiti yang Berterusan Melalui MS ISO 9000, presented in *Simposium Kebangsaan MS ISO 9000* at 6-7 January 1997, Kuala Lumpur.
- Muhammad Rais Abdul Karim (1996). Cadangan Langkah-langkah Pelaksanaan MS ISO 9000 di Agensi-agensi Kerajaan, presented in *Simposium Kebangsaan MS ISO 9000* at 6-7 January 1997, Kuala Lumpur.
- Narayana, P. and Goudar, I.R.N. (1999). Implementation of ISO 9000: A Case Study of NAL Information Centre, presented in *DRTC Workshop on Information Management* at 6-7 January 1999,.
- Ngai, E.W.T.and Cheng, T.C.E. (1997). Identifying potential barriers to total quality management using principal component analysis and correspondence analysis, *International Journal of Quality & Reliability Management*, Vol. 14 Issue: 4, pp.391 – 408.
- Nunnally, J. (1978). *Psychometric theory*. New York: McGraw-Hill.
- Osman, Z., Goon, C. A., Aris, W. H. W. (1998). Quality services: Policies and Practices in Malaysia. *Library Management*, Vol. 19, No 7, 426 - 433.
- Pin, Y.C., Chi, C.C. and Hsuan, J.W. (2001). ISO 9000 and Public organizations in Taiwan: Organizational Differences in Implementation Practices with Organization Size, Unionization and Service Types, *Public Organization Review: A Global Journal* 1, pp.407-414.
- Poksinska, B., Dahlgaard, J. and Antoni, M. (2002). The state of ISO 9000 certification: a study of Swedish organizations. *The TQM Magazine*, Vol. 14 Iss: 5, pp.297 - 306
- Quazi, H. A. , Hong, C. W. and Tuck, C. (2002). Impact of ISO 9000 certification on quality management practices: A comparative study. *Total Quality Management & Business Excellence*, 13: 1, 53 — 67.
- Quazi, H.A. and Padibjo, S.R. (1998). A Journey Toward Total Quality Management Through ISO 9000 Certification – A Study on Small and Medium-sized Enterprises in Singapore. *International Journal of Quality and Reliability Management*. Vol.15, No.5, pp. 489-508.
- Quinlan, J.C. (1996). Dodging the Potholes. *Quality in Manufacturing*. July – August (1996), pp.43.
- Said, I., Ayub, A.R., Abd Razak, A. and Kooi, T.K. (2009). *Factors Affecting Construction Organization Quality Management System in the Malaysian Construction Industry*. http://eprints.usm.my/16080/1/Ilias_Said_2.pdf. (retrieved on 23rd January 2011).
- Salleh, D. and Abdul Khalid, S.N. (2011). Accountability Practice at Local Government of Malaysia. *2nd International Conference On Business And Economic Research (2nd ICBER 2011) Proceeding*, pp. 1305-1314.
- Saner, R. (2002). Quality Assurance for Public Administration: A Consensus Building Vehicle. *Public Organization Review: A Global Journal* 2, pp. 391-413.
- Schuurman, H. (1997). *Quality Management And Competitiveness-The Diffusion Of The ISO 9000 Standards In Latin America And Recommendations For Government*

- Strategies*. Santiago, Chile: Division of Production, Productivity and Management, UNITED NATIONS.
- Singh, P.J., Feng, M. and Smith, A. (2006). ISO 9000 series of standards: comparison of manufacturing and service organizations. *International Journal of Quality & Reliability Management*, Vol. 23 Iss: 2, pp.122 - 142
- Skelcher, C. (1992). Improving the Quality of Local Public Services. *The Service Industries Journal*. Vol. 12, No.4, pp. 463-477.
- Tan, L.P and Gibert, L.T.S (2001). ISO 9000: The answer for total quality management implementation? The Malaysian case. *Total Quality Management*. Volume 12, Issue 2, 2001, pp.223-229
- Tonnisson, K. (2003). The Effect of Organisational Structures and Cultures on Quality Management in Estonian Local Authorities in *Improving the Quality of East and West European Public Services*. Aldershot, England: Ashgate, pp. 43-56.
- Vloeberghs, D. (1996). ISO 9000 in Belgium: Experience of Belgian quality managers and HRM. *European Management Journal*, Volume 14, Issue 2, April 1996, Pages 207-211
- Wahid, Roslina Ab and Corner, J. (2009). Critical success factors and problems in ISO 9000 maintenance. *International Journal of Quality & Reliability Management*, Vol. 26 Issue: 9, pp.881 – 893.
- Withers, Barbara E. and Ebrahimpour, Maling (2001). Impacts of ISO 9000 registration on European firms: a case analysis. *Integrated Manufacturing Systems*, Vol. 12 Issue: 2, pp.139 – 151.
- Yaacob, Z. (2010). Quality management as an effective strategy of cost savings African Journal of Business Management Vol. 4(9), pp. 1844-1855.
- Yahya, S. (2003). The Role of ISO 9001: 2000 Consultants. *IJUM Journal of Economics and Management*. Vol.11, No.2, pp. 143-165.
- Yahya, S. and Goh, W.K. (2001). The implementation of an ISO 9000 quality system. *International Journal of Quality & Reliability Management*, Vol. 18 Iss: 9, pp.941 - 966
- Yung, W.K.C. (1997). The values of TQM in the revised ISO 9000 quality system, *International Journal of Operations & Production Management*, Vol. 17 No.2, pp.221-30.
- Zeng, S.X., Tian, P. and Tam, C.M. (2007). Overcoming barriers to sustainable implementation of the ISO 9001 system. *Managerial Auditing Journal* Vol. 22 No. 3, pp. 244-254.