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# A descriptive study on ISO 9000 implementation obstacles within district councils

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# ABSTRACT

The implementation of the ISO 9000 quality management system in local authorities is one of the requisite requirements set by the Malaysian federal government since 1996 to ensure improvement within the services of these agencies as a part of the strategies in transforming the overall service quality in the public sector. After more than a decade, the total number of local authority (LA) organizations, especially district councils that have achieved ISO 9000 accreditation is very limited. This paper will determine and rank the implementation obstacles of ISO 9000 in district councils, since this type of LA organizations is seen as the majority that has failed to receive ISO 9000 accreditation. Study data was collected through a random survey with the use of a structured questionnaire. The questionnaire forms were circulated among team members who are part of the ISO 9000 implementation in their respective councils. A quantitative approach was used to analyze the data and based on the analysis outputs, this study revealed that there are five main obstacles faced by the ISO 9000 implementation team during the ISO 9000 execution process in district councils. These obstacles are negative perception or attitude towards quality among employees, lack of involvement, cooperation and commitment from employees, employees' culture toward quality programmes, lack of human resources and lack of cooperation among internal departments.

Keywords: ISO 9000 obstacles, district council, local authority

## INTRODUCTION

The local authority or local government is the lowest level in the system of government in Malaysia—after the federal and state governments. According to Hill [1], a local government in general, denotes a system unit area defined by boundaries; a valid entity, structure, or institution that is accorded powers and duties as specified in general and special positions, with a degree of financial as well as other autonomous powers. As a branch of government, a local authority (LA) still has the power to collect taxes (in the form of assessment taxes), to create laws and rules (in the form of by-laws) and to grant licenses and permits for any trade within its area of jurisdiction, in addition to providing basic amenities, collecting and managing waste and refuse as well as planning and developing the area under its authority. LAs in Malaysia are generally under the exclusive purview of the state governments and are headed by a civil servant.

Historically, LA organizations in Malaysia were initially formed in the 19th century by the British colonists in order to provide a proper service to the local communities especially on urban sanitary aspects. In the public service



sector, LAs are considered to be one of the primary government agencies established to provide various types of services. According to statistics released by the Local Government Department (LGD) [2], currently the total number of LA organizations in Malaysia is 149, out of which 99 LAs are operating in Peninsular Malaysia. From these 99 organizations, 8 LAs have been classified as city councils, with 34 municipal councils and 57 districts council. Between these three types of LA, the district council is the majority type of LA operating within Peninsular Malaysia. According to LGD [2], this type of council is normally established at small towns or suburban areas which have a population that is less than 150,000; generating annual revenue less than RM20 million and its services are more focused on providing basic infrastructures and utilities.

As a government agency, district councils are required to continuously enhance the levels of efficiency and efficacy within its provided services. This scenario mirrors the findings of Saner [3] who emphasized that public administrations in all parts of the world are faced with multiple forms of pressure to innovate and improve effectiveness and efficiency. In the efforts to increase the efficiency and effectiveness of the management and the services provided within LA organizations, the Malaysian government launched numerous related programmes including the implementation of the ISO 9000 quality management system. The directive to implement this quality management system was spelt out in the Civil Administration Improvement Circular, no. 2 year 1996 where through this circular the government instructed all its agencies, including LAs to implement ISO 9000. In 2002, the government issued another Civil Administration Improvement Circular, no. 2 year 2002, where the government cancelled the implementation of the MS ISO 9000:1994 version and replaced it with the MS ISO 9000:2000 version, parallel with the changes made by the governing international ISO Body. However, on 1<sup>st</sup> January 2010, the government once again amended the ISO 9000 implementation directive. In this new directive, the government instructed its agencies to proceed with the efforts to acquire MS ISO 9000 version 2008 accreditation regardless of whether they succeeded in obtaining accreditation under the previous MS ISO 9000 versions. In order to make the implementation of the quality management system simpler and consequently achieving certification and accreditation within a reasonable timeframe, this new circular was attached with a precise and detailed implementation guideline. In addition to this, the Malaysian Administrative Modernization and Management Planning Unit (MAMPU) was specifically appointed by the government to guide and advice these agencies in the implementation process.

Generally, the scope and capability of district councils in Malaysia are slightly smaller and limited when compared with the municipal and city councils. In some circumstances, this factor has caused district councils to face various problems in implementing organisational development and improvement programmes. As an example, a district council which normally operates in rural or suburban areas will face some difficulties in acquiring the facilities that are needed in implementing the related programmes, including ISO 9000 implementation. As they are located within remote areas, district councils do not really experience huge pressure from the local communities requesting these councils to provide basic infrastructures and utilities, compared to other aspects. From the financial perspective, as these district councils have a relatively small amount of income, their capability in implementing any quality improvement programme becomes limited. For instance, in order to implement ISO 9000, the top management of a district council needs to allocate a specific budget or fund. This fund is needed by the ISO 9000 implementation costs, travelling costs, expenditure in purchasing equipment, over time payment and ISO 9000 registration fees.

After three versions of the ISO 9000 management system which were consecutively introduced by the government to be implemented by its agencies, the total number of district councils which have obtained accreditation is still small and limited. According to Yong [4], the status of ISO 9000 implementation within the civil service, up to 14 August 2001, indicates that there are only 43 LA organisations which have successfully achieved certification. From this record, the district councils form the smallest percentage of the LA organisations that have received ISO 9000 accreditation. This scenario indicates that there is a distinct possibility that the ISO 9000 implementation process within district councils are wrought with various difficulties, barriers or obstacles. Hence, the main purpose of this paper is to determine these main obstacles that may interrupt the ISO 9000 implementation process in district councils and subsequently, to rank these obstacles according to their significant severity.

## 1.0 ISO 9000 and The Malaysian Public Sector

ISO is a simplified acronym that stands for the International Organization for Standardization, which is the international body that establishes the required standards for business and industry practices, products and processes.

There are various definitions in practice which can be used to explain ISO 9000 or MS ISO 9000 (which is the specific Malaysian designation). According to Kartha [5], ISO 9000 is a series of internationally accepted guidelines as to how companies should set up their quality assurance systems. Narayana and Goudar [6] state that ISO 9000 is about the quality assurance of the organization's processes as well as the quality system framework required to enable that assurance. However, since this study was conducted in Malaysia, it is only appropriate that the definition of ISO 9000 or MS ISO 9000 is referred to the definitions given by the government through its 1996 circular. That definition describes ISO 9000 as a written standard which establishes and lists the basic elements that should be present within a quality system of an organization in order to ensure the services rendered are able to fulfil the needs of the client. ISO 9000 standards were basically introduced with the intention to provide guidance in the management of an organization' operations in order to deliver products that satisfy customers' requirements and expectations. It can be considered as a "passport" for companies intending to penetrate new markets as ISO 9000 certification is an added competitive advantage over competitors who are not accredited [7]. ISO 9000 certification can also act as a common language for every organization in interconnecting and aligning its operations as well as reducing information asymmetries and minimizing operational costs [8]. The ISO 9000 series of standards have formalized systems for evaluating the ability of any firm to consistently design, produce and deliver quality products and services. Certificates issued worldwide are estimated at more than 95,000; and there are now companies in over 95 countries that have endorsed the ISO 9000 standards [9]. In addition to this, ISO 9000 also represents a guideline in building an efficient quality system and providing an avenue for companies to continue to learn and grow. As a codebook, ISO 9000 provides a process of knowledge codification [10] and according to Bravener [11], the information system required for ISO 9000 is not just a database with predefined reports; rather, it is the support for trouble-shooting, decision making and knowledge management.

Generally, government agencies in Malaysia are obligated to deliver the best service to their customers and stakeholders regardless of the cost. In the wake of this obligation, several management ideals or concepts have been tried to be introduced within the public sector, all with the aim of improving the overall service. Service quality is usually the perceived level of satisfaction an individual experiences with services offered by the service providers [12]. The term "administrative reforms" have been commonly used by public servants although in reality, they have had very little impact on the performance of the public service. "Change management" has also become a popular jargon within the public sector circles. Changing the mindsets is another approach that could achieve higher effectiveness and efficiencies in delivering the service to the citizens. A paradigm shift has also been considered as an effective tool for higher quality and productivity. Reinventing the government structure has been perceived as a good choice for the public sector to transform itself in order to meet the ever changing needs of the customers, and as the means to manage the turbulent environments influencing the public sector. Apart from this, management is also an integration factor of fertility and productivity of material resources and manpower for the achievement of the organization's purpose and objective [13]. Last but not least the hottest management concept since the quality movement has been introduced is reengineering. Although these management concepts may or may not be suitable for the public sector, these concepts have attracted the interests of scholars and practitioners. Research and studies have been carried out, with both success stories as well as failures quoted and presented in various management seminars, all in the search for the best management practice. The reasons why organizations fail or succeed in implementing change have been discussed intensively and extensively by scholars and academics. Leadership commitment and management support have been identified as a common factor which can determine the success or with the lack thereof, cause failure.

The main objective of implementing ISO 9000 in the public service is to develop an efficient and effective quality management system in order to consistently provide the best service to the public [14]. With this in mind, the Malaysian Government has spelt out the strategy and implementation plan for implementing ISO 9000 through the following guidelines: Promotion of ISO 9000; Training for government agencies; developing and upgrading skills in consultancy and auditing; and implementation of the quality system in government agencies [15]. MAMPU and the National Institute of Public Administration Malaysia (INTAN) were assigned as lead agencies in the implementation of the programme. MAMPU had designed a "Road Map" for MS ISO 9000 implementation with a targeted end date on 31 May 2000. The awareness and commitment building phase of MS ISO 9000 implementation was completed on January 1997. As of 30 January 1998, 13 Malaysian government agencies have been certified with ISO 9000, 18 agencies have applied for compliance audits on their respective quality systems, and several other agencies have established their respective implementation teams, identified the core process for certification and have been trained in documentation. More than one hundred agencies have indicated that they have already reviewed the core processes that can be included for certification and will be ready for documentation skills training [16]. From 3 July

1996 to 25 March 1997, 97 one-day seminars for senior civil servants were conducted by MAMPU and INTAN where more than 5,000 individuals attended the seminars. From March 1997 to July 1997, 17 agencies had undergone the five-day Implementation Workshop for MS ISO 9000.

In reality, the concept of quality is quite important in any service whether within the public or private sector. This is because quality in the level of service is able to give a general description of the actual capabilities of a certain organization. It also acts in creating a better image and higher credibility for that organization as well as its employees. Therefore, the Malaysian government's decision during the 1990s to instruct its agencies to implement ISO 9000 quality management systems within their respective organizations is seen as a correct and appropriate directive. According to Pin *et al.* [17], 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."

# 2.0 The ISO 9000 Implementation Obstacles

Through previous literature regarding the implementation of ISO 9000 in organisations, both in the context of the public or private sector, many issues were discovered to have highlighted the obstacles that hindered the ISO 9000 implementation process. After a review of the related literature, generally the obstacles can be listed under four categories relating to organisational behaviour and culture, resources, human factors and technical aspects. In the first category of organisational behavioural and culture, the related obstacles involve any issues that directly show that the ISO 9000 implementation process in an organisation is hindered by the weakness and limitation of planning, practice, process, system, structure, strategy, governance and culture of the organisation itself. Generally, the smoothness of ISO 9000 implementation is influenced by the organizational behavior and culture factor because this factor is seen as the main mechanism that is capable to initiate any improvement programme, including ISO 9000, to be done within an organization. Another factor is leadership within the organization as the role of leadership has always been very important and fundamental in the historical changes, successes and failures of any organization [18].

In fact, the implementation of ISO 9000 is undeniably related to the work process that is practiced by an organization. Therefore, in ensuring a successful ISO 9000 implementation process, it must be tied to proper planning and must fit with the organizational mission, vision and goal. If it is not, it may to organizational failure and the presence of problems that would be detrimental to the organization itself. Based on previous literature, generally there are 9 obstacles that can be related to the organizational behavior and culture category. These obstacles are lack of top management support and commitment [19, 20, 21], lack of training and education of employees [20, 21, 22, 23], difficulty in allocation of responsibilities and authority of personnel [21], lack of necessary guidance for certification [24], lack of cooperation among internal departments [23], lack of leadership [19], underestimation of efforts needed for registration [25], lack of recognition or rewards system [26] and lack of communication [27].

In the second category of resource constraints, the related obstacles are those that cover any issue with a connection to lack or constraint of resources that contribute to the failure ISO 9000 implementation. For instance, Moreno-Luzon [28] reported lack of resources as part of the main difficulties in developing quality culture within small organizations. The term 'resources' in this context refers to a broader definition, covering any needs including human resource, time, financial, equipment and others which are related to the ISO 9000 implementation process. The obstacles within in this category include lack of related information [23, 29], lack of qualified personnel [20, 21], lack of financial resources [21, 22, 25, 30], lack of human resources [20, 30, 31] and lack of time [22, 29, 30].

The next category is related to human factors, where the obstacles that will be discussed within this category are related to any issues that pertain to negative attitude, understanding, awareness, culture and perception, within the parties involved in ISO 9000 implementation which have led to the inability to meet the stipulated timeframe for ISO 9000 implementation and subsequent certification. Within this kind of negative situation, the ISO 9000 implementation process will surely be stunted as it influences target achievement and the motivation of the relevant employees. Besides that, the lack of the practice of making quality a service culture will also hinder the ISO 9000 implementation process as it will be seen as an approach that will burden or trouble employees as well as the organization. The obstacles in this context include resistance to change [20, 22], unclear benefits of obtaining certification [22], lack of understanding on the importance of ISO 9000 [32], workload increase [22, 32], employees' culture towards quality programme [23], negative perception or attitude towards quality [20, 22, 23],

negative attitude of third parties such as consumers or suppliers [21, 29], problems relating to roles or attitudes of quality assessors or consultants [33], lack of involvement, cooperation and commitment from employees [30, 31] and lack of motivation [26].

The final category gleaned from the literature review of ISO implementation obstacles is the technical category. In this category, the listed obstacles are related to the issues that explain how the terms, components and requirements of ISO 9000 themselves have obstructed the implementation process as well as preventing an organisation to easily get ISO accreditation. This refers to the difficulties in understanding the concept of ISO 9000, the related terminologies, requirements or certain guidelines, unclear benefits of obtaining ISO 9000 certification, misinterpretation of ISO requirements and others. If the concept of ISO 9000 is not fully understood, it will cause the employees to fail to execute their roles specifically and force corrective action to be taken. Corrective action or consequent repetitive work will dampen the ISO 9000 implementation process. Among the obstacles that are grouped within this category are lack of understanding of the ISO 9000 system [31], difficulty in interpreting ISO 9000 requirements [27], difficulty in fulfilling ISO clauses and requirements [34] improper control of documents and data [33, 35], difficulty in the development of documentation [25, 35], and difficulty in implementing the quality audit process [29]. Considering all the obstacles that have been discussed within these four categories, through the literature review, 30 individual obstacles across four categories that normally affect or hinder the ISO 9000 implementation process were identified.

## MATERIALS AND METHODS

To gain insight into the obstacles of ISO 9000 implementation among the district councils in Malaysia, a survey methodology was employed. The structured questionnaire form was designed based on the existing literature as well as on anecdotal evidence from government agencies that have experiences in ISO 9000 implementation process. The main question asked through this questionnaire was regarding the key issues which were the obstacles encountered during ISO 9000 implementation. The Likert scale was used to facilitate the respondents in answering the questions where the answer range was given according to 1 for "Strongly Disagree", 2 for "Disagree", 3 for "Neutral", 4 for "Agree" and 5 for "Strongly Agree", as suggested in [25]. A specific additional space was also provided in the questionnaire to allow the respondents to state any other barriers which they felt was necessary or related. Besides stating their agreement on the listed obstacles, respondents were also required to state the frequency of occurrence of the obstacles based on a three-point answer scale; 1 for "never occurs", 2 for "occasionally occurs" and 3 for "always occurs". The questionnaire was done in a bi-lingual format, incorporating both the Malay language as well as English. At the time during the data collection stage, there were a total of 57 district councils operating in Peninsular Malaysia. As the strategy in distributing the survey questionnaire, all the district councils were initially contacted; however, only 26 councils agreed to be involved with this study. These 26 councils were then visited directly by the researchers during a period of 6 months starting June 2010 until December 2010. During these visits, the officer who was appointed as the ISO 9000 implementation team head was interviewed. This interview was conducted using all the questions within the questionnaire form. The total time taken by each respondent to duly complete the questionnaire form was in the range of 45 minutes to 1 hour 15 minutes. This study also employed a reliability test using the Cronbach Alpha coefficient to determine the consistency of the measures in order to conclude that the survey questionnaire utilized in this research is reliable and internally consistent. Subsequently, the collected data was then analysed using descriptive statistical analysis in order to produce results that could be used to determine the main obstacles. In ranking the main obstacles, the severity index formula was put into use. The use of this method has been espoused by various researchers such as by Lim and Alum [36]. The severity index used is based on the following equations:

Severity Index = (Importance index) X (Frequency Index)

Equation 1

where;

Importance index =  $\frac{5n_1 + 4n_2 + 3n_3 + 2n_4 + n_5}{5(n_1 + n_2 + n_3 + n_4 + n_5)}$ 

where  $n_1$  is the number of respondents who answered "Strongly Agree",  $n_2$  the number of respondents who answered "Agree",  $n_3$  the number of respondents who answered "Neutral",  $n_4$  the number of respondents who answered "Disagree", and  $n_5$  the number of respondents who answered "Strongly Disagree"

## Equation 2

Frequency index = 
$$\frac{3n_1 + 2n_2 + n_3}{3(n_1 + n_2 + n_3)}$$

where  $n_1$  is the number of respondents who answered "always occurs",  $n_2$  the number of respondents who answered "occasionally occurs", and  $n_3$  the number of respondents who answered "never occurs".

## Equation 3

"Severity index" = "Importance index" × "Frequency index".

Table 2: The reliability test result							
	Scale Mean	Scale Variance	Cronbach's				
List of Obstacles	if Item	if	Alpha				
List of Obstacles	Deleted	Item Deleted	if Item Deleted				
1.Lack of top management support and commitment	78.1538	98.135	.786				
2. Lack of training and education of employees	78.4615	95.698	.771				
3. Difficulty in allocation of personnel responsibilities and authority	79.1154	96.426	.765				
4. Lack of necessary guidance for certification	79.3462	95.275	.763				
5. Lack of cooperation among internal departments	77.1538	100.855	.777				
6. Lack of leadership	79.1538	96.775	.764				
7. Underestimation of efforts needed for registration	79.1154	99.786	.772				
8. Lack of recognition or rewards system	79.5385	98.738	.769				
9. Lack of communication	79.5000	96.500	.766				
10. Lack of related information	78.8077	97.042	.767				
11. Lack of qualified personnel	78.5385	98.098	.774				
12. Lack of financial resources	78.2308	95.225	.767				
13. Lack of human resources	77.0385	99.558	.776				
14. Lack of time	78.0385	102.598	.789				
15. Resistance to change	78.8462	101.975	.778				
16. Unclear benefits of obtaining certification	78.6154	96.326	.766				
17. Workload increase	78.0385	93.478	.764				
18. Lack of understanding on the importance of ISO 9000	78.5385	100.338	.776				
19. Employees' culture toward quality programmes	77.0385	99.078	.774				
20. Negative perception or attitude towards quality	76.8462	108.615	.791				
21. Negative attitude to quality among the customer and supplier	78.8462	100.775	.775				
22. Problem regarding to role and attitude of quality auditor and consultant	79.0000	106.480	.785				
23. Lack of involvement, cooperation and commitment from employees	76.9231	100.874	.775				
24. Lack of motivation	78.8846	106.506	.790				
25. Lack of understanding of ISO 9000 system	78.6538	90.715	.755				
26. Difficulty in interpretation of ISO 9000's requirements	79.3077	102.142	.777				
27. Difficulty in fulfilling the ISO clauses and requirement	79.1538	105.095	.786				
28.Improper control of documents and data	79.6154	99.926	.771				
29. Difficulty in documentation development	79.3462	95.835	.764				
30. Difficulty in implementing quality audit process	78.9615	105.158	.784				

## **RESULTS AND DISCUSSION**

## Reliability Test Result

Table 2 shows the Cronbach's alpha value corresponding to each of the obstacles where it was revealed that the values of Cronbach's alpha for this study range from 0.752 to 0.835. Basically, a higher Cronbach's alpha value indicates a higher degree of reliability. However, according to Nunnaly [37] and Litwin [38], the reliability value of 0.7 or higher is considered to be adequate. Therefore, for this study, it can be concluded that the survey instrument utilized in this research is reliable and internally consistent.

## Background Information on ISO 9000 Implementation and Experience

From the 26 respondents representing the related district councils, 100% of the respondents reported that the initial action/steps to implement ISO 9000 were started from the end of 1990s. Only 4 councils (15%) were found to have established specific units or sections to handle the implementation of quality programs, especially the ISO 9000 quality management system within their respective organizations. Meanwhile, 22 respondents or 75.5% of these district councils were found to have delegated the task of implementing quality programs as part of additional responsibilities to other existing individuals, units, sections or departments in their organizations. This result has also shown that there is a wide range of the respondents' experience in implementing quality programs. This is evident through the analyzed data where there were 8 respondents (31%) who were involved in implementing quality programs, specifically ISO 9000, for more than 10 years; 11 respondents (42%) with experiences ranging from 5 to less than 10 years and 7 respondents (27%) who have been involved for 1 to less than 5 years.

#### **Results on Implementation Obstacles**

The collected data was subsequently analyzed based on the respective obstacle categories using the descriptive statistics approach. Table 3 shows the results of this analysis.

Obstacle Category	List of Obstacles	Mean	Mode	SD	Severity Index (SI)*
Organizational Behaviour and Culture	Lack of cooperation among internal departments	4.12	4.00	0.8638	0.78
	Lack of top management support and commitment	3.12	2.00	1.3517	0.48
	Lack of training and education of employees	2.81	2.00	1.2335	0.40
	Lack of leadership	2.12	2.00	0.7656	0.17
	Difficulty in allocation of personnel responsibilities and authority	2.15	2.00	0.8806	0.25
	Underestimation of efforts needed for registration	2.15	2.00	0.7845	0.28
	Lack of recognition or rewards system	1.73	1.00	0.7243	0.18
	Lack of necessary guidance for certification	1.92	1.00	0.9348	0.25
	Lack of communication	1.77	1.00	0.9808	0.18
Resource Constraints	Lack of human resources	4.23	5.00	0.9923	0.81
	Lack of time	3.23	2.00	1.2428	0.53
	Lack of financial resources	3.04	3.00	1.1482	0.45
	Lack of qualified personnel	2.73	2.00	1.0792	0.34
	Lack of related information	2.46	2.00	0.9047	0.18
Human Factors	Negative perception or attitude towards quality among employees	4.42	5.00	0.7778	0.87
	Lack of involvement, cooperation and commitment from employees	4.23	5.00	0.9511	0.82
	Employees' culture toward quality programme	4.35	5.00	0.7452	0.85
	Lack of understanding on the importance of ISO 9000	2.73	2.00	0.9190	0.40
	Unclear benefits of obtaining certification	2.65	2.00	0.9356	0.38
	Workload increase	3.23	4.00	1.2102	0.53
	Lack of motivation	2.38	2.00	0.8522	0.32
	Negative attitude to quality among customers and suppliers	2.42	2.00	0.7575	0.33
	Resistance to change	2.42	2.00	0.7575	0.34
	Problems regarding the role and attitude of quality auditors and consultants	2.27	2.00	0.6523	0.30
Technical Weaknesses	Lack of understanding of the ISO 9000 system	2.61	2.00	1.1688	0.37
	Difficulty in implementing quality audit process	2.31	2.00	0.6794	0.31
	Difficulty in fulfilling the ISO clauses and requirements	2.12	2.00	0.8162	0.27
	Difficulty in interpreting ISO 9000 requirements	1.96	2.00	0.6622	0.24
	Difficulty in development of documentation	1.93	2.00	0.9348	0.22
	Improper control of documents and data	1.65	1.00	0.6895	0.17

## Table 3: Results on ISO 9000 implementation obstacles

\*A value of 1 represents the highest severity level

For the purpose of this study, the determination of the main obstacles is decided by the following criteria:

i. The mean and mode scores are equal or more than a value of 4; and

ii. The results of the severity index (SI) analysis must be bigger than a value of 0.5.

Based on the criteria as prescribed above, it was found that there are 5 main obstacles which have significantly hampered ISO 9000 implementation in the district councils. The first obstacle is 'negative perception or attitude towards quality among employees' (Mean=4.42, Mode=5.00 and SI=0.87), followed by 'employees' culture toward quality programmes' (Mean=4.35, Mode=5.00 and SI=0.85), 'lack of involvement, cooperation and commitment from employees' (Mean=4.23, Mode=5.00 and SI=0.82), 'lack of human resources' (Mean=4.23, Mode=5.00 and SI=0.82), 'lack of human resources' (Mean=4.23, Mode=5.00 and SI=0.82), 'lack of human resources' (Mean=4.23, Mode=5.00 and SI=0.81) and finally, 'lack of cooperation among internal departments' (Mean=4.12, Mode=4.00 and SI=0.78). These findings indicate that 3 of the main obstacles are directly related to the human factor, especially the staff/employees who are directly involved in implementing ISO 9000 in their respective district councils. These obstacles are 'negative perception or attitude towards quality among employees', 'employees' culture toward quality programme' and 'lack of involvement, cooperation and commitment from employees'.

Perception and attitude of workers in the district councils are believed to have influenced the degree of ability and success in implementing ISO 9000 because these attributes are capable to foster commitment and motivation factors among these related workers. Furthermore, these factors will also encourage the workers to execute their roles and responsibilities effectively and efficiently. Negative perception and attitude are able to cause the workers to not want to participate seriously in the ISO 9000 implementation process. According to Grint [39] and Yung [40], a committed participation among all workers is considered as a key driver that influences the level of success in implementing ISO 9000. In realizing ISO 9000 implementation, a form of sacrifice is often required from the workers, for instance, extra work, more focus, additional training and others similar aspects. Koo et al. [41] have stated that the consideration or measurement of employees' attitude is rarely made during the ISO 9000 implementation, and this overlooked aspect has caused the attitude and commitment of the employees to wax and wane in the course of the ISO certification process which very often lasts for well over a year. Mallak et al. [42] have pointed out that the lack of an appropriate organizational quality culture will dampen the required necessary changes in attitude and behaviour to reinforce the desired change towards quality improvement. In the context of implementing ISO 9000 within the district councils, the existence of this obstacle was somewhat expected because most district councils are staffed by employees who have low and/or limited educational background, where most of them are employed as general workers. With limited knowledge and relatively low mentality, these workers are deemed as not being capable to accurately assess why ISO 9000 should be implemented within their organization. Furthermore, this situation will lead to an imprinting of negative perception and attitude towards the ISO 9000 implementation process. As such, their involvement would only be to meet the requirements as instructed by their superiors or respective officers.

Besides the perception and attitude of workers, their culture in accepting any quality programme is also considered as one of the human factors that are capable in hindering the ISO 9000 implementation process. Workers who are not inculcated with the aspect of quality in implementing their tasks will cause their work performance to become poor, especially in terms of the required human touch. According to Harvey and Brown [43], the element of human touch is a term which illustrates the level of involvement among the workers in an organization. Roth [44] and Savolainen [45] have also stated that the human touch element is an indicator that measures and encourages the highest level of involvement among the workers towards workplace development and the learning process in increasing the level of competitiveness. In addition to this, the barrier of 'lack of involvement, cooperation and commitment from employees' is seen as the resulting impact when the workers in an organisation have negative perception, attitude and culture towards the implementation of ISO 9000. In fact, Abdul Hamid [46] has stressed that involvement, cooperation and commitment is a necessity that must be acquired properly from the staff in ensuring that ISO 9000 is successfully implemented in any public service organization, which includes the LAs. Halim [47] has pointed out that ISO 9000 provides the necessary integration within a quality system that encompasses various aspects such as management responsibility, structure, process, procedures, resources and the like. This need for integration can only be fulfilled if every member of an organization creates an atmosphere of solidarity among them. Next, this research also found that the lack of human resources is one of the important barriers which obstructs the ISO 9000 implementation process among the district councils. The process of planning and realization of organizational goals should always be based on proper utilization of human resources and the role of the skilled workforce has a significant importance in guiding the organization [48]. Skilled human resources and expertise are essential for the utilization of the organization's physical assets and investments in increasing the efficiency of the

organization [49]. In truth, the issue regarding lack of staff in LA organisations, specifically within the district councils is not only a new or current issue in Malaysia alone but is also being faced by a majority of Asian countries. UNESCAP [50] has explained that one of the key constraints to good governance at the local level is the lack of qualified human resources. In terms of ISO 9000 implementation in the district councils, most of the appointed officers were found to be executing the ISO 9000 activities merely as their ancillary duties and moreover, only at certain times. This is because they have other official permanent tasks which they feel and perceive as being more relevant and significant to them. In some cases, the implementation of ISO 9000 is seen as less of a priority when compared to the other routine tasks. The implementation process is also perceived as being difficult to be undertaken especially when the appointed officers have insufficient knowledge, expertise, experience and interest regarding the ISO 9000 aspects. These scenarios will ultimately contribute towards the failure in obtaining ISO 9000 accreditation within the targeted timeframe.

Last but not least, this study has also identified 'lack of cooperation among internal departments' as one of the main obstacles which disrupts the ISO 9000 implementation process within the district councils. As stipulated in the Local Government Act 1976, the district councils are fully responsible to provide various services and undertake certain tasks such as sanitary, health, taxation, urban development and planning, public infrastructure development and others to and for the local communities. Thus, in providing this kind of services, several specific internal departments or divisions have been established within the district councils to enable them in carrying out their functions effectively. At times, the establishment of too many internal departments or divisions in a district council will contribute to conflicts especially in terms of organizational administration and management aspects such as such as job scope overlap, underemployment of qualified workers, limited scope of works and others. Furthermore, the existence of these conflicts will cause complication in the aspect of cooperation among the internal departments, especially when these departments are involved in certain processes that need a unified or multi-lateral implementation. For example, the process of obtaining development approval involves at least 2 or 3 internal departments such as the planning departments, the efforts to adopt the ISO 9000 quality system will be very much tougher, especially in developing the related work procedures.

## CONCLUSION

District councils are one of type of LA organizations which have been made responsible for numerous functions and roles. Therefore, there are various service-providing processes that need an increase or improvement in terms of quality levels through the implementation of ISO 9000. This study has provided one of the most detailed discussions to date regarding the main barriers which are hindering the ISO 9000 implementation process, specifically in the Malaysian district councils. Most of the major obstacles discovered through this study, involve the human aspect, where it refers to staff weaknesses or shortcomings. The existence of these obstacles is undeniably giving a very big negative impact to the district councils in achieving successful ISO 9000 certification. This is because the human aspect is a very important element in terms of responsibilities and roles in executing all of the ISO 9000 implementation requirements. If the attitude, perception, culture and cooperation of the district council staff towards the implementation of quality programmes are negative in nature, undoubtedly they will also produce the negative outputs or impacts.

Hence, it is not surprising that until now, the number of district councils that have gained ISO 9000 accreditation is very small although the implementation activity has taken place for a relatively long time. Using the findings of this study as a basis for improvement, the related parties, especially the top management of the district councils, should take immediate action in carrying out various strategies or programmes that could change employees' perception, attitude and culture to become more positive. This change will allow the implementation of ISO 9000 to become easier and the targeted accreditation could be achieved within the given timeframe. The change of perception, attitude and culture will further enable the intended transformation of the public sector to be realized, especially at the local government level.

Besides the human factor, the implementation of ISO 9000 in the district councils is also facing obstacles related to resource constraint (referred in this study context to lack of human resource) and organizational behaviour and culture (referred in here to lack of cooperation among internal departments) factors. Generally, the existence of both these obstacles has somewhat exposed the internal weakness that is present within these districts councils. The obstacle related to lack of human resource occurs because most of the district councils are found to have limited

financial resources which in turn has made the hiring of new competent staff to become more difficult. Moreover, to create a new job position in a district council is not an easy task as it requires the consideration and approval from the Malaysian Civil Service Department. The existence of lack of cooperation among internal departments is caused by the failure of the top management in a district council to organize their internal departments, division or units systematically. Realizing the existence of these main obstacles, the responsible parties should adapt specific initiatives and approaches to mitigate these barriers. Continuous disregard will cause this situation to become more serious and subsequently the aim of government to ensure that its agencies practice ISO 9000 quality management systems will merely be an unachieved wish. To avoid this issue becoming a reality, it is appropriate that further research be done on the ISO 9000 implementation processes within district councils, specifically to review the necessary actions or strategies that should be put into place to prevent, minimize or eradicate the obstacles faced. Furthermore, a specific research is also needed to be undertaken in order to establish a systematic framework that could be used to ensure ISO 9000 accreditation will be achieved according to plan.

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#### REFERENCES

[1] Hill, D.M.; Democratic Theory and Local Government, Allen and Unwin, London, **1974**.

[2] Local Government Department, Kategori PBT, available at:

http://jkt.kpkt.gov.my/bm/main.php?Content=vertsections&SubVertSectionID=64&VertSectionID=31&CurLocatio n=31&IID=&Page=1. Accessed on 12.10.**2011**.

[3] Saner, R, Public Organization Review: A Global Journal 2, 2002, 391-413.

[4] Yong, Kok Seng, 9<sup>th</sup> National Convention of Quality, 3-4 October **2002**, Fiji National Training Council, Fiji.

[5] Kartha, C.P, *The TQM Magazine*, **2004**, 16(5), 331 – 340.

[6] Narayana, P. and Goudar, I.R.N., DRTC Workshop on Information Management, 6-7 January **1999**, Bangalore, India.

[7] L. B. Simmons, A.M. White, Journal of Managerial Issues, 1999, 11(3), 330-4.

[8] S. W. Anderson, J. D. Daly, M. F. Johnson, Production and Operations Management, 1999, 8(1),28-43.

[9] A. Zuckermen; ISO 9000 Made Easy: A Cost-Saving Guide to Documentation And Registration, AMACOM, New York, **1994**.

[10] D. Bénézech, G. Lambert, B. Lanoux, C. Lerch, J. Loos-Baroin, Research Policy, 2001, 30, 1395-1407.

[11] Bravener, L. C., *Computer Technology Review*, **1998**, 18(10), 38.

[12] Amirtash Ali Mohammad, Mozaffari Syed Amir Ahmad, Bai Naser, *European Journal of Experimental Biology*, **2012**, 2(4),1220-1225.

[13] Mohsen Ghofrani, European Journal of Experimental Biology, 2012, 2(3),726-729.

[14] Director General of MAMPU, ASEAN Conference on Civil Service Matters, 30 June-4 July 1997, Singapore.

[15] Government of Malaysia, *Guidelines for the Implementation of MS ISO 9000 in the Public Service*, Development Administration Circular No. 2 of 1996, Prime Minister's Department, Malaysia, **1996**.

[16] Government of Malaysia, *The Civil Service of Malaysia: Building an IT Culture*. (Improvement and Developments in the Civil Service of Malaysia, 1997), MAMPU, Malaysia, **1998**.

[17] Pin, Y.C., Chi, C.C. and Hsuan, J.W., Public Organization Review: A Global Journal 1, 2001, 407-414.

[18] Saleh Bahari, Hasan Azarnia, Shahriar Piri and Eslam Babaeei, *European Journal of Experimental Biology*, **2012**, 2(3), 723-725

[19] H.A.Quazi, C.W.Hong, C. Tuck, Total Quality Management & Business Excellence, 2002 13(1), 53-67.

[20] N. Bhuiyan, N. Alam, International Journal of Productivity and Performance Management, **2005**, 54(3), 172-186.

[21] H.A.E.Magd, International Journal of Quality & Reliability Management, 2008, 25(2), 173 – 200.

[22] J. Mo, A. Chan, The TQM Magazine, 1997, 9(2), 135-45.

[23] K. Amar, Z, Mohd Zain, *The TQM Magazine*, **2002**, 14(6), 367 – 372.

[24] S.X. Zeng, P, Tian, C.M. Tam, *Managerial Auditing Journal*, 2007, 22(3), 244-254.

[25] N. Bhuiyan, N. Alam, Total Quality Management & Business Excellence, 2005, 16(2), 199-213.

[26] E.W.T. Ngai, T.C.E. Cheng, International Journal of Quality & Reliability Management, 1997, 14(4), 391-408.

- [27] M. Carlsson, D. Carlsson, International Journal of Quality & Reliability Management, 1996, 13(7), 36-47.
- [28] Moreno-Luzon, M.D., Total Quality Management, 1993, 4(2), 165-181.
- [29] A.R.Chini, H.E.Valdez, Journal of Management in Engineering, 2003, 19(2), 78-82.
- [30] Osman, Z., Goon, C. A., Aris, W. H. W., Library Management, 1998, 19(7), 426 433.
- [31] Tan, L.P and Gibert, L.T.S, Total Quality Management, 2001, 12(2), 223-229.
- [32] Lipovatz, D. Stenos, F. and Vaka, A., International Journal of Quality and Reliability Management, 1999, 16(6), 534-551.
- [33] Brown, A. and Van Der Wiele, A., Asia Pacific Journal of Quality Management, 1995, 4, 8-17.
- [34] Chin, K. W., Poon, G. K. K. & Pun, K. F., Work Study, 2000, 49, 89–96.
- [35] Quinlan, J.C., Quality in Manufacturing, 1996, July-August, 43.
- [36] Lim, E.C. and Alum, J., International Journal of Project Management, 1995, 13(1), 51-8.
- [37] Nunnaly, J.; Psychometric Theory, McGraw-Hill, New York, 1978.
- [38] Litwin, M.; How to Measure Survey Reliability and Validity, Survey Kit. Vol. 7. A. Fink, Sage Publications, Beverly Hills, CA, **1995**.
- [39] Grint, K., Management Decision, 1997, 35(10), 731-738.
- [40] Yung, W.K.C., International Journal of Operations & Production Management, 1997, 17(2), 221-30.
- [41] Koo, H., Koo, L.C. and Tao, F. K.C., Managing Service Quality, 1998, 8(5), 312-319.
- [42] Mallak, L.A., Bringelson, L.S., Lyth, D.M., International Journal of Quality & Reliability Management, 1997, 14(4), 328-348.
- [43] Harvey, D.E. and Brown, D.R.; An Experiential Approach to Organisational Development, Prentice-Hall International, Upper Saddle River, NJ, **1996**.
- [44] Roth, W.; The Evolution of Management Theory, Roth & Associates, Wilmington, NC, 1993.
- [45] Savolainen, T., University of Jyväskylä, Jyväskylä Studies in Computer Science, Economics and Statistics, **1997**, 37.
- [46] Abdul Hamid, A.S., Guidelines for Implementation of MS ISO 9000 in the Civil Service, 1996.
- [47] Halim, S., Simposium Kebangsaaan MS ISO 9000, 6-7 January 1997, Kuala Lumpur.
- [48] Ali Valizadeh and Jafar Ghahremani, European Journal of Experimental Biology, 2012, 2 (5):1722-1727
- [49] Safdari Mehdi and Motiee Reza, European Journal of Experimental Biology, 2012, 2 (3):695-701
- [50] UNESCAP (United Nations Economic and Social Commission for Asia and the Pasific), "Local Government in Asia and the Pacific: A comparative analysis of fifteen countries",
- available at:http://www.unescap.org/huset/lgstudy/comparison1.htm#\_Toc450984082. Accessed on 23<sup>rd</sup> March **2010**.