

The Adoption of Management Systems Standards & Best Practices in Malaysia (Current and Future Trend)

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ABSTRACT

Considers the extent to which Standards Based Management Systems and best practices are being successfully implemented in Malaysian organizations. A survey on Malaysian organizations was conducted in June 2011 and has produced 143 positive responses. Highlights the findings of the survey such as the status of ISO 9000, TQM, 5-S, QCCs and quality tools & techniques, the benefits and difficulties, best practices most frequently used and the future trend of Malaysian quality improvement activities. Also highlights a model for the implementation of TQM for Malaysian organizations.

Keywords: TQM, ISO 9000, Best Practices, Quality Model

1.0 Introduction

Best practices have been recognized as an important requirement for successful organizations. The first quality control circle (QCC) recorded in Malaysia was in 1971 and it was with a Japanese multinational, Matsushita Co (M) Ltd. Twelve years later (1983), as an outcome of the government's Look East Policy-LEP (where Japan and Korea were chosen as model and partner for Malaysian development and industrialization process), the Prime Minister of Malaysia launched a National Productivity Seminar and Quality Campaign. This was the turning point for a mass quality and productivity revolution within companies and government agencies [Musa 1997]. In 1991, SIRIM Berhad and MPC jointly launched the Regional Quality Program with emphasis on training in the latest trends in quality techniques, tool and approaches. In 1994, SIRIM Berhad launched the Total Quality Practices model specially designed for SMEs with the aim of creating quality culture through step by step training programmes.

Management Systems Standards was first introduced in Malaysia in 1987 with the introduction on ISO 9000 and then followed by other standards such as ISO 14001 and OHSAS 18001, and the latest on MS 1900 (Quality Management System from Islamic Perspectives) which was introduced in early 2006 (Idris and Suliman, 2006). As of June 2011, more than 4000 organizations have been certified for various management systems by SIRIM QAS International alone which is a subsidiary of SIRIM Berhad. According to The ISO Survey of Certifications 2008 Report, 7903 organizations in Malaysia have been certified for various management standards. On the other hand best practices such as Six Sigma was introduced by an American company, Motorola in 1995. While Lean Six Sigma was successfully introduced by another American company, GE Engine in 2000. The concept of Lean Six Sigma was considered relatively new to many Malaysian organizations. Most of those organizations implementing

Lean Six Sigma belong to Electronics and Electrical, and Automotive industries [Selamat & Osman, 2008],[Quek & Yusof, 2003].

A better understanding is therefore required to investigate the current status of management system standards and best practices adoption. With better understanding on current practices and future trend, it can be the basis for formulation of strategy and policy for enhancing organizations competitiveness be it for the government or private use. SIRIM Berhad which is a government company is entrusted to help organizations to compete better through quality and technology innovations. As part of its role as national champion for quality, SIRIM Berhad has conducted a survey on the implementation of standards and best practices in identifying the area that needs improvement or attention.

2.0 Scope of Survey

The survey was conducted in June 2011. It covered 1000 certified Standards Based Management Systems (SBMS) organizations and produced 143 reliable responses. This constituted a response rate of 14 percent. The response rate is lower than the previous survey conducted on ISO certified organization [Idris et. al 1996] and [Idris and Suliman, 2006]

A large proportion (42%) of the organizations were categorised as medium sized that is employing between 51 to 200 employees. 40% of the organizations were large organizations employing more than 200 employees, while 18% of organizations employ less than 51 employees (small companies).

Size of Organization	Percentage
Fewer than 51 employees	18
51 – 200 employees	42
Over 200 employees	40
Type of industry	Percentage
Food & Agriculture Based	24
Building & Construction	16
Electrical & Electronic	9
Polymer & Material	4
Automotive	3
Chemical	3
Mechanical	1
Furniture	1
Services	6
Others	33

Table 1. Breakdown of Sizes and Types

A majority of the respondents belong to food and agriculture based, electrical and electronics, and construction and building. Food and agriculture represent the highest number of respondents (20%). 93% of the respondents were involved in manufacturing and the remaining were in service industries. The breakdown for sizes and types of the industries is summarized in Table 1.

3.0 The Adoption of Standard Based Management Systems (SBMS)

The breakdowns of management systems standards adopted by organizations are as shown in Table 2. It was observed that standards on ISO 9001, ISO 14001 and OHSAS 18001 were the most adopted management standards by the organizations with ISO 9001 standards recorded as the highest adoption (85%). Looking at the trend, OHSAS 18001, ISO 14001, GMP, HACCP and HALAL standards are getting popular among Malaysian organizations in particular those are involved in construction and building (for OHSAS), and food industries (for HALAL, GMP and HACCP). More organizations are embarking on ISO 14001 as their initiatives towards green and sustainable organizations. On the other hand the demand for ISO 9001 and TS 16949 is on the downward trend. This indicates that ISO 9001 has reached some sort of maturity. It is also true for TS 16949 as most of organizations involved in automotive component manufacturing have been certified.

Management System Standards	No. of organizations implemented	No. of organizations intent to implement
ISO 9001	122	2
OHSAS 18001	74	7
ISO 14001	67	15
GMP	19	6
QS 9000/TS 16949	10	3
HACCP – MS1480	8	3
HALAL – MS 1500	7	4
ISO/IEC 17025	7	4
SA 8000	4	3
TL 9000	3	1
ISO 27001	2	4
ISO 15189	2	1
AS 9100	2	2

Table 2: Breakdown of Standards Based Management Systems

4.0 The Effect of Standards Based Management System on Organizations

Based on findings, it was identified that external benefits resulting from the implementation of SBMS were more highly regarded than the internal benefits (Table 3). A total of 57% of the respondents reported that the implementation of SBMS had assisted in improving supplier communication while improved customer communication was cited by 54% of the respondents. Another external benefit cited higher was vendor performance (53%). Improved internal communication was cited by 48% of the respondents as the major internal benefit while improved employee communication (46%) and improved product quality (43%) were also rated highly. Other internal benefits cited were improved business control (38%) and improved employee morale (34%). In overall Standards Based Management Systems showed positive effect on the organizations.

Effect	Percentage
Supplier Communication	57
Customer Communication	54
Vendor Performance	53
Internal Communication	48
Employee Communication	46

Product Quality	43
Business Control	38
Employee Morale	34

Table 3. Breakdown of Effects of SBMS on Organizations.

5.0 The Need for Standards Based Management Systems

The main reasons for adopting SBMS are summarized in Table 4. The most important reason for adopting SBMS was customer demand. A high percentage of organizations regarded SBMS as important for improving overall organization performance.

Reasons	Percentage
Customers demanded it	50
To improve performance	41
Accepted as good practice in the industry	4
As part of TQM effort	4
Others	1

Table 4. Reasons for Standards Based Management Systems

6.0 Improvement Tools and Techniques, and Best Practices

Breakdown on adoption of various improvement tools and techniques, and best practices is shown in Table 5. The most frequently adopted best practices were 5-S (Japanese Housekeeping), TQM and ICC/QCC. Balanced Score Card, Quality Cost, New 7QC Tools and CRM were the least adopted activities and most of the organizations considered the initiatives relatively new to them.

Respondents were asked about the most likely quality activities to be adopted in the next three years. It was identified that 6-Sigma was the most wanted and this was followed by New 7 QC Tools, Quality Cost and Kaizen. The breakdown of the future quality activities is also shown in Table 5.

Improvement Tool & Techniques, and Best Practices	No. of organizations implemented	No. of organizations intent to implement
5-S	94	0
TQM	60	4
ICC/QCC	51	2
Benchmarking	50	4
Employee Survey	48	4
Total Prevention Maintenance (TPM)	48	0
7 QC Tools	46	4
Key Performance Indicators (KPIs)	45	4
Kaizen	42	6
Risk Management	40	3
Statistical Process Control	37	2
Suggestion Scheme	35	4
FMEA	31	3
6-Sigma /Lean Six Sigma	27	11
Self Assessment	26	3
Quality Awards	23	4

Lean Manufacturing	21	3
Balanced Score Card	20	5
Quality Cost	19	8
New 7 QC Tools	17	8
Customer Relationship Management (CRM)	4	4

Table 5. Breakdown of improvement Tools & Techniques and Best Practices

7.0 The Difficulties of Management Standards & Best Practices

The main difficulties faced during implementation and introduction of Standards Based Management Systems and best practices were found to be difficulty in changing the attitude, resources constraints, maintaining the initiatives, coordinating the initiatives, lack of commitment from top management, lack of understanding on concepts, principals and its purposes, and formal procedures to be developed and implemented. The breakdown of the difficulties is shown in Table 6.

Table 6. Main difficulties for Management Standards and Best Practices

Difficulties	Percentage
Attitude	77
Resources	56
Keep it going	50
Co-ordination	48
Understanding	48
Leadership commitment	46
Formal procedures	34

It was surprising to note that leadership commitment was among the least type of difficulty faced by the organizations which is quite the opposite of the previous findings by the author [Idris et. al. 1996].

8.0 The Benefits of TQM

According to the survey the top five main benefits of TQM had been improved customer satisfaction, efficiency, teamwork, communication and safety. A full account of the benefit categories and the order of its importance are summarized in Table 7.

Table 7. Main benefits of TQM

Benefits	Percentage (Based on TQM organizations)
Customer Satisfaction	100
Efficiency	98
Teamwork	98
Communication	97
Safety	81
Profitability	71
Market Focus	61
Productivity	56

Less Scrap	52
Labor Turnover	39
Reduced Absenteeism	37

9.0 Total Quality Fast Track Model (TQ_{FTM})

In early 2005, SIRIM launched the Total Quality Fast Track Model (TQ_{FTM}) (Figure 1) as an initiative to promote further the adoption of best practices among Malaysian organizations. This enhanced model was developed based on Total Quality Practices (TQP) Model which was introduced in 1994 [Hamzah and Ho, 1994]. The latest model considers the current best practices and development of management standards. TQ_{FTM} is basically an implementation model that provides a step-by-step improvement opportunity for organizations that seek continuous improvement and business excellence.

The steps are 5-S (Housekeeping), (Ho, 2011) SBMS (Standards Based Management Systems), QPIT (Quality, Productivity and Innovative Teams) and TQM (Total Quality Management). It was designed to help organizations to realize the quality culture in a shorter period of less than 3 years as compared to 3 to 5 years for conventional approach. Table 8 shows the supporting activities for each key activities of TQ_{FTM}.

Considering the results from the survey, all these key improvement activities were highly adopted by the organizations (Table 5). Currently five service organizations are applying the model with two of them having been certified as TQM organizations and also awarded with Quality Management Excellent Awards (QMEA). This is a prestigious award by the Malaysian Government that recognizes organization’s achievements in terms of business performance and best practices.

SBMS is included as one of the steps as nowadays many organizations cannot do without it, may it be ISO 9001, ISO 14001, OHSAS 18000 or other management standards. More and more organizations are adopting more than one management system standards at a time and therefore systems integration is the most practical choice.

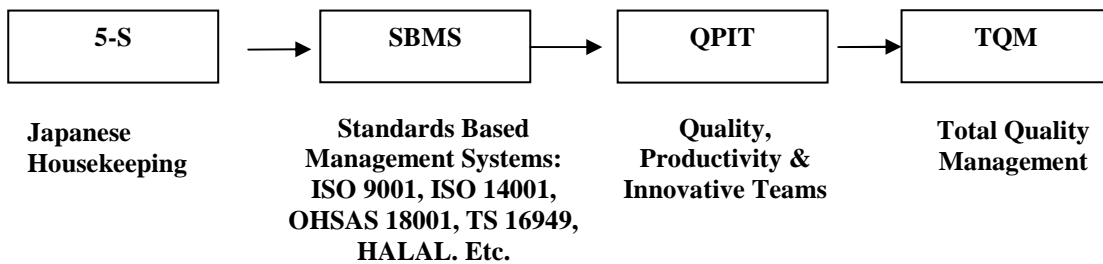


Figure 1 : Total Quality Fast Track Model (TQ_{FTM})

Key Quality Activities	Supporting Quality Activities
TQM	Motivation Programme Benchmarking Taguchi Quality Function Deployment Self-Assessment Cost of Quality Employee Attitude Survey TPM Poka Yoke Quality Awards KPIs/BSC Risk Management CRM
PQIT	Problem Solving Activities 7 QC Tools 7 New QC Tools QCC/ICC Kaizen 6-Sigma Innovation Group Suggestion Scheme
SBMS	Customer Survey Supplier Audit Supplier Certification Statistical Process Control Supplier Improvement Activities Internal Audit Awareness Programme System Documentation Production Planning and Control Statistical Sampling Lean Manufacturing, FMEA
5-S	

Table 8 : Breakdowns of Total Quality Fast Track Model (TQ_{FTM}) Supporting Activities

9.0 Conclusions

The survey conducted has revealed that Malaysian organizations are paying more attention to the needs of management standards and best practices. There is a steady increase in the number of organizations adopting new management standards such as OHSAS 18001 and MS1500 (HALAL) and best practices such as 6-Sigma and Lean Manufacturing.

It was also evident from the survey, systems integration is getting popular among the organization for example ISO 9001 being integrated with ISO 14001 and OHSAS 18001 or MS 1500 (HALAL) being integrated with MS 1480 (HACCP). It can be concluded that SBMS, quality tools and techniques are important ingredients for TQM implementation which leads to the survival of the organization in the long run. SIRIM's TQ_{FTM} can be considered as a practical approach for TQM implementation.

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Authors' Background

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