

**THE MEDIATING EFFECT OF HIGH  
PERFORMANCE WORK SYSTEM ON  
ISO 9001:2008 PRACTICES AND  
ORGANIZATIONAL PERFORMANCE AMONG  
GOVERNMENT AGENCIES IN SABAH,  
MALAYSIA**



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UNIVERSITI MALAYSIA SABAH  
2016**

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**THESIS SUBMITTED IN FULFILLMENT FOR  
THE DEGREE OF DOCTOR OF PHILOSOPHY**

**FACULTY OF BUSINESS, ECONOMICS AND  
ACCOUNTANCY  
UNIVERSITI MALAYSIA SABAH  
2016**

## DECLARATION

I hereby declare that the material in this thesis is my own except for quotations, excerpts, equations, summaries and references, which have been duly acknowledged.

18 August 2016

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## CERTIFICATION

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MATRIC NO : **PE2011-9043**

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VIVA DATE : **18 AUGUST 2016**

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Rainal Bin Lasumin  
18 August 2016

## ABSTRACT

In response to the increasingly changing customer's and stakeholder's expectation, the Malaysian Government opted to implement ISO 9000 standard on its entire machinery. However, after 20 years of the standards adoption in the government agencies, the implementation is much criticized especially on increasing customer complaints, low productivity, lower employees' morale, higher delivery cost and low overall perceived quality. Consequently, many studies have been conducted in view of the above. However, the consensus among the scholars regarding the effect of ISO 9000 implementation and organizational performance is still inconclusive. Issues like the level of comprehensiveness in ISO 9000 implementation, inconsistent variables, and differing methodologies might be of some major variances. In a view to understand the implementations issue, this study provide a theoretical framework illustrating how high performance work system (HPWS) mediate the relationship between ISO 9001:2008 practices and organizational performance among the government agencies in Sabah, Malaysia. The eight latent constructs which are the facets of ISO 9001 standards are identified as customer focus, leadership, involvement of people, process approach, system approach to management, continual improvement, factual approach to decision making, and mutually beneficial supplier relationships. Questionnaires are used to gather information from 98 ISO certified government agencies in Sabah through purposive sampling technique. The number of returned and usable questionnaires is 90 or 91.8%. SPSS 19 and Smart PLS 2.0 are used to analyze the relationship between the latent constructs. The findings demonstrated that ISO 9001:2008 practices and HPWS have positive and significant relationship on organizational performance. Similarly, the relationship between ISO 9001:2008 practices and HPWS is also significant. The mediating effect of HPWS on the relationship between ISO 9001:2008 practices and organizational performance is also found to be significant. In addition to the theoretical and methodological implications, this study provides practical relevance to the management of ISO certified organization to reevaluate their strategic implementation of the ISO 9001:2008 practices by integrating HPWS. The integration of HPWS in implementing ISO 9000 in the government agencies marked the major contribution of this study.

## **ABSTRAK**

### **KESAN SISTEM KERJA BERPRESTASI TINGGI SEBAGAI PENGANTARA KEATAS HUBUNGAN ANTARA AMALAN ISO 9001:2008 DAN PRESTASI ORGANISASI DI KALANGAN AGENSI KERAJAAN DI NEGERI SABAH, MALAYSIA**

*Sebagai tindak balas terhadap perubahan kehendak pelanggan dan tuntutan stakeholder, Kerajaan Malaysia telah memilih untuk melaksanakan standard ISO 9001:2008 dalam keseluruhan sistem pentadbiran negara. Namun selepas 20 tahun pemakaian standards ini, pelaksanaannya terus dikritis khususnya ketidakpuasan pelanggan, produktiviti yang rendah, tahap moral perkerja menurun, kos penyampaian perkhidmatan meningkat dan persepsi keseluruhan ke atas kualiti yang rendah. Banyak kajian telah dijalankan untuk menangani isu ini dalam perspektif yang berbeza. Walaubagaimanapun, terdapat beberapa kajian terutamanya dalam menentukan hubungan antara pelaksanaan ISO 9000 dan prestasi organisasi tidak dapat mencapai persetujuan dikalangan penyelidik. Persetujuan tidak tercapai disebabkan oleh beberapa faktor antaranya perbezaan tahap pelaksanaan ISO 9000, pembolehubah yang tidak konsisten dan methodologi penyelidikan yang digunakan adalah berbeza. Oleh itu, kajian ini cuba menyiasat kesan sistem kerja berprestasi tinggi sebagai pengantara keatas hubungan antara amalan ISO 9001:2008 dan prestasi organisasi di agensi-agensi kerajaan di Negeri Sabah. Sebanyak lapan konstruk ISO 9001:2008 yang dikenalpasti iaitu fokus kepada pelanggan, kepimpinan, penglibatan manusia, pendekatan proses, pendekatan sistem, penambahbaikan berterusan, keputusan berasaskan fakta dan hubungan baik dengan pembekal. Borang soal selidik digunakan untuk mengumpul maklumat daripada 98 agensi kerajaan yang telah mendapat persijilan ISO 9001:2008 di Sabah menerusi kaedah pensampelan purposif. SPSS 19 dan Smart PLS V2 digunakan untuk menganalisis hubungan di antara konstruk pendam kajian ini. Keputusan yang diperolehi dari pengujian hypothesis menunjukkan terdapat perhubungan positif yang signifikan diantara ISO 9001:2008 dan prestasi organisasi serta hubungan langsung yang signifikan antara sistem kerja berprestasi tinggi dan prestasi organisasi. Manakala, hasil daripada analisis pengantara pula menunjukkan amalan sistem kerja berprestasi tinggi turut mempunyai hubungan positif secara signifikan antara amalan ISO 9001:2008 dan prestasi organisasi. Disamping implikasi dari segi teori dan konseptual, keputusan kajian ini turut mempunyai kerelevanan amali kepada pengurusan atasan agensi kerajaan untuk menilai semula strategi pelaksanaan ISO 9001:2008 dengan menggabungkan amalan sistem kerja berprestasi tinggi dalam organisasi. Pengabungan amalan sistem kerja berprestasi tinggi dalam pelaksanaan ISO 9001:2008 merupakan sumbangan utama kajian ini.*

# TABLE OF CONTENTS

	Page
<b>TITLE</b>	i
<b>DECLARATION</b>	ii
<b>CERTIFICATION</b>	iii
<b>ACKNOWLEDGEMENT</b>	iv
<b>ABSTRACT</b>	v
<b><i>ABSTRAK</i></b>	vi
<b>TABLE OF CONTENTS</b>	vii
<b>LIST OF TABLES</b>	xii
<b>LIST OF FIGURES</b>	xiv
<b>LIST OF APPENDIX</b>	xv
<b>CHAPTER 1: INTRODUCTION</b>	
1.1 Introduction	1
1.2 Background of the Study	1
1.2.1 Gaps of the study	3
1.3 Problem Statement	8
1.4 Research Questions and Objectives	14
1.5 Scope of the Study	15
1.6 Significance of the Study	17
1.6.1 Significant to theory	18
1.6.2 Significant to the government agencies	18
1.6.3 Significant to MAMPU and Department of Standardization	19
1.7 Operational Definition of Key Terms and Variables	20
1.7.1 ISO 9001:2008 Quality Management System (QMS) Practices	20
1.7.2 Customer Focus	20
1.7.3 Leadership	21
1.7.4 People Involvement	21
1.7.5 Process Approach	22
1.7.6 System Approach	22



1.7.7	Continual Improvement	23
1.7.8	Factual Decision Making	23
1.7.9	Mutual Beneficial Supplier Relationship	24
1.7.10	High Performance Work System (HPWS)	24
1.7.11	Organisational Performance	24
1.7.12	ISO 9001:2008 Certified Government Agencies	24
1.8	Organization of the Thesis	25
1.9	Summary	26

## **CHAPTER 2: LITERATURE REVIEW**

2.1	Introduction	27
2.2	Theory Development	27
2.2.1	Institutional Theory	29
2.2.2	Resources Based View Theory	32
2.3	History of ISO Standards	42
2.4	ISO 9000 and Total Quality Management	47
2.5	ISO 9001 as Quality Management System	49
2.6	ISO 9000 Implementation in Malaysia Public Sector	54
2.7	Conceptualization of Organizational Performance	60
2.8	Quality Management System Practices	66
2.8.1	Customer Focus	73
2.8.2	Leadership	74
2.8.3	Involvement of People	76
2.8.4	Process Approach	77
2.8.5	System Approach to Management	78
2.8.6	Continual Improvement	79
2.8.7	Factual Approach to Decision Making	81
2.8.8	Mutually Beneficial Supplier Relationship	82
2.9	ISO Practices and Organizational Performance	83
2.10	ISO 9000 Practices and HPWS	95
2.11	HPWS and Organizational Performance	106
2.12	Mediating effects of HPWS	113
2.13	Integrating ISO 9001:2008, HPWS and Organizational Performance	116

2.14	Summary	118
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### **CHAPTER 3: METHODOLOGY**

3.1	Introduction	119
3.2	Research Strategy	119
3.3	Research Framework	120
3.3.1	Dependent Variables (Endogenous Variable)	121
3.3.2	Independent Variable (Exogenous Variable)	122
3.3.3	Mediating Variable	122
3.4	Hypotheses Development	123
3.4.1	ISO 9001:2008 Practices and Organizational Performance	123
3.4.2	Customer Focus and Organizational Performance	124
3.4.3	Continual Improvement and Organizational Performance	124
3.4.4	Factual Approach and Organizational Performance	124
3.4.5	Leadership and Organizational Performance	125
3.4.6	Process approach and Organizational Performance	125
3.4.7	People involvement and Organizational Performance	126
3.4.8	System Approach and Organizational Performance	126
3.4.9	Supplier Relationship and Organizational Performance	127
3.4.10	ISO 9001:2008 Practices and HPWS	127
3.4.11	HPWS and Organizational Performance	128
3.4.12	Mediating Variable (HPWS)	129
3.5	Research Design	131
3.6	Population and Sampling	132
3.7	Sampling Design	134
3.7.1	Types of Sampling Design	134
3.7.2	Sampling Size	136
3.8	Instrument and Measurement	137
3.9	Data Collection Method	138
3.10	Measurement Method	139
3.10.1	Organizational Performance	141
3.10.2	ISO 9001:2008 Practices	143
3.10.3	High Performance Work System	146

3.11	Data Analysis Method	148
3.11.1	SPSS Analysis Technique	149
3.11.2	SEM PLS Analysis Technique	150
3.12	Summary	157

#### **CHAPTER 4: RESEARCH FINDINGS**

4.1	Introduction	158
4.2	Demographic Profile of Respondents	158
4.3	Demographic Profile of Organization	159
4.4	Descriptive Statistics of Survey Data	162
4.5	Principal Component Analysis	164
4.6	Iterations Number	165
4.7	Measurement Model Evaluations	165
4.7.1:	Indicator Reliability	168
4.7.2:	Internal Consistency Reliability	168
4.7.3:	Convergent Validity	171
4.7.4:	Discriminant Validity	171
4.8	Collinearity Assessment	176
4.9	Structural Model Evaluation	178
4.9.1	Structural Model Path Coefficients	178
4.9.2	ISO 9001:2008 Practices and Organizational Performance	181
4.9.3	ISO 9001:2008 Practices and HPWS	182
4.9.4	HPWS and Organizational Performance	184
4.9.5	Coefficients of Determination ( $R^2$ )	184
4.9.6	Blindfolding and Predictive Relevance ( $Q^2$ )	185
4.9.7	Mediated Analysis	186
4.10	Summary of the Findings	193
4.11	Summary	194

#### **CHAPTER 5: DISCUSSION AND CONCLUSION**

5.1	Introduction	196
5.2	Recapitulation of Study	196
5.3	Discussion on Findings	199

5.3.1	ISO 9001:2008 practices and Organizational Performance	199
a	Customer Focus and Organizational Performance	204
b	Continual Improvement and Organizational Performance	209
c	Factual Decision Making and Organizational Performance	215
d	Leadership and Organizational Performance	217
e	Process Approach and Organizational Performance	221
f	People Involvement and Organizational Performance	223
g	System Approach and Organizational Performance	226
h	Supplier Relationship and Organizational Performance	228
5.3.2	ISO 9001:2008 Practices and High Performance Work System	231
a	Customer Focus and HPWS	232
b	Continual Improvement and HPWS	233
c	Factual Decision Making and HPWS	233
d	Leadership and HPWS	235
e	Process Approach and HPWS	235
f	People Involvement and HPWS	236
g	System Approach and HPWS	237
h	Supplier Relationship and HPWS	238
5.3.3	HPWS and Organizational Performance	240
5.3.4	The Mediating Effect of HPWS	241
a	The Mediating Effect of HPWS on Customer Focus and Organizational Performance	243
b	The Mediating Effect of HPWS on Continual Improvement and Organizational Performance	244
c	The Mediating Effect of HPWS on Factual Approach and Organizational Performance	245
d	The Mediating Effect of HPWS on Leadership and Organizational Performance	246
e	The Mediating Effect of HPWS on Process Approach and Organizational Performance	247
f	The Mediating Effect of HPWS on People Involvement and Organizational Performance	249
g	The Mediating Effect of HPWS on System Approach and	249

	Organizational Performance	
h	The Mediating Effect of HPWS on Supplier Relationship and Organizational Performance	249
5.4	Research Implications	250
5.4.1	Theoretical Contributions	251
5.4.2	Methodological Contributions	253
5.4.3	Practical Contributions	255
5.5	Limitations of Study	271
5.6	Recommendations for Future Research	273
5.7	Conclusion	275
	<b>REFERENCES</b>	276
	<b>APPENDIX</b>	324

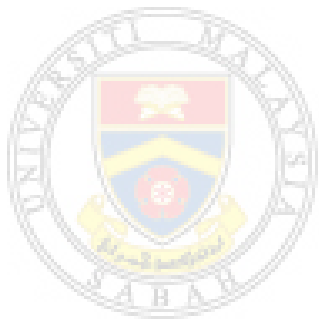


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## LIST OF TABLES

	Page
Table 2.1: ISO Certification in Malaysia	53
Table 2.2: Withdrawn Certification in Malaysia	54
Table 2.3: Matrix of empirical evidence on Performance Measurement	64
Table 2.4: Significant of relationship between ISO 9001:2008 Practices and Organizational Performance	87
Table 2.5: Focus and approach of studies in Malaysian Public Sector	92
Table 2.6: QMS principles and Goffnett's Quality Factors	98
Table 2.7: The relationship between ISO 9000 and HPWS	101
Table 2.8: Significant of relationship between ISO 9001:2008 Practices and HPWS	101
Table 2.9: Effect of ISO 9000 on element of HPWS	103
Table 2.10: Supporting literatures on HPWS and Organizational Performance	108
Table 3.1: Population and Sampling Table	134
Table 3.2: Organizational Performance Items	143
Table 3.3: Customer Focus Items	143
Table 3.4: Leadership Items	144
Table 3.5: People Involvement Items	144
Table 3.6: Process Approach Items	144
Table 3.7: System Approach Items	145
Table 3.8: Continual Improvement Items	145
Table 3.9: Factual Decision Making Items	146
Table 3.10: Supplier Relationship Items	146
Table 3.11: High Performance Work System Items	147
Table 3.12: Summary of the Measure of Models	148
Table 3.13: Data Analysis Method	148
Table 4.1: Demographic Profile of Respondents	159
Table 4.2: Demographic Profile of Organization	160
Table 4.3: Mean and Standard Deviation for Each Construct	163
Table 4.4: Distribution of Response (Skewness and Kurtosis Test)	164

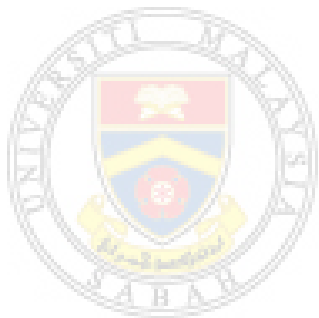
Table 4.5:	Internal Consistency Reliability and Convergent Validity	170
Table 4.6:	Discriminant Validity (Cross Loadings)	172
Table 4.7:	Discriminant Validity: Fornell-Larcker Criterion	175
Table 4.8:	Summary of the Measurement Model Results	176
Table 4.9:	Collinearity Assessment (First Set)	177
Table 4.10:	Collinearity Assessment (Second Set)	178
Table 4.11:	Structural Model and Hypotheses Testing	180
Table 4.12:	Results of R2 and Q2 Values	185
Table 4.13:	Bootstrapped Confidence Interval Calculation	192
Table 4.14:	Mediating Analysis	192
Table 4.15:	Summary of the findings	193



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## LIST OF FIGURES

	Page
Figure 2.1: Value adding creation of ISO 9001:2008 practices	41
Figure 2.2: Model of Process-Based Quality Management System	52
Figure 2.3: The Fundamental of Research Gap	117
Figure 3.1: Research Framework	121
Figure 3.2: Summary of relationship between research questions, objectives and hypotheses	131
Figure 4.1: Measurement Model	167
Figure 4.2: Path Model Estimation (Structural Model)	169
Figure 4.3: Mediation Model	189



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## LIST OF APPENDIX

	Page
Appendix A: Cover Letter	324
Appendix B: Questionnaire	325
Appendix C: List of Respondents	330
Appendix D: Measurement of Organizational Performance in Private Sector	332
Appendix E: Measurement of Organizational Performance in Public Sector	333
Appendix F: Lists of ISO 9000 Practices Proposed by Literatures	334
Appendix G: Summary of typical empirical studies about ISO 9000	335
Appendix H: Summary of typical empirical studies about QMS in the Public Sector	337
Appendix I: Summary of typical empirical studies about QMS in the Malaysian Public Sector	348
Appendix J: Summary of Literature Review on QMS/ISO and HPWS	340
Appendix K: Summary of Literature Review on HPWS and Organizational Performance	343
Appendix L: Demographic Profile Of Respondents	345
Appendix M: Demographic Profile Of Organization	346
Appendix N: Descriptive Statistics (Indicators)	348
Appendix O: Descriptive Statistics (Constructs)	349
Appendix P: Collinearity Assessment (Coefficient Table)	350
Appendix Q: Principal Component Analysis	351
Appendix R: Stop Criterion Changes	352
Appendix S: Overview	353
Appendix T: Outer Loading	354
Appendix U: Cross Loading	355
Appendix V: Latent Variable Correlations	356
Appendix W: Path Coefficients (Structural Model Results)	357
Appendix X: Effect Sizes ( $\eta^2$ ) of the Latent Variables	358
Appendix Y: Calculating the Mediator	359
Appendix Z: Bootstrapped Confidence Interval Calculation	360

# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

Chapter 1 described the background of the study, research problem statements, research questions and objectives, scope of the study, significance of the study, operational definitions of the key terms and variables and the organization of the thesis. The chapter begins with a brief background of the study and is followed with the background on ISO 9000 implementation issues and the gap of the study in Sabah government agencies before stating the research problems. Next the section discusses the research questions and objectives, scope of the study, significance of the study and operational definitions of the key terms and variables. The chapter ends with organization of the thesis followed by summarizing the chapter.

### 1.2 Background of the study

The Malaysian government agencies, like other contemporary organization are facing with unprecedented challenges due to increase competition, rapid technological breakthrough, demand for growing social responsibilities, globalization challenges and new strategic thinking (Muhammad Madi, 2006; American Management Association, 2007). These challenges changed the traditional expectation of citizens on products quality and services provision. In addition, the government as stakeholder expect their agencies to take more effort and undergo transformation in order to become more efficient, effective and accountable, and providing consistent and quality services to customers (Saner, 2002; Piana and Torres, 2003; Muhammad Madi, Jegak, Maimunah and Shamsuddin, 2007; Fard and Abbasi, 2010). Thus, the continuous survival of the organizations depends on their abilities to gain competitive advantage in the global market (Rohaizah Saad, Roshami Zien Yusuff and Zakaria Abas, 2010).

A variety of concepts and techniques have been adopted to improve effectiveness of the public sectors. Researchers supported the options to response to the challenges and stay competitive by adopting the new managerial innovation, Quality Management System (QMS) based on ISO 9001:2008 standards (Lin and Jang 2008; Rohaizah Saad *et al.*, 2010; To, Lee and Yu, 2011; Roslina Ab Wahid, James and Tan, 2011; Yu, To and Lee, 2012; Alsaled and Ahmed, 2015). The adoption of quality management concepts and practices in the Malaysian Public Services has provided the necessary institutional mechanism and focus for change in the government's efforts to reform the public service (Mohamed Asim, 2001:17), thereby facilitate the process to achieve the Government Public Sector vision of becoming a world class public sector by 2020 (Amran Ahmed, Nor Fuad and Takahi, 2008).

The adoption of ISO 9000 standards in the entire Malaysian government agencies is a mandatory adoption for all government agencies as directed by the Civil Administrative Circular in 1996. From its adoption, the government through the Malaysian Administrative Modernization and Management Planning Unit (MAMPU), embarked various training programmes and issued guidelines of implementation. However, no literature has shown that ISO 9000 standards were implemented in the Malaysian public sector before the issuance of circular in 1996. The Federal Government had decided that by end of the year 2000, all government agencies must have implemented ISO 9000 (Zakaria Ahmad, 1998), and to have at least one core activity to be certified to ISO 9000 (Subramaniam, 2007). The state government of Sabah followed step by targeting at least 96 government agencies implementing the QMS based on ISO 9000 standards by 2000 (Setiausaha Kerajaan Negeri Sabah, 2000). The Sabah state government followed the Federal Government when it issued another directive and guideline on January 2010 requesting all government agencies to migrate to MS ISO 9001:2008 (Kerajaan Malaysia, 2010).

However, after 20 years of adoption, and being the first countries in the world to adopt ISO 9000 on its entire machinery (Eicher, 2001) two things remain certain: not all government agencies are certified, and those certified agencies are

yet to gain the real benefits of implementation. Although the intent and the implementation directive have been explicitly stated by the government, the number of government agencies that have obtained ISO certification is relatively small and far from the target set by the government. Although it cannot be denied that the ISO 9000 implementations bring benefits to certain agencies, the real value of increased effectiveness and efficiencies of the government agencies remain questionable. The study by United Nations Industrial Development Organization (UNIDO, 2012) indicated their concerns on Asian developing countries, including Malaysia whether accredited certification to ISO 9001 has achieved the desired outcomes, and whether excessive attention to obtain certification has shifted the focus away from the effectiveness of the QMS. This connotation implied weaknesses in the implementation process of the ISO 9001:2008 standards. Following this, Heinrich (2007) identified ineffective system as a deep cause of public organization underperformance as such called the need to renew public sector organizations.

### **1.2.1 Gaps of the Study**

The shortcoming mentioned above indicated the issues of implementation of the ISO 9001:2008 in improving the performance of government agencies. The following discussions explored the theoretical, conceptual and methodological gaps relating to the literatures examining the causal relationship between ISO 9001:2008 and organizational performance in Malaysia.

The studies examining the relationship between ISO 9001:2008 and organizational performance in Malaysia, and Sabah in particular have been rare. This study stands to agree with Shardy Abdullah, Arman Abdul Razak, Mohd Hanizun Hanafi and Nor' Aini Yusof (2012), which suggested that part of the problem of assessing ISO 9000 real contributions to public management in Malaysia is relatively lack of data. Unlike western countries, most of the ISO studies in Malaysia was confined to manufacturing sector (Osman, Rosnah, Ismail, Tapsir and Sarimin, 2004; Subramaniam, 2007; Nursah Samat, Ramayah and Yusliza, 2008; Arumugam *et al.*, 2009; Farhad *et al.*, 2011; Sidin, 2013), electrical and electronic firms (Muhammad Madi Abdullah, 2006), constructions (Abdul Rahman Ayub and

Janidah Eman, 2006; Sabaryah Din, Zahidy Abd-Hamid and David, 2012); property sector (All Hafiez Abas, Henny Hazliza Mohd Tahir, Muhd. Kamil Ibrahim and Raudzah Roslan, 2011); service providers firms (Roslina Ab. Wahid. 2011) and public listed companies (Mohd. Zulfikar Mokhtar and Mohd. Shaladdin Muda, 2012).

The few studies investigating the ISO 9000 implementation in Malaysia public sector could be found from the work of Shardy Abdullah *et al.* (2012); Zakaria Ahmad (1998); Noraini Ismail, Hazman Shah Abdullah and Norhana Salamuddin (2006); Siti Arni Basir (2012); Nazri Muslim, Mashitoh Yaacob and Nur Riza Suradi (2012); Sarok (2010). Shardy Abdullah *et al.* (2012) examined the ISO 9000 implementation barriers in Malaysian Local Government within Peninsular Malaysia. Zakaria Ahmad (1998) demonstrated the relationship between reengineering and ISO 9000 implementation the public services. Noraini Ismail *et al.* (2006) studied the implementation of ISO 9000 in the Faculty of Business Management, UiTM Shah Alam. Siti Arni Basir (2012) investigated how Higher Education Institutions in Malaysia complied with ISO 9000 requirements. Nazri Muslim *et al.* (2012) studied the implementation of ISO 9000 impacted on work culture and daily operation management on the National University of Malaysian. Sarok (2010) study the implementation of ISO 9000 on local authorities in Sarawak. The study done in Sabah government agency is even rarer. Internet and library search indicated a few study such as Amran Ahmed, Nor Fuad Bin Abdul Hamid and Sachiko Takahi (2008); Masulah (2010); Irwan Ibrahim *et al.* (2011). Amran Ahmed *et al.* (2008) examined to what extent does the employee's perceptions of certified ISO 9000 department and non-certified ISO department affect on TQM practices in the federal agencies of Kota Kinabalu, Sabah. Masulah (2010) studied the perception of success on implementation of ISO 9001:2008 and its influence to organizational commitment in Sabah Electricity Sdn. Bhd. (SESB). Irwan Ibrahim *et al.* (2011) on the other hand studied the implementation of TQM in Pos Malaysia Berhad, Kota Kinabalu. Looking at the huge gap of ISO 9000 studies among the government agencies in Sabah, this study intend to contribute to this end.

The study conducted on public sector in Malaysia showed concentration on public educational institutions and local authorities. Moreover, one thing in common, the conceptual framework of this study in relations to previous studies presented above is not similar. The study by Irwan Ibrahim *et al.* (2011) assumes a direct relationship between ISO 9000 implementations and organizational performance. Development in quality management study showed that other factors matter in sustaining organizational performance through ISO 9000 implementation (Respati and Amin, 2014), since ISO 9000 could not stand alone in improving organizational performance (Iikay and Aslan, 2012). The study by Ahmed *et al.* (2008) and Masulah (2010) consider contextual factors such as moderating factors in their framework. Although Shardy *et al.* (2012) study did not focus on examining the influence of ISO 9000 practices on organizational performance, the results is significant considering that barriers discovered by the study hindered the effective implementation of the ISO 9001:2008 in the government agencies. However, the data collected through questionnaires from 53 respondents could not lead to statistical generalization, thus implied the issue of representativeness (Jackson Group, 2014). In addition, sampling issue could also be found on Irwan Ibrahim *et al.* (2011) study which use limited sample of 50 employees. In addition the study by Shardy *et al.* (2012) on federal agencies in Sabah with limited sample, and the single agency sampled by Irwan Ibrahim *et al.* (2011) and Masulah (2010) lead to more rigorous methodology.

Since none of the above studies conducted in Malaysia investigated the relationship between ISO 9001:2008 and organizational performance in the public sector, previous works conducted in other region, particularly To *et al.*, 2011 (Macao) and the earlier work of Chu *et al.*, 2001 (Taiwan) are helpful to this study. This is justified based on To *et al.* (2011) indication that the management, structures, and practices of Macao's public organizations are largely similar with their counterparts in the Asian region. However, the conceptual framework by To *et al.* (2011) has a direct relationship between ISO 9000 and organizational performance. In addition, the measurement instrument was established using the management principles of ISO 9001:2000 and hypotheses were developed to test the applicability and effectiveness of ISO 9001:2000 in the public sector. This study

is compatible with previous study on ISO 9001:2000, since ISO 9001:2008 are similar (ISO, 2009) in structure with ISO 9001:2000 which retain the eight management principles. The different in the conceptual framework with the current study, is on dependent variable and methodology in terms of data analysis. From the quality theoretical perspective, the eight quality management principles formed the foundation of Total Quality Management (TQM), which are used by most QMS researchers in examining quality management. In addition other study (Almeida, Ten Caten and Gutterres, 2009) also indicated that they are the actual management practices that could generate better results in the organization. Moreover, the applicability of this instrument in the public sector is validated by Yu *et al.* (2012). Specifically, the results from survey indicated that public organizations in general followed the guidelines of ISO to implement management principles at similar levels, implying the adoption approaches of ISO 9000 to be similar among the organizations. However, results from previous finding indicated on the contrary. The mixed and inconclusive result from these studies implied that the relationship and impact of implementing ISO 9000 on organizational performance were assessed as not giving clear, complete and satisfying information.

This conclusion is based on previous researchers finding which reported the debatable link between quality management practices and organizational performance. For example, Lin and Jang, (2008), To *et al.* (2011), Arumugam *et al.* (2008); Feng *et al.* (2008), Almeida *et al.* (2009), Kong, (2010), Psomas, Pantouvakis and Kafetzopoulos (2013) have demonstrated the benefits of implementing ISO 9000. However, the study by Martínez-Costa *et al.*, (2009), Prajogo, (2011) found the implementation of ISO 9000 did not result in improved performance. Thus, many scholars include other factors as a mediator on this relationship. So far, the mediator construct is discussed on manufacturing sectors specific to work commitment (Feng *et al.*, 2008), training and competency (Hong and Phitayawejwiwat, 2005), employee involvement and teamwork (Miller, 2007; Jaca, Viles, Mateo and Santos, 2012), work processes (Huang, 2012), empowerment, personnel policies and work knowledge (Tari and Sabater, 2006), organizational learning (Sisnuhadi and Jamal Abdul Nasir, 2013; Hung, Yang, Lien,

McLean and Kuo, 2010; Foo et al., 2016), Culture (Kull and Wacker, 2010), Strategic Control System (Said, Omran, Yaacob and Abas, 2009). The mediators classified above are actually the components of HPWS dimensions.

Due to this debate, researchers (such as Respati and Amin, 2014) suggested to consider other factors that contribute to organizational performance, since ISO 9000 could not stand alone in improving organizational performance (Iikay and Aslan, 2012). Organizations are heterogeneous with different advantages to reach performance. Therefore, the reality is ISO 9001 standards could not influence organizational performance directly. To enhance more organizational outcome other variables must support the transformation process. The findings by Amran Ahmed *et al* (2008) suggested embedding a healthy work culture to all government employees as QMS is highly concerned on 'system approach' rather than 'humanistic approach', while Siti Arni Basir (2012) also found out the issues of human resources in the public local universities. In addition, several authors (Pfeffer, 1998; Boxall, 2003; Nair, 2006; Cognazzo *et al.*, 2009) emphasize the importance of people and the management of people as the prime movers of an organization, and are increasingly seen as key elements of competitive advantage. Organizational improvement, customer satisfaction, and process implementation are implemented by human resources in the organization. It was laid out in several Quality Awards offered, such as the Malaysian Prime Minister Awards, Malaysian Governments' agencies Star Rating System, Accountability Star Rating by the Audit Department which emphasizes that human resources management components weightage allotted ranges from 10% to 15% in the total criteria for the award. The criteria for the awards indicate that the HR related dimensions and HR involvement are necessary for a QMS program. However, it was only recently that quality experts, researchers, academics and practitioners realized the importance of HR issues as the core quality philosophy, and that employee involvement and commitment is essential for performance improvement (Vouzas, 2011).

Worst still, only few attempts were directed to understand which variables mediate the relationship between ISO 9000 and performance of the government agencies, and up to what extent they relate. The importance of high performance