DETERMINANTS OF TOTAL QUALITY MANAGEMENT IN THE SAUDI PUBLIC HOSPITALS: THE MODERATING IMPACT OF KNOWLEDGE MANAGEMENT

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ABSTRACT

Public hospitals in Saudi Arabia were undergoing tremendous pressure from the government and also public to improve their level of quality services. Hence, this study is undertaken as an effort to examine the factors that influence total quality management (TQM) practices in Saudi Arabia public hospitals. It has also aimed at examining the moderating effect of knowledge management on the relationship between the independent variables of information technology, employee capacity, employee commitment, and the dependent variable of total quality management practices. This study was motivated by the inconsistency of findings reported in the literature regarding the above mentioned relationship. The inconsistencies have led to the emergence of a new research stream that recommends the investigation of moderating variables that could explain the relationships. Therefore, in the present study, different theories were employed including the contingency theory and the resource-based view to providing an insight into the relationships. The study made use of a survey questionnaire randomly distributed to 259 public hospitals in the Saudi Arabia, of which 154 were found suitable for analysis. Statistical Package for Social Sciences (SPSS) was used for the descriptive part of the analysis while Partial Least Squares-Structural Equation Modelling (PLS-SEM) was employed to assess the outer measurement model and the relationships between the variables. The findings of the study revealed that employees' capacity and information technology were significantly related to TQM practices. The findings also revealed that knowledge management moderated the relationship between employee commitment and TQM while it did not moderate the relationship between employee capacity and information technology and TQM. The study has managerial, policy and theoretical implications along with the recommendations for future research.

Keywords: total quality management practice, knowledge management, information technology, employee capacity, employee commitment

ABSTRAK

Hospital awam di Arab Saudi sedang mengalami tekanan yang kuat dari kerajaan dan orang awam untuk mempertingkatkan tahap kualiti perkhidmatan yang diberikan. Justeru itu, kajian ini dijalankan sebagai usaha untuk mengkaji apakah factor-faktor yang mempengaruhi amalan pengurusan kualiti menyeluruh (TQM) dalam hospital awam di Arab Saudi. Ia juga bertujuan untuk meneliti kesan penyederhana pengurusan pengetahuan terhadap hubungan antara pemboleh ubah bebas teknologi maklumat, keupayaan pekerja, komitmen pekerja, dan pemboleh ubah bersandar amalan pengurusan kualiti menyeluruh. Kajian ini didorong oleh ketidakselarasan penemuan yang dilaporkan dalam karya lalu mengenai hubungan antara pemboleh ubah tersebut. Ketidaktekalan dapatan lalu menyebabkan kemunculan aliran penyelidikan baharu yang mencadangkan agar pemboleh ubah penyederhana yang boleh menjelaskan hubungan antara pemboleh ubah diambil kira. Oleh itu, dalam kajian ini, teori yang berbeza-beza telah digunakan termasuk teori kontingensi dan pandangan berasaskan sumber untuk memberikan kefahaman mengenai hubungan berkenaan. Kajian ini menggunakan soal kaji selidik yang telah diedarkan secara rawak kepada 259 hospital awam di Arab Saudi, yang mana 154 telah didapati sesuai untuk tujuan analisis. Pakej Statistik untuk Sains Sosial (SPSS) digunakan untuk sebahagian deskriptif analisis manakala Partial Least Squares Structural Equation Modelling (PLS-SEM) telah digunakan untuk menilai model pengukuran luaran dan hubungan antara pemboleh ubah. Dapatan kajian menunjukkan kapasiti pekerja dan teknologi maklumat mempunyai hubungan yang signifikan dengan TQM. Dapatan kajian juga menunjukkan bahawa pengurusan pengetahuan menyederhana hubungan antara komitmen pekerja dan TQM. Walau bagaimanapun, ia tidak menyederhana hubungan antara kapasiti pekerja dan teknologi maklumat dengan TQM. Kajian ini mempunyai implikasi pengurusan, dasar dan teori. Kajian ini turut memberikan cadangan untuk kajian masa hadapan.

Kata kunci: amalan pengurusan kualiti menyeluruh, pengurusan pengetahuan, teknologi maklumat, keupayaan pekerja, komitmen pekerja

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LIST OF ABBREVIATIONS

AMOS	Analysis of Moment Structures
ASUU	Academic Staff Union of Universities
AVE	Average Variance Extracted
CLEEN	Centre for Law Enforcement Education
CMV	Common Method Variance
CWB	Counterproductive Work Behaviour
EFCC	Economic and Financial Crimes Commission
FA	Factor Analysis
GoF	Goodness of Fit
IT	Information Technologies
KM	Knowledge Management
MOH	Ministry of Health
PCA	Principal Component Analysis
PhD	Doctor of Philosophy
PIN	Perceived Injunctive Norms
PLS	Partial Least Squares
Q2	Construct Crossvalidated Redundancy
RBV	Resource Based View
R2	R-squared values
SEM	Structural Equation Modelling
SET	Self Efficacy Theory

SMEs	Subject Matter Experts
SPSS	Statistical Package for the Social Sciences
SRE	Self Regulatory Efficacy
TQM	Total Quality Management
ρc	Composite Reliability

CHAPTER ONE

INTRODUCTION

1.1 Introduction

The present research attempts to investigate the factors that influence the provision of total quality management in the public healthcare sector in Saudi Arabia. The influence of the antecedent factors was investigated through the moderating effect of knowledge management. The chapter is constructed in a way that would respond to achieving the primary goal of the current research. The chapter begins with the background of the research in which the conditions and circumstances that lead to conducting the research are presented. The chapter then introduces an overview about the construct of total quality management in the healthcare sector. A number of factors that have been hypothesized to influence the the implementation of total quality management are then presented. The chapter moves to the statement of the problem of the current research in which some problems and issues related to the situation in the Saudi public sector are presented. The chapter also proceeds to present the two important sections of research objectives and research questions. After that, the chapter presents the significance section of the study and it is noteworthy to state that this significance section is divided into two parts, namely theoretical significance and practical significance. The chapter is summed up with a section that includes the operational definitions of the constructs that will were investigated in the present research together with the way the present research is organised.

The contents of the thesis is for internal user only

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Appendix A

Research Questionnaire

Dear Participant,

Warm greetings from the researcher, Abdulrahman Alghamdi,

I am a PhD candidate at Universiti Utara Malaysia, Malaysia. I am doing a research titled "**Determinants of Total Quality Management: The Case of the Public Hospitals in Saudi Arabia".** This survey uses a fixed-response format so that you will be able to complete it easily and quickly (around 20-25 minutes). I simply want your opinions based on your knowledge and experience of practice in your hospital and in your field of expertise.

As a participant in this survey you face no risks as your name and identity will not be collected, so your responses cannot be associated with you. Furthermore, survey data will only be available to the researcher in aggregate and will be used mainly for academic purposes.

If you require additional information or have questions, please contact me at the details listed below.

   Sincerely,
Abdulrahman Alghamdi

Mobile no.: +966555777550
E-mail: abonwaf555@hotmail.com

PART (ONE): DEMOGRAPHICS

Please (√) in the appropriate box.

1. **Region**

   1.☐ Central Region   2.☐ Northern Region

   3.☐ Southern Region   4.☐ Eastern Region

   5.☐ Western Region

2. **Manager Age**

   1.☐ 20 years – 27 years   2.☐ 28 years - 35 years

   3.☐ 36 years - 43 years   4.☐ 44 years - 50 years

   5.☐ Above 50

3. **Working Experience**

   1.☐ Below 3 years   2.☐ 3 years- 7 years

   3.☐ 7 years-11 years   4.☐ 11 - 15 years

   5.☐ Above 15

PART (TWO): TOTAL QUALITY MANAGEMENT (TQM)

Please indicate the extent to which each of the following statements reflects the case of total quality management in your hospital based on your knowledge and experience. You can use the following rating scale:

Strongly Disagree (0%)	Disagree (20%)	Somehow Disagree (40%)	Somehow Agree (60%)	Agree (80%)	Strongly Agree (100%
1	2	3	4	5	6

No.	DIMENSION/ITEM	1	2	3	4	5	6
	TRAINING AND EDUCATION						
1.	Hospital employees are given education and training in how to identify and act on quality improvement opportunities.	○	○	○	○	○	○
2.	Hospital employees are given education and training in statistical and other quantitative methods that support quality improvement.	○	○	○	○	○	○
3.	Hospital employees are given the needed education and training to improve job skills and performance.	○	○	○	○	○	○
4.	Hospital employees are rewarded and recognized (e.g., financially and/or otherwise) for improving quality.	○	○	○	○	○	○
	TEAMWORK AND INVOLVEMENT	1	2	3	4	5	6
5.	Teamwork and consensus are important in our hospital.	○	○	○	○	○	○
6.	Our hospital encourages employees to participate in decision making.	○	○	○	○	○	○
7.	Our hospital tries to understand the point of view of patients in defining the quality of health services.	○	○	○	○	○	○
8.	Our hospital's senior management encourages teamwork across units and disciplines.	○	○	○	○	○	○
	STRATEGIC QUALITY PLANNING	1	2	3	4	5	6
9.	Hospital employees are given adequate time to plan for and test improvements.	○	○	○	○	○	○
10.	Each department and work group within this hospital maintains specific goals to improve quality.	○	○	○	○	○	○

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No.	Statement	1	2	3	4	5	6
11.	The hospital's quality improvement goals are known throughout the organization.	○	○	○	○	○	○
12.	Hospital employees are involved in developing plans for improving quality.	○	○	○	○	○	○
13.	Middle managers (e.g., department heads, program directors, and first line supervisors) are playing a key role in setting priorities for quality improvement.	○	○	○	○	○	○
14.	External customers are playing a key role in setting priorities for quality improvement.	○	○	○	○	○	○
15.	Non-managerial employees are playing a key role in setting priorities for quality improvement.	○	○	○	○	○	○
CUSTOMER FOCUS		**1**	**2**	**3**	**4**	**5**	**6**
16.	The hospital does a good job of assessing current patient needs and expectations.	○	○	○	○	○	○
17.	Hospital employees promptly resolve patient complaints.	○	○	○	○	○	○
18.	Patients' complaints are studied to identify patterns and prevent the same problems from recurring.	○	○	○	○	○	○
19.	The hospital uses data from patients to improve services.	○	○	○	○	○	○
20.	The hospital does a good job of assessing physician satisfaction with hospital services.	○	○	○	○	○	○
21.	The hospital uses data on customer expectations and/or satisfaction when designing new services.	○	○	○	○	○	○
INFORMATION AND ANALYSIS		**1**	**2**	**3**	**4**	**5**	**6**
22.	The hospital collects a wide range of data and information about the quality of care and services.	○	○	○	○	○	○
23.	The hospital uses a wide range of data and information about the quality of care and services to make improvements.	○	○	○	○	○	○
24.	The hospital continually tries to improve how it uses data and information on the quality of care and services.	○	○	○	○	○	○
25.	The hospital continually tries to improve the accuracy and relevance of its data on the quality of care and services provided.	○	○	○	○	○	○
26.	The hospital continually tries to improve the timeliness of its data on the quality of care and services provided.	○	○	○	○	○	○
27.	The hospital compares its data to data on the quality of care and services at other hospitals.	○	○	○	○	○	○
CONTINUOUS IMPROVEMENT		**1**	**2**	**3**	**4**	**5**	**6**
28.	Associates in the hospital try to improve the quality of their	○	○	○	○	○	○

	service.						
29.	Associates in the hospital believe that quality improvement is their responsibility.	○	○	○	○	○	○
30.	Associates in the hospital analyse their work services to look for ways of doing a better job.	○	○	○	○	○	○

PROCESS MANAGEMENT		**1**	**2**	**3**	**4**	**5**	**6**
31.	Quality data (defects, complaints, outcomes, time, satisfaction, etc.) are available.	○	○	○	○	○	○
32.	Quality data are timely.	○	○	○	○	○	○
33.	Quality data are used as tools to manage quality.	○	○	○	○	○	○
34.	Quality data are available to hourly workers.	○	○	○	○	○	○
35.	Quality data are available to managers and supervisors.	○	○	○	○	○	○
36.	Quality data are used to evaluate supervisor and managerial performance.	○	○	○	○	○	○

ROLE OF THE QUALITY DEPARTMENT		**1**	**2**	**3**	**4**	**5**	**6**
37.	Visibility of the quality department.	○	○	○	○	○	○
38.	Quality department's access to divisional top management.	○	○	○	○	○	○
39.	Autonomy of the quality department.	○	○	○	○	○	○
40.	Amount of coordination between the quality department and other departments.	○	○	○	○	○	○
41.	Effectiveness of the quality department in improving quality.	○	○	○	○	○	○

PART (THREE): EMPLOYEES' CAPACITY

Please indicate the extent to which each of the following statements reflects the situation in your hospital based on your knowledge and experience. You can use the following rating scale:

Strongly Disagree (0%)	Disagree (20%)	Somehow Disagree (40%)	Somehow Agree (60%)	Agree (80%)	Strongly Agree (100%
1	2	3	4	5	6

No.	Item	1	2	3	4	5	6
1.	Our hospital encourages employees to accept education and training in our hospital.	○	○	○	○	○	○
2.	Employee in this hospital are familiar with the hospital training and development programmes.	○	○	○	○	○	○
3.	When designing the hospital training and development programme, employees' views and needs are considered and taken into account by the management of the hospital.	○	○	○	○	○	○
4.	Capacity for innovation, learning new skills and applying them in practice is encouraged and promoted in our hospital.	○	○	○	○	○	○
5.	Our employees are given the opportunity to suggest improvements for key projects being introduced into practice in our hospital.	○	○	○	○	○	○
6.	Our employees are given the opportunity to be actively involved in the change implementation processes in our hospital.	○	○	○	○	○	○
7.	Resources are available for employee education and training in our hospital.	○	○	○	○	○	○
8.	Most employees in our hospital are trained on how to use quality management methods (tools).	○	○	○	○	○	○
9.	Our hospital gives quality awareness education to employees.	○	○	○	○	○	○
10.	Our hospital gives specific work-skills training to all employees.	○	○	○	○	○	○
11.	Our hospital regards employees as valuable, long-term resources worthy of receiving education and training throughout their career.	○	○	○	○	○	○
12.	Staff members in this hospital know how to handle complaining patients.	○	○	○	○	○	○
13.	Staff members in this hospital know how to handle patient problems.	○	○	○	○	○	○
14.	Staff members in this hospital are able to provide good service of high quality to patients.	○	○	○	○	○	○

PART (FOUR): INFORMATION TECHNOLOGY

Please indicate the extent to which each of the following statements reflects the situation in your hospital based on your knowledge and experience. You can use the following rating scale:

Strongly Disagree (0%)	Disagree (20%)	Somehow Disagree (40%)	Somehow Agree (60%)	Agree (80%)	Strongly Agree (100%
1	2	3	4	5	6

No.	Item	1	2	3	4	5	6
1.	Our hospital presents and transmits important information to employees.	○	○	○	○	○	○
2.	Our hospital collects and analyses data related to its activities.	○	○	○	○	○	○
3.	Our hospital harnesses information to improve its key processes and services.	○	○	○	○	○	○
4.	Our hospital has precise data about the competition used to identify areas of improvement.	○	○	○	○	○	○
5.	Up-to-date appointment booking system is available in this hospital.	○	○	○	○	○	○
6.	Existing information systems in this hospital have the capacity to respond to future demands in quality improvement.	○	○	○	○	○	○
7.	There is an appropriate system that ensures internal communications among different departments within the hospital.	○	○	○	○	○	○

PART (FIVE): EMPLOYEES' COMMITMENT

Please indicate the extent to which each of the following statements reflects the situation in your hospital based on your knowledge and experience. You can use the following rating scale:

Strongly Disagree (0%)	Disagree (20%)	Somehow Disagree (40%)	Somehow Agree (60%)	Agree (80%)	Strongly Agree (100%
1	2	3	4	5	6

No.	Item	1	2	3	4	5	6
1.	It would be very hard for me to leave my hospital right now, even if I wanted to.	○	○	○	○	○	○
2.	I do not feel my obligation to remain with my current hospital.	○	○	○	○	○	○
3.	I would be very happy to spend rest of my career with this hospital.	○	○	○	○	○	○
4.	I owe a great deal to my hospital.	○	○	○	○	○	○
5.	Too much of my life would be disrupted if I decided that I want to leave my hospital right now.	○	○	○	○	○	○
6.	I feel that I have too few options to consider if I decided leaving this hospital.	○	○	○	○	○	○
7.	I do not feel "emotionally attached" to this hospital.	○	○	○	○	○	○
8.	This hospital deserves my loyalty.	○	○	○	○	○	○
9.	If I had not already put so much of myself into this hospital, I might consider working elsewhere.	○	○	○	○	○	○
10.	I would not leave my hospital right now because I have a sense of obligation to the people in it.	○	○	○	○	○	○

PART (SIX): KNOWLEDGE MANAGEMENT

Please indicate the extent to which each of the following statements reflects the situation in your hospital based on your knowledge and experience. You can use the following rating scale:

Strongly Disagree (0%)	Disagree (20%)	Somehow Disagree (40%)	Somehow Agree (60%)	Agree (80%)	Strongly Agree (100%
1	**2**	**3**	**4**	**5**	**6**

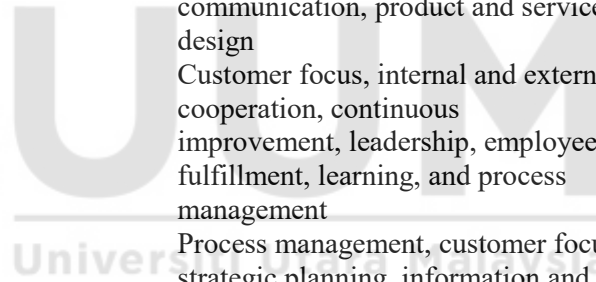| No.	Item	1	2	3	4	5	6
1.	My hospital has processes for acquiring knowledge about our patients.	○	○	○	○	○	○
2.	Employees in our hospital have skills that are needed to maintain high-quality services.	○	○	○	○	○	○
3.	Employees in our hospital make effort to pass on their work knowledge.	○	○	○	○	○	○
4.	Employees in our hospital create learning environment for themselves and other employees.	○	○	○	○	○	○
5.	Employees in our hospital are eager to develop themselves.	○	○	○	○	○	○
6.	My hospital has processes for distributing knowledge throughout the hospital.	○	○	○	○	○	○
7.	My hospital has processes for exchanging knowledge with other hospitals.	○	○	○	○	○	○
8.	My hospital has processes for inter-organizational collaboration among different departments.	○	○	○	○	○	○
9.	My hospital has processes for acquiring knowledge about new product/services within our sector.	○	○	○	○	○	○
10.	My hospital has team devoted to identifying the best practice as to serve our patients well.	○	○	○	○	○	○
11.	My hospital has processes for exchanging knowledge between individuals.	○	○	○	○	○	○

Thank You

Appendix B

SUMMARY OF RESEARCH ON TOTAL QUALITY MANGAMENT (TQM)

Author	Number of TQM Principles	TQM Practices/principles	Industry
Sinha, Garg & Dhall (2016)	6	Continual improvement, Process approach, Mutual beneficial supplier relationship, factual approach to decision making, customer focus and leadership	Automotive Supply chain
Mohammadi (2013)	5	Staff freedom, staff training, Teamwork, Evaluation system, self-remuneration	Automotive industries
Voon et al (2014)	8	Total employee involvement, continuous improvement, continuous training, teamwork, empowerment, top management commitment, customer satisfaction and culture	Iran Hospital
Talib et al, (2013)	11	employee involvement, continuous improvement, training and education, employee encouragement, customer focus, quality culture, supply chain management, information and analysis process management, quality system and benchmarking	Service industry
Abusa and Gibson (2013)	6	Top management commitment, customer focus, people management, supply quality management, continuous improvement and process management	

Zehir et al (2012)	8	Leadership management, factual approach to decision making, employee management, system approach to management, process management, customer focus and continual improvement	
Talib et al (2013)	17	Top management commitment, customer focus, training and education, customer improvement and innovation, suppliers management, quality systems, benchmarking, quality culture, human resource management, strategic planning, employee encouragement, teamwork, communication, product and service design	
Yag and Yang (2013)	7	Customer focus, quality system, total standardization, pursuit of zero defect, quality culture and elimination of waste	
Pereira-Moliner et al (2012)	10	Management commitment, customer focus, collaboration with intermediaries, staff training, employee motivation, staff involvement, service delivery improvement, objective compliance and monitoring, and quality culture	
Metha et al (2014)	13	Institution resource management, long term strategy and planning, excellence human resource	Academic Institution

|		
		management, continuous assessment and improvement, top management commitment and visionary leadership, student focus, employee focus, alumni focus, information management system, quality mission and vision statement, service culture, innovative academic philosophy and method, industry institution partnership, employee encouragement, teamwork, communication, product and service design	
Wang e tal., (2012)	7	Customer focus, internal and external cooperation, continuous improvement, leadership, employee fulfillment, learning, and process management	
Akgun et al (2014)	7	Process management, customer focus, strategic planning, information and analysis, and people management	
Benavides-Velasco et al (2014)	5	Leadership, employees, strategy, partnership and resources	
Singh and Sushi (2013)	10	Training and education, Teamwork, leadership, customer focus, organizational culture, supplier relationship management, process management, benchmarking, HRM practices, communication	Hotel
Arasis (2012)	10	People continuous improvement,	

Deming (1986)	14	Consistency of purpose, adopt the philosophy, do not award on business on price, constant improvement, training, leadership, drive out of fear, break down barrier, eliminate slogan and exhortation, plan of action	
Oakland (1989)	13	Understanding quality, commitment to quality, policy of quality, organization for quality, measurement for quality, plan for quality, design for quality, system for quality, control for quality, teamwork for quality, capability for quality, training for quality, implementation of quality	
Crosby (1979)	14	Management commitment, quality improvement, quality measurement, cost of quality evaluation, quality awareness, corrective action, zero-defects-committee, supervisor training, zero-defects-day, goal setting, error cause removal, recognition and quality council	
Yasdani et al, 2016	7	Leadership. HRM, strategic planning, customer focus, process management information and analysis	Automobile and supply chain
Bouranta et al, (2016)	5	Practices of top management, strategic quality planning, employee quality management, customer focus, employee knowledge and education	Hotel Industry
Lynn et al (1994)	6	Top management support, quality information , process management,	

		workforce management, supplier involvement and customer involvement
Conca et al (2004)	8	Leadership, quality planning, employee management, supplier management, customer focus, process management and continuous improvement
EFQM (2010)	8	Leadership, policy and strategy, people, process, partner and resources, process, customer results, society result and key results
Anil and Satish (2016)	18	Quality information analysis, quality assurance, quality citizenship, quality culture, benchmarking, process and product design, process management, product innovation, knowledge management, continuous improvement, supplier quality management, customer focus, employee involvement, education and training, strategic management
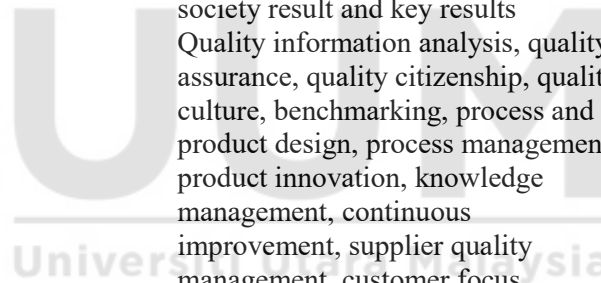
Appendix C

Facilitate the mission

المملكة العربية السعودية
وزارة الصحة
الإدارة العامة للبحوث والدراسات

١٤٣٨/١/١هـ الموافق ٢٠١٦/١٠/٢م

خطاب إنهاء مهمة علمية

سعادة/ الملحق الثقافي السعودي – ماليزيا   المحترم

السلام عليكم ورحمة الله وبركاته....

إشارة إلى موضوع الطالب/ عبدالرحمن أحمد سعيد الغامدي، مبتعث من قبل وزارة الصحة (مديرية الشؤون الصحية بجدة) لدراسة درجة الدكتوراه على حسابه الخاص في تخصص "إدارة صحية" بكلية إدارة أعمال بجامعة أوتارا بماليزيا، رقم الهوية الوطنية (١٠٣١٤٨٦١٤٣) وعنوان الرسالة: " محددات إدارة الجودة الشاملة: حالة المستشفيات العامة في المملكة العربية السعودية".

نحيط سعادتكم علماً بأن الطالب المذكور قد أكمل مهمته في جمع البيانات الخاصة بموضوع دراسته وذلك خلال الفترة من ((١٤٣٧/١/١هـ) الموافق (١٤ أكتوبر ٢٠١٥م) وحتى (١٤٣٧/٦/٦هـ) الموافق (١٥/مارس ٢٠١٦م) في مستشفيات وزارة الصحة بالمملكة العربية السعودية.

وقد أعطى هذا الخطاب بناءً على طلبه لتقديمه للملحقية الثقافية السعودية في ماليزيا.
وتفضلوا بقبول خالص تحياتي ،،،

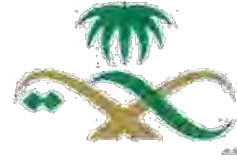مساعد مدير عام الإدارة العامة للبحوث والدراسات

١/٢

ص. عذاري فيصل العتيبي
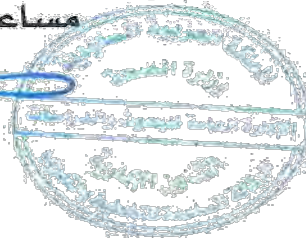
الرمز البريدي: ١١١٧٦   ص.ب الرياض: ٢٧٧٥   فاكس: ٠١١٤٧٣٥٠٣٩   هاتف: ٠١١٤٧٣٥٠٣٨

e-mail: research@moh.gov.sa

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Utara University
Graduate School of Business
Malaysia

Date: 02/10/2016

Subject: To facilitate the mission of Mr. Abdulrahman Ahmad Al Ghamdi
Academic Number: 94353

To whom it may concern

Dear Sir/Madam,

This is to inform you that, *Mr. Abdulrahman Ahmad Al Ghamdi,* who submitted an application to *The General Directorate for Researches and Studies, Ministry of Health, at Kingdom of Saudi Arabia (GDRS-MoH)* to conduct his research project titled *"Determinants of total quality management: The case of the public hospitals in Saudi Arabia"* as a part of his Ph.D degree thesis at Graduate School of Business, Utara University, Malaysia.

Please note that, the candidate finished his mission in data collection from **(14/10/2015)** to **(15/3/2016)** at Governmental Hospitals, Saudi Arabia.

Yours Faithfully

Assistant Director
General Directorate for Research and Studies

Athari F. Alotaibi