

UNIVERSITI TEKNOLOGI MARA

**CULTURE DIMENSIONS AND IT
CAPABILITY INFLUENCE ON
ORGANIZATIONAL
INTELLIGENCE OF LIBYAN OIL
AND GAS COMPANIES**

HADYA. S. HAWEDI

Thesis submitted in fulfilment of
the requirements for the degree of
Doctor of philosophy

Faculty of Computer and Mathematical Sciences

August 2015

AUTHOR'S DECLARATION

I declare that the work reported in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the result of my own work unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

Name of Student : Hadya S. Hawedi
Student I.D. No. : 2009368777
Programme : Doctor of philosophy (CS990)
Faculty : Computer & Mathematical Sciences
Thesis Title : Culture Dimensions and IT Capability Influence on
Organizational Intelligence of Libyan Oil and Gas
Companies

Signature of Student :

Date : August 2015

ABSTRACT

Different groups have different culture. In Libya there are different ethnic culture and they are the main managers in the Libyan oil and gas companies. These ethnic groups include four main groups Arab, Berbers (Amazigh), Toubou and Tuaregs and each group has their own language, heritage, customs, values and beliefs even they have their own flag. The role of information technology capability in mediating the influence between cultural dimensions and organizational intelligence which ultimately contributes towards the performance of the companies are competitive advantage. The Libyan oil and gas companies are in dispersed locations, which necessitate an efficient and effective management system to improve their competitiveness, they need to pool resources in the organization to create organizational intelligence as to be competitive. Organizational intelligence is organizational practices which are influenced by cultural dimensions and IT capability. The objective of the study is to investigate how cultural dimensions influences organizational intelligence through IT capability in the Libyan oil and gas companies. These culture dimensions include resonant leadership, ethnic culture and organization culture. A quantitative research method based on survey questionnaire was used to collect numerical data that were statistically analysed using descriptive and inferential statistics based on Statistical Package of Social Science (SPSS) software and AMOS module. A total of 163 managers in the Libyan oil and gas companies were randomly selected as the respondents. The result of the analysis showed a significant relationship between cultural dimensions and organizational intelligence with a high correlation. Cultural sub dimensions of organizational culture also reflected a strong positive correlation. In other hand, the sub dimension ethnic culture and organizational intelligence were moderately correlated, the sub dimensions of resonant leadership the correlation was significant positive and strongly correlated. Finally, IT capability and organizational intelligence were moderately correlated. The result of the analysis for the regression of the mediation effect was conducted using two methods; conventional (Baron and Kenny) and contemporary (The Sobel Test and SEM), for an accurate result on how IT capability mediates between cultural dimensions and organizational intelligence. Result showed that resonant leadership was the significant predictors of organizational intelligence among the three cultural dimensions. IT capability, however partially mediates the influence between cultural dimensions and organizational intelligence. Cultural dimensions and IT capability are proven to be the Predictors of organizational intelligence. Cultural dimensions as whole influence IT capability. The sub dimension of cultural dimensions is resonant leadership which directly influence organizational intelligence, other cultural dimensions which are ethnic culture and organization culture influence organizational intelligence through IT capability. This study contributes towards new knowledge through the development of a predictor's model of organizational intelligence in the context of Libyan oil and gas companies. The predictor's model contributes towards practice through better decision making where the oil and gas companies management can decide on their investment for their companies in the future in order to increase their organizational intelligence. Moreover, this study, gives insights on how cultural dimensions influence organizational intelligence (OI).

ACKNOWLEDGEMENT

In the name of Allah, Most Gracious, Most Merciful, all praise and thanks are due to Allah and peace and blessings be upon His Messengers.

A great number of people have contributed towards the completion of this thesis. I am very appreciative of all their support and encouragement. I acknowledge and appreciate the guidance and professional direction of my thesis supervisor Assoc. Prof. Dr. Haryani Haron and Dr. Ariza Nordin my co-supervisor for her valuable advice and support. I gratefully acknowledge the help of Prof. Halilah Haron, who assisted in the statistical analysis reported in this thesis.

I acknowledge the excellent guidance and suggestions received from Pn Sharifah Muzlia Syed Mustafa, Nurul Syahida Abu Bakar, Farag Hussan Diryag and Labeeb Mohsin whose their fingerprints are signatory to editing and formatting the information reported in this thesis.

Finally, I must express my deepest appreciation to my family members, especially my mother, brothers, sisters, uncles, friends, and my father who could not witness the completion of my PhD study. A special thanks goes to my wife who assisted in providing domestic help, thank you for the immeasurable encouragements.

With love, I dedicate this thesis to all of you.

Thank you.

TABLE OF CONTENTS

	Page
AUTHOR'S DECLARATION	ii
ABSTRACT	iii
ACKNOWLEDGEMENT	iv
TABLE OF CONTENTS	v
LIST OF TABLES	x
LIST OF FIGURES	xiii
CHAPTER ONE: INTRODUCTION	1
1.1 Background of The Research	1
1.1.1 Oil and Gas Organizations in Libya	3
1.2 Problem Statement	5
1.3 Research Questions	6
1.4 Research Objective	7
1.5 Scope of The Research	7
1.6 Significance of The Study	7
1.7 Research Limitations	8
1.8 Organizations of Thesis	9
CHAPTER TWO: LITERATURE REVIEW	10
2.1 Introduction	10
2.2 Organizational Intelligence	10
2.2.1 Organizational Intelligence Models	11
2.2.1.1 Albrecht Model	11
2.2.1.2 Matsuda Organizational Intelligence Model	13
2.2.1.3 Falleta Organizational Intelligence Model	15
2.2.1.4 Liebowitz OI Model	16
2.3 Culture Dimensions and Organizational Intelligence	17
2.3.1 Organizational Culture	18