



**RELATIONSHIP OF JOB QUALITY AND TURNOVER  
INTENTIONS IN MALAYSIAN ICT INDUSTRY:  
AFFECTIVE COMMITMENT AS MEDIATOR AND AGE  
AS MODERATOR**

**BY**

**NUR FARIZA BINTI MUSTAFFA**

**A dissertation submitted in fulfilment of the requirement for  
the degree of Doctor of Philosophy in  
Business Administration**

**Kulliyyah of Economic and Management Sciences  
International Islamic University Malaysia**

**AUGUST 2017**

## **ABSTRACT**

In recent years, the concept of job quality has received a substantial and renewed interest among scholars and policy makers. Despite being introduced as early as in the 1960's, not much work has been done in this area and until these days, there is no consensus among scholars on what job quality actually is and how to measure it. As the need to provide better job becomes more salient in many nations, researchers and policymakers have begun to realise the seemingly beneficial impacts of job quality on employee well-being. While this concept continues to flourish in Europe and other developed countries, developing countries such as Malaysia has fallen behind in recognising its importance. The present study was therefore carried out with the objectives to examine the relationship between job quality, turnover intention, and affective commitment in the context of Malaysia's ICT industry. The study also analysed the moderating role of age in the above relationship. The participants of this study were 412 respondents from various ICT companies in Klang Valley and Northern Peninsular Malaysia. Factor analysis using SPSS showed that job quality consisted of eleven factors: appreciation, empowerment, teamwork, superior feedback, role clarity, role conflict, interesting work, conducive place, pay, responsibility, and communication among departments. Further analysis using structural equation modelling (SEM) indicated that job quality was positively related to affective commitment and negatively related to turnover intention. Affective commitment fully mediated the relationship between job quality and turnover intention. The moderating effect of age was also found in this study where older employees valued appreciation more than younger employees. The findings of this study serves as a valuable information to researchers and practitioners especially towards improving the job quality in Malaysia's ICT industry.

## ملخص البحث

استحوذ مصطلح "جودة العمل" على أهمية متزايدة ومتجددة بين العلماء وصانعي القرار، وخاصة في السنوات الأخيرة. وعلى الرغم من أنه تم تقديم هذا المصطلح في بداية 1960م، ولكن لم يتم العمل به بشكل كاف حتى يومنا هذا. ليس هناك اجماع بين العلماء على ماهية "جودة العمل" وكيف يتم قياسه. وحيث إن هناك حاجة متزايدة لرفع كفاءة الأعمال على مختلف الأصعدة، فقد بدأت تدرك جهات عديدة مثل الحكومات، الباحثون، وصانعو القرار الآثار الايجابية لزيادة كفاءة العمل على رفاهية الموظفين. وباستمرار نمو وازدهار هذا المصطلح في قارة أوروبا وغيرها من العديد في الدول المتقدمة، فإن الدول النامية ومنها دولة ماليزيا قد تأخرت في إدراك أهمية هذا المصطلح. تهدف الدراسة الحالية لدراسة العلاقة بين جودة العمل، نية تغيير الموظفين، والالتزام العاطفي في سياق صناعة تكنولوجيا المعلومات والاتصالات في ماليزيا. تحلل الدراسة أيضاً الدور المعتدل للعمر في العلاقة المذكورة أعلاه. كان عدد المستطلعين في هذه الدراسة 412 مشارك من مختلف شركات تكنولوجيا المعلومات والاتصالات في كلانج فالي، وشمال شبه جزيرة ماليزيا. وقد تم تحليل العوامل باستخدام برنامج SPSS وأظهرت النتائج أن "جودة العمل" تتكون من إحدى عشر عاملاً: التقدير، التمكين، العمل الجماعي، ردود الفعل الجيدة، وضوح الأدوار، تضارب الأدوار، العمل المثير للإهتمام، المكان المساعد، المدفوعات، المسؤولية، والتواصل بين الإدارات. وأشار تحليل آخر باستخدام نموذج المعادلة الهيكلية (SEM) إلى أن جودة العمل مرتبطة بشكل ايجابي بالالتزام العاطفي، بينما ترتبط بشكل سلبي بنية تغيير الموظفين. وقد توسط الالتزام العاطفي العلاقة بين جودة العمل ونية تغيير الموظفين. ووجدت الدراسة تأثير معتدل من العمر حيث تم تقدير الموظفين الأكبر عمراً بشكل أكبر من الموظفين الصغار أو الشباب. تساهم نتائج هذه الدراسة في زيادة المعلومات القيمة للباحثين والممارسين وبشكل خاص في تحسين جودة العمل في صناعة تكنولوجيا المعلومات والاتصالات في ماليزيا.

## **APPROVAL PAGE**

The dissertation of Nur Fariza Binti Mustaffa has been approved by the following:

---

Arif Hassan  
Supervisor

---

Nurita Juhdi  
Co-Supervisor

---

Noor Hazilah Abd. Manaf  
Internal Examiner

---

Rozhan Othman  
External Examiner

---

Sunita Singh - Sengupta  
External Examiner

---

Noor Mohammad Osmani  
Chairperson

## DECLARATION

I hereby declare that this dissertation is the result of my own investigation, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

Nur Fariza Binti Mustaffa

Signature.....

Date .....

**INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA**

**DECLARATION OF COPYRIGHT AND AFFIRMATION OF  
FAIR USE OF UNPUBLISHED RESEARCH**

**RELATIONSHIP OF JOB QUALITY AND TURNOVER  
INTENTIONS IN MALAYSIAN ICT INDUSTRY: AFFECTIVE  
COMMITMENT AS MEDIATOR AND AGE AS MODERATOR**

I declare that the copyright holder of this dissertation are jointly owned by the student and IIUM.

Copyright © 2017 Nur Fariza Binti Mustaffa and International Islamic University Malaysia. All rights reserved.

No part of this unpublished research may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without prior written permission of the copyright holder except as provided below

1. Any material contained in or derived from this unpublished research may be used by others in their writing with due acknowledgement.
2. IIUM or its library will have the right to make and transmit copies (print or electronic) for institutional and academic purposes.
3. The IIUM library will have the right to make, store in a retrieved system and supply copies of this unpublished research if requested by other universities and research libraries.

By signing this form, I acknowledged that I have read and understand the IIUM Intellectual Property Right and Commercialization policy.

Affirmed by Nur Fariza Binti Mustaffa

.....  
Signature

.....  
Date

*Dear Allah,  
I pray to have eyes that see the best,  
A heart that forgives the worst,  
A mind that forgets the bad,  
And a soul that never loses faith.  
Aamin.*

## ACKNOWLEDGEMENTS

First and foremost, my utmost gratitude goes to Allah, The Most Gracious and The Most Merciful, for granting me with strength and never fail to answer all of my prayers. Peace be upon His Messenger, Prophet Muhammad (s.a.w) and his family and Companions. The completion of this study is all due to the favour of Allah that He has bestowed upon me for I, as His slave, have no ability to achieve anything without His grants and blessings.

I dedicate this study to my late mother, Allahyarhamah Hj. Siti Rahani Abu Bakar, who returned to Allah just a month before my viva. She was the reason behind all the smiles and the happy face that I was able to put on despite the tough times I had in life. There is no word that can describe how grateful I am to be her daughter and how I wish she can be with me on my graduation day but Allah indeed loves her more.

To my father and my siblings, thank you so much for all your understandings and patience especially on those days when I had to put you guys aside and prioritized my study. I also would like to express my gratitude to my diligent supervisors, Prof. Dr. Arif Hassan and Dr. Nurita Juhdi, for their endless support and encouragement in ensuring that I progressed well in my study and helped me become a better person.

This less-travelled road would have been a miserable experience had it not been because of these amazing friends I had like Dr. Nur Hasnida, Dr. Nurul Afida, Dr. Roslina, Arfifah, Ezza, Norzitah, Harena, Syara, Siti Marsila, Sarinah Banu and all my supportive seniors like Dr. Weni Hawariyuni, Dr. Che Marhanum and Dr. Bidayatul Akmal. To all of you, I dearly cherish our friendship and may our *ukhwah* continue for many more years to come.



# TABLE OF CONTENTS

Abstract .....	ii
Abstract in Arabic .....	iii
Approval Page .....	iv
Declaration .....	v
Copyright .....	vi
Dedication .....	vii
Acknowledgements .....	viii
List of Tables .....	xiii
List of Figures .....	xv
<b>CHAPTER ONE: INTRODUCTION .....</b>	<b>1</b>
1.1 Background of Study .....	1
1.2 Problem Statement .....	3
1.3 Research Questions .....	10
1.4 Research Objectives .....	11
1.5 Significance of Research .....	11
1.6 Scope of Research .....	13
1.7 ICT Sector in Malaysia .....	14
1.8 Definition of Key Terms .....	17
1.9 Organization of Thesis .....	17
1.10 Chapter Summary .....	19
<b>CHAPTER TWO: LITERATURE REVIEW .....</b>	<b>20</b>
2.1 Introduction .....	20
2.2 Theories in Work Values .....	20
2.2.1 Herzberg's Motivator-Hygiene Theory .....	20
2.2.2 Job Characteristic Model .....	23
2.2.3 Work-life Balance Concept .....	25
2.2.4 Job Demands-Resources Model (JD-R) .....	27
a. Job demands .....	27
b. Job resources .....	27
2.2.4.1 A Brief History of the JD-R Model .....	28
2.2.4.2 The Extrinsic and Intrinsic Motivational Role of Job Resources .....	30
2.2.4.3 Justification for Using JD-R Model in Studying Job Quality .....	31
2.2.4.4 Differentiating Job Quality from Other Related Constructs .....	34
2.3 Job Quality .....	36
2.3.1 Defining Job Quality .....	36
2.3.2 Dimensions of Job Quality .....	39
2.3.3 A Review of Existing Job Quality Measures .....	44
2.4 Turnover Intention .....	49
2.4.1 Defining Turnover Intention .....	50
2.4.2 The Relationship between Job Quality and Turnover Intention .....	50

2.5 Affective Commitment .....	54
2.5.1 Defining Affective Commitment .....	54
2.5.2 The Relationship between Job Quality and Affective Commitment .....	55
2.5.3 The Relationship between Affective Commitment and Turnover Intention .....	57
2.5.4 The Mediating Role of Affective Commitment .....	59
2.6 Age as an Important Individual Difference .....	60
2.6.1 Age-Diverse Workforce .....	60
2.6.2 The Moderating Role of Age .....	62
2.7 Gaps in the literature .....	66
2.8 Conceptualisation of research Constructs .....	67
2.8.1 Job Quality .....	67
2.8.2 Turnover Intention .....	68
2.8.3 Affective Commitment .....	68
2.9 Theoretical framework and hypotheses .....	68
2.10 Chapter Summary .....	71
<b>CHAPTER THREE: RESEARCH METHODOLOGY .....</b>	<b>72</b>
3.1 Introduction .....	72
3.2 Research Paradigm .....	72
3.3 Research Methodology .....	73
3.4 Research Techniques .....	75
3.4.1 Study Population and Sample Frame .....	76
3.4.2 Sampling Design .....	78
3.4.3 Adequacy of Sample Size .....	78
3.4.4 Instrumentation .....	80
3.4.4.1 Job Quality .....	81
3.4.4.2 Affective Commitment .....	82
3.4.4.3 Turnover Intention .....	82
3.5 Pilot Study .....	83
3.6 Data Collection Procedures .....	85
3.7 Data Analysis Procedure .....	86
3.7.1 Factor Analysis .....	86
3.7.2 Confirmatory Factor Analysis .....	87
3.7.3 Structural Equation Modelling .....	88
3.7.3.1 Justifications for Using SEM .....	89
3.7.3.2 Analysis Procedures in SEM .....	90
3.7.3.3 Model Fit Assessment .....	91
3.7.4 Mediation Analysis .....	93
3.7.5 Moderation Analysis .....	94
3.8 Chapter Summary .....	95
<b>CHAPTER FOUR: DATA ANALYSIS AND RESULTS .....</b>	<b>96</b>
4.1 Introduction .....	96
4.2 Response Rate .....	96
4.3 Data Preparation .....	97
4.3.1 Data Coding .....	97
4.3.2 Data Screening .....	98

4.3.2.1 Missing Data Analysis.....	98
4.3.2.2 Checking for Outliers .....	99
4.3.3 Reverse-coding and Reliability of Scales .....	104
4.4 Assumptions of Multivariate Analysis .....	105
4.4.1 Assessment of Normality .....	105
4.4.2 Multicollinearity.....	107
4.4.3 Sample Size.....	107
4.5 Demographic Profile of the Respondents .....	108
4.6 Descriptive Analysis .....	111
4.6.1 Job Quality .....	111
4.6.2 Affective Commitment .....	112
4.6.3 Turnover Intention .....	112
4.7 Exploratory Factor Analysis (EFA).....	118
4.8 Confirmatory Factor Analysis (CFA).....	124
4.8.1 First-Order CFA for Job Quality.....	125
4.8.2 Second-Order CFA for Job Quality .....	125
4.8.3 Pooled CFA for All Constructs .....	128
4.9 Assessment of Reliability .....	132
4.10 Assessment of Validity .....	134
4.10.1 Convergent Validity.....	134
4.10.2 Discriminant Validity.....	135
4.11 Hypothesis Testing .....	135
4.11.1 Hypothesis 1: Job Quality – Turnover Intention Relationship .....	136
4.11.2 Hypothesis 2: Job Quality – Affective Commitment Relationship .....	138
4.11.3 Hypothesis 3: Affective Commitment – Turnover Intention Relationship .....	140
4.11.4 Hypothesis 4: Mediating Role of Affective Commitment.....	142
4.11.5 Hypothesis 5: Moderating Role of Age .....	146
4.12 Chapter Summary .....	152
<b>CHAPTER FIVE: DISCUSSION ON RESEARCH FINDINGS .....</b>	<b>154</b>
5.1 Introduction.....	154
5.2 Overview of the Research.....	154
5.3 Discussion of Findings .....	157
5.3.1 The Negative Relationship between Job Quality and Turnover Intention.....	157
5.3.2 The Positive Relationship between Job Quality and Affective Commitment .....	158
5.3.3 The Negative Relationship between Affective Commitment and Turnover Intention .....	160
5.3.4 The Mediating Role of Affective Commitment.....	162
5.3.5 The Moderating Role of Age .....	163
5.4 Research Contributions and Implications.....	166
5.5 Research Limitations .....	168
5.6 Suggestions for Future Research .....	170
<b>BIBLIOGRAPHY .....</b>	<b>173</b>

<b>APPENDIX A</b>	<b>SURVEY INSTRUMENT .....</b>	<b>186</b>
<b>APPENDIX B</b>	<b>NORMAL PROBABILITY PLOTS.....</b>	<b>193</b>
<b>APPENDIX C</b>	<b>SNAPSHOT OF PIKOM MEMBERS DIRECTORY.....</b>	<b>195</b>
<b>APPENDIX D</b>	<b>LIST OF PARTICIPATING COMPANIES .....</b>	<b>196</b>
<b>APPENDIX E</b>	<b>SAMPLE OF EMAIL CONVERSATION WITH HR PERSONNEL .....</b>	<b>197</b>

## LIST OF TABLES

Table 1.1	Average Yearly Turnover Rate of Executives	7
Table 1.2	PIKOM Membership Geographical Statistics	14
Table 2.1	Five Versions of the Two-Factor Theory of Job Satisfaction	23
Table 2.2	List of Job Demands, Job and Personal Resources, and Outcomes	33
Table 2.3	The Approaches to Studying Job Quality	41
Table 2.4	Dimensions of job quality from different social sciences tradition	42
Table 2.5	List of reviewed job quality indicators	46
Table 2.6	Research Hypotheses and Research Questions	70
Table 2.7	Proposed Hypotheses and Support from Literature	71
Table 3.1	Summary of Three Instruments Used in This Study	83
Table 3.2	Reliability of Scales in Pilot Study	84
Table 3.3	Cut-off Points for Fit Indices	93
Table 4.1	Trimmed Mean for Job Quality	101
Table 4.2	Trimmed Mean for Affective Commitment	102
Table 4.3	Trimmed Mean for Turnover Intention	103
Table 4.4	Reliability of Scales	105
Table 4.5	Demographic Profiles of Respondents	109
Table 4.6	Descriptive Analysis	113
Table 4.7	KMO and Bartlett's Test	118
Table 4.8	Results of Exploratory Factor Analysis (EFA)	121
Table 4.9	Summary of Fitness Indexes for Pooled CFA Model	130
Table 4.10	Reliability Coefficient for All Constructs	133
Table 4.11	Hypotheses Statements	136

Table 4.12	The Regression Weight for JQ in Predicting TI	137
Table 4.13	The Regression Weight for JQ in Predicting AC	139
Table 4.14	The Regression Weight for AC in Predicting TI	141
Table 4.15	Results for Direct Paths	143
Table 4.16	Result of Mediation Analysis	144
Table 4.17	Results for Moderation Analysis on Hypothesised Paths	150
Table 4.18	Results for Moderation Analysis on First-Order Factors of Job Quality	152

## LIST OF FIGURES

Figure 1.1	Cybermetric Search in Google Scholar	4
Figure 1.2	Cybermetric Search in JSTOR	5
Figure 1.3	Percentage of Publication for the Frequently Cited Turnover Reasons in ICT Industry, Source: Ghapanchi and Aurum (2010, p.246)	10
Figure 2.1	Job Characteristic Model	24
Figure 2.2	The Revised Job Demands-Resources (JD-R) Model	29
Figure 2.3	Differentiating Job Quality from JCM and WLB	35
Figure 2.4	Aspects of job quality on three dimensions	43
Figure 2.5	Conceptual Model	69
Figure 3.1	Sample Size Calculation for Known Population	79
Figure 3.2	Illustration of Measurement Model and Structural Model	91
Figure 4.1	Outlier Analysis for Job Quality	101
Figure 4.2	Outlier Analysis for Affective Commitment	102
Figure 4.3	Outlier Analysis for Turnover Intention	103
Figure 4.4	First-Order CFA for Job Quality Construct	127
Figure 4.5	Second-Order CFA for Job Quality Construct	128
Figure 4.6	Pooled CFA for Job Quality (Initial Run)	131
Figure 4.7	Pooled CFA for Job Quality (Improved Model Fit)	132
Figure 4.8	JQ-TI Relationship	138
Figure 4.9	JQ-AC Relationship	140
Figure 4.10	AC-TI Relationship	142
Figure 4.11	Before Addition of JQ- TI Path	145
Figure 4.12	After Addition of JQ- TI Path	145
Figure 4.13	Baseline Model (Below40)	149
Figure 4.14	Baseline Model (Above40)	149

# **CHAPTER ONE**

## **INTRODUCTION**

Chapter one introduces the key idea of the present study which is the relationship between job quality and turnover intention. Following the background of study is the problem statement that stimulates the rationale for conducting this study. This is followed by lists of research questions and research objectives, as well as the significance of this study. Next is the scope of research and brief description about ICT industry in Malaysia. Definition of key terms and the way the entire thesis is organised are provided towards the end of this chapter before it ends with a chapter summary.

### **1.1 BACKGROUND OF STUDY**

Job is an important source of living in individuals' lives and their well-being. Apart from providing money to make ends meet, job provides individuals with a better personal or social life that is necessary for self-realisation and social integration (Muñoz de Bustillo, Fernandes-Macias, Esteve, and Anton, 2011a). It is almost impossible to live a life without having a proper job. Blanchflower (2006) discovered that having a job is a pre-requisite for happiness. Although distinguishing between good job and bad job is not an easy task, a good job is typically associated with advancement opportunities and high pay is closely related with positive job attitudes and a high level of well-being among employees (Holman, 2013).

Generally, job quality is the aspects of job that contribute to the well-being of a person and give impact to living standard and quality of life at work. Studies on job



quality include the promising impact of job quality on individuals, organisations, and society (Findlay, Kalleberg, & Warhurst, 2013; Kalleberg & Vaisey, 2005). Aa, Bloemer, and Henseler (2012) and Oxford Research (2011) found linkage between job quality and organisational outcomes where they argued that job quality is able to reduce employee turnover and enhance organisational performance. Job quality is also a crucial factor that contributes to job satisfaction (Clark, 2005; Olsen, Kalleberg, & Nesheim, 2010; Pouliakas & Theodossiou, 2010). In a broad sense, this means that improving employee's job quality can be a good strategy to promote positive work attitudes such as affective commitment and at the same time may curbs negative outcomes such as turnover intention.

Due to the association of job quality with desirable outcomes on organisations and individuals, it has lately been of significant interest among researchers and practitioners (Findlay et al., 2013; Loughlin & Murray, 2013). Over the past few decades, studies on job quality have been prevalent in developed countries such as Britain, United Kingdom (UK), United States of America (USA), Germany, and Denmark (Kalleberg & Nesheim, 2010; Kalleberg & Vaisey, 2005). While studies on job quality continue to flourish in the European context, the attention and interest on job quality is yet to be recognised in countries outside the European setting especially in developing nations (Burchell, Sehnbruch, Piasna, & Agloni, 2012).

In this sense, job quality studies in developing countries like Malaysia is seen necessary especially in one particular sector that is currently facing a serious issue with employee turnover. A report by the Malaysian Employers Federation (MEF) in 2012 indicated that the attrition rate in Malaysia's ICT sector is as high as 75.72 percent. Although high employee turnover in ICT industry is not a new phenomenon and is also happening in other parts of the world like in the USA (Joseph, Ng, Koh, &

Ang, 2007; Lo, 2015), it is noteworthy to study this phenomenon from Malaysian perspective through the lens of job quality. Furthermore, the lack of studies on ICT worker management in developing countries is being acknowledged only recently (Ghapanchi & Aurum, 2011; Ross & Yunus, 2011) and studies on the employee turnover in Malaysia's ICT sector is still at infancy level. All these reasons provide sound justification for the intention of the present study to investigate job quality in the context of turnover issue of ICT employees in Malaysia. The lack of studies on job quality and high employee turnover in Malaysia's ICT sector serves as the research problem of this study. Discussion on these issues are provided in the next section.

## **1.2 PROBLEM STATEMENT**

The concept of job quality has been introduced as early as in the middle of 1960's following the launch of social indicator movement which was very influential in the USA and Europe at that time (Davis & Taylor, 1972). However, until today there is no single accepted definition of job quality and there has been no consensus among researchers on what constitutes job quality (Findlay et al., 2013; Leschke & Watt, 2013). Various attempts were made by researchers in the past to use a standard definition to this concept. Among the attempts include a definition of job quality by Muñoz de Bustillo et al. (2011a) describes job quality as a multidimensional and elusive concept that is understood by everyone yet still challenging to be precisely defined.

A cybermetric search into Google Scholar and JSTOR done by Burchell et al. (2012) revealed that job quality has been receiving lesser attention in the scholarly literature compared to job satisfaction. The graphs in Figure 1.1 and Figure 1.2 show that after narrowing the cybermetric search from a search engine (Google Scholar) to

an academic journal (JSTOR), studies on job satisfaction remain as more frequently found in scholarly literature compared to studies on job quality. This situation calls for more research works to improve the number of literature in this field and to help job quality gets its deserved attention among academicians.

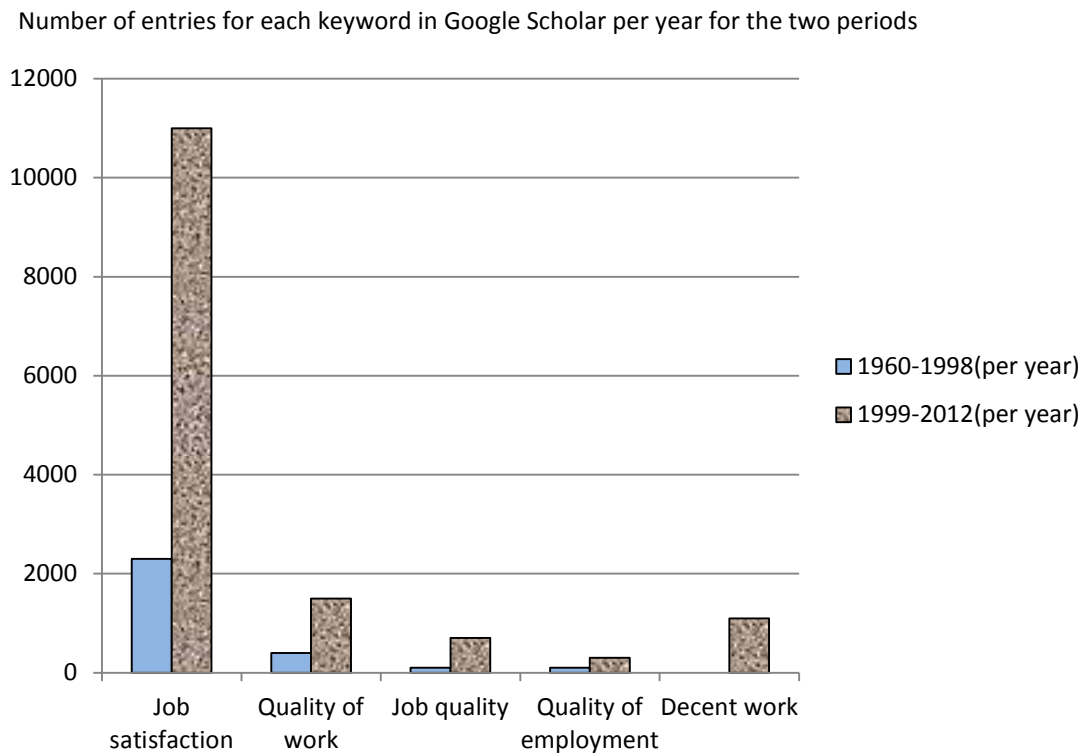


Figure 1.1 Cybermetric Search in Google Scholar  
Source: Burchell et al. (2012, p. 13)

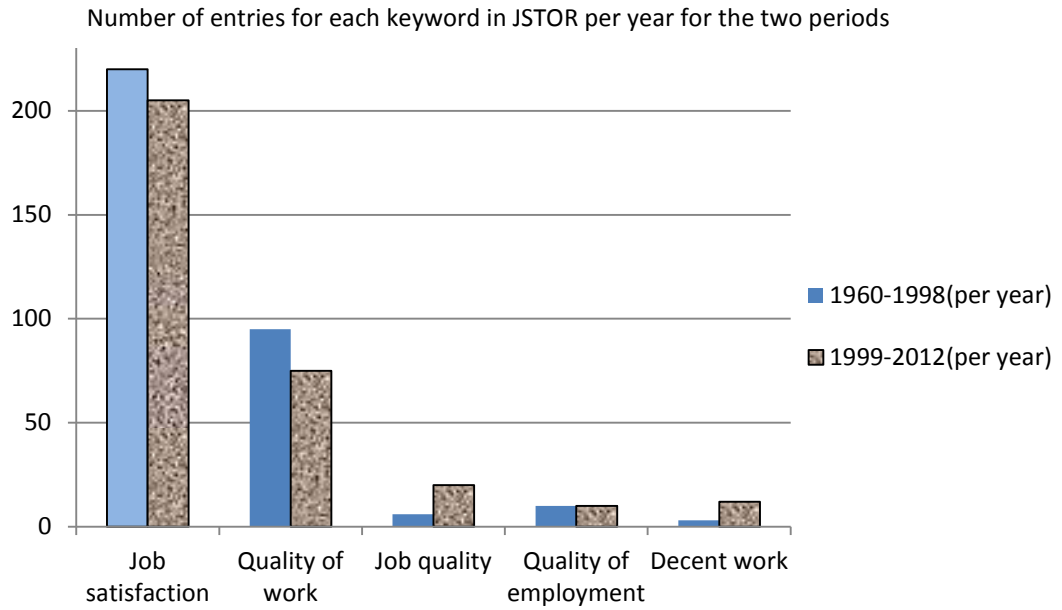


Figure 1.2 Cybermetric Search in JSTOR  
Source: Burchell et al. (2012, p. 13)

Despite being among the less popular terms in academic research, the concept of job quality continues to grow in European context due to the renewed interest among researchers and policymakers. Job quality becomes a timely issue in developed countries especially in Europe due to its seemingly potential impact on individuals, firms, and national well-being (Findlay et al., 2013). Among the reasons that enable progressive job quality studies in these countries include the availability of comparable indicators from harmonised surveys, for example the European Working Condition Survey (EWCS) but throughout non-European settings, job quality is yet to receive sufficient attention (Burchell et al., 2012). Additionally, few researchers like Ghai (2003) acknowledged the fact that data concerning work such as job quality are subject to variation, not only within specific regions of a country but also between countries, for example between advanced and developing countries. Therefore, the

present study emerges at the right time when more studies on job quality are needed especially in developing countries like Malaysia.

Specifically, this study attempts to explore the notion of job quality in the context of Malaysia's ICT industry which currently faces high attrition rate. The ICT sector is recognised as a sector that helps propel Malaysia towards realising the country's vision to become a fully developed nation by the year 2020 (Economic Planning Unit, 2015). However, one of the prominent challenges faced by the ICT sector is the high turnover rate among professionals working in this sector. A recent report by the Malaysian Employers Federation (2012) revealed that ICT sector scored the highest turnover rate from 2011 to 2012. In Table 1.1, the difference of turnover rate between ICT sector (75.72 percent – the highest) and the associations/societies sector (the second highest) is 42.72 percent. This huge difference calls for immediate attention from researchers to investigate possible causes that lead to this dreadful phenomenon. Suggestions may also be provided to curb future turnover in this sector.

Table 1.1 Average Yearly Turnover Rate of Executives

Average Yearly Turnover Rate of Executives July 2010-June 2011 by industry (%)	
Types of industry	Annual average
<b>Manufacturing</b>	
Basic and Fabricated Metallic Products	23.88%
Electrical & Electronics	23.04%
Food & Beverage	17.88%
Petroleum/Chemical	7.08%
Pharmaceutical/Toiletries/Non Metallic/Mineral	9.6%
Plastic/Rubber	19.92%
Printing/Publishing/Paper/Timber/Wood Products	11.88%
Transport/Machinery Manufacturing	16.68%
Sub Total	<b>18.84%</b>
<b>Non-Manufacturing</b>	
Associations/Societies	33%
Banking/Finance/Insurance	12.12%
Business Services	15.72%
Holdings & Investment/Plantation	17.4%
Hotel/Restaurant	32.4%
IT/Communication	75.72%
Medical Services	19.8%
Professional/Consultancy/Education/Training	29.28%
Property/Construction	15.6%
Transport/Warehouse Services	26.88%
Wholesale/Retail/Trading	18%
Sub Total	<b>22.44%</b>
<b>Total</b>	<b>20.88%</b>

Source: Malaysian Employers Federation (2012)

High employee turnover is a prevalent issue in ICT industry for decades (Westlund & Hannon, 2008) and this problem is not an exception in Malaysia. In some countries such as India, high employee turnover in ICT sector is a major concern to the nation since ICT sector is the country's economic stabilizer (SamGnanakkan, 2010). In more developed nations such as in U.S., the trend of high turnover rates in ICT industry started since 1960's and continued to become a concern to the industry

even in the era of 2000's (Joseph, Kok-Yee, Koh, & Ang, 2007; Lo, 2015). As an industry that is driven by continuous advancement in technology, the nature of the ICT industry is unstable and volatile (Ross & Yunus, 2011). Some parts in the Indian ICT sector, for example, suffered from turnover rates as high as 75 percent (Machado & Kourakos, 2004). The rapid and constant changes in the ICT industry forced ICT employees to continuously update their knowledge and skills in order to remain relevant and valuable to companies in the field of ICT (SamGnanakkan, 2010). This means that the ICT industry constantly demand for highly skilled ICT employees. Furthermore, highly skilled ICT employees can afford to migrate to companies or even countries that offered better pay and thus making employee retention a challenge in the already volatile industry (Ross & Yunus, 2011).

The departure of valuable ICT employees not only impacted the companies financially in terms of the incurred cost in hiring and training of new employees (Lo, 2015) but also affected the overall stability of the companies. As put forth by Lee and Jimenez (2011), among the consequences of losing talented employees include decreased morale and productivity among their counterparts who still remained with the companies. The reputations and sustainability of the companies are also at stake when the employees who leave are among those who possessed unique skills or talents that are crucial for a company's competitive edge (Ghapanchi & Aurum, 2011). It is also detrimental to ICT companies when the employees who left brought together with them valuable experience and tacit knowledge of certain internal systems and caused disruptions in the operations of the companies (McKnight et al., 2008).

In a systematic review of 72 ICT employee turnover studies from 1980 until 2008, Ghapanchi and Aurum (2011) found that there are as many as 14 reasons that

contribute to ICT employee's intention to quit. These reasons are grouped into individual factors, organisational factors, and job-related factors as depicted in Figure 1.3. Other researchers (Thatcher, Stepina, & Boyle, 2003) also have the same opinion as they argued that dissatisfaction towards organisation and poor job design lower the commitment among ICT employees and trigger their turnover intention. This means that individual factors and job-related factors are among the commonly cited reasons for turnover among ICT employees. Therefore, the present study is heading towards the right direction in search for more insights on this issue as job quality covers more aspects of job compared to only seven job attributes shown in Figure 1.3. Having a better understanding on reasons that lead to employee turnover is vital to ICT industry not only due to the associated financial loss but also because employees are regarded as valuable asset for the growth and sustainability of this industry (Thatcher et al., 2003).