THE ANTECEDENTS OF EMPLOYEES’ INNOVATIVE BEHAVIOR IN
MANUFACTURING INDUSTRY

MUNA WADHIHA BINTI MOHD FAUZI

800319

Thesis submitted to the College of Business, Universiti Utara Malaysia, in part
fulfillment of the requirement for the Degree of Master of Business Administration
PERMISSION TO USE

This thesis is a part of fulfillment of the requirement for the masters’ degree from Universiti Utara Malaysia; therefore I agree that the University Library makes it freely available for inspection. I further agree that copying this thesis in any manner, in whole or in parts for scholarly purposes may be granted by my supervisors or, in their absence by the Assistant Vice Chancellor of College of Business. It is also understood that any copying or publication or use of this thesis or parts thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to Universiti Utara Malaysia for any scholarly use which may be made of any materials from this thesis. Requests for permission to copy or to make other use of materials in this thesis, in whole or in parts shall be addressed to:

Assistant Vice Chancellor
College Of Business
University Utara Malaysia
06010 Sintok
Kedah
Malaysia.
ABSTRACT

The purpose of this research is to study empirically the relationship between leadership, organization culture, knowledge management, job satisfaction and employees’ innovative behavior. Employees’ innovative behavior is considered a vital link for manufacturing organization to compete in the global competition. The variables in this research used the 7 point scales: innovative behavior (14 questions), job satisfaction (6 questions), leadership (6 questions), organization culture (6 questions), and knowledge management (5 questions).

The research employed the quantitative methodology to examine the relationship between independent variables, dependent variable and mediating factors. The questionnaires were based on feedback of employees from Asian Composite Manufacturing (ACM) and INTEL. A total of 211 employees were selected randomly as samples of the study.

The hypotheses in this research are tested using structural equations modeling (SEM). The research indicates direct effects that leadership has a significant positive direct effect on job satisfaction, while organization culture has a positive and insignificant direct effect on job satisfaction, and knowledge management has a negative and insignificant direct effect on job satisfaction. Besides that, results also indicate that leadership has a negative significant direct effect on employees’ innovative behavior. Organization culture has a negative significant direct effect on employees’ innovative behavior. Knowledge
management has a positive significant on employees’ innovative behavior and job satisfaction are positive and significant on employees’ innovative behavior.

The study also found several *significant indirect paths* effects or mediating paths. Firstly, leadership has a positive and significant effect on employees’ innovative behavior through the job satisfaction. Secondly, organization culture has a positive and insignificant effect on employees’ innovative behavior through job satisfaction. However, there is one negative and insignificant relationship between knowledge management and employees’ innovative behavior through job satisfaction.

Keywords: leadership, organizational culture, knowledge management, job satisfaction, employees’ innovative behavior.
ABSTRAK

Tujuan kajian ini ialah mengkaji pertalian diantara kepimpinan budaya organisasi, pengetahuan pengurusan, kepuasan dan inovatif gelagat pekerja. Gelagat inovatif pekerja dipertimbangkan pertalian organisasi pembuatan persaigan di dalam global. Setiap pembolehubah dalam penyelidikan ini menggunakan ciri-ciri 7 skala: kepimpinan (6 soalan), kebudayaan organisasi (6 soalan), pengetahuan organisasi (5 soalan), kepuasan kerja (6 soalan) dan gelagat pekerja inovatif (14 soalan).

Penyelidikan ini menggunakan kaedah kuantitatif untuk mengkaji di antara pembolehubah bebas, pembolehubah bersandar dan faktor pemangkin soal selidik berdasarkan pembuatan pekerja dari Asian Composite Manufacturing (ACM) dan INTEL sebanyak 211 orang pekerja telah dipilih secara rawak sebagai sampel untuk kajian ini.

Hipotesis atau andaian ini telah diuji menggunakan “Structural Equation Model” (SEM). Hasil kajian menunjukkan kepimpinan mempunyai hubungan langsung positif dan keutamaan ke atas kepuasan bekerja. Sementara itu, budaya organisasi mempunyai hubungan langsung yang positif dan bukan keutamaan ke atas kepuasan kerja dan pengurusan pengetahuan mempunyai hubungan yang negatif dan bukan keutamaan ke atas kepuasan kerja. Selain itu, hasil kajian menunjukan kepimpinan mempunyai hubungan langsung negatif ke atas gelagat inovasi pekerja. Budaya organisasi mempunyai langsung yang negatif dan bukan keutamaan ke atas gelagat inovasi pekerja. Pengurusan pengetahuan pula mempunyai hubungan yang positif dan keutamaan ke atas
gelagat inovasi pekerja dan kepuasan pekerja mempunyai hubungan yang positif dan keutamaan ke atas gelagat inovasi pekerja.

Hasil kajian ini juga mendapati beberapa keutamaan kepada kesan perhubungan tidak langsung atau perhubungan perantaraan. Yang pertama, kepimpinan mempunyai keutamaan secara positif dan keutamaan ke atas gelagat inovatif pekerja melalui kepuasan bekerja. Yang kedua, budaya organisasi mempunyai hubungan yang positif dan bukan keutamaan ke atas gelagat inovasi pekerja melalui kepuasan kerja. Walaubagaimanapun, terdapat satu hubungan negatif dan bukan keutamaan terhadap hubungan diantara pengurusan pengetahuan dan gelagat inovasi pekerja melalui kepuasan kerja.

Katakunci: Kepimpinan, Budaya Organisasi, Pengurusan Pengetahuan, Kepuasan Kerja dan Gelagat Inovasi Pekerja.
ACKNOWLEDGEMENT

Firstly of all, I would like to say “Thank you Allah for giving me the strength and ability to which I needed to finish my research entitled “The antecedents’ of employees’ innovative behavior in manufacturing industry”.

Secondly, my gratitude and my special thank go to my supervisor Associate Professor Dr. Nik Kamariah binti Nik Mat for her guidance, encouragement and support. Without her expert advice, I would not have been able to see the final product of my thesis as it is now. I would like to extend my appreciation to Associate Professor Dr. Abdullah Abd Ghani as my second examiner for my research.

Thirdly, I must acknowledge with gratitude the contribution for Mr. Khor Wei Min, the operation manager in Asian Composite Manufacturing and Mr. Mohammad Nor bin Ismail, the manufacturing technician in INTEL for giving me the permission to conduct my survey in their respective organizations. I also want to say a big ‘thank you’ to all the members of both manufacturing organizations who had given me their cooperation in answering the questionnaires.

Fourthly, I acknowledge with special warmth the assistance given me by Mrs. Hasyeilla Abdul Mutalib of College of Business and my fellow post graduate students and others who have contributed in various ways to help me complete this study.
Last but not least, this research is dedicated to my beloved parents, Mr. Mohd Fauzi Bin Abd Hamid and Mrs. Sabrina bt Hamzah, and my two aunts, Puan Hajah Fudziyah Bt Abdul Hamid and Puan Hajah Farizah Bt Abdul Hamid who have given me their staunch support in completing my research. To my wonderful family, thank you for your unfailing belief in me.
CHAPTER 1 INTRODUCTION

1.1 Overview.................................................................1

1.2 Introduction.............................................................1-4

1.3 Background of the study..............................................4-6

1.4 Problems Statement

1.4.1 Problems in antecedents of job satisfaction.................6

1.4.1.1 Leadership-lack significant effect.........................6

1.4.1.2 Organization Culture-lack significant effect.............7

1.4.1.3 Knowledge Management-lack of research..............7

1.4.2 Problems in antecedents innovative behavior..............7

1.4.2.1 Leadership-not quantitative nut qualitative...........7

1.4.2.2 Organization Culture-lack of deeper understanding of organization culture.................................8
1.4.2.3 Knowledge management—the construct is still to some extent ambiguous………………8

1.4.2.4 Job satisfaction—lack of studies in manufacturing……8

1.4.3 Problems in mediating effects (job satisfaction)………………9

1.4.3.1 Leadership—unexplored relationship………………9

1.4.3.2 Organization Culture—lacking deeper understanding organization culture induces innovation behavior through job satisfaction………………………9

1.4.3.3 Knowledge management—knowledge management is not so clear and firm capability through job satisfaction…………………………9

1.5 Research Questions………………………………………………………10

1.6 Research Objectives……………………………………………………10-11

1.7 Justification of study……………………………………………………11-13

1.8 Significance of study…………………………………………………14

1.8.1 To Practitioner—manufacturing……………………………………14

1.8.2 Theoretical Contribution—Innovation behavior………………16

1.9 New Contributions……………………………………………………16

1.10 Organizations of the study…………………………………………17

1.10.1 Asian Composite Manufacturing (ACM)……………………17

1.10.2 INTEL………………………………………………………………17

1.11 Summary………………………………………………………………18
CHAPTER 2 LITERATURE REVIEW

2.1 Overview.................................................................19

2.2 Innovative Behavior.................................................19-26

2.2.1 The relationship between leadership and innovative behavior........................................27-29

2.2.2 The leader-member exchange (LMX) theory.................................29-31

2.2.3 The relationship between organization culture and innovative behavior........................34-35

2.2.4 The relationship between knowledge management and innovative behavior........................35-41

2.3 Job Satisfaction..........................................................42

2.3.1 Theories of Job Satisfaction........................................43

2.3.1.1 Maslow’s Need Hierarchy Theory.................................43

2.3.1.2 Edwin A. Locke Range of Affect Theory (1976).............43

2.3.1.3 Herzberg’s Motivator-Hygiene Theory..........................44

2.3.2 The relationship between leadership and job satisfaction.....44-54

2.3.3 The relationship between organization culture and job satisfaction......................................54-60

2.3.4 The relationship between knowledge management and job satisfaction...............................60-62

2.3.5 The relationship between job satisfaction and innovative behavior.......................................62-63

2.4 Summary.................................................................64
CHAPTER 3 METHODOLOGY

3.1 Overview ................................................................. 65-70
3.2 Research Design ....................................................... 71
  3.2.1 Sampling Design ............................................... 71
  3.2.2 Data Collection Procedures ................................... 72
3.3 Research Variables and Measurement .............................. 72
  3.3.1 Innovative Behavior ............................................ 73
  3.3.2 Job Satisfaction .................................................. 73
  3.3.3 Leadership ....................................................... 73
  3.3.4 Organization Culture .......................................... 74
  3.3.5 Knowledge Management ....................................... 74-79
3.4 Data Analysis Techniques ........................................... 79-80
3.5 Summary ............................................................... 80

CHAPTER 4 RESULTS AND FINDINGS

4.1 Overview ............................................................... 81
4.2 Demographic Profile of Respondents .............................. 81-84
4.3 Descriptive Analysis of Variables ................................... 85
  4.3.1 Composite Reliability ......................................... 85-86
4.4 Confirmatory Factor Analysis (CFA) Results ..................... 87
4.5 Discriminant Validity ............................................... 88-89
4.6 Goodness of Fit Hypothesized Structural Model .................. 89-93
4.7 Hypotheses Results.................................................................94

4.8 Squared Multiple Correlation Results.................................95

4.9 Indirect Effect of Variable Interaction.................................95-96

4.10 Overall Comparison between Structural Models....................96-98

4.11 Summary..............................................................................99

CHAPTER 5 DISCUSSIONS, RECOMMENDATIONS AND CONCLUSIONS

5.1 Overview.............................................................................100

5.2 Discussion...........................................................................100-107

5.3 Implications of Study..........................................................107

5.3.1 Academic.........................................................................107-108

5.3.2 Practitioner......................................................................108-110

5.4 Recommendation for Future Research.................................110-112

5.5 Conclusion.........................................................................112

References..............................................................................113-119

Appendix.................................................................................120-131
## LIST OF THE TABLES

<table>
<thead>
<tr>
<th>List of Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 2.1: Summary of the Past Research on Innovative Behavior</td>
<td>23-27</td>
</tr>
<tr>
<td>Table 2.2: Summary of the Relationship between Leadership and Innovative</td>
<td>32-33</td>
</tr>
<tr>
<td>Behavior</td>
<td></td>
</tr>
<tr>
<td>Table 2.3: Summary of the relationship between Organization Culture</td>
<td>35</td>
</tr>
<tr>
<td>And Innovative Behavior</td>
<td></td>
</tr>
<tr>
<td>Table 2.4: Summary of the Relationship between Knowledge Management</td>
<td>38-42</td>
</tr>
<tr>
<td>And Innovative Behavior</td>
<td></td>
</tr>
<tr>
<td>Table 2.5: Summary of the Relationship between Leadership and Job Satisfaction</td>
<td>47-54</td>
</tr>
<tr>
<td>Table 2.6: Summary of the Relationship between Organization Culture</td>
<td>56-60</td>
</tr>
<tr>
<td>And Job Satisfaction</td>
<td></td>
</tr>
<tr>
<td>Table 2.7: Summary of the relationship between Knowledge Management</td>
<td>61-64</td>
</tr>
<tr>
<td>And Job Satisfaction</td>
<td></td>
</tr>
<tr>
<td>Table 3.1: Operational Definition of Variables</td>
<td>68-70</td>
</tr>
<tr>
<td>Table 3.2: Hypotheses Formulation</td>
<td>70</td>
</tr>
<tr>
<td>Table 3.3: Summary of Measurement</td>
<td>75-79</td>
</tr>
<tr>
<td>Table 4.1: The Profile of Respondents (N=211)</td>
<td>83-84</td>
</tr>
<tr>
<td>Table 4.2: Descriptive Statistics of Variable</td>
<td>86</td>
</tr>
<tr>
<td>Table 4.3: The Confirmatory Factor Analysis Results of Construct Variables</td>
<td>87</td>
</tr>
</tbody>
</table>
Table 4.4 Average Extracted (AVE) Matrix of Exogenous Variables.............89

Table 4.5 Correlation & Correlation square Matrix among Exogenous Variables.............................................................................89

Table 4.6: Goodness of fit hypothesized analysis-confirmatory factor analysis (CFA) of models (N=211).........................................................91

Table 4.7 Direct Impact of Revised Model: Standardized Regression Weights.....94

Table 4.8 Squared Multiple Correlation Results.................................................95

Table 4.9 Indirect Effect of Variable Interaction..................................................96

Table 4.10 Total Effect of Mediating Variables.................................................96

Table 4.11 Comparison between Hypothesized/Proposed Models and Revised Model.................................................................98
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>List of Figure</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 3.1: Research Framework</td>
<td>66</td>
</tr>
<tr>
<td>Figure 3.2: Hypothesized Model</td>
<td>67</td>
</tr>
<tr>
<td>Figure 4.1: Revised Model</td>
<td>92</td>
</tr>
<tr>
<td>Figure 4.2: Hypothesized Model</td>
<td>93</td>
</tr>
</tbody>
</table>
ABSTRACT

The purpose of this research is to study empirically the relationship between leadership, organization culture, knowledge management, job satisfaction and employees' innovative behavior. Employees' innovative behavior is considered a vital link for manufacturing organization to compete in the global competition. The variables in this research used the 7 point scales: innovative behavior (14 questions), job satisfaction (6 questions), leadership (6 questions), organization culture (6 questions), and knowledge management (5 questions).

The research employed the quantitative methodology to examine the relationship between independent variables, dependent variable and mediating factors. The questionnaires were based on feedback of employees from Asian Composite Manufacturing (ACM) and INTEL. A total of 211 employees were selected randomly as samples of the study.

The hypotheses in this research are tested using structural equations modeling (SEM). The research indicates direct effects that leadership has a significant positive direct effect on job satisfaction, while organization culture has a positive and insignificant direct effect on job satisfaction, and knowledge management has a negative and insignificant direct effect on job satisfaction. Besides that, results also indicate that leadership has a negative significant direct effect on employees' innovative behavior. Organization culture has a negative significant direct effect on employees' innovative behavior. Knowledge
management has a positive significant on employees' innovative behavior and job satisfaction are positive and significant on employees' innovative behavior.

The study also found several significant indirect paths effects or mediating paths. Firstly, leadership has a positive and significant effect on employees' innovative behavior through the job satisfaction. Secondly, organization culture has a positive and insignificant effect on employees' innovative behavior through job satisfaction. However, there is one negative and insignificant relationship between knowledge management and employees' innovative behavior through job satisfaction.

Keywords: leadership, organizational culture, knowledge management, job satisfaction, employees' innovative behavior.
ACKNOWLEDGEMENT

Firstly of all, I would like to say “Thank you Allah for giving me the strength and ability to which I needed to finish my research entitled “The antecedents’ of employees’ innovative behavior in manufacturing industry”.

Secondly, my gratitude and my special thank go to my supervisor Associate Professor Dr. Nik Kamariah binti Nik Mat for her guidance, encouragement and support. Without her expert advice, I would not have been able to see the final product of my thesis as it is now. I would like to extend my appreciation to Associate Professor Dr. Abdullah Abd Ghani as my second examiner for my research.

Thirdly, I must acknowledge with gratitude the contribution for Mr. Khor Wei Min, the operation manager in Asian Composite Manufacturing and Mr. Mohammad Nor bin Ismail, the manufacturing technician in INTEL for giving me the permission to conduct my survey in their respective organizations. I also want to say a big ‘thank you’ to all the members of both manufacturing organizations who had given me their cooperation in answering the questionnaires.

Fourthly, I acknowledge with special warmth the assistance given me by Mrs. Haseyilla Abdul Mutalib of College of Business and my fellow post graduate students and others who have contributed in various ways to help me complete this study.
Last but not least, this research is dedicated to my beloved parents, Mr. Mohd Fauzi Bin Abd Hamid and Mrs. Sabrina bt Hamzah, and my two aunts, Puan Hajah Fudziyah Bt Abdul Hamid and Puan Hajah Farizah Bt Abdul Hamid who have given me their staunch support in completing my research. To my wonderful family, thank you for your unfailing belief in me.
1.1 Overview

Chapter One covers introduction, background of the study, problems statement, research questions, research objectives, justification of the study, significance of the study, new contributions, organizations of the study and summary of chapter one.

1.2 Introduction

In the competitive business environment today, organizations must become more innovative in order to compete in the global competition (Baker and Sinkula, 2002; Balkin, Markaman and Mejia 2000; Darroch and McNaughton, 2002; Lyon and Ferrier, 2002). Brown and Eisenhard (1995) indicate that global competition forces the companies to find ways to improve organization performance. Organizations increasingly aspire to become more innovative to compete with their competitors.

According to the Monthly Manufacturing Statistics Malaysia (2009), the manufacturing sector has been a major driver of the economy since the country’s independence. Today, the Industrial Production Index (IPI) in February (2009) shows, a decrease of 14.7% as compared to the 19.8% in February (2008), showing a year on year decline in January
The contents of the thesis is for internal user only
REFERENCES


Jonson, (2008). Keynote speaker at Nov 10 manufacturing seminar to stress the importance of innovation. Watch Front Focus.


