EXPLORING THE RELATIONSHIP OF INNOVATION AND FEATURES TOWARDS NEW PRODUCT DEVELOPMENT

MUHAMAD HAZWAN BIN HASHIM

MASTER OF SCIENCE (MANAGEMENT)
UNIVERSITI UTARA MALAYSIA
December 2015
EXPLORING THE RELATIONSHIP OF INNOVATION AND FEATURES TOWARDS NEW PRODUCT DEVELOPMENT

By

MUHAMAD HAZWAN BIN HASHIM

Thesis submitted to
School of Business Management, College of Business,
Universiti Utara Malaysia,
In Fulfillment of the Requirement for the Master of Sciences (Management)
PERMISSION TO USE

In presenting this dissertation in partial fulfillment of the requirement for a Post Graduate degree from the Universiti Utara Malaysia (UUM), I agree that the Library of this university may make it freely available for inspection. I further agree that permission for copying this dissertation in any manner, in whole or in part, for scholarly purposes may be granted by my supervisor or in their absence, by the Dean of School of Business Management where I did my dissertation. It is understood that any copying or publication or use of this dissertation parts of it 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 the UUM in any scholarly use which may be made of any material in my dissertation.

Request for permission to copy or to make other use of materials in this dissertation in whole or in part should be addressed to:

Dean of School of Business Management
Universiti Utara Malaysia
06010 UUM Sintok
Kedah Darul Aman
ABSTRACT

The manufacturing sector is the most important component in the economic development of a country. The effect of the explosion in development of the product manufacturing world generally, especially in Asia and in Malaysia, in particular, has led to a requirement of the importance of the study was designed to investigate the relationship between product strategy, design, innovation and features towards the development of new products in manufacturing industry. The sample of this study is among employees in the manufacturing industry in Kedah. The methodology used for this study is through the quantitative method which is through Pearson correlation analysis and multiple regression analysis in which the questionnaire was distributed among employees in manufacturing industries in Kedah, Malaysia. The statistical approach used to describe the data obtained in this study. Some of the studies have been conducted to analyze data such as factor analysis, reliability test, normality test, descriptive analysis, Pearson correlation analysis and multiple regression analysis. Factor analysis was conducted to determine the number of factors selected. Multiple regression analysis was used to examine the influence of product strategy, design, innovation and product features towards new product development. Pearson correlation analysis was performed to examine whether the dimension in product strategy, design, innovation and product features have a direct relationship with the development of new products. The results showed that the product strategy, design, innovation and product features have a direct relationship with new product development. In multiple regression analysis, there is a strong influence on the product strategy and innovation towards new product development. The results of this study also show that the theory of Key Success Factors (KSFs) can increase a company’s production performance. The impact of this research will provide knowledge and better understanding among researchers and entrepreneurs of the manufacturing industries in developing the formula to develop new products.

Keywords: Product Strategy, Design, Innovation, Features, New Product Development.

Kata Kunci: Strategi Produk, Reka Bentuk, Inovasi, Ciri-ciri, Pembangunan Produk Baru
In the Name of Allah, the Most Forgiving and the Most Merciful

All praise belongs to Allah whom we worship. I would like to extend my deepest gratitude and thanks to Allah the Almighty for giving me excellent health, energy, and capability to complete my thesis.

Special thanks to my beloved father and mother, Hashim bin Mat and Rohana binti Ishak who never stop praying for my success and also to my family members as well for their support, understanding, and patience throughout my study.

My deepest appreciation goes to my academic supervisor; Associated Prof. Dr. Amlus bin Ibrahim. Thank you for your valuable time, guidance, opinions, suggestions, and encouragement throughout the preparation of this study.

I also wish to thank my friends and other lecturers in Universiti Utara Malaysia. Without their endless assistance, attention, care, encouragement, and sacrifice, it would have been hard for me to complete this study.

Finally, I wish to thank all individuals and institutions that have directly or indirectly contributed toward the completion of my Master dissertation.

May Allah ease everything that you do.
TABLE OF CONTENTS

CERTIFICATION OF RESEARCH PAPER ........................................................................... i
PERMISSION TO USE ........................................................................................................ ii
ABSTRACT ............................................................................................................................ iii
ABSTRAK ............................................................................................................................. iv
ACKNOWLEDGEMENT ....................................................................................................... v
TABLE OF CONTENTS ........................................................................................................ vi
LIST OF TABLES ................................................................................................................ viii
LIST OF FIGURES .............................................................................................................. ix
LIST OF APPENDICES ......................................................................................................... x

CHAPTER ONE: INTRODUCTION ................................................................................. 1
  1.1 Introduction .................................................................................................................. 1
  1.2 Background of the Study ............................................................................................ 3
  1.3 Problem Statement ..................................................................................................... 6
  1.4 Research Questions .................................................................................................... 10
  1.5 Research Objectives .................................................................................................. 10
  1.6 Significance of the Study ........................................................................................... 11
    1.6.1 Theoretical Significance ..................................................................................... 11
    1.6.2 Practical Managerial Significance .................................................................... 12
  1.7 Scope of the Study ...................................................................................................... 13

CHAPTER TWO: LITERATURE REVIEW .................................................................... 15
  2.1 Introduction ................................................................................................................ 15
  2.2 Theoretical Underpinning ......................................................................................... 16
  2.3 Conceptual Definition ................................................................................................ 17
    2.3.1 New Product Development .............................................................................. 17
    2.3.2 Product Strategy ............................................................................................... 20
    2.3.3 Design ................................................................................................................ 23
    2.3.4 Innovation .......................................................................................................... 26
    2.3.5 Features ............................................................................................................. 30
  2.4 Conclusion .................................................................................................................. 33

CHAPTER THREE: RESEARCH METHODOLOGY ................................................... 36
  3.1 Introduction ................................................................................................................ 36
  3.2 Research Framework ................................................................................................ 37
  3.3 Hypotheses Development ......................................................................................... 38
  3.4 Research Design ........................................................................................................ 40
  3.5 Operational Definition .............................................................................................. 41
    3.5.1 New Product Development .............................................................................. 41
    3.5.2 Product Strategy ............................................................................................... 42
    3.5.3 Design ................................................................................................................ 42

vi
LIST OF TABLES

Table 2.1 The others Innovation Definitions ............................................................ 28
Table 3.1 Statistical Analysis .................................................................................... 48
Table 3.2 The Coefficient Scale and Relationship Strength of Correlation.............. 51
Table 4.1 Result of Factor Analysis for Independent Variable.................................. 57
Table 4.2 Result of Factor Analysis for Dependent Variable .................................... 58
Table 4.3 Cronbach’s Alpha for each Variable....................................................... 59
Table 4.4 Employee’s Position in Company .............................................................. 60
Table 4.5 Types of Department in Company ............................................................ 61
Table 4.6 Years of Employee’s Working Experience ............................................. 61
Table 4.7 Employee’s Educational Level ................................................................. 62
Table 4.8 Employee’s Experience with Design or Innovation of the Product ........... 63
Table 4.9 Employee’s Experience in Engaging with New Product Development .... 63
Table 4.10 Company’s Product Launch in Last 5 Years ......................................... 64
Table 4.11 Percentage of Company’s Expenditure towards R&D per Year.............. 64
Table 4.12 Correlation between Independent Variables and New Product Development (N=130) .................................................................................................. 65
Table 4.13 Multiple Regression Result .................................................................... 67
Table 4.14 Summary of All Hypotheses (N=130) ...................................................... 69
Table 5.1 Summary of All Hypotheses Testing Result (N=130) ............................... 73
LIST OF FIGURES

Figure 3.1. Research Framework. ................................................................. 38
Figure 3.2. Model Formula for Multiple Regressions ................................. 53
LIST OF APPENDICES

Appendix A List of Manufacturing Industries in Kedah ................................................. 89
Appendix B Permission Letter ....................................................................................... 93
Appendix C Questionnaire .......................................................................................... 94
Appendix D Factor Analysis ....................................................................................... 99
Appendix E Reliability Test ....................................................................................... 104
Appendix F Normality Test ....................................................................................... 106
Appendix G Descriptive Analysis ............................................................................. 109
Appendix H Pearson Correlation Analysis ............................................................... 111
Appendix I Multiple Regression Analysis ................................................................. 112
CHAPTER ONE

INTRODUCTION

1.1 Introduction

New product development is a very complex task. Society is as end users need to back up ideas from the production of products that are on the market now that has gone through many stages, over a long period and it should be done according to certain procedures. The company should cooperate with each other with the user, mutual restraint, to make adjustments to the product development smoothly. Product development process is proposed product from concept to put into the entire production process. Due to the differences in production technology and characteristics different from the industry, new product development experience is not entirely the same.

To develop a new product, there are several aspects that need to be evaluated first which are product strategy, product design, innovation and also the product features. A company should make a long-term plan for the development of a new product by formulating several strategies including product strategy. The product strategy is a form of planning and implementation for developing a product in the industry. Products are created or produced by a company should implement an effective product strategy for ensuring the product can compete in the market.
The contents of the thesis is for internal user only
REFERENCES


