

**The impact of customer orientation and knowledge sharing
on the relationship between
entrepreneurial orientation and firm performance
of cosmetics manufacturers in China**

Allen Ma Yu TAN

B.Sc., MBA, FCMI

Dissertation submitted to the Newcastle Business School

Faculty of Business and Law

University of Newcastle

In partial fulfillment of the requirement for the degree of

Doctor of Business Administration

December 2011

Supervisor Declaration

Office of Graduate Studies

Thesis Examination Application

This form **must** accompany the thesis at submission.



1 – CANDIDATE TO COMPLETE 1, 2, 3 & 4		
Family Name	Given Names	Student Number
Tan	Allen Ma Yu	3080675
Degree Undertaken	School / Faculty	
DBA - Professional Doctorate	Newcastle Business School (FBUSL)	
Thesis Title	The impact of customer orientation and knowledge sharing on the relationship between entrepreneurial orientation and firm performance of cosmetics manufacturers in China	
If applicable: My exhibition / performance is being held on	Date:	Location: N / A
2 – PREVIOUS QUALIFICATION/S (FOR RESEARCH HIGHER DEGREE CANDIDATES ONLY)		
Please list previous tertiary qualifications (for graduation purposes):		
Degree	Institution/University	
B. Sc	University of Hong Kong	
MBA	University of the Philippines	
3 – THESIS COPIES (PLEASE TICK BOTH BOXES)		

PLEASE NOTE: EXAMINERS WILL BE INVITED TO RETAIN THEIR COPY OF THE THESIS

- ☒ I understand that submitted copies of my thesis shall become the property of the University. The copies are subject to any confidentiality agreements entered into by the University, the candidate and any sponsoring body of the research.
- ☒ I understand that the University will retain the soft bound office copy and any returned examiners' copies of the submitted thesis until such time as the final hard bound / electronic copy is submitted, at which point all soft bound copies will be confidentially destroyed.

4 – A) COMMITTEE APPROVAL (YOU MUST TICK ONE BOX IN EACH CATEGORY)

HUMAN ETHICS APPROVAL

- ☒ I confirm that approval was obtained from the University of Newcastle Human Research Ethics Committee (HREC), and any other organisations as required, to undertake the research contained in this thesis. The Approval Number is HREC
- ☐ HREC Approval was not required.

AND

ANIMAL ETHICS APPROVAL

- ☐ I confirm that approval was obtained from the University of Newcastle Animal Care and Ethics Committee (ACEC), and any other organisations as required, to undertake the research contained in this thesis. The Approval Number is ACEC
- ☒ ACEC Approval was not required.

AND

OCCUPATIONAL HEALTH AND SAFETY COMMITTEE APPROVAL

- ☐ I confirm that approval was obtained from the University of Newcastle Health and Safety Unit and, where appropriate, the associated Technical Committee/s (Chemical/Radiation Technical Committee, Institutional Biosafety Committee) to undertake the research in this thesis where hazards have been identified (eg fieldwork, home visits, GMOs, biological, chemical, and radiation). The Approval Number is
- ☒ OHSC Approval was not required.

Please return to: Office of Graduate Studies, East Wing, The Chancellery
Telephone: (02) 4921 6537 Fax: (02) 4921 6908 Email: thesis@newcastle.edu.au

1

4 – B) STATEMENT OF ORIGINALITY (PLEASE TICK)

On submission, your thesis must contain a statement by you (see below), that the contents of the thesis relate to your own work, taking into account normal candidate-supervisor relations.

- ☒ This thesis contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. I give consent to this copy of my thesis, when deposited in the University Library**, being made available for loan and photocopying subject to the provisions of the Copyright Act 1968.

****Unless an Embargo has been approved for a determined period**

4 – C) DECLARATIONS (TICK AS MANY STATEMENTS AS ARE APPLICABLE)

ACKNOWLEDGEMENT OF COLLABORATION

If any of your work has been done in collaboration with other researchers, or carried out in other institutions, your thesis must contain a statement clearly outlining the extent of collaboration, with whom and under what auspices.

- ☐ I hereby certify that the work embodied in this thesis has been done in collaboration with other researchers, or carried out in other institutions (delete if not applicable). I have included as part of the thesis a statement clearly outlining the extent of collaboration, with whom and under what auspices.

ACKNOWLEDGEMENT OF AUTHORSHIP

If the body of the thesis includes a co-authored published paper or co-authored scholarly work, or a substantive component of a co-authored published paper or co-authored scholarly work, your thesis must contain a statement, endorsed by your supervisor, attesting to your contribution to the joint publication/scholarly work. A statement is not required when publications/scholarly work are included as an appendix.

- ☐ I hereby certify that the work embodied in this thesis contains a published paper/scholarly work of which I am a joint author. I have included as part of the thesis a written statement, endorsed by my supervisor, attesting to my contribution to the joint publication/scholarly work.

(FOR RESEARCH HIGHER DEGREE CANDIDATES ONLY)

Thesis by Publication (Refer to Rule 52 of the Rules Governing Research Higher Degrees)

- ☐ I hereby certify that this thesis is in the form of a series of published papers of which I am a joint author. I have included as part of the thesis a written statement from each co-author, endorsed by the Faculty Assistant Dean (Research Training), attesting to my contribution to the joint publications.

Signature: Allen Tan..... Date: 11 November 2011

Once signed, forward a copy of this form to your principal supervisor.

5 – PRINCIPAL SUPERVISOR TO COMPLETE EITHER ITEM 5 OR ITEM 6 (BELOW)

I certify that to the best of my knowledge the work for this thesis has been carried out under conditions which comply with the Degree Rules and also with the University's policy on the supervision of candidates stated in the Code of Practice for Research Candidates. In particular, I have read the final draft of the thesis before it was bound and, if possible, inspected the bound thesis before it was submitted. In my opinion:

- (a) the candidate has completed the program in the University, under the direction of the supervisor/s;
- (b) the submitted thesis meets the formal requirements of the University concerning typing and binding;
- (c) the thesis is of sufficient merit to warrant its examination;
- (d) the minimum requirements for enrolment at this University have been met (refer to Time Requirements in Degree Rules);
- (e) the thesis has been submitted to Turnitin and I have checked the contents of the report (DBA candidates only);
- (f) the Appointment of Examiners form has previously been forwarded to the Office of Graduate Studies.

In making this certification, I endorse all of the statements attached to this form/included in the thesis and do not in any way imply that the thesis is sufficient for the award of the degree.

Supervisor's Name (Please print): Dr Canon Tong.....

Signature: Date: 20111111

Please return to: Office of Graduate Studies, East Wing, The Chancellery
Telephone: (02) 4921 6537 Fax: (02) 4921 6908 Email: thesis@newcastle.edu.au

2

Declaration

This dissertation contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. I give consent to this copy of my thesis, when deposited in the University Library, being made available for loan and photocopying subject to the provisions of the Copyright Act 1968

I hereby certify that the work embodied in this dissertation is the result of original research, the greater part of which was completed subsequent to admission to candidature for the degree.

Allen M. Y. TAN

Acknowledgements

It has been said that the joy of life is not in achievement, but in the struggle to achieve. Completing the doctoral dissertation reflects the wisdom of these words. It has been a lengthy, challenging and arduous endeavor that tested my willpower, yet one that brought me enjoyment and satisfaction.

I would like to express my sincere gratitude to my supervisor, Dr. Canon Tong, for his encouragement, guidance, and comments during the research process and writing up of the thesis. Dr. Tong was always there to provide suggestions and to shed light whenever I encountered difficulties. He provided the guidance that I needed to succeed.

I am also most grateful for the love and understanding of my family. In particular I thank my mother, my sister Helina, my wife Shirla and my son Adrian, for their unfailing support. I hope that they are as proud of my achievement as I am of them.

Content

SUPERVISOR DECLARATION	II
DECLARATION.....	IV
ACKNOWLEDGEMENTS	V
CONTENT.....	VI
LIST OF FIGURES	XI
LIST OF TABLES.....	XIII
ABSTRACT.....	XVI
CHAPTER 1 INTRODUCTION.....	1
1.1. BACKGROUND OF THE STUDY	1
1.1.1. <i>The Cosmetics Manufacturing Industry in China</i>	2
1.2. LITERATURE BACKGROUND	6
1.2.1. <i>Entrepreneurship and Entrepreneurial Orientation</i>	6
1.2.2. <i>Customer Orientation</i>	7
1.2.3. <i>Knowledge Management and Knowledge Sharing</i>	8
1.3. RESEARCH DESIGN.....	8
1.3.1. <i>The Objective</i>	9
1.3.2. <i>Research Gaps</i>	9
1.3.3. <i>Research Questions</i>	9
1.3.4. <i>Research Hypotheses</i>	10
1.4. RESEARCH METHODOLOGY	10
1.4.1. <i>Research Paradigm</i>	10
1.4.2. <i>Research Methods</i>	11
1.4.3. <i>Research Instrument</i>	11
1.4.4. <i>Sample Frame</i>	11
1.4.5. <i>Sampling Technique and Sample Size</i>	12
1.4.6. <i>Sampling Procedures</i>	12
1.4.7. <i>Data Analysis</i>	13
1.5. CONTRIBUTIONS OF THE STUDY	13
1.6. LIMITATIONS OF THE STUDY	14
1.7. ETHICAL CONSIDERATIONS	15
1.8. STRUCTURE OF THE THESIS	16

1.9.	CHAPTER SUMMARY	16
CHAPTER 2 LITERATURE REVIEW		17
2.1.	INTRODUCTION	17
2.2.	ENTREPRENEURSHIP.....	17
2.2.1.	<i>A Brief History of Entrepreneurship and Entrepreneurship Research</i>	<i>17</i>
2.2.2.	<i>Entrepreneurship in Organizations</i>	<i>21</i>
2.3.	ENTREPRENEURIAL ORIENTATION (EO)	23
2.3.1.	<i>The Key Dimensions of EO</i>	<i>23</i>
2.3.2.	<i>Innovation and Innovativeness</i>	<i>25</i>
2.3.3.	<i>Proactiveness.....</i>	<i>26</i>
2.3.4.	<i>Risk-taking</i>	<i>28</i>
2.4.	FIRM PERFORMANCE	30
2.4.1.	<i>Performance Measurement.....</i>	<i>30</i>
2.4.2.	<i>Growth as a Performance Measurement Metric.....</i>	<i>31</i>
2.4.3.	<i>Return on Equity as a Performance Measurement Metric.....</i>	<i>32</i>
2.5.	KNOWLEDGE AND KNOWLEDGE MANAGEMENT	32
2.5.1.	<i>Types of Knowledge</i>	<i>33</i>
2.5.2.	<i>Knowledge Management and Sharing in Organizations</i>	<i>34</i>
2.5.3.	<i>Knowledge Donating and Knowledge Collecting</i>	<i>35</i>
2.6.	CUSTOMER ORIENTATION	36
2.6.1.	<i>Customer Orientation and Firm Performance</i>	<i>36</i>
2.7.	CONCLUSION	38
CHAPTER 3 RESEARCH QUESTIONS, MODEL AND HYPOTHESES		39
3.1.	INTRODUCTION	39
3.2.	RESEARCH GAP	39
3.3.	RESEARCH QUESTIONS	39
3.4.	RESEARCH FRAMEWORK	40
3.5.	RESEARCH HYPOTHESES.....	40
3.5.1.	<i>Hypothesis 1</i>	<i>41</i>
3.5.2.	<i>Hypotheses 2 and 3</i>	<i>42</i>
3.5.3.	<i>Hypotheses 4 and 5</i>	<i>43</i>
3.6.	THE VARIABLES AND MEASURING SCALES.....	45
3.7.	SUMMARY	45
CHAPTER 4 METHODOLOGY		46

4.1.	RESEARCH QUESTIONS AND RESEARCH HYPOTHESES	46
4.1.1.	<i>The Research Questions</i>	46
4.1.2.	<i>Research Hypotheses</i>	47
4.2.	RESEARCH PARADIGM	48
4.2.1.	<i>Interpretivism vs. Positivism</i>	48
4.3.	RATIONALE FOR USING A QUANTITATIVE APPROACH	49
4.4.	RESEARCH DESIGN.....	50
4.4.1.	<i>Cross-Sectional vs. Longitudinal Research Design</i>	51
4.4.2.	<i>Rationale for Using the Cross-Sectional Research Design</i>	52
4.5.	SAMPLES AND SAMPLING TECHNIQUES	52
4.5.1.	<i>Probability Sampling Techniques vs. Non-Probability Sampling Techniques</i>	52
4.5.2.	<i>Rationale for Using the Simple Random Sampling Technique</i>	54
4.6.	DATA COLLECTION METHODS	55
4.6.1.	<i>Rationale for Using the Postal Self-administered Questionnaire Survey</i>	55
4.6.2.	<i>Data Collection Process</i>	56
4.6.3.	<i>Target Sample Size</i>	56
4.7.	QUESTIONNAIRE DESIGN	57
4.7.1.	<i>Entrepreneurial Orientation</i>	57
4.7.2.	<i>Firm Performance</i>	58
4.7.3.	<i>Customer Orientation</i>	59
4.7.4.	<i>Knowledge Sharing</i>	59
4.7.5.	<i>Measurement Scales Used</i>	60
4.8.	VALIDITY AND RELIABILITY	60
4.9.	PRE-TEST AND PILOT TEST	61
4.10.	DATA ANALYSIS	62
4.10.1.	<i>Descriptive Statistics</i>	62
4.10.2.	<i>Non-response Bias Test</i>	63
4.10.3.	<i>Factor Analysis</i>	63
4.10.4.	<i>Hypotheses Testing</i>	64
4.11.	ETHICAL ISSUES.....	64
4.12.	SUMMARY	65
	CHAPTER 5 DATA ANALYSIS	66
5.1.	INTRODUCTION	66
5.2.	DEMOGRAPHIC PROFILE OF THE RESPONDENTS	66
5.2.1.	<i>Gender Profile of the Respondents</i>	66

5.2.2.	<i>Role Profile of the Respondents</i>	67
5.2.3.	<i>Marital Status of the Respondents</i>	68
5.2.4.	<i>Entrepreneurial Experience of the Respondents</i>	69
5.2.5.	<i>Business Models of the Firms</i>	70
5.2.6.	<i>Firm Size Profile</i>	71
5.2.7.	<i>Tenure Profile of the Respondents</i>	72
5.2.8.	<i>Educational Level of the Respondents</i>	73
5.3.	TEST OF NON-RESPONSE BIAS.....	74
5.3.1.	<i>Gender Profile of the Respondents</i>	75
5.3.2.	<i>Role Profile of the Respondents</i>	76
5.3.3.	<i>Marital Status of the Respondents</i>	78
5.3.4.	<i>Entrepreneurial Experience of the Respondents</i>	79
5.3.5.	<i>Business Model Profile of the Firms</i>	81
5.3.6.	<i>Firm Size Profile</i>	82
5.3.7.	<i>Tenure Profile of the Respondents</i>	84
5.3.8.	<i>Educational Level of the Respondents</i>	85
5.4.	VALIDITY AND RELIABILITY	87
5.4.1.	<i>Factor Analysis for Reliability Testing</i>	87
5.4.2.	<i>Cronbach's Alpha for Reliability Testing</i>	91
5.5.	THE UNDERLYING CONSTRUCTS.....	91
5.5.1.	<i>Descriptive Statistics for Proactive Entrepreneurial Orientation</i>	92
5.5.2.	<i>Descriptive Statistics for Reactive Entrepreneurial Orientation</i>	93
5.5.3.	<i>Descriptive Statistics for Firm Performance</i>	95
5.5.4.	<i>Descriptive Statistics for Knowledge Sharing</i>	97
5.5.5.	<i>Descriptive Statistics for Customer Orientation</i>	99
5.6.	HYPOTHESIS TESTING	101
5.6.1.	<i>Direct Relationships</i>	101
5.6.2.	<i>Moderating Effects</i>	107
5.6.3.	<i>Additional Tests</i>	115
5.7.	SUMMARY OF HYPOTHESIS TEST RESULTS.....	116
5.8.	CHAPTER SUMMARY	117
	CHAPTER 6 DISCUSSION AND CONCLUSION	119
6.1.	RESEARCH FRAMEWORK	119
6.2.	DISCUSSION OF RESEARCH FINDINGS.....	121
6.2.1.	<i>Direct Influences</i>	122

6.2.2.	<i>Moderating Effects of Customer Orientation</i>	122
6.2.3.	<i>Moderating Effects of Knowledge Sharing</i>	123
6.2.4.	<i>Additional Tests</i>	124
6.3.	CONTRIBUTIONS AND IMPLICATIONS	124
6.4.	LIMITATIONS AND FURTHER RESEARCH	129
	REFERENCES	132
	APPENDIX 1 INFORMATION SHEET	162
	APPENDIX 2 QUESTIONNAIRE	166
	APPENDIX 3 ENDORSEMENT OF TRANSLATION	171
	APPENDIX 4 APPROVAL LETTER OF ETHICS	173

List of Figures

FIGURE 1.1: CHINA’S SKIN CARE MARKET STRUCTURE	3
FIGURE 1.2 SHISEIDO CHINA BRAND PROFILE	4
FIGURE 1.3: P&G CHINA BRAND PROFILE	5
FIGURE 3.1: RESEARCH MODEL	40
FIGURE 5.1: GENDER PROFILE OF THE RESPONDENTS	67
FIGURE 5.2: ROLE PROFILE OF THE RESPONDENTS	68
FIGURE 5.3: MARITAL STATUS OF THE RESPONDENTS	69
FIGURE 5.4: ENTREPRENEURIAL EXPERIENCE OF THE RESPONDENTS	70
FIGURE 5.5: BUSINESS MODEL OF THE FIRMS.....	71
FIGURE 5.6: FIRM SIZE PROFILE	72
FIGURE 5.7: TENURE PROFILE OF THE RESPONDENTS	73
FIGURE 5.8: EDUCATIONAL LEVELS OF THE RESPONDENTS.....	74
FIGURE 5.9: GENDER PROFILE OF THE RESPONDENTS.....	76
FIGURE 5.10: ROLE PROFILE OF THE RESPONDENTS	77
FIGURE 5.11: MARITAL STATUS OF THE RESPONDENTS	79
FIGURE 5.12: ENTREPRENEURIAL EXPERIENCE OF THE RESPONDENTS.....	80
FIGURE 5.13: BUSINESS MODEL PROFILE OF THE FIRMS	82
FIGURE 5.14: FIRM SIZE PROFILE.....	83
FIGURE 5.15: TENURE PROFILE OF THE RESPONDENTS	85
FIGURE 5.16: EDUCATIONAL LEVEL OF THE RESPONDENTS	86
FIGURE 5.17: HISTOGRAM OF PROACTIVE ENTREPRENEURIAL ORIENTATION	93
FIGURE 5.18: HISTOGRAM OF REACTIVE ENTREPRENEURIAL ORIENTATION	95
FIGURE 5.20: HISTOGRAM OF KNOWLEDGE SHARING	99
FIGURE 5.21: HISTOGRAM OF CUSTOMER ORIENTATION.....	100
FIGURE 5.22: PROACTIVE ENTREPRENEURIAL ORIENTATION AND FIRM PERFORMANCE	102

FIGURE 5.23: REACTIVE ENTREPRENEURIAL ORIENTATION AND FIRM PERFORMANCE	103
FIGURE 5.24: CUSTOMER ORIENTATION AND FIRM PERFORMANCE.....	105
FIGURE 5.25: KNOWLEDGE SHARING AND FIRM PERFORMANCE	106

List of Tables

TABLE 1.1: TOP FOUR GLOBAL COSMETICS COMPANIES.....	4
TABLE 1.2: MAJOR CHINESE COSMETICS MANUFACTURERS AND THEIR BRANDS PROFILES	5
TABLE 2.1: KEY DIMENSIONS OF EO USED IN PREVIOUS STUDIES	24
TABLE 4.1: MEASURING ITEMS FOR ENTREPRENEURIAL ORIENTATION.....	58
TABLE 4.2: MEASURING ITEMS FOR FIRM PERFORMANCE	58
TABLE 4.3: MEASURING ITEMS FOR CUSTOMER ORIENTATION	59
TABLE 4.4: MEASURING ITEMS FOR KNOWLEDGE SHARING	60
TABLE 5.1: GENDER PROFILE OF THE RESPONDENTS.....	67
TABLE 5.2: ROLE PROFILE OF THE RESPONDENTS.....	68
TABLE 5.3: MARITAL STATUS OF THE RESPONDENTS	69
TABLE 5.4: ENTREPRENEURIAL EXPERIENCE OF THE RESPONDENTS.....	70
TABLE 5.5: BUSINESS MODEL OF THE FIRMS.....	71
TABLE 5.6: FIRM SIZE PROFILE.....	72
TABLE 5.7: TENURE PROFILE OF THE RESPONDENTS	73
TABLE 5.8: EDUCATIONAL LEVEL OF THE RESPONDENTS	74
TABLE 5.9A: CHI-SQUARE TESTS – GENDER PROFILE OF THE RESPONDENTS	75
TABLE 5.9B: CROSSTAB – GENDER PROFILE OF THE RESPONDENTS	75
TABLE 5.10A: CHI-SQUARE TESTS – ROLE PROFILE OF THE RESPONDENTS	77
TABLE 5.10B: CROSSTAB – ROLE PROFILE OF THE RESPONDENTS.....	77
TABLE 5.11A: CHI-SQUARE TESTS - MARITAL STATUS OF THE RESPONDENTS	78
TABLE 5.11B: CROSSTAB - MARITAL STATUS OF THE RESPONDENTS.....	79
TABLE 5.12A: CHI-SQUARE TESTS - ENTREPRENEURIAL EXPERIENCE OF THE RESPONDENTS	80
TABLE 5.12B: CROSSTAB - ENTREPRENEURIAL EXPERIENCE OF THE RESPONDENTS	80
TABLE 5.13A: CHI-SQUARE TESTS - BUSINESS MODEL PROFILE OF THE FIRMS	81
TABLE 5.13B: CROSSTAB - BUSINESS MODEL PROFILE OF THE FIRMS	81

TABLE 5.14A: CHI-SQUARE TESTS - FIRM SIZE PROFILE	83
TABLE 5.14B: CROSSTAB - FIRM SIZE PROFILE	83
TABLE 5.15A: CHI-SQUARE TESTS - TENURE PROFILE OF THE RESPONDENTS	84
TABLE 5.15B: CROSSTAB - TENURE PROFILE OF THE RESPONDENTS.....	84
TABLE 5.16A: CHI-SQUARE TESTS - EDUCATIONAL LEVEL OF THE RESPONDENTS	86
TABLE 5.16B: CROSSTABS - EDUCATIONAL LEVEL OF THE RESPONDENTS	86
TABLE 5.17: KMO AND BARTLETT’S TEST.....	88
TABLE 5.18: TOTAL VARIANCE EXPLAINED.....	89
TABLE 5.19: EXPLORATORY FACTOR ANALYSIS RESULTS.....	90
TABLE 5.20: CRONBACH’S ALPHA VALUES OF CONSTRUCTS	91
TABLE 5.21: DESCRIPTIVE STATISTICS FOR CONSTITUENT ITEMS OF PROACTIVE ENTREPRENEURIAL ORIENTATION	92
TABLE 5.22: DESCRIPTIVE STATISTICS FOR PROACTIVE ENTREPRENEURIAL ORIENTATION	92
TABLE 5.23: DESCRIPTIVE STATISTICS FOR CONSTITUENT ITEMS OF REACTIVE ENTREPRENEURIAL ORIENTATION	94
TABLE 5.24: DESCRIPTIVE STATISTICS FOR REACTIVE ENTREPRENEURIAL ORIENTATION	94
TABLE 5.25: DESCRIPTIVE STATISTICS FOR CONSTITUENT ITEMS OF FIRM PERFORMANCE.....	96
TABLE 5.26: DESCRIPTIVE STATISTICS FOR FIRM PERFORMANCE	96
FIGURE 5.19: HISTOGRAM OF FIRM PERFORMANCE	97
TABLE 5.27: DESCRIPTIVE STATISTICS FOR CONSTITUENT ITEMS OF KNOWLEDGE SHARING.....	98
TABLE 5.28: DESCRIPTIVE STATISTICS FOR KNOWLEDGE SHARING	98
TABLE 5.29: DESCRIPTIVE STATISTICS FOR CONSTITUENT ITEMS OF CUSTOMER ORIENTATION.....	100
TABLE 5.30: DESCRIPTIVE STATISTICS FOR CUSTOMER ORIENTATION.....	100
TABLE 5.31: RELATIONSHIP BETWEEN PROACTIVE ENTREPRENEURIAL ORIENTATION AND FIRM PERFORMANCE (H1A)	102
TABLE 5.32: RELATIONSHIP BETWEEN REACTIVE ENTREPRENEURIAL ORIENTATION AND FIRM PERFORMANCE (H1B)	103
TABLE 5.33: RELATIONSHIP BETWEEN CUSTOMER ORIENTATION AND FIRM PERFORMANCE (H2).....	104
TABLE 5.34: RELATIONSHIP BETWEEN KNOWLEDGE SHARING AND FIRM PERFORMANCE (H3)	106
TABLE 5.35: MODEL SUMMARY – CUSTOMER ORIENTATION MODERATES THE RELATIONSHIP BETWEEN PROACTIVE ENTREPRENEURIAL ORIENTATION AND FIRM PERFORMANCE (H4A)	108

TABLE 5.36: COEFFICIENTS – CUSTOMER ORIENTATION MODERATES THE RELATIONSHIP BETWEEN PROACTIVE ENTREPRENEURIAL ORIENTATION AND FIRM PERFORMANCE (H4A)	109
TABLE 5.37: MODEL SUMMARY – CUSTOMER ORIENTATION MODERATES THE RELATIONSHIP BETWEEN REACTIVE ENTREPRENEURIAL ORIENTATION AND FIRM PERFORMANCE (H4B)	110
TABLE 5.38: COEFFICIENTS – CUSTOMER ORIENTATION MODERATES THE RELATIONSHIP BETWEEN REACTIVE ENTREPRENEURIAL ORIENTATION AND FIRM PERFORMANCE (H4B)	111
TABLE 5.39: MODEL SUMMARY – KNOWLEDGE SHARING MODERATES THE RELATIONSHIP BETWEEN PROACTIVE ENTREPRENEURIAL ORIENTATION AND FIRM PERFORMANCE (H5A)	112
TABLE 5.40: COEFFICIENTS – KNOWLEDGE SHARING MODERATES THE RELATIONSHIP BETWEEN PROACTIVE ENTREPRENEURIAL ORIENTATION AND FIRM PERFORMANCE (H5A)	113
TABLE 5.41: MODEL SUMMARY – KNOWLEDGE SHARING MODERATES THE RELATIONSHIP BETWEEN REACTIVE ENTREPRENEURIAL ORIENTATION AND FIRM PERFORMANCE (H5B)	114
TABLE 5.42: COEFFICIENTS – KNOWLEDGE SHARING MODERATES THE RELATIONSHIP BETWEEN REACTIVE ENTREPRENEURIAL ORIENTATION AND FIRM PERFORMANCE (H5B)	114
TABLE 5.43: ANOVA – FIRM PERFORMANCE DIFFERENCES BETWEEN OEM AND NON-OEM GROUPS	115
TABLE 5.44: MEAN COMPARISON – OEM AND NON-OEM GROUPS	115
TABLE 5.45: ANOVA – FIRM PERFORMANCE DIFFERENCES OF DIFFERENT FIRM SIZE GROUPS	116
TABLE 5.46: SUMMARY OF HYPOTHESIS TEST RESULTS AND FINDINGS	116

Abstract

Thirty years of modernization has created an economic boom and induced a new lifestyle in China, which has made cosmetics both a luxury and necessity for a large segment of the urban population. The growing cosmetics market has lured international brand names to enter and subsequently dominate the China market since the 1980s. Facing an uphill battle against the global giants, domestic players will need to use entrepreneurial skills and resources to not only survive but to penetrate the mid to high-end market segments. To achieve this, it is necessary to recognize how the impact of entrepreneurship on the firm performance of domestic cosmetics makers in China is influenced by the success drivers of customer orientation and knowledge sharing, and to discuss ways in which the positivity produced by the interplay of their relationships can be leveraged to drive growth.

This study investigated both the direct and indirect effects of entrepreneurial orientation, customer orientation and knowledge sharing on firm performance in the context of the cosmetics industry in China. Quantitative methodology was used to conduct the study and invitations were sent by post to 2,500 potential participants randomly drawn from public domains of cosmetics manufacturers in China. A total of 362 valid responses were received, representing a response rate of 14.5%. Descriptive statistics, non-response bias test, reliability test, factor analysis and hypotheses testing were used to analyze the empirical data collected.

The results show that entrepreneurial orientation, which can be split into proactive and reactive dimensions, contributes to firm performance. Customer orientation and knowledge sharing significantly and positively influence firm performance. While the study confirms that knowledge sharing moderates the relationship between proactive entrepreneurial orientation and firm performance, no moderating effects have been found on the relationship between reactive entrepreneurial orientation and firm performance. The hypothesized moderating effect of customer orientation on the relationship between entrepreneurial orientation and firm performance has been rejected.

The outcome of the study provides insights into the influences of entrepreneurial orientation, customer orientation and knowledge sharing on firm performance through either direct or moderating effects. The study is unique in that it investigated the moderating effects of customer orientation and knowledge sharing in an industry and country setting where entrepreneurship has yet to be fully explored. The study offers empirical evidence, suggestions and directions for further research that contribute to entrepreneurial research in both theory and practice.

Chapter 1 Introduction

1.1. Background of the Study

Since the introduction of Deng Xiao Ping's reforms in late 1978, China has experienced a relentless surge in consumer buying power. According to the 2011 World Development Indicators, measured on a purchasing power parity (PPP) basis that adjusts for price differences, China became the second largest economy in the world after the US (Flanders, 2011). This ranking not only underscores the economic might of the world's most populous nation but also suggests that, if the momentum continues, China will soon transform itself from being the "world's factory" to the "world's market" for all types of consumer products.

Over thirty years of opening up has made Chinese consumers not only wealthier but also more accepting of western-style consumer culture and spending modes (Ji and McNeal, 2001). They shop in supermarket chains and department stores, they aspire to own famous brands and luxurious items, they value things that will help them create the right identity and elevate their social status, and they are willing and ready to spend on products that will make them look and feel good. Spending on cosmetic products is just one of the many ways for them to improve and cultivate their appearance, express their aesthetic taste and assert their social standing (Hopkinsa, 2007).

Cosmetic products can be broadly divided into decorative cosmetics and care cosmetics. The former refers to products intended to alter or enhance the user's look, while the latter refers to those formulated to maintain, improve, repair or protect one's body. Cosmetics manufacturers usually divide their products into the following five streams: 1) skin care, 2) make-up, 3) fragrances, 4) hair care and 5) toiletries (American Consulate General, 2011; Bawang International, 2010; Euromonitor International, 2009; Zhang, 2010). This study focused on cosmetics manufacturers in China and was confined to manufacturers engaged in the development and production of items under the above five streams, including hair and skin care products, colour cosmetics, oral and body care products, deodorants, fragrances, sun care items, and depilatory products; dietary supplements, wigs and hair additions were excluded.

1.1.1. The Cosmetics Manufacturing Industry in China

The cosmetics industry is a profitable industry that has seen a tremendous increase in global sales over the past decade. Sales and revenue from cosmetics have not only grown in developed countries, such as the US, France and Japan, but also in China due to its expanding white collar population, increasing affluence and a growing trend towards premium products and brands (Euromonitor International, 2009). According to Euromonitor International (2009), during the five years from 2003 to 2008, the demand of beauty and personal care products in China recorded a total absolute growth of US\$7.672 billion, second only to Brazil. The report forecasted that the market for beauty and personal care products in China would reach over US\$25 billion by 2013. The skin care sector has been and will continue to be the most prominent growth area. The report revealed that the compound annual growth rate (CAGR) of skin care products in China reached over 11% for the five years from 2003 to 2008. This trend is expected to continue, with a projected growth rate of 11% for the five years from 2008 to 2013.

According to American Consulate General (2011), the four best prospect sectors in the cosmetics market in China are skin care, make-up, baby care and sunscreen products. The report echoed the findings of Euromonitor International (2009) by pointing out the dominance of the skin care sector which recorded the fastest rate of growth and accounted for about one-third of all cosmetics sales in China (American Consulate General, 2011; Zhang, 2010).

Figure 1.1 below highlights the structural differences between the skin care markets in the US, China and Europe. The market structure in China is similar to the US and Europe, except that the demand for whitening products in China is much higher than in Western countries.

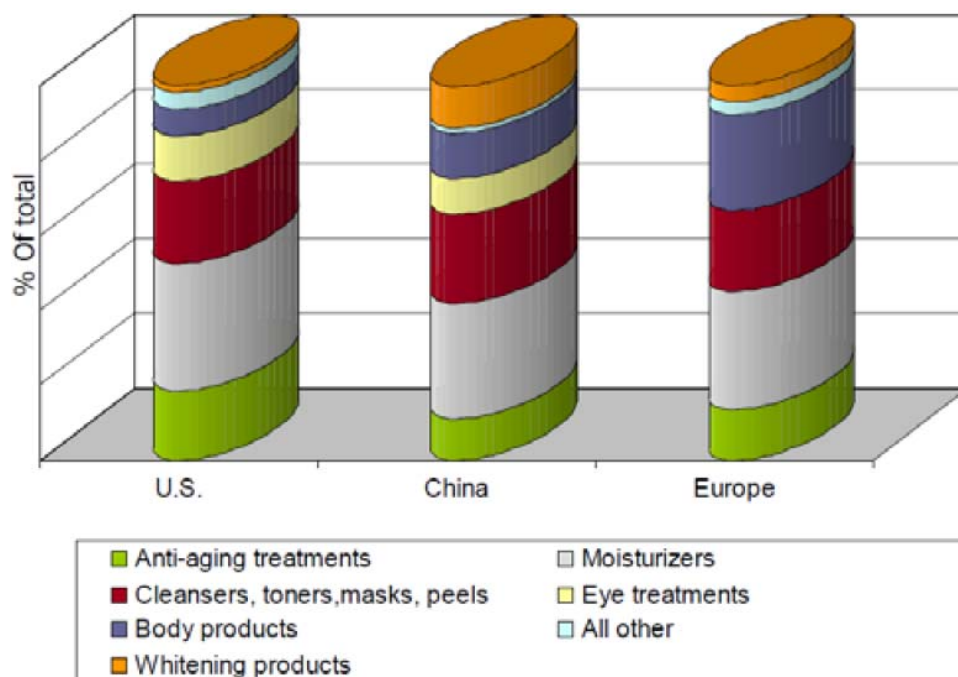


Figure 1.1: China's Skin Care Market Structure

Source: Zhang (2010)

The Chinese cosmetics market is the third largest in the world and ranks second after Japan in the Asia-Pacific Region (Zhang, 2010). Although the market has been expanding rapidly over the past 20 years, it still has high growth potential and is far from saturated (American Consulate General, 2011). The market provides opportunities to both domestic and international players, although global players such as Procter & Gamble (P&G), L'Oreal, Unilever, and Shiseido still dominate the market, especially in the high-end sector. None of the top 10 cosmetics manufacturers are local incumbents (Euromonitor International, 2009).

Table 1.1 below consolidates and summaries the major brands of the top four global cosmetics companies based on the information gathered from their respective websites. P&G dominated the Chinese personal care segment with a market share of 18% in 2008. L'Oreal's share of the skin care market increased from 4% in 2003 to 9% in 2008 and is expected to gain a bigger share in the years to come. Leading Asia brand Shiseido is actively promoting a total of 46 different brands (see Figure 1.2) in China through Shiseido China (www.shiseidochina.com), the China branch of the Japanese cosmetics manufacturer. The world's biggest cosmetics manufacturer, P&G, is actively promoting

12 brands (see Figure 1.3) across China. Its marketing efforts in China have been a great success with a wide range of brands under the P&G umbrella, including Olay, SK-II, Pantene, Rejoice, Head and Shoulders, Vidal Sasson, Wella, Clairol Herbal Essences, and Crest, joining the ranks of the most revered and iconic brand names in the cosmetics sector in China.

Table 1.1: Top Four Global Cosmetics Companies

Company	Major Brands
P&G	Olay, SK-II, Pantene, Rejoice, Head and Shoulders, Vidal Sasson, Wella, Clairol Herbal Essences, Gillette, Braun, Safeguard, Crest, Whisper,
L'Oreal	L'Oreal Paris, L'Oreal Professional, Giorgio Armani, Maybelline, Shu Uemura, The Body Shop, Kerastase, Lancome, Mininurse, etc...
Unilever	Vaseline, Lux, Pnd's, Dove, Hazeline, Rexona, Clear, etc...
Shiseido	A total 46 Brands, including Shiseido, Shiseido Eudermine, Shiseido Relaxing Fragrance, UV White, Aqualabel, Tessera, etc...

Source: P&G China (www.pg.com.cn), L'Oreal China (www.lorealparis.com.cn), Unilever China (www.unilever.com.cn), Shiseido China (www.shiseido.com.cn)



Figure 1.2 Shiseido China Brand Profile

Source: Shiseido China (www.shiseido.com.cn)



Figure 1.3: P&G China Brand Profile

Source: P&G China (www.pg.com.cn)

Although the Chinese cosmetics sector is highly competitive, there remains potential for domestic manufacturers (Zhang, 2010). Compared to global giants, such as P&G and L’Oreal, most of the domestic players in China are small and medium enterprises (SMEs) (Zhang, 2010). Despite their relatively small size, there is still plenty of room for them to grow provided that they can find the right niche and marry that with the right products and good service. For example, Bawang (B&W) (www.bawang.com.cn), a Guangzhou-based shampoo manufacturer specializing in the production of Chinese herbal medicine shampoo, became the fourth most famous shampoo brand in China within 15 years of its establishment in 1989 (Bawang International, 2010). With the success of its hair care products, B&W is now expanding into the fast-growing skin care arena by inviting a popular Chinese singer, Faye Wang, to promote its herbal facial essence (www.herborn-bw.com). Table 1.2 shows the major domestic Chinese cosmetics manufacturers, including major local manufacturers such as Jiangsu Longliqi (www.longliqi.com), Shanghai Jahwa (www.jahwa.com.cn) and Shanghai Huayin.

Table 1.2: Major Chinese Cosmetics Manufacturers and Their Brands Profiles

Company	Major Brands
Arche Cosmetics	Airiny, Ariar, BNS, Cathy, Effi and Mero.
Bawang International	Bawang, Herborn, Men’s Bawang and Royal Wind
Guangzhou Decolor	Crystal, Decolor, Enevous, Lotuses, Luxe-Lotus and Nenuph
Guangzhou Houdy	Coian, Houdy, Sincir and Tongle
Jiangsu Longliqi	Dragon Beauty, Evergreen, Longliqi, Yafei and Yuzhibao.
Lafang Group	Betrue, Lafang, Mese, Raclen, Scenty and Sunfeel
Nanjing Jianong	TJOY and TJOY for men
Nice Group	Century Conditioner
Shanghai Huayin	Bee Flower

Shanghai Jahwa	Chinfie, Cocool, Herborist, Gf, Liushen, Maxam, ShanghaiVive and Soft Sense.
Shanghai Savol	Savol
Shunde Modem	Xian Dai
Sichuan Cortry	Cortry and LiveliCutee (Leenchie)
Zhuhai Sunrana	Sunrana

Source: American Consulate General (2011), Bawang International (2010), Euromonitor International (2009), Zhang, 2010

According to research conducted by the American Consulate General (2011), there are over 20,000 cosmetics brands in China and more than 3,000 cosmetics manufacturers. More than 500 of these cosmetics brands belong to foreign brand owners from France, the US, Japan and South Korea. Of all the cosmetics factories across China, some have been set up by foreign brand owners to produce their own products, some are Original Equipment Manufacturer (OEM) factories performing processing functions only, and some are domestic manufacturers producing local brands. Nearly 90% of domestic manufacturers are small in scale targeting the low-end market. With a surging working population with a significant disposable income who are looks conscious, domestic manufacturers are eager to enhance their market share by breaking into the more lucrative middle to high-end markets. To do this, it is necessary for them to develop products that address market niches that have the potential to be profitable. To succeed requires vision, ingenuity, shrewdness, creativity, innovative minds and the skilful manipulation of resources, all of which can be summed up as entrepreneurship (Zhao, Li, Lee and Chen, 2011).

1.2. Literature Background

Literature relating to entrepreneurship, entrepreneurial orientation, customer orientation, knowledge management, and knowledge sharing has been critically analyzed.

1.2.1. Entrepreneurship and Entrepreneurial Orientation

Entrepreneurship is “*the pursuit of opportunity without regard to resources currently controlled*” (Stevenson, Roberts and Grousbeck, 1989, pp. 5). It is a management and value creating process adopted to combine resources in a unique way to exploit business

opportunities and create wealth (Morris, Kuratko and Covin, 2005; Stevenson et al., 1989). In the pre-industrialized days, entrepreneurship was associated with small businesses and new business ventures (Carland, Hoy, Boulton and Carland, 1984). It referred to the endeavours of a business owner, normally a proprietor, who identified an untapped niche in the market and then exploited it for profit.

Entrepreneurial orientation is an essential pre-condition for entrepreneurship to take off and thrive (Lumpkin and Dess, 1996). There is a widespread recognition that entrepreneurship is the engine that propels social development. However, despite its impact on the community at large, entrepreneurship was originally studied from the standpoint of individual entrepreneurs, and was concerned basically with small enterprise creation (Montoro-Sanchez and Soriano, 2011; Phan, Wright, Ucbasaran and Tan, 2009). The concept of entrepreneurship as an organizational orientation was first used by Miller (1983) to capture the risk-taking, innovative and proactive dimensions of entrepreneurial behaviours. Empirical studies have established that entrepreneurial orientation is associated with firm performance (Covin, Green and Slevin, 2006; Rauch, Wiklund, Lumpkin, and Frese, 2009) and the long-term viability of a firm (Zhao, Li, Lee and Chen, 2011).

1.2.2. Customer Orientation

Customer orientation can be understood as an extension of relationship marketing, as both concepts emphasize the creation of sustainable competitive advantages through customer service excellence (Hunt and Morgan, 1995; Steinman, Deshpande and Farley, 2000). Similar to relationship marketing, customer orientation aims at enhancing and sustaining a firm's profitability by building up long-term relationships with customers and maximizing their satisfaction (Krepapa, Berthon, Webb and Pitt, 2003). According to Narver and Slater (1990), customer orientation is one of the key concepts of market orientation. Good knowledge and understanding of customers' needs not only enables a firm to create superior value for the organization itself but also for its customers (Narver and Slater, 1990). Customer orientation increases the level of customer satisfaction, imposes switching costs and reduces customer switching intentions (Yen, Wang and Horng, 2011). For manufacturers, knowing customer needs is a must as this knowledge is necessary for them to identify a market niche and target that niche with the right

products. With the right market entry strategy and resources geared to see through the launch and post-sales needs of customers, products will have a higher chance of success and hence of contributing to a firm profitability (Rust, Zahorik, and Keiningham, 1996; Yen et al., 2011). Customer orientation breeds good products and good customer relations, and provides a favourable ground for entrepreneurial orientation to take effect (Baker and Sinkula; 2009; Raju, Lonial and Crum, 2011).

1.2.3. Knowledge Management and Knowledge Sharing

Traditional competition strategy theorizes that efficient use of resources is the precondition for a firm to gain competitive advantages over its competitors (Porter, 1985). However, in today's highly competitive business environment and increasingly knowledge-based economy, to outperform competitors through best allocation of resources requires the clever use of knowledge. To succeed, a firm also needs to excel in knowledge management processes (Cummings, 2001).

Knowledge management can be understood as a process through which members of an organization share both explicit and tacit knowledge among themselves. The ultimate aim of such sharing is to create new knowledge for the growth and benefit of the entire organization (De Vires, van den Hooff and de Ridder, 2006; Hsu, 2008). Practices of knowledge sharing enable an organization to build up unique competitive advantages and to bring its entrepreneurial orientation capabilities into full play (Wiklund and Shepherd, 2003). Prior studies revealed that knowledge sharing may improve productivity and encourage innovation in product development and service provision (Dyer and Nobeoka, 2000; Liao, Fei and Chen, 2007). Workers who are always ready to exchange and share knowledge represent an important intellectual asset to their employers and this wealth of asset, if leveraged properly and strategically, is certain to benefit the growth and prosperity of an organization (De Vires et al., 2006; Hsu, 2008).

1.3. Research Design

This section discusses the objective of the study and identifies the research gaps. Research questions and hypotheses were formulated to help close the gaps.

1.3.1. The Objective

The objective of this study was to examine the influences of entrepreneurial orientation, customer orientation and knowledge sharing on firm performance, and to investigate the moderating effects of customer orientation and knowledge sharing on the relationship between entrepreneurial orientation and firm performance. This study is believed to be the first systematic entrepreneurial study of cosmetics SMEs ever conducted in China. Findings from the study are expected to contribute to the body of knowledge in the field of entrepreneurship and entrepreneurial orientation, and be useful for both academics and practitioners.

1.3.2. Research Gaps

Though the relationship between entrepreneurial orientation and firm performance has been widely discussed in the literature, there is a notable lack of research on the moderating effects of knowledge sharing and customer orientation on the relationship between entrepreneurial orientation and firm performance. Moreover, the majority of studies on entrepreneurial orientation were carried out in the West with a limited number of entrepreneur-related studies conducted in China. This study helps to correct this imbalance by investigating the interplay between entrepreneurial orientation and firm performance in the cosmetics manufacturing industry in China to see how this relationship is affected by customer orientation and knowledge sharing.

1.3.3. Research Questions

This study was founded on the following three broad questions:

1. What are the effects of entrepreneurial orientation on firm performance?
2. What are the effects of customer orientation and knowledge sharing on firm performance?
3. What are the respective moderating effects of customer orientation and knowledge sharing on the relationship between entrepreneurial orientation and firm performance?

1.3.4. Research Hypotheses

Based on the above research questions, a research framework (shown in Chapter 3) and the following five hypotheses were proposed:

- H1: Entrepreneurial orientation positively affects the firm performance of cosmetics manufacturers in China.
- H2: Customer orientation positively affects the firm performance of cosmetics manufacturers in China.
- H3: Knowledge sharing positively affects the firm performance of cosmetics manufacturers in China.
- H4: Customer orientation moderates the relationship between entrepreneurial orientation and the firm performance of cosmetics manufacturers in China.
- H5: Knowledge sharing moderates the relationship between entrepreneurial orientation and the firm performance of cosmetics manufacturers in China.

1.4. Research Methodology

A positivism research paradigm with quantitative methodology was used to carry out this study. A self-administered questionnaire was designed and used to collect data from managers and entrepreneurs in the cosmetics manufacturing industry who had been randomly drawn from public domain directories.

1.4.1. Research Paradigm

A deductive approach was adopted to attain knowledge of the causal relationship between entrepreneurial orientation and firm performance and to gain an understanding of the moderating effects of customer orientation and knowledge sharing on the said relationship. A positivism paradigm was taken because the purpose of the study was to test a research model that was constructed to examine the direct and indirect causal relationships between a predefined independent variable of entrepreneurial orientation, a

dependent variable of firm performance, as well as two moderating variables of customer orientation and knowledge sharing in the natural social setting of the cosmetics industry in China (Bryman, 2008; Weber, 2004).

1.4.2. Research Methods

A quantitative methodology using statistical methods along with a survey questionnaire were necessary to cover the envisaged large sample size, and to return, within a short time frame and in an objective manner, reliable and valid results which can be generalized to other settings (Bryman, 2008). The five proposed hypotheses were tested by linear regression and multi-regression using SPSS.

1.4.3. Research Instrument

A self-administered questionnaire (Appendix A) was used as a research instrument to collect quantitative data. There were two sections in the questionnaire: one designed for the collection of data on entrepreneurial orientation, firm performance, customer orientation and knowledge sharing; and the other for the collection of demographic information of the respondents.

Potential respondents were requested to carefully read the invitation letter to ensure that they had a clear understanding of their rights as well as the objectives and contribution of the study. It was estimated that it would take about 10 minutes for a respondent to complete the anonymous questionnaire. After completing the questionnaire, respondent were requested to return it to the researcher by post in the supplied pre-stamped envelope.

1.4.4. Sample Frame

The population of this study was all managers who were working in cosmetics manufacturing firms in China or owners of such firms in China at the time of data collection. Since it would have been impossible to gather information from the entire population, the sample frame was defined as all managers or owners of cosmetics manufacturers in China whose names and postal addresses were publically available from the *Directory of Updated Chinese Cosmetic Enterprises* and *alibaba.com*. A total

of 2,500 potential participants within the sample frame were invited to join the study. Potential participants who were neither managers nor owners of cosmetics manufacturers or who were not working in China at the time of survey were excluded.

1.4.5. Sampling Technique and Sample Size

Random sampling technique was used to collect data for this study because it is most effective for minimizing bias (Bryman, 2008). As a rule of thumb, the minimum number of samples should be at least 5 times greater (or 10 times greater, for better research quality) than the number of measuring items used by the most complex construct in a study (Hou, Zhu and Zheng, 2011; Montenegro, 2001). The most complex construct in this study had 8 measuring items, the minimum number of samples was therefore 80. However, given that the number of participants in other quantitative research were in the region of 104 or more (e.g. Murray, Kotabe and Wildt, 1995), to better ensure research quality, the sampling target of the study was set at 200 valid samples.

1.4.6. Sampling Procedures

Drawing of samples and data collection was conducted by:

1. Deriving a sampling frame from the *Directory of Updated Chinese Cosmetic Enterprises* and *alibaba.com*;
2. Recording in a password protected database file the company names, names of company representatives (owners and/or managers), phone numbers, postal addresses and email addresses of all those in the sampling frame;
3. Using a computer program to randomly draw a sample of 2,500 potential participants;
4. Printing mailing labels of the potential participants using a printing program;
5. Mailing by post a copy of the invitation letter, Information Statement and anonymous questionnaire to each of the potential participants formally inviting

them to participate in the study by completing and returning the questionnaire by post in the provided pre-stamped envelope.

1.4.7. Data Analysis

The data collected were analyzed using the following methods.

1. Descriptive statistics:

The data analysis began by the conduct of descriptive statistics to describe and analyse the variables, namely, entrepreneurial orientation, customer orientation, knowledge sharing, and firm performance. The descriptive statistics gave a summary of the mean, median, mode, standard deviation, minimum and maximum, skewness, and kurtosis of each of the variables.

2. Validity and Reliability tests:

Validity and reliability tests were performed to ensure the quality of data collected. Prior to the conduct of factor analysis, Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) were performed to measure the sampling adequacy and to see whether the basic assumptions for factor analysis had been met (Coakes, Steed and Price, 2008; Hair, Black, Babin, Anderson and Tatham, 2005).

3. Factor Analysis:

The four latent variables of entrepreneurial orientation, customer orientation, knowledge sharing and firm performance were found by using confirmatory factor analysis (Hair et al., 2005; Sharma, 2000).

4. Regression Analysis:

Linear regression analysis was used to find out the respective extent of the influences of entrepreneurial orientation, customer orientation and knowledge sharing on firm performance.

The proposed moderators were tested according to the three-step method proposed by Baron and Kenny (1986) using the multiple regression method.

1.5. Contributions of the Study

This study contributes to the body of knowledge in the field of entrepreneurship and entrepreneurial orientation.

First, the study contributes to entrepreneurship literature by studying the direct and indirect influences of entrepreneurial orientation on firm performance. As such, it extends the knowledge of entrepreneurship research by gaining a better understanding of how entrepreneurial orientation enhances firm performance.

Second, this study is one of the first to examine the moderating effects of customer orientation and knowledge sharing on the relationship between entrepreneurial orientation and firm performance from the perspective of senior management practitioners, including both managers and owners of cosmetics manufacturers in China.

Third, despite the rapid economic development in China and the increasing demand for luxury products, including cosmetics, across the nation, there is a notable lack of studies on firm performance and the antecedents of improving the firm performance of the cosmetics industry in China. To the best knowledge of the researcher, this study is the first systematic research of entrepreneurship in cosmetics SMEs in China. The study can facilitate a conceptual understanding of the cosmetics market in China as well as enhancing understanding of entrepreneurial orientation, customer orientation and knowledge sharing, along with their effects on firm performance, of cosmetics SMEs in China. Both academic researchers and management practitioners are expected to be benefited from the findings of this study.

1.6. Limitations of the Study

This study is limited, first of all, by its deductive and confirmatory nature. The study aimed at investigating the effects of customer orientation and knowledge sharing on the relationships between entrepreneurial orientation and firm performance but did not attempt to find the reasons for the results obtained.

The cross-sectional nature of this study imposes the second limitation. Same as all

other cross-sectional studies, this study intended to capture and analyse a snapshot of the relationships among entrepreneurial orientation, customer orientation, knowledge sharing and firm performance. In other words, this study might not fully answer questions relating to the perception of managers among cosmetics manufacturers in China over time.

The third limitation is that the study focused only on cosmetics manufacturers in China, which might limit generalizability of the findings.

1.7. Ethical Considerations

This study was conducted with full ethical clearance from the Human Research Ethics Committee of the University of Newcastle (approval number: H-2011-0177). Potential participants were informed of the objective of this study in the Information Statement, which was sent to the potential participants by post together with a copy of the questionnaire. The potential participants were told that their participation was absolutely voluntary, they would not be given any advantage to participate in this study, they could decide whether to participate in this study or not, and they could withdraw from this study at any time without any disadvantage to them or their organizations.

All information provided by the potential participants was treated as strictly confidential. Access to the data was limited to the researcher and his supervisor only. All hard copy data collected were stored securely in a locked cabinet and electronic files were protected with a password that has not been released to any other party. The potential participants were assured that copies of the questionnaire would be shredded after final acceptance of the thesis by the Office of Graduate Studies.

As this research was carried out under the auspices the University of Newcastle, potential participants were told that at least one verified electronic copy of data would be securely stored at the Newcastle Business School for a minimum period of five years from the date of final acceptance of the thesis, but that their identity would remain anonymous.

Finally, participants were told that they could contact the researcher for a copy of the

completed thesis and that although the findings of the study might be published in a scholarly journal, neither the participants nor their firms would be identified.

1.8. Structure of the Thesis

This thesis has six chapters. Chapter 1 provides an introduction to and summary of the study. Chapter Two is a review of the literature relating to entrepreneurship, entrepreneurial orientation, firm performance, customer orientation, and knowledge sharing. Chapter Three is the research framework, covering the identification of research gaps from the literature reviewed in Chapter Two, the development of research questions to fill the research gaps identified and the formation of a research framework and research hypotheses to answer the research questions. Chapter Four is the methodology, which highlights the pros and cons of qualitative and quantitative research and justifies and details the research paradigm and methods used to carry out the study. Chapter Five is the data analysis, which elaborates the steps taken to test the hypotheses developed in Chapter Three. Finally, Chapter Six presents a detailed discussion of the findings, their implications and limitations, as well as providing recommendations for further research.

1.9. Chapter Summary

This Chapter outlined the background of study, highlighting the characteristics and the latest position of the cosmetics industry in China. It provided an introduction of the concept of entrepreneurship and entrepreneurial orientation and gave a brief account of the constructs of customer orientation, knowledge sharing and their relationships with entrepreneurial orientation and firm performance. The research questions, framework, hypotheses, sample frame and data collection procedures and research methods were described. The potential contributions, limitations and ethical considerations of the study were also presented before providing a structure of the thesis.

Chapter 2 Literature Review

2.1. Introduction

This Chapter presents a review of the literature on entrepreneurship, entrepreneurial orientation (EO), firm performance, knowledge sharing, and customer orientation. The main objective of this review was to establish a theoretical framework for the research by critically examining key concepts from previous related studies. The gaps in the literature, the research questions, the theoretical framework, and the hypotheses developed to answer the research questions are elaborated on in Chapter 3.

2.2. Entrepreneurship

Business activities in pre-industrialised days were mainly carried out by small-scale family-owned firms managed by skilful craftsmen who, as proprietor of the business, employed a handful of employees and produced in small quantities using either manual or highly manual production processes (Gilbert, Audretsch and McDougall, 2004). These small firms contributed considerably to the local economy and employment. Their challenges, however, were warfare, social instabilities, and business growth limited by capital and capabilities of the entrepreneur who owned and operated the firm (Kaldor, 1934).

2.2.1. A Brief History of Entrepreneurship and Entrepreneurship Research

Entrepreneurial behaviour dates back to the days when “barter trading” was still the primary means of payment (Gilbert et al., 2004; Koplin, 1963). Despite the notable lack of academic attention to entrepreneurship in the pre-industrialised world, to assemble and deploy resources and make good use of such resources to create greater wealth has always been a part of human nature. In the West, a savvy businessman is a controversial character. Successful businessmen are admired for their judgment and courage in identifying and seizing opportunities, making changes and building wealth but they are also condemned for their greed and selfishness (Gilbert et al., 2004). Throughout history, there has been incessant debate over their desire for more profit or other rewards such as power, social status and prestige (Koplin, 1963). In the East, entrepreneurs have been regarded with low esteem throughout history. For thousands of

years, merchants in China who engaged in a multitude of private trades and industries were a contemptible class who were placed at the bottom of a four-tier social structure, beneath the literati, peasantry and artisans (Killion, 2006; Lal, 1995; Wang, 2001; Wang, 1990). In a quest for respectability and social status, successful merchants had to use their wealth to build extensive networks with nobles and officials, and at the same time invest heavily in education in the hope that the male descendents of the family could gain access to the gentry-literati class through imperial examinations (Killion, 2006; Loewe and Shaughnessy, 1999; Wang, 2001; Wang, 1990).

Though the history of men practicing entrepreneurship can be traced back to pre-industrial societies, entrepreneurship as a defined English word (derived from the French word *entreprendre*) has a history of only about 200 years (Deakins and Freel, 2009; Julien, 1993). The Irish-French economist Richard Cantillon (circa 1700) is believed to have been the first theorist to define “entrepreneur”. According to Cantillon, an entrepreneur is an arbitrager, someone who equilibrates supply and demand in the economy, and in this function bears risk or uncertainty (Murphy, 1986). Shortly thereafter, the French economist Jean-Baptiste Say, who is believed to have coined the word “entrepreneur”, added to Cantillon's definition by including the idea that the entrepreneur had to be a leader who brings other people together in order to build a single productive organism (Schumpeter, 1951). This leadership quality was echoed by the British economist Alfred Marshall who argued that in addition to being risk-bearers and managers, entrepreneurs are innovators who continuously look for new ways to minimize costs and extend production possibilities (Schumpeter, 1949; van Praag, 2003; van der Sluis, van Praag and Vijverberg, 2005).

The earliest systematic scholarly research on entrepreneurship can be traced to Kaldor (1934) and Schumpeter (1934, 1949). Kaldor (1934), while giving full recognition to the determinant role of entrepreneurs in business growth, added that the only limitation for a firm to continually grow is the entrepreneur's ability to coordinate and leverage different factors of production. Schumpeter (1934, 1949), who popularized the term “*creative destruction*” in economics, asserted that in the face of falling profits and increasing competition, entrepreneurs should initiate both financial and technical innovations to develop new products and explore new opportunities. He argued that

entrepreneurial activities are a creative destructive process through which a new product destroys the market for the existing ones, while creating demand for the new product.

For Schumpeter (1934, 1949), entrepreneurial activities can be understood as a combination of factors of production, resources and competences in new and innovative ways to create better products or production processes for better competitiveness. In his most influential book - *Capitalism, Socialism and Democracy* - Schumpeter argued that the entrepreneurial activities of individual entrepreneurs (Schumpeter, 1934, 1949), or more precisely, the owner-managers, disrupt the otherwise static nature of the market: *“the function of entrepreneurs is to reform or revolutionize the pattern of production by exploiting an invention or, more generally, an untried technological possibility for producing a new commodity or producing an old one in a new way, by opening up a new source of supply of materials or a new outlet for products, by reorganizing an industry and so on”* (Schumpeter, 2003, pp. 132).

After Kaldor and Schumpeter, the topic of entrepreneurship remained largely neglected until the 1950s. The renewed interest in entrepreneurship in the 1950s can be attributed to high levels of unemployment in the West at the time. As pointed out by Shane (1996), unemployment is one of the factors affecting the rate of entrepreneurship. In response to high levels of unemployment during the post-world war II period, monetary and fiscal policies were adopted by governments to encourage entrepreneurial endeavors, hoping that the setting up of new ventures could help reduce unemployment (Gilbert et al., 2004; Shane, 1996).

Earlier researchers of entrepreneurship argued that individual entrepreneurs are natural units of analysis (Herron and Sapienza, 1992; Gartner, 1989; Lounsbury, 1998) since it is the entrepreneur who starts an entrepreneurial venture. Personal characteristics such as prior experience, background and gender and personality traits conducive to entrepreneurship, such as the “need for achievement” and “risk-taking propensity”, were the focal areas of research in entrepreneurship on an individual level (Vesper, 1980).

In explaining the “need for achievement” in entrepreneurial behaviour, McClelland (1961, 1971), one of the earlier researchers in entrepreneurship, argued that entrepreneurs have a strong desire to achieve and exercise control over other things,

such as factors of production. But similar studies conducted by Litzinger (1965) found that “need for achievement” alone cannot explain the entrepreneurial behaviour of an individual. On the “risk-taking propensity” aspect of entrepreneurs, while Leibenstein (1968) and Gasse (1982) found that entrepreneurs have a greater risk-taking propensity than non-entrepreneurs, a study by McClelland (1961) concluded that entrepreneurs will only take reasonable risk and will only engage in challenging achievable tasks. The findings of the latter, however, were challenged by Leibenstein (1968) who argued that entrepreneurs are the ultimate risk-bearers. Following Leibenstein’s path, Gasse (1982) deepened the theory by adding that it is their risk-bearing behaviour that distinguishes entrepreneurs from managers. Despite this claim, findings of other contemporaries indicated that there is no significant difference in risk-taking propensity between entrepreneurs and non-entrepreneurs (Brockhaus, 1980; Smith and Miner, 1983).

The above contradictory findings illustrate the complexity of the phenomenon and at the same time underscore the drawbacks of earlier studies of entrepreneurship, namely, the lack of a clear and unified definition of the term entrepreneurship and oversimplification of the concept (Gartner, 1989; Shane, 1996; Shapero and Sokol, 1982). In the 1990s, with increasing levels of globalization and market access (Davidsson, Low and Wright, 2001; Lounsbury, 1998; Low, 2001; Low and Macmillan, 1988), there was a surge of interest in entrepreneurial research. However, this renewed interest differs from what was done by the pioneering generation in that the scope of inquiry was extended beyond the individual level to cover the organizational and even the wider social context (Covin and Slevin 1991; Peterson and Berger, 1971; Parker, 2011; Phan, Wright, Ucbasaran and Tan, 2009).

Stevenson and Jarillo (1990) appear to have been the first researchers to establish links between entrepreneurship and corporate management. Entrepreneurship, in their opinion, is *“a process by which individuals - either on their own or - inside organizations - pursue opportunities without regard to the resources they currently control”* (Stevenson and Jarillo, 1990, pp. 23). By defining entrepreneurship as a process-based activity, Stevenson and Jarillo offered a brand new perspective on how the entrepreneurial functions of an individual and those of an organization can be studied in an integrated manner and within a common framework. Since Stevenson and

Jarillo (1990), entrepreneurship cannot be seen as exclusively as situational or behavioral determinants of an individual at a given moment, but skills and practices that can be accumulated, transmitted and systemically shared, and acquired as a form of human capital.

2.2.2. Entrepreneurship in Organizations

There is a widespread recognition that entrepreneurship is the engine that moves the economy and civilization. It is certain that stories about entrepreneurs such as Mark Zuckerberg, Bill Gates, Steve Jobs, Henry Ford and Thomas Edison, and their incredible drive in changing the world by creating a whole new industry or revolutionizing the course of an established industry, will remain popular for hundreds of years. The journeys of these entrepreneurial icons have been well-researched and sometimes dramatised or fictionalized to court the wider audience in popular literature. Compared with the attention given to these personal success stories, studies or writings on entrepreneurship in organizations are only a recent phenomenon.

Peterson and Berger (1971) were among the earliest theorists of organizational-level entrepreneurship. Their study of the popular music industry found that entrepreneurship is one of the strategies that large organizations employ to cope with market turbulences (Peterson and Berger, 1971). The idea of organizational-level entrepreneurship was later expanded and popularized by Miller (1983) who introduced the concept of EO to distinguish successful entrepreneurial organizations from unsuccessful ones. Miller (1983), after studying entrepreneurial behaviours in 52 firms, argued that a firm which exhibits qualities of entrepreneurship is “*one that engages in product market innovation, undertakes some risky ventures, and is first to come up with proactive innovations, beating competitors to the punch*” (Miller, 1983, pp. 771).

Consistent with previous studies that found organizations can exhibit entrepreneurial behaviours and pursue entrepreneurial activities to capture business opportunities in the market (see discussions in Montoro-Sanchez and Soriano, 2011; Phan et al., 2009; Shimizu, 2011), Gartner (1989) claimed that questions such as “*who is an entrepreneur?*”, “*why do people start firms?*” and “*what determines who becomes an entrepreneur?*” were the wrong questions to ask. Entrepreneurship research should

instead be reoriented to “*what entrepreneurs do?*” (Audretsch and Thurik, 2003; Day, Reynolds and Lancaster, 2006; Gartner, 1989; Sarasvathy and Venkataraman, 2011), since studying entrepreneurial behaviour and entrepreneurial activities at the organizational level is more useful and rewarding than studying the personality traits of an entrepreneur.

Gartner (1989) established that it is the act of entrepreneurship that should be the focal point of entrepreneurial study. Since Gartner, the coverage of corporate entrepreneurship has gradually evolved from new business creation to organizational strategic renewal and corporate venturing (Covin and Slevin, 1991; Dabic, Ortiz-De-Urbina-Griado, and Romero-Martinez, 2011; Guth and Ginsberg, 1990; Kiessling, Harvey and Moeller, 2010; Marchisio, Mazzola, Sciascia, Miles and Astrachan, 2010; Montoro-Sánchez and Soriano, 2011; Sharma and Chrisman, 1999).

Strategic renewal and corporate venturing are two common entrepreneurial practices adopted by firms to drive business growth. Strategic renewal refers to the creation of new wealth through the combinations of new and existing resources and can include entrepreneurial activities such as “*refocusing a business competitively, making major changes in marketing or distribution, redirecting product development, and reshaping operations*” (Guth and Ginsberg, 1990, pp. 6). Corporate venturing, as defined by Sharma and Chrisman (1999, pp. 19), refers to the “*corporate entrepreneurial efforts that lead to the creation of new business organizations within the corporate organization*”. In essence, while strategic renewal involves doing things in a new and innovative way, serving customers in an innovative and proactive manner, and developing new markets for either existing products or new products, corporate venturing may involve entrepreneurial activities. These activities include the creation of new ventures or new businesses, which can be done by means of acquiring other firms or business units of other firms, forming joint ventures with other firms, and forming alliances with other firms in order to tackle new business opportunities (Marchisio et al., 2010; Teng, 2007).

This study used the concepts of entrepreneurship, corporate venturing and strategic renewal to investigate the entrepreneurial behaviour and activities of small and medium sized enterprises (SMEs) in China’s cosmetics industry by looking at the interactions

among the constructs of entrepreneurial orientation, customer orientation, knowledge sharing, and firm performance.

2.3. Entrepreneurial Orientation (EO)

The concept of EO was first proposed by Miller (1983). According to Miller (1983, pp. 770), entrepreneurship is “*the process by which organizations renew themselves and their markets by pioneering, innovation and risk-taking*”. EO is measured in terms of three behavioral components: innovation, proactiveness, and risk-taking (Miller, 1983). Previous research has revealed that the level of EO is a distinguishing factor in the success or failure of business organizations. Successful entrepreneurial firms are more entrepreneurial-oriented and this orientation is exemplified by their commitment to encouraging entrepreneurial behaviour such as innovation, proactiveness, and risk-taking in an organizational-wide manner (Casillas, Moreno and Barbero, 2010; Messeghem, 2003; Miller, 1983; Stam and Elfring, 2008; Voss, Voss and Moorman, 2005).

2.3.1. The Key Dimensions of EO

The three constructs of EO identified by Miller (1983) were readily accepted and adopted by other scholars such as Covin and Slevin (1989), Kansikas, Laakkonen, Sargo and Kontinen (2012), Kreiser, Marino and Weaver (2002), and Wiklund and Shepherd (2005). Lumpkin and Dess (1996) extended the three-construct framework to include autonomy and competitive aggressiveness. Recent studies on EO have seen the number of constructs varies from three to five, with the three-construct EO originally proposed by Miller (1993) being the mainstay. Table 2.1 outlines the major studies in EO since Miller and the dimensions used.

Table 2.1: Key Dimensions of EO Used in Previous Studies

Studies	Constructs	Dimensions Used
Miller (1983)	Three EO Construct	innovation, proactiveness and risk-taking
Covin and Slevin (1989)	Three EO Construct	innovation, proactiveness and risk-taking
Lumpkin and Dess (1996)	Five EO Construct	autonomy, competitive aggressiveness, innovativeness, risk-taking and proactiveness.
Barringer and Bluedorn (1999)	Three EO Construct	innovation, proactiveness and risk-taking
Wiklund (1999)	Three EO Construct	innovation, proactiveness and risk-taking
Lee and Peterson (2000)	Five EO Construct	autonomy, competitive aggressiveness, innovativeness, risk-taking and proactiveness.
Kreiser, Marino and Weaver (2002)	Three EO Construct	innovation, proactiveness and risk-taking
Messeghem, (2003)	Three EO Construct	innovation, proactiveness and risk-taking
Voss, Voss and Moorman (2005)	Five EO Construct	innovativeness, competitive scanning, employee autonomy, market proactiveness and risk-taking
Stam and Elfring (2008)	Three EO Construct	innovation, proactiveness and risk-taking
Casillas, Moreno and Barbero (2010)	Three EO Construct	innovation, proactiveness and risk-taking
Kansikas, Laakkonen, Sarpo and Kontinen, 2012	Three EO Construct	innovativeness, proactiveness and risk-taking

In this study, EO was considered as organizational-wide attributes, values and attitudes that motivate employees in an organization to engage in the processes and practices of

entrepreneurial activities. These motivating drives were measured by the widely recognized EO dimensions of innovation, proactiveness and risk-taking (Miller, 1983; Covin and Slevin, 1989; Kreiser et al., 2002; Wiklund and Shepherd, 2005).

2.3.2. Innovation and Innovativeness

i.) Innovation

Entrepreneurship is about creating wealth by putting innovative ideas into practice (Schumpeter, 1934). Innovation, in a business context, is about the exploitation of new or different ideas for the creation of a new or a significantly improved product, process or service that will enable a business to compete better in the future. Innovation is the earliest and most discussed dimension of EO (Kansikas et al., 2012; Schumpeter, 1934). According to Lumpkin and Dess (1996, pp. 142), Schumpeter was “*amongst the first to emphasise the role of innovation in the entrepreneurial process ... by which wealth was created when existing market structures were disrupted by the introduction of new goods or services*”. To Miller and Friesen (1983, pp. 222), the term innovation conflates both proactiveness and risk-taking, as to innovate means to introduce “*new products and production-service technologies, the search for novel solutions to marketing and production problems, the attempt to lead rather than to follow competitors (proactiveness), and risk-taking*”.

There are many ways to classify innovation (Yang and Hsu, 2010). Some scholars classify innovation into product and technological innovations (Lumpkin and Dess, 1996), others classify it into innovation in product and process (Adner and Levinthal, 2001; Akgun, Keskin and Byrne, 2009), while some use the level of innovation as a yardstick and classify innovation into incremental and radical innovations (Verganti, 2011). As this research examined the link between EO and firm performance of cosmetics manufacturers in China and firm performance was measured in terms of sales revenue growth and return on equity, innovation, in the context of this research, was defined as innovation in product and service (Dess and Lumpkin, 2005).

ii.) Innovativeness

Innovation and innovativeness are two closely related concepts which are often used interchangeably (Salavou, 2004; Wang and Ahmed, 2004). Innovativeness can be defined as the tendency of a firm to *“engage in new ideas, novelty, experimentation, and creative processes that may result in new products, services, or technological processes”* (Lumpkin and Dess, 1996, pp. 142). This definition of innovativeness is in line with that of innovation which, according to Drucker (1985, pp. 20), *“is the specific tool of entrepreneurs, the means by which they exploit change as an opportunity for a different business or a different service. It is capable of being presented as a discipline, capable of being learned, capable of being practiced. Entrepreneurs need to search purposefully for the sources of innovation, the changes and their symptoms that indicate opportunities for successful innovation. And they need to know and to apply the principles of successful innovation.”*

According to Hult, Snow and Kandemir (2003, pp. 404), innovativeness *“is the organization’s cultural orientation (values and beliefs) towards innovation. Innovativeness can be distinguished from the capacity to innovate, which is the ability of the organization to successfully develop or adopt new products and processes”*. Therefore, innovativeness is the cultural antecedent of innovation that facilitates a firm to develop the ability and capacity to innovate and exploit new technologies (Salavou, 2004; Wang and Ahmed, 2004). Innovativeness is related to the willingness to move away from the existing comfort zone and use different technologies, processes, methods and practices to accomplish a task in a more effective and/or more efficient manner (Scott and Gibbons, 2009). The willingness to step out from the comfort zone implies risk-taking (Shoham and Fiegenbaum, 2002), and the yearning to compete with others on a new frontier underscores a determination to exploit and capitalize market opportunities to achieve success (Dess and Lumpkin, 2005; Kansikas et al., 2012; Lieberman and Montgomery, 1988).

2.3.3. Proactiveness

Compared to the other two dimensions of EO, relatively less attention has been given to the dimension of proactiveness in entrepreneurial research. This does not mean that proactiveness is less important; proactiveness is in fact a critical factor to succeed in highly competitive markets since a proactive firm is more ready and capable to react to

market changes and gain first-mover advantages (Kim and Mauborgne, 2005). Proactiveness, in an organizational setting, can be considered as a firm *“taking [the] initiative by anticipating and pursuing new opportunities”* (Lumpkin and Dess, 1996, pp. 146). Proactiveness is intertwined with innovation and risk-taking as it represents a firm’s intension to break away from old patterns and to effectuate change through the introduction of a new product, service, or practice (Dess and Lumpkin 2005; Lumpkin and Dess, 1996). According to Lumpkin and Dess (1996, pp. 147), a proactive firm *“has the will and foresight to seize new opportunities, even if it is not always the first to do so”*. In other words, a proactive firm is motivated to direct its resources to areas that will sustain and improve the firm’s long-term competitiveness and profitability (Lumpkin and Dess, 1996; Stevenson and Jarillo, 1990).

Proactiveness and competitive aggressiveness are related yet different concepts (Lumpkin and Dess, 2001). Proactiveness involves *“seizing initiative and acting opportunistically in order to shape the environment, that is, to influence trends and, perhaps, even to create demand”* (Lumpkin and Dess, 1996, pp. 147). In other words, proactiveness is by nature anticipatory and forward-looking, and is triggered by opportunities that tend to set off a change rather than reacting to events. Competitive aggressiveness, on the other hand, is offensive and reactive; triggered by threat, it aims at overcoming rivals in intensive competition (Ferrier, 2001). According to Lumpkin and Dess (1996), the opposite of proactiveness is passiveness instead of reactivity and firms can operate at any point along the proactiveness-passiveness continuum. Passiveness is defined as *“indifference or an inability to seize opportunities or lead in the marketplace”* (Lumpkin and Dess, 1996, pp. 147).

Passiveness and reactivity are two concepts that contrast with one another. Reactivity is about *“a firm’s ability to adjust its business practices and competitive tactics in response to the perceived efficacy of its strategic actions”* (Green, Covin and Slevin, 2008, pp. 358). Reactivity is a culture which emphasizes following the leader with an eye to gaining second mover advantages if the firm is following close enough to the leader (Hoppe and Lehmann-Grube, 2001). In fact, many of the successful firms of today started their businesses by using the following-the-leader approach. For example, Amazon.com started its online bookstore two years after Book.com. Being the first in a

new market involves high costs and risks. The beauty of following the leader is that it allows the second mover to attack the market at a lower cost with lower risk (Hoppe, 2000). Reactiveness can contribute to firm performance and business success, especially when the market is uncertain and competitive with high levels of turbulence in both market and technology (Green et al., 2008; Hoppe and Lehmann-Grube, 2001).

Even though second mover advantages contribute to firm success, studies have found that first mover advantages are more important (Kerin, Varadarajan and Peterson, 1992). Proactive firms are more likely to achieve first-mover advantage, and proactiveness is a critical component of EO that relies primarily on first mover advantages and typically exploits new markets and services (Manev, Gyoshev and Manolova, 2005). Leading examples of first movers include Merrill Lynch in the financial market (Kerin et al., 1992) and “Research in Motion” (RIM), the manufacturer of Blackberry, in the business smart phone market. To enjoy first mover advantages in full, it is important for firms to target premium markets with patented innovations (Varadarajan, Yadav and Shankar, 2008). Therefore, innovation and innovativeness are crucial success factors to firms that rely primarily on proactiveness. Proactiveness emphasizes anticipating and reacting to changes in competition and involves initiating activities in an innovative way; all these activities entail dealing with uncertainties and taking risks (Dess and Lumpkin 2005; Miller, 1983; Morris and Paul, 1987).

2.3.4. Risk-taking

Risk is inherent in all business activities (Kansikas et al, 2012; Lumpkin and Dess, 1996; Miller, 1983; Podoynitsyna, Van der Bij and Song, 2012; Stam and Elfring, 2008). Risk can be defined as the *“uncertainty about outcome or events, especially with respect to the future...Business risk impairs forecasting and planning activities, and such impairment makes it harder for decision makers to create an organizational strategy and plan future actions”* (Bloom and Milkovich, 1998, pp. 285).

Miller (1983, pp. 770) argued that entrepreneurship is *“the process by which organisations renew themselves and their markets by pioneering, innovation and risk taking”*. Risk-taking is an important element of EO (Covin and Slevin, 1989; Dess and Lumpkin 2005; Miller, 1983; Stam and Elfring, 2008). It refers to the willingness of a

firm to pursue an emerging business opportunity in spite of the fact that there are uncertainties that lie beyond the control of the firm (Dess and Lumpkin, 2005). Entrepreneurs are generally perceived as having a higher propensity for risk-taking (Brockhaus, 1980) but it is by no means that entrepreneurs love to engage in high risk business. In fact, studies have found that entrepreneurs are, in general, only willing to take moderate risks (Begley, 1995). While facing different decisions that involve different risks and benefits, entrepreneurs tend to demonstrate different propensities to risk and are looking for an optimized combination of risks and benefits (Begley, 1995).

As early entrepreneurial studies conceptualized entrepreneurs as individuals engaged in business ventures, who worked for themselves and bore the risks personally (Lumpkin and Dess, 1996), risk-taking in earlier literature was associated with starting one's own business or self-employment instead of being employed by or working for an organization in exchange for compensation (Shane, 1994). Entrepreneurship nowadays is different as it is more related to risks arising from corporate activities (Covin and Slevin, 1989; Dess and Lumpkin 2005; Miller, 1983; Stam and Elfring, 2008) and risk-taking propensity, in this context, is about *"the degree to which managers are willing to make large and risky resource commitments - i.e., those which have a reasonable chance of costly failures"* (Miller and Friesen, 1978, pp. 923).

How risks are estimated and managed are important to the long-term survival of a business. Agency theory argues that *"people prefer to avoid both work and risk"* (Bloom and Milkovich, 1998, pp. 203). Prior research discovered that family firms take risks to a lesser extent than non-family firms do (Naldi, Nordqvist, Sjöberg and Wiklund, 2007). The concern about the possibility of *"losing family wealth created over a long period of time"* may explain why *"family firms suffer from strategic inertia and become risk averse ... especially high concentration of ownership may lead to risk-avoiding strategic choices"* (Naldi, Nordqvist, Sjöberg and Wiklund, 2007, pp. 36). While studies on family firms concluded that risk-taking in family firms is negatively related to performance (Naldi, Nordqvist, Sjöberg and Wiklund, 2007), those on non-family firms revealed that risk-taking activities can generate superior profit and can help entrepreneurial SME firms to gain sustainable competitive advantages (Hsu, Tan, Laosirihongthong and Leong, 2011; St-Jean, LeBel and Audet, 2010). Chatterjee,

Wiseman, Fiegenbaum and Devers (2003) believed continuous risk-taking helps a firm to sustain its competitive advantages, which ultimately leads to better performance and lower risks.

2.4. Firm Performance

Performance in business means “*deploying and managing well the components of the causal model(s) that lead to the timely attainment of stated objectives within constraints specific to the firm and to the situation. Performance is therefore case specific and decision-maker specific. Achieving congruence as to the definition of the parameters of performance and the causal model(s) that lead to it is one of the essential functions of management*” (Lebas, 1995, pp. 29). Neely, Mills, Platts, Gregory and Richards (1996, pp. 424) simplified this definition and summed up performance in business as nothing more than a measure of “*the efficiency and effectiveness of action*”. However, there is a wide range of metrics, financial and non-financial, available for measuring the efficiency and effectiveness of business operations (Hofer, Eroglu and Hofer, 2012; Robinson, 2010; Venkatraman and Ramanujam, 1986).

2.4.1. Performance Measurement

Performance measurement can be understood as the process of quantifying and measuring the effectiveness and efficiency of the actions leading to performance (Neely et al., 1996; Neely et al., 2005). In a review of previous research relating to firm performance in various settings, Ghalayini and Nobble (1996) categorized performance measurement into two groups: traditional metrics and new metrics. Traditional metrics, according to Neely et al., are associated with the financial performance of a firm, such as return on investment, profitability, efficiency and sales revenue, while new metrics are related to the use of new technologies, such as Computer Integrated Manufacturing (CIM), and new management philosophies, such as Total Quality management (TQM) and Just in Time (JIT).

Many new metrics have been developed for performance measurement during the last two decades, e.g., Balance Scorecard from Kaplan and Norton (1992) and Performance Prism from Neely, Adams and Crowe (2001). Though the effectiveness and relevance of these metrics in measuring business performance have been widely discussed and debated by academics, their application in real business settings has been limited as there is no one-size-fit-all metric for all business contexts (Medori and Steeple, 2000). As a result, traditional metrics, such as growth and profitability (Abernathy, 2008; Buss, 2002; Collis and Rukstad, 2008; Shahzada, Jan, Wim and Herwig, 2009), still prevail over the new metrics.

2.4.2. Growth as a Performance Measurement Metric

In the arena of SMEs, business growth is studied with respect to two distinct dimensions: the growth in the number of SMEs and the growth of an individual SME (Blackburn and Smallbone, 2008). As regards the first dimension, it has been widely accepted that the health of an economy hinges very much on a balanced mix of large and small firms (Carland and Carland, 2004). Studies also found that a large number of SMEs improves the vibrancy and resilience of an economy and has a positive effect on social stability (Birch, 1987).

Business growth on a firm-level refers to the increase in business activity, or more precisely, growth in sales revenue (Chandler, McKelvie and Davidsson, 2009; Mueller, Titus Jr., Covin and Slevin, 2010; Van de Ven and Ferry, 1980). For most firms, growth in sales revenue reduces the weighting of total costs and hence increases firm profitability (Pindyck and Rubinfeld, 2009). As this study focused on the performance of individual cosmetics manufacturers, unless otherwise specified, growth in this study refers to business growth of individual firms.

Growth is important to SMEs as these firms are more likely to go bust than larger corporations. Growth in sales revenue is the best way to strengthen their foothold and long-term viability (Blackburn and Smallbone, 2008). Prior studies concluded that sales revenue growth in SMEs is heavily dependent on the capabilities of the senior management team (Poutziouris, 2003). The speed of business growth is more related to intangible assets than tangible assets (Lichtenstein and Brush, 2001). Growth,

especially growth in the long-term, cannot be achieved by simply following market trends; a firm needs to actively pursue product and marketing strategies to grab emerging market opportunities (Capon, 2008; Poutziouris, 2003; Smallbone, Leigh and North, 1995).

2.4.3. Return on Equity as a Performance Measurement Metric

Return on equity (ROE), return on assets (ROA) and return on investment (ROI) are the three most commonly used financial performance indicators of firms, regardless of their size (Denis, 1994; Kumar and Sharma, 2011; Ross, Westerfield and Jaffe, 2009; Swieringa and Weick, 1987; Van Horne, 1998). ROA is calculated by multiplying profit margin and asset turnover, where profit margin is the ratio of profit and sales revenue and asset turnover is the ratio of sales revenue and total book value assets (Ross et al., 2009). ROI, also known as rate of return (ROR) or return on invested capital (ROIC), is a common yardstick for measuring investment performance. The problem with ROI is that if the investment includes intangible assets, such as brand name and goodwill, the ROI figure will be unrealistic (Stead, 1995). ROE can be calculated by multiplying profit margin, asset turnover and financial leverage (Ross et al., 2009). As ROA is the multiplication of profit margin and asset turnover, ROE can also be calculated by multiplying ROA and financial leverage. Financial leverage is the ratio of book value of total asset and book value of ordinary share equity (Ross et al., 2009).

As a metric of a firm's performance, ROE is particularly relevant because it measures the capability of a management in utilizing funds from shareholders (Ross, Westerfield and Jaffe, 2009; Swieringa and Weick, 1987; Van Horne, 1998). ROE measures a firm's profitability by revealing, on a yearly basis, how much profit it has generated with the money invested by shareholders (Denis, 1994; Ross et al., 2009). With maximizing the financial return of shareholder equity being the objective (de Wet and du Toit, 2007; Ross, Westerfield and Jaffe, 2009), ROE has been widely considered as a suitable measure of whether a firm has been able to attain the ultimate purpose of creating wealth for its shareholders (de Wet and du Toit, 2007).

2.5. Knowledge and Knowledge Management

Knowledge is a strategically essential resource owned by a firm (Song and Kim, 2009; von Krogh, Nonaka and Rechsteiner, 2012). It can be considered as what employees know about the products the firm produces, the processes that are used to produce these products, the customers who might purchase these products as well as the mistakes made or success gained in the delivery of the product (Bollinger and Smith, 2001). Knowledge is related to facts and information, but is more than a collection of information and/or facts (Davenport and Prusak, 1998). According to Debowski (2006), *“knowledge is the process of translating information (such as data) and past experience into a meaningful set of relationships which are understood and applied by an individual”* (Debowski, 2006, pp. 16). In other words, knowledge forms the basis of our understanding of a situation. This understanding is the starting point from where a reaction can be formed.

Knowledge exists in people and knowledge possessed by people in a firm constitutes the intellectual capital for the firm to use (Debowski, 2006). To convert knowledge into value, the concept of knowledge management offers organizations a means to identify, collect, classify, analyze, and organize the mental capacity of all their members and to disseminate and share the intellectual assets for the benefit of their long-term performance (Debowski, 2006).

Knowledge management and the learning organization are two different but closely related concepts. As a firm learns, it continuously gains and applies knowledge. The learning organization exhibits qualities of best knowledge management practices (Debowski, 2006; Song and Kim, 2009; Weldy and Gillis, 2010) by encouraging its members to *“grow and develop, to share their knowledge and learning with others, and to learn from errors”* (Debowski, 2006, pp. 16).

2.5.1. Types of Knowledge

Polanyi (1967) and Nonaka (1994) asserted that knowledge exists in organizations in two major forms: explicit knowledge and tacit knowledge. Explicit knowledge is knowledge that can be stored in document formats, be articulated in a formal and systematic way, and disseminated in certain codified forms (Nonaka, 1994; von Krogh et al., 2012). There exists a variety of information and communication technology (ICT)

systems to store, articulate, manipulate, and disseminate this type of knowledge for the benefit of an organization (Saunders and Miranda, 1998). Codified knowledge can be stored, transmitted, accessed and exchanged among members in an organization using operation manuals, work instructions, operating procedures, guidelines, policies, and other job related documents (Nonaka, 1994; von Krogh et al., 2012).

Tacit knowledge contrasts with explicit knowledge in that it is deeply rooted in experience, behaviour, thoughts and actions of an individual and, in some cases, may be context dependent (Alavi and Leidner, 2001; Berman et al., 2002; Nonaka, 1994). This type of embodied knowledge can only be shared informally through person-to-person interactions or through procedures such as coaching, supervision, experience or story sharing, and mentoring (Debowski, 2006; McDermott and O'Dell, 2001).

2.5.2. Knowledge Management and Sharing in Organizations

Knowledge management is important to the success of an organization (Alavi and Leidner, 2001; Becerra-Fernandez and Sabherwal, 2001; Berman, Down, and Hill, 2002; Bock, Zmud, Kim and Lee, 2005; Choi, Lee and Yoo, 2010; Liu, 2011). The challenge in knowledge management is that knowledge, be it explicit or tacit, which inherently resides in the heads of each of the individual employees (Nonaka and Konno, 1998), can only be productive if it is utilized and mobilized (Fahey and Prusak, 1998). There are two basic methods to leverage knowledge and to convert knowledge into value: firstly, by encouraging employees to apply their knowledge in their work so that work in an organization can be performed in a more effective and efficient manner (Grant, 1996); and secondly, by encouraging employees in an organization to share knowledge with their coworkers (Davenport and Prusak, 1998). The first method has been extensively researched in human resource management (HRM) literature and the challenges of an organization in this regard is to put in place appropriate procedures/processes and incentive measures designed to leverage this valuable knowledge resource (Grant, 1996).

The second method calls on employees to share what they know by giving one's knowledge and know-how to others and taking knowledge and know-how from others (Davenport and Prusak, 1998). This is a complex matter as it requires a mature information environment consisting of people, processes, as well as collaborative and

interactive tools (Cress and Kimmerle, 2008). This information environment in fact involves the co-existence and interplay of two important processes of knowledge sharing and creation. Knowledge sharing in an organization is achieved as and when one knowledge owner practices his knowledge, and collaborates or interacts with others in the same organization. This knowledge sharing process goes hand in hand with knowledge creation, as the knowledge of one colleague can be evaluated, critically examined, updated, modified or enriched by others during the sharing process. As different knowledge types are shared and converted, new knowledge may emerge through further interaction, practice and experimentation (Davenport and Prusak, 1998). The challenge in managing knowledge sharing is to understand where and in what forms knowledge exists and to create the right forums and channels to offer the means and willingness for sharing to take place.

Grant (1996, pp. 120), in developing the knowledge-based theory for corporations, argued that the most important role of a firm is to integrate “*the specialist knowledge resident in individuals into goods and services*” and the task of its management is to establish “*the coordination necessary for this knowledge integration*”. As pointed out by Debowski (2006, pp. 35), “*successful knowledge management requires an open management style which encourages sharing across the organization*”. It is the responsibility of management to provide an environment, culture or framework which supports and facilitates knowledge sharing, creation and renewal (Debowski, 2006; Song and Kim, 2009).

2.5.3. Knowledge Donating and Knowledge Collecting

The sharing of knowledge can be broken down into two distinct parts: the act of transmitting knowledge, and the act of absorbing the knowledge transmitted (Davenport and Prusak; 1998). Also known as knowledge donating (Lin, 2007; van den Hooff and de Ridder, 2004), knowledge transmission is about “*communicating to others what one’s personal intellectual capital is*” (van den Hooff and de Ridder, 2004, pp. 118). Knowledge absorption, also termed knowledge collecting by some scholars (Lin, 2007; van den Hooff and de Ridder, 2004), is about “*consulting colleagues in order to get them to share their intellectual capital*” (van den Hooff and de Ridder, 2004, pp. 118). The former refers to the externalizing and passing on of knowledge from one

knowledge worker to the other; the latter occurs when a knowledge worker actively seeks out knowledge sources - both of these involve a knowledge worker's own initiative in effecting the reciprocal process. Successful knowledge sharing is determined by, in the first place, the habit and willingness of knowledge workers to discover and/or be receptive to knowledge sources, and secondly the presence of the right culture and incentives that motivate people to share what they know and turn knowledge into a competitive advantage (Lin, 2007; van den Hooff and de Ridder, 2004).

2.6. Customer Orientation

Market orientation, as proposed by Narver and Slater (1990), is made up of three behavioural components: customer orientation, competitor orientation, and inter-functional coordination. Customer orientation is the most discussed dimension of market orientation (Singh and Koshy, 2012; Zablah, Franke, Brown and Bartholomew, 2012). The aim of being customer-oriented is to create sustainable competitive advantage by adding superior value for customers (Chang and Zhu, 2011; Gebauer, Gustfsson and Witell, 2011; Liu, Luo and Shi, 2002; Rundh, 2011). Customer orientation can be achieved by knowing the needs of both existing and potential customers in the specific market that a firm is targeting, and developing products and services that best meet these needs (Narver and Slater, 1990).

2.6.1. Customer Orientation and Firm Performance

The study of customer orientation can be traced to that of Drucker (1954, pp. 37) who argued that *“it is the customer who determines what a business is”*. Successful firms are those that focus their resources on creating value for customers and maintaining a growing number of profitable customers through customer-orientated practices (Berthon, Hulbert and Pitt, 2004; Singh and Koshy, 2012).

Different scholars have given different definitions to customer orientation. Brown, Mowen, Donava and Licata (2002, pp. 111) defined customer orientation as *“an employee's tendency or predisposition to meet customer needs in an on-the-job context”* and *“a self-assessment of an employee's tendency to try to meet customer needs and the*

degree to which he or she enjoys doing so". Saxe and Weitz (1982, pp. 344) referred customer orientation as *"the degree to which salespeople practice the marketing concept by trying to help their customers make purchase decisions that will satisfy customer needs"* and argued that employees in highly customer-oriented organizations engage in behaviors that aim at increasing long-term customer satisfaction instead of short-term benefit. Gatignon and Xuereb (1997, pp. 78) defined customer orientation as a *"firm's ability and will to identify, analyze, understand, and answer user needs"*. Jones, Busch and Dacin (2003, pp. 323) defined customer orientation as *"a selling behavior in which salespeople assist customers to satisfy their long-term wants and needs versus a sales orientation, which places the selling organization and/or salespersons before the customers"*. Auh and Menguc (2007, pp. 1024) defined customer orientation as the act of *"generating information about customers through monitoring and assessing their changing needs and wants, disseminating the information generated throughout the organization, and revising business strategies to enhance customer value"*.

In this study, customer orientation was defined as a firm's effort to bring value to its customers by continuously assessing their current and future needs and developing new products and services to meet those needs (Auh and Menguc, 2007; Chang and Zhu, 2011; Singh and Koshy, 2012; Steinman, Deshpande and Farley, 2000; Zablah et al., 2012). Studies have established that customer-oriented organizations, which focus their resources and activities on providing better customer services, outperform their production-oriented competitors (Donavan, Brown and Mowen, 2004). But this competitive edge can only be sustained if customer orientation is implemented effectively and consistently across the board and with a long-term view (Mueller and Gemunden, 2009).

Studies have confirmed the positive impact of management endorsement of customer-oriented behavior in effecting better customer service (Peccei and Rosenthal, 1997; Stock and Hoyer, 2005). Top management's commitment to customer orientation is a must in motivating and mobilizing employees to provide high quality customer services (Judd, 2003). Recognizing that *"the customer matters most and comes first"*, customer orientation can help a firm to improve decision-making, optimize resource allocation and streamline inefficient processes (Christopher, Payne and Ballantyne, 1993, pp. 40)

In studying customer orientation in Japanese firms, Deshpande, Farley and Webster (1993) concluded that the culture of putting the customer first can increase profitability of an organization and argued that by staying customer-oriented “*while not excluding those of all other stakeholders such as owners, managers and employees*”, customer orientation facilitates the development of a “*long-term profitable enterprise*” (Deshpande et al., 1993, pp. 27).

Apart from profitability, customer orientation contributes to firm performance through intangibles such as high levels of customer satisfaction and trust. Trust gives rise to loyalty, which may likely lead to very positive results such as positive word of mouth, repetitive sales, good will and enhanced brand image (Aydin and Özer, 2005). These intangible assets, together with strong returns generated from quality customer service, provide a solid foundation upon which a firm may proactively expand.

2.7. Conclusion

This Chapter provided a literature review of entrepreneurship, EO, firm performance, knowledge sharing, and customer orientation. It gave a brief account of the development of entrepreneurial research from its perception as a personal endeavor to its modern-day conception as being the fruit of collective efforts. The chapter also provided a critical review of the key dimensions of EO and how these dimensions work together to create wealth in an organizational setting. The review examined the theories and debates on firm performance, knowledge management and customer orientation. These, together with EO, made up the constructs upon which the research framework was developed. The research gaps, research questions and the proposed framework, as well as the related research hypotheses, are presented in Chapter 3.

Chapter 3 Research Questions, Model and Hypotheses

3.1. Introduction

The debates and theories relating to entrepreneurship, entrepreneurial orientation, firm performance, knowledge sharing, and customer orientation were critically reviewed in Chapter 2. This Chapter describes the research gap, identifies the research questions for this study, and presents the research model and hypotheses.

3.2. Research Gap

The literature review in Chapter 2 revealed several research gaps that need to be addressed in the field of entrepreneurship research. First, though the relationship between entrepreneurial orientation and firm performance has been widely discussed by scholars and practitioners, there is a notable lack of research on the moderating effects of knowledge sharing and customer orientation between entrepreneurial orientation and firm performance. Secondly, the majority of studies on entrepreneurial orientation were carried out in the West; studies of entrepreneurial phenomena in China, now one of the economic powerhouses of the world, have been limited. This study was aimed at filling the void by investigating the interplay between entrepreneurial orientation and firm performance in the cosmetics manufacturing industry in China, and exploring how this relationship is affected by customer orientation and knowledge sharing. To the researcher's best knowledge, this study was the first attempt to explore if customer orientation and knowledge sharing moderate the relationship between entrepreneurial orientation and firm performance of cosmetics manufacturers in China.

3.3. Research Questions

To fill the identified research gap, the following three board questions were developed.

Research Question 1: What are the effects of entrepreneurial orientation on firm performance?

Research Question 2: What are the effects of customer orientation and knowledge sharing on firm performance?

Research Question 3: What are the respective moderating effects of customer orientation and knowledge sharing on the relationship between entrepreneurial orientation and firm performance?

3.4. Research Framework

To answer these three research questions, a conceptual model, illustrated in Figure 3.1 below, was developed based on the concepts and findings from previous research reviewed in Chapter 2.

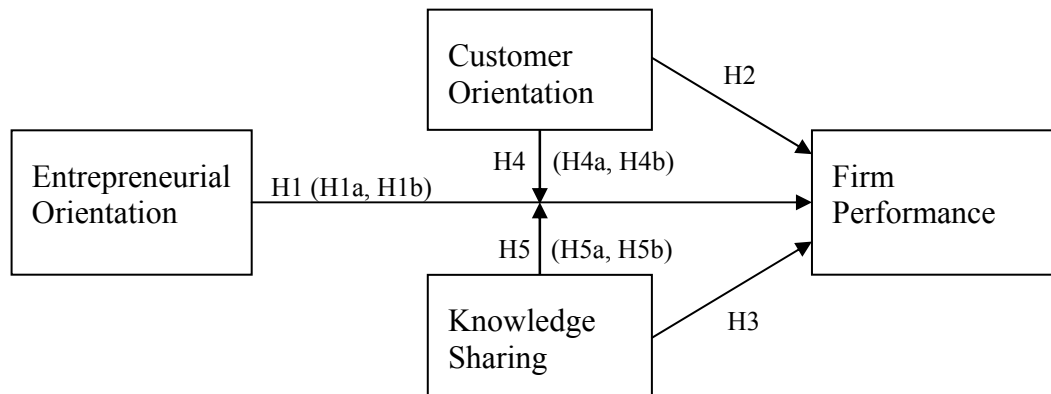


Figure 3.1: Research Model

The above model features four constructs, namely, entrepreneurial orientation, firm performance, knowledge sharing, and customer orientation. The four constructs are interconnected by hypothesised direct and indirect causal relationships. The development and justifications of the hypothesized causal relationships are discussed in section 3.5.

3.5. Research Hypotheses

Based on the literature reviewed and the research questions discussed above, the following five hypotheses were developed.

3.5.1. Hypothesis 1

To address the gap in relation to the entrepreneurial orientation and firm performance link, the first research question of this study was formulated as “what are the effects of entrepreneurial orientation on firm performance?” To help answer this question, the following two subordinate questions were developed.

RQ1-1: Can entrepreneurial orientation contribute to firm performance?

RQ1-2: If yes, what is the level of direct influence of entrepreneurial orientation on firm performance?

Entrepreneurship is “*the pursuit of opportunity without regard to resources currently controlled*” (Stevenson, Roberts and Grousbeck, 1989, pp. 5). It is a management and value creating process adopted to combine resources in a unique way to exploit business opportunities and create wealth (Morris, Kuratko and Covin, 2005, Stevenson et al., 1989). In the pre-industrialized days, entrepreneurship was associated with small and new business ventures (Carland, Hoy, Boulton and Carland, 1984). It referred to the endeavours of an individual to identify and exploit business opportunities in return for a profit.

In recent years, mainstream research in entrepreneurship has witnessed a shift from the individual entrepreneurial level to the organizational level (Montoro-Sanchez and Soriano, 2011; Phan, Wright, Ucbasaran and Tan, 2009). Entrepreneurial orientation is an essential prerequisite for entrepreneurship to take off and thrive in any organization (Lumpkin and Dess, 1996). There are three essential elements of entrepreneurial orientation, namely, innovation, proactiveness, and risk-taking (Miller, 1983). Prior empirical studies have established that entrepreneurial orientation is associated with firm performance (Covin, Green and Slevin, 2006; Rauch, Wiklund, Lumpkin, and Frese, 2009).

Entrepreneurial orientation plays a crucial role in business success (Montoro-Sanchez and Soriano, 2011; Phan et al., 2009; Shimizu, 2011). Montoro-Sanchez and Soriano (2011) demonstrated that firm performance is based directly on the entrepreneurial

qualities of a business owner or the management team. Zhao, Li, Lee and Chen (2011) provided support for a positive relationship between entrepreneurial orientation and firm performance and posited that entrepreneurial orientation should be treated as a criterion in measuring the long-term viability of a firm. The first hypothesis was therefore as follows.

Hypothesis 1: Entrepreneurial orientation positively affects the firm performance of cosmetics manufacturers in China.

3.5.2. Hypotheses 2 and 3

The second research question of this study was “what are the effects of customer orientation and knowledge sharing on firm performance?” To answer this question, the following two subordinate questions were explored.

RQ2-1: Can customer orientation and knowledge sharing contribute to firm performance?

RQ2-2: If yes, what are the respective levels of direct influence of customer orientation and knowledge sharing on firm performance?

Customer orientation is one of the key concepts of market orientation (Narver and Slater, 1990). Good knowledge and understanding of customers not only enables a firm to create superior value to the organization itself but also adds value for its customers. Customer orientation can help a firm to develop a better relationship with its customers (Rust, Zahorik, and Keiningham, 1996; Williams and Attaway, 1996; Yen et al., 2011). Promoting customer orientation amongst employees will encourage staff to understand customer needs and work proactively and creatively to exceed those needs (Rust et al., 1996; Yen, Wang and Horng, 2011). Happy, well-served customers will generate more business, make the firm more competitive, and ultimately improve a firm’s performance (Rust et al., 1996; Yen et al., 2011). The second hypothesis was therefore as follows.

Hypothesis 2: Customer orientation positively affects the firm performance of cosmetics manufacturers in China.

Competitiveness of a firm can be measured by a multitude of standards, including productivity and innovative activities (Porter, 1990), and a firm's ability to create and share knowledge assets (Al-Alawi, Al-Marzooqi and Mohammed, 2007). Studies have shown that knowledge sharing can improve productivity and encourage innovative activities (Dyer and Nobeoka, 2000; Liao, Fei and Chen, 2007). Knowledge sharing enables employees to exchange both explicit and tacit knowledge, establish common goals and coordinate work activities effectively (Baba, Gluesing, Ratner and Wagner, 2004). By encouraging knowledge sharing, a firm can create and leverage a wealth of information for the benefit of the entire organization (De Vires, van den Hooff and de Ridder, 2006; Hsu, 2008). Some scholars contend that knowledge sharing boosts firm performance because knowledge sharing among employees can increase the overall capability and efficiency of a firm (Baba, Gluesing, Ratner and Wagner, 2004; Hsu, 2008; Huang, 2009). Knowledge sharing is a process through which individuals with different talents and competencies contribute to the intellectual capital of the whole (Connelly and Kelloway, 2003). Effective knowledge sharing practices contribute to effective resources management, as people with the right calibre can be identified and assigned to take up the most suitable job (Maiti, Chatterjee and Bangdiwala, 2004), and effective resources management is an essential building block of business success. The third hypothesis was therefore as follows.

Hypothesis 3: Knowledge sharing positively affects the firm performance of cosmetics manufacturers in China.

3.5.3. Hypotheses 4 and 5

The third research question of this study was *“what are the respective moderating effects of customer orientation and knowledge sharing on the relationship between entrepreneurial orientation and firm performance?”* To help answer this question, the following subordinate questions were raised.

RQ3-1: Is there any moderating effect of customer orientation and knowledge sharing between entrepreneurial orientation and firm performance?

RQ3-2: If yes, what are the respective moderating effects of customer orientation and knowledge sharing on the relationship between entrepreneurial orientation and firm performance?

Customer orientation is the first moderator proposed in this study. Customer orientation helps a firm direct its resources to best serve its customers, which eventually results in the creation of a favourable ground for entrepreneurial orientation to take effect (Baker and Sinkula; 2009; Raju, Lonial and Crum, 2011). Firms with higher levels of customer orientation have a better understanding of the needs of their customers (Berthon, Hulbert and Pitt, 2004; Brown, Mowen, Donava and Licata, 2002; Hunt and Morgan, 1995; Steinman, Deshpande and Farley, 2000). Entrepreneurial orientation emphasizes innovation, proactiveness, and risk-taking (Miller, 1983; Stam and Elfring, 2008). A firm that understands and actively meets customer needs enjoys a tremendous competitive advantage over its rivals in coping with market uncertainties (Gatignon and Xuereb, 1997). Adherence to customer orientation promotes innovation and encourages the taking of measured risk in pursuit of profitable opportunities. The fourth hypothesis was therefore as follows.

Hypothesis 4: Customer orientation moderates the relationship between entrepreneurial orientation and the firm performance of cosmetics manufacturers in China.

Knowledge sharing is the second moderator proposed in this study. Baba et al. (2004) asserted that knowledge sharing is positively related to team building, problem solving and performance. Knowledge sharing promotes efficiency, facilitates resources allocation (Connelly and Kelloway, 2003; Maiti, Chatterjee and Bangdiwala, 2004), and is also linked to innovation and profitability (Dyer and Nobeoka, 2000; Liao, Fei and Chen, 2007). Smith and McKeen (2003) contended that firms displaying high levels of knowledge sharing behaviour are more proactive in creating opportunities rather than waiting to respond to opportunities created by others. The fifth hypothesis was therefore as follows.

Hypothesis 5: Knowledge sharing moderates the relationship between entrepreneurial orientation and firm performance of cosmetics manufacturers in China.

3.6. The Variables and Measuring Scales

There were four variables (one independent variable, one dependent variable and two moderating variables) in the research model: entrepreneurial orientation was the independent variable; firm performance was the only dependent variable, while customer orientation and knowledge sharing were the two moderating variables.

To gain a holistic view of a variable, all variables in the research model were measured by multi-item scales. Validity and reliability of the questionnaire items were ensured as all measurement scales were adapted from prior studies with acceptable validity and reliability test results. The questionnaire items measuring the three aspects of innovativeness, proactiveness, and risk-taking of entrepreneurial orientation were adapted from Engelen (2010). The questionnaire items measuring sales growth, return on equity and respondent perception on overall performance of a firm were adapted from Qu (2009). Two more items from Kumar, Subramanian and Yauger (1998) were added to the firm performance scales to capture the return on asset and return on investment dimensions of firm performance. Questionnaire items for customer orientation were adapted from Kahn (2001), and those for measuring both the donating and collection dimensions of knowledge sharing were adapted from Lin (2007) and van den Hooff and de Ridder (2004).

3.7. Summary

This Chapter elaborated on the research gap, the research questions, the research model, and the hypotheses. It was hypothesized that there existed both direct and indirect relationships among the four variables of entrepreneurial orientation, firm performance, customer orientation, and knowledge sharing. Details of the methodology and procedures to be adopted to examine the above relationships are discussed in the next Chapter.

Chapter 4 Methodology

The previous chapter explained and justified the development of the research model, including the five research hypotheses. In this Chapter, the methodology used for conducting the research is presented and justified. The paradigm and the philosophy upon which this study is based, the research design and questionnaire, and the techniques adopted to ensure the validity and reliability of the study is described. Finally, analyses of the data are discussed and ethical issues addressed.

4.1. Research Questions and Research Hypotheses

The aim of this study was to discover the perception of owners and managers of cosmetics manufacturers in China in relation to the following two issues: i) the entrepreneurial orientation of the firms that they own or are employed to manage; and ii) the performance of their firms in comparison to their competitors. This study was cross-sectional in nature and examined a snapshot of the causal relationship between entrepreneurial orientation and firm performance.

Grounded in the literature reviewed in Chapter 2 and the model presented in Chapter 3, a questionnaire was developed to investigate the relationships among the four constructs of the research model, namely: entrepreneurial orientation, knowledge sharing, customer orientation, and firm performance. This study examined both direct and indirect relationships between entrepreneurial orientation and firm performance by testing five hypotheses in relation to the model developed in Chapter 3.

4.1.1. The Research Questions

There were three broad research questions for this study.

Research Question 1: What are the effects of entrepreneurial orientation on firm performance?

Research Question 2: What are the effects of customer orientation and knowledge sharing on firm performance?

Research Question 3: What are the respective moderating effects of customer orientation and knowledge sharing on the relationship between entrepreneurial orientation and firm performance?

In order to address these broad questions, the following specific questions were formulated to provide more detailed answers:

1. Can entrepreneurial orientation contribute to firm performance? If yes, what is the level of direct influence of entrepreneurial orientation on firm performance?
2. Can knowledge sharing and competitor orientation contribute to firm performance? If yes, what are their respective levels of direct influence on firm performance?
3. Is the relationship between entrepreneurial orientation and firm performance moderated by knowledge sharing and competitor orientation? If yes, what are the respective levels of moderating effects of customer orientation and knowledge sharing on the relationship between entrepreneurial orientation and firm performance?

4.1.2. Research Hypotheses

Based on the above research questions, a research model (see Figure 1 in Chapter 3) and the following five hypotheses were proposed.

Research hypothesis 1: Entrepreneurial orientation has a positive direct influence on the firm performance of cosmetics manufacturers in China.

Research hypothesis 2: Customer orientation has a positive direct influence on the firm performance of cosmetics manufacturers in China.

Research hypothesis 3: Knowledge sharing has a positive direct influence on the firm performance of cosmetics manufacturers in China.

Research hypothesis 4: Customer orientation moderates the influence of entrepreneurial orientation on the firm performance of cosmetics manufacturers in China.

Research hypothesis 5: Knowledge sharing moderates the influence of entrepreneurial orientation on the firm performance of cosmetics manufacturers in China.

4.2. Research Paradigm

A paradigm refers to a fundamental belief system that governs our understanding of the world (Bryman, 2008; Guba and Lincoln, 1994). A paradigm, in the context of academic research, is a reasoning approach which guides a researcher in investigating and interpreting a phenomenon. Paradigms in social science research are divided into the two predominant categories of positivism and interpretivism (Bryman, 2008; Denscombe, 2002).

In order to understand the above two paradigms, a distinction must be made between research paradigms and research methods. A research paradigm is associated with the beliefs upon which a researcher bases the study (Bryman, 2008; Cavana, Delahaye and Sekaran, 2001). Research methods, on the other hand, are the ways and means of conducting the research. The methods include: the processes of selecting a data collection method appropriate for the particular field of study; choosing the analysis technique or combination of techniques to accurately capture the characteristics of the sample frame; and using the right interpretation methods to facilitate a thorough discussion of the phenomena uncovered (Bryman, 2008; Cavana et al., 2001).

4.2.1. Interpretivism vs. Positivism

Interpretivism assumes that *“social reality is something that is constructed and interpreted by the people - rather than something that exists objectively ‘out there’”* (Denscombe, 2002, pp. 18). From the perspective of an interpretivist, the world does not have any tangible or material qualities that *“allow it to be measured, touched or observed in some literal way”* (Denscombe, 2002, pp. 18).

The underlying belief of positivism, however, is that there is a single, stable and law-like reality that can be objectively observed and analyzed (Bryman, 2008; Levin, 1988; Perry and Gummesson, 2004). According to Denscombe (2002, pp. 14), positivism is *“an approach to social [sciences] research that seeks to apply the natural science model of research to investigation of social phenomena and explanations of the social world.”* The positivist paradigm is, in general, experimental and objective (Bryman, 2008; Levin, 1988; Perry and Gummesson, 2004) as the basic belief of this paradigm is that *“there are patterns and regularities, causes and consequences in the social world just as there are in the natural world”* (Denscombe, 2002, pp. 14).

Interpretivism favours subjective accounts, attempting to arrive at an understanding of the world through the subjects' experiences (Bryman, 2008). Positivism, on the other hand, emphasizes the objectivity of the reality, seeking to measure it by scientific methods (Bryman, 2008; Hirschheim, 1985). The objectivity of positivism gives researchers the distinct advantage of conducting their work with minimal or no interference from the phenomenon or phenomena being studied, which some argue provides more rigor, greater validity, repeatability and reliability (Bryman, 2008; Cavana et al., 2001).

4.3. Rationale for Using a Quantitative Approach

As the positivism paradigm assumes that all events and relationship among events are knowable and can be measured and uncovered by the application of appropriate methodologies, the task of the researcher is to find out the truth behind the events and uncover the relationships among them (Bryman, 2008; Levin, 1988; Perry and Gummesson, 2004).

The positivism paradigm is generally associated with the use of deductive approaches to attain knowledge and to verify the facts and causal relationships among them (Cavana et al., 2001; Duffy, 1985; Weber, 2004). Deductive is a research approach to investigate *“the relationship between theory and research in which the latter is conducted with reference to hypotheses and ideas inferred from the former”* (Bryman, 2008, pp. 693). This approach of reasoning entails quantitative surveys and hypothesis testing.

Quantitative research is “*an inquiry into a social or human problem, based on testing a theory composed of variables*” (Creswell, 1994, pp. 2). It refers to the quantification of observations and the mathematical expression of the relationships between two observed variables (Bryman, 2008). By contrast, qualitative research emphasizes “*words rather than quantification in the collection and analysis of data*” (Bryman, 2008, pp. 697). A quantitative approach calls for the comparison of numerical data and allows for the objective testing and measurement of the strength between two variables (Cavana et al., 2001). The findings generated from the application of this approach are more reliable and representative, hence more valid and generalizable to other settings (Bryman, 2008; Cavana et al., 2001). On the other hand, as the qualitative approach focuses on the subjective aspects of human activities, the findings are considered by some to be less representative and therefore less generalizable (Bryman, 2008).

This study adopted the positivist view and was conducted based on the positivist assumption that the world is objective (Bryman, 2008; Cavana et al., 2001; Perry and Gummesson, 2004). A positivism approach was taken because the purpose of this study was to test a research model that had been constructed to examine the direct and indirect causal relationships between a predefined independent variable (entrepreneurial orientation) and a dependent variable (firm performance) in the natural social setting of the cosmetics industry in China (Bryman, 2008; Cavana et al., 2001; Weber, 2004). A quantitative methodology, employing statistical methods and a survey questionnaire, were necessary to cover a large sample size within a short time frame and in an objective manner to produce reliable and valid results capable of being generalized to other settings (Bryman, 2008; Cavana et al., 2001).

4.4. Research Design

Research design constitutes the detailed plan to achieve success in research (Bryman, 2008; Cavana et al., 2001). It provides a step-by-step guide on how a particular study should be conducted, how data should be collected, which sampling approach to use and how data should be analyzed and validated (Bryman, 2008; Cavana et al., 2001; Hussey and Hussey, 2003; Neuman, 2006). The aim of this guide is to provide structure for testing hypotheses, to interpret the results and seek answers to the research questions so that the findings contribute to a field of study or the community at large (Bryman, 2008).

A research methodology and method are two different yet easily confused concepts (Checkland, 1999). While a research method refers to the specific tool that one used to sample, collect and analyze data (Hussey and Hussey, 2003), a research methodology is a system of methods and rules to facilitate the collection and analysis of data (Feldhusen and Bungert, 2009). The research methodology used by this study was quantitative and the methods for data collection and analysis were questionnaire survey and statistical tools. The development of the survey questionnaire and the statistical tools that were used to analyze the collected data are elaborated in Sections 4.7 and 4.10 respectively.

4.4.1. Cross-Sectional vs. Longitudinal Research Design

A quantitative research can be performed using either a cross-sectional or longitudinal research design. A cross-sectional research design, which aims at collecting data from samples drawn from a sample frame at a single point in time, is the most common in social sciences research because of its inherent convenience in implementation, lower cost, provision of anonymity for respondents and its ability to reach a large population within a short time frame (Gray, 1976). This particular design is useful in testing the casual relationships between two or more variables with a large number of samples (Bryman, 2008). Research using the cross-sectional design is useful for investigating a single snapshot of a phenomenon but fails short in exploring the causal relationships over time or to confirm the direction of such relationships (Avital, 2000).

A longitudinal design is similar to cross-sectional design except that data collection and drawing and testing of samples of the former are conducted on at least two occasions at more than one single point in time (Avital, 2000). Research with a longitudinal design can provide a ‘moving picture’ view of a phenomenon and is especially effective in investigating causal relationships over time. The challenge of this design, however, is that it requires the researcher to keep track of changes in respondent perception over time, hence, is more costly and time-consuming (Day, 2011; McWilliams and Smart, 1993). In addition, some consider the design ethically challenged as it is necessary for the researcher to know the identity of the respondents, as changes in participant perceptions have to be tracked over a period of time (Day, 2011). This may deter some potential respondents from participating in the research.

4.4.2. Rationale for Using the Cross-Sectional Research Design

Longitudinal design is less common in social sciences research due to resources and time requirements and ethical considerations (Gray, 1976). This study adopted the cross-sectional design as resources and time constraints precluded the possibility of using a longitudinal design. The use of the cross-sectional design can ensure, first and foremost, completion of the research within a relatively short period of time with limited sources. Consistency in comparison of data can also be achieved as data is collected on one occasion using the same questionnaire (Cavana et al., 2001). In addition, a cross-sectional design ensures anonymity and is therefore more capable of gauging the true perceptions of the respondents.

4.5. Samples and Sampling Techniques

Collection of data for a research is not a census in which the survey scope covers the entire population. To study the entire population is too expensive and difficult as it is often too large, dynamic and could change over time (Adèr, Mellenbergh and Hand, 2008). Therefore, sampling is necessary to gain information from a part of a whole. Sampling techniques are the statistical methods used to select a subset of individuals from a population to represent the population being studied (Cavana et al., 2001). The two broad sampling techniques used in quantitative studies are probability sampling and non-probability sampling (Bryman, 2008).

4.5.1. Probability Sampling Techniques vs. Non-Probability Sampling Techniques

Probability sampling means that samples are selected randomly, giving every individual in a population an equal chance of being selected (Bryman, 2008; Cavana et al., 2001; Malhotra, Hall, Shaw and Oppenheim, 2004). There are four main types of probability sampling: simple random sampling, systematic sampling, stratified sampling, and cluster sampling.

Of the above four sampling techniques, simple random sampling is widely accepted as the easiest, most basic, straightforward and most popular sample selection method (Cavana et al., 2001; Malhotra et al., 2004). Simple random sampling is usually conducted by collecting and listing all individuals in a population and then randomly

drawing a number of samples from the population. Systematic sampling, on the other hand, involves the ordering of a population by means of some ordering scheme, say for example the last digit of telephone numbers, and drawing samples accordingly to a predefined criterion. The main advantage of systematic sampling is that the samples selected are more evenly distributed over the entire population, hence more representative of the population. The main disadvantage, however, is that there may be some hidden pattern in the population that may adversely affect the representativeness the samples. For instance, in Hong Kong, people with a mobile phone number that ends with “8” might have higher income than those with a number that ends with “4” because, in a Chinese community, the number “8” symbolizes good luck and wealth whereas the number “4” symbolizes death. Mobile phone users, who can afford to do so, are often willing to pay extra to change their phone number digits from “4” to “8”.

Stratified sampling involves the separation of a population into various strata (or subpopulations). This is done by categorizing the population by gender, age group or geographical region and then drawing samples from each of the subpopulations independently. The main advantage of stratified sampling is that the samples drawn are more representative but the disadvantage is that the method is more expensive and difficult to implement.

Cluster sampling is common in marketing research. It is similar to random sampling and is considered by many as a two-stage random sampling or a “random sampling on random sampling”. The techniques involve the dividing of a population into different clusters (or subpopulations), followed by the selection of a cluster to draw random samples for research (Malhotra et al., 2004). The main advantage of cluster sampling is low cost, as samples are drawn from one cluster (subpopulation) only. The disadvantage, however, is high sampling error as the cluster being selected may not represent the entire population (Cavana et al., 2001; Waksberg, 1978). For example, coastal cities in China are generally wealthier than cities in inland areas. Results based on samples drawn from an inland city may be completely different from those derived from samples drawn from a coastal city.

Non-probability sampling does not allow individuals an equal chance of being selected to participate in a study (Cavana et al., 2001; Malhotra et al., 2004). There are many

varieties of non-probability sampling techniques, including: convenience sampling, which selects samples basing on availability; snowballing sampling (aka chain-referral sampling), which starts off by selecting a small number of initial samples (subjects) and then increases the sample size by accessing the extended network of the initial samples; quota sampling, which selects a fixed number (or percentage) of people from each subgroup of population; and purposive sampling (aka judgmental sampling), which is a quick method that selects ‘typical’ or ‘average’ samples from a population considered by the researcher to be particularly important (Bryman, 2008; Cavana et al., 2001; Malhotra et al., 2004). The biggest advantage of non-probability sampling is low cost and convenience to researchers. The disadvantage, however, is that findings from a study adopting non-probability sampling may be less generalizable (Bryman, 2008).

4.5.2. Rationale for Using the Simple Random Sampling Technique

The objective of this study was to uncover the direct and indirect links between the two variables of entrepreneurial orientation and firm performance. The unit of analysis was individual managers and business owners in the cosmetics manufacturing industry in China. The population was all managers and business owners in the cosmetics manufacturing industry in China. The sample frame consisted entirely of managers or owners of cosmetics manufacturers in China who were within the research population and whose names and postal addresses were publically available. As the names and postal addresses were collected from public domain sources, the sample frame could be considered as a true representation of the population being studied.

Probability sampling was used in this study. Because the study was quantitative in nature, the high reliability and generalizability of probability sampling made it the obvious choice (Bryman, 2008; Cavana et al., 2001). Among the many varieties of probability sampling, the simple random sampling technique was considered the most suitable because it involves no division of the population into different subpopulations, either in terms of clusters or stratum, thereby eliminating the possibility of classification errors (Bryman, 2008; Cavana et al., 2001; Malhotra et al., 2004). Moreover, as it was also necessary for the researcher to consider time and resources constraints, and balance these constraints with the overall quality and reliability of research findings, simple random sampling was the most suitable choice given its relatively low cost, quick

response, ease of implementation, good reliability, and minimal bias (Bryman, 2008; Cavana et al., 2001; Malhotra et al., 2004).

4.6. Data Collection Methods

Once the sample frame and sampling technique have been determined, the next step in research design is to decide how data are to be collected. Insofar as quantitative research is concerned, data collection can be conducted by way of self-administered questionnaire, non-participative observation, focus groups, and structured interviews. Of these methods, self-administered questionnaire is the most common due to the relatively lower cost and ease of administration (Bryman, 2008; Cavana et al., 2001). There are plenty of ways to conduct a self-administered questionnaire survey, such as by way of in-person face-to-face interviews, telephone interviews, personally administered questionnaire surveys, postal or electronic questionnaire surveys, and observational studies (Cavana et al., 2001). Since each method has its own strengths and weaknesses, the choice of method depends very much on the availability of resources and the characteristics of the phenomenon being studied (Malhotra et al., 2004).

An in-person face-to-face interview is the most resource intensive survey method and is the best for capturing the richness of real-world human activities. This method gives the researcher the advantages of adapting the questions as appropriate, dispelling doubts, and ensuring that the questions are properly understood by repeating or rephrasing them (Bryman, 2008; Cavana et al., 2001). Questionnaire surveys administered via post or the Internet are less resource intensive but tend to have low response rates (Bryman, 2008; Cavana et al., 2001).

4.6.1. Rationale for Using the Postal Self-administered Questionnaire Survey

With the unit of analysis being individual managers and business owners of cosmetics manufacturers in China, this study required the researcher to sample data from a research database which contained information on all the major cosmetics manufacturers in China. The sample frame was drawn from two major public domain directories of cosmetics manufacturers in China: the *Directory of Updated Chinese Cosmetic Enterprises*, and www.alibaba.com.

As most of the companies in the *Directory of Updated Chinese Cosmetic Enterprises* did not provide any email addresses, it would be time consuming and might introduce the risk of human error if the email contacts of firms in the sample frame were collected manually.

Due to cost and resources constraints, self-administered postal questionnaire survey was used to collect data for this study. Face-to-face interviews and online survey were not chosen because the former was considered to be too expensive and time-consuming while the later might give rise to quality concerns due to low response rate. Postal surveys however can mitigate these problems by maintaining a good balance between cost and quality.

4.6.2. Data Collection Process

The data collection process began with the construct of a survey database of the sample frame discussed in the previous section. Details of potential participants were obtained from the public domain databases mentioned in the previous section. The company name, name of company representative (owner or manager), phone number, corresponding address and email address of each potential participant was recorded in a password protected database file. A total of 2,500 potential participants were randomly drawn by a computer program. The company names, names of contact persons and the corresponding addresses of these potential participants were stored in a database file before a printing program was used to print the mailing labels. A copy of the invitation letter, Information Statement and anonymous questionnaire were sent to each of the potential participants by post to formally invite them to participate in the proposed study. Potential participants were requested to complete an anonymous questionnaire and return it to the researcher using the pre-stamped envelope provided. To maximize the number of valid responses, reminder letters were sent to the entire 2,500 potential participants by post 15 days after the sending of the invitation letters.

4.6.3. Target Sample Size

As a rule of thumb, the minimum number of samples for quantitative research should be at least 5 to 10 times more than the number of measuring items of the construct with the

greatest number of measuring items (Gopal, Bosrom and Chin, 1992; Tassabehji, 2010). For this reason and to further ensure the quality of the study, the aim of the postal questionnaire survey was to collect in the region of 200 valid samples.

4.7. Questionnaire Design

There were four constructs in this study, namely entrepreneurial orientation, firm performance, knowledge sharing, and customer orientation. Each of the constructs was measured by multi-dimensional measurement scales adapted from previous validated research published in renowned journal. The following details the design of the questionnaire and the measuring items used.

4.7.1. Entrepreneurial Orientation

Entrepreneurial orientation was the independent variable in this study. The questionnaire items for entrepreneurial orientation were adapted from Engelen (2010), which measured the innovativeness, proactiveness and risk taking-aspects of entrepreneurial orientation using an 8-item scale. Two items were used to measure the proactiveness aspect of entrepreneurial orientation, three were used to measure the risk-taking propensity, and three used to measure innovativeness. Table 4.1 below shows these measuring items, the question ID and the questions relating to the entrepreneurial orientation construct of the study.

Table 4.1: Measuring Items for Entrepreneurial Orientation

(Adapted from Engelen, 2010)

ID	Questions
EO-P1	In dealing with competitors, our company typically initiates actions which
EO-P2	In dealing with competitors, our company is very often the first business to
EO-R1	Our company stresses a fully delegated policy for employees.
EO-R2	Our company gives the freedom for individuals or teams to develop new
EO-R3	In general, the top managers of our company have a strong tendency to be
EO-N1	Our company encourages and stimulates technological, product/service-
EO-N2	Our company stimulates creativity and experimentation.
EO-N3	Our company's innovative initiatives are hard for competitors to successfully imitate.

4.7.2. Firm Performance

Firm performance was the only dependent variable in this study. The questionnaire items for firm performance were adapted from Qu (2009) and Kumar, Subramanian and Yauger (1998). The firm performance items measured various performance aspects of a firm. Table 4.2 below shows these measuring items, the question ID and the questions relating to the firm performance construct of the study:

Table 4.2: Measuring Items for Firm Performance

(Adapted from Qu, 2009; Kumar, Subramanian and Yauger, 1998)

ID	Questions
FP1	Our sales growth is better than our main competitor's.
FP2	Our return on equity is better than our main competitor's.
FP3	Our return on asset is better than our main competitor's.
FP4	Our return on investment is better than our main competitor's.
FP5	Our overall performance is better than our main competitor's.

4.7.3. Customer Orientation

The questionnaire items for customer orientation were adapted from Kahn (2001) which measured the level of customer orientation of a firm using a 5-item scale. Table 4.3 below shows these measuring items, the question ID and the questions relating to the customer orientation construct of the study:

Table 4.3: Measuring Items for Customer Orientation

(Adapted from Kahn, 2001)

ID	Questions
CO1	Our company is customer-oriented.
CO2	Our company brings value to customers.
CO3	Our company understands customer needs.
CO4	Customer satisfaction is our company's objective.
CO5	Our company values after-sale service.

4.7.4. Knowledge Sharing

The questionnaire items for knowledge sharing were adapted from Lin (2007) and van den Hooff and de Ridder (2004), which measured the knowledge donating and knowledge collecting aspects of knowledge sharing using a 7-item scale. Three items were used to measure the knowledge donating aspect of knowledge sharing and four were used for the measurement of the knowledge collecting aspect. All questionnaire items were measured on a 7-point Likert scale with “1” representing “strongly disagree” and “7” representing “strongly agree”.

Table 4.4: Measuring Items for Knowledge Sharing

(Adapted from Lin, 2007; van den Hooff and de Ridder, 2004)

ID	Questions
KS-D1	When I have learned something new, I tell my colleagues about it.
KS-D2	When my colleagues have learned something new, they tell me about it.
KS-D3	Knowledge sharing among colleagues is considered normal in our company.
KS-C1	I share information I have with my colleagues when they ask for it.
KS-C2	I share my skills with my colleagues when they ask for it.
KS-C3	Colleagues in our company share knowledge with me when I ask them to.
KS-C4	Colleagues in our company share their skills with me when I ask them to.

4.7.5. Measurement Scales Used

In quantitative research, respondent perception is measured by either rating or ranking scales. A rating scale consists of a set of selections allowing respondents to express their perception on an attribute of a particular variable being studied. Likert scale is the most popular rating scale in social sciences research (Cavana et al., 2001). The items of a Likert scale are usually in sets of odd numbers, with a neutral point to gauge the respondent perception on a question. Respondent perception is expressed by indicating the degree of agreement or disagreement toward a question item.

4.8. Validity and Reliability

In quantitative research, reliability and validity are the two most common criteria used to evaluate the quality of measuring items, the collected data, and the findings derived from an analysis of that (Bryman, 2008; Cavana et al., 2001).

Validity is about the extent to which a survey instrument is actually measuring what the researcher intends to measure. There are three main categories of validity: face validity, construct validity, and content validity.

Face validity is a subjective assessment of whether the questionnaire items are

understandable and the wording is clear. Construct validity concerns the extent to which a set of measuring items are actually measuring the concepts studied. Content validity is an extension of face validity, which assess the extent to which the items represented what they were purported to measure. In this study, face validity was achieved by the conduct of a pilot study to ensure that questionnaire items were clear and would be readily understood by potential respondents. Construct validity, on the other hand, was achieved in two ways: firstly, all measuring items were adapted from previously validated studies published in peer reviewed journals; and secondly, exploratory factor analysis (EFA) was performed at the data analysis stage to further ensure the construct validity of the measuring items (Cavana et al., 2001). To ensure content validity, all measuring items were adapted from previous studies with their validity already assessed at the literature review stage.

Reliability is about the consistency of measuring items used in a research. There are two primary aspects of reliability: internal reliability, and external reliability (aka stability of measures). External reliability is mainly achieved by testing and re-testing, which doubles the time and resources needed since data have to be collected twice (Wyman, Price, Jordan, Dake and Telljohann, 2006). Also, for external reliability testing to be implemented, the researcher has to know the identity of the respondents so that the two sets of data collected can be compared on a one-to-one basis. In this study, external reliability testing was not conducted due to cost, time and ethical concerns.

Internal reliability is about the internal consistency of the measuring items. Cronbach's alpha is the most common method to measure this consistency (Bryman, 2008; Cavana et al., 2001). Similar to most other quantitative research, this study used Cronbach's alpha to test the reliability of the measuring items for each of the variables and the data collected. As a general rule, a Cronbach's alpha value of 0.6 or above is regarded as having an acceptable level of internal reliability (Nunnally, 1978).

4.9. Pre-test and Pilot Test

To ensure the quality of this study, a pre-test and a pilot test were conducted before administering the formal questionnaire.

The purpose of performing a pre-test is to enhance the face validity of this study by ensuring the clarity, ease of understanding and appropriateness of the questions in the questionnaire. The pre-test was conducted by inviting 10 participants, selected by using convenience sampling methods, to complete a copy of the questionnaire in front of the researcher and to comment on the wording used. Based on the feedback from the respondents, the wording was modified slightly to improve its clarity and readability.

After the pre-test, a pilot test was performed with a sample size of 20. This sample size is within the recommended range of 15 to 30 suggested by Cavana, Delahaya and Sekaran (2001), Mbarika and Byrd (2009) and Platow, van Knippenberg, Haslam, van Knippenberg and Spears (2006). All 20 participants met the sampling criteria of being a manager or owner of cosmetics manufacturing company in China. Results from the pilot test indicated that there was no ambiguity or misunderstanding of the questions.

4.10. Data Analysis

Descriptive statistics, non-response bias test, reliability test, factor analysis, and hypotheses testing were used to analyze the data collected from the questionnaire survey.

4.10.1. Descriptive Statistics

Descriptive statistics was used to see how data were distributed. Mean, standard deviation, skewness and kurtosis values of each of the measuring items were computed and presented. The mean score gives an average perception held by respondents. Standard deviation measures the spread around the mean. A small standard deviation value signifies a narrower spread around the mean and vice versa.

Skewness indicates to what extent the distribution of data values are asymmetrical. A symmetrical distribution has a skewness value of zero. A high absolute value of skewness indicates that most of the respondents have a strong view toward a statement; high positive skewness indicates that the majority of the respondents are either in agreement or strong agreement with the statement, while high negative skewness signals their disagreement or strong disagreement with a statement.

Kurtosis measures the ‘peakedness’ (or ‘flatedness’) of a distribution. The higher the

‘peakedness’ a value is, the ‘narrower’ a distribution is (Hair, Anderson, Tatham and Black, 1995). A normal distribution has a skewness and kurtosis value of zero.

4.10.2. Non-response Bias Test

Although postal surveys generally yield higher response rates than online surveys, to further ensure the quality of a study a statistical method must be used to test the significance of non-response bias. The most common technique used to estimate non-response bias is to compare early and late respondents. This approach assumes that late respondents resemble non-respondents in terms of their response to the questions (Armstrong and Overton, 1977; Bart and Baetz, 1998). This study used a late respondent as a proxy for a non-respondent and Pearson Chi square analysis, using IBM SPSS “Crosstab” procedure, was performed to estimate the significance of non-response bias by comparing the means of all items in the demographic profile of early and late respondents.

4.10.3. Factor Analysis

All variables in this study were measured by multi-item scales adapted from previous studies; the content and construct validities of the measuring items were previously confirmed.

As multi-item scales were used in each question item of the questionnaire, Bartlett’s test of sphericity (BTS) and the Kaiser-Meyer-Olkin (KMO) were conducted, firstly to check whether the basic assumptions for factor analysis had been met or not, secondly to measure the adequacy of the data, and thirdly to validate the measuring items (Coakes, Steed and Price, 2008; Hair et al., 2005). Subsequent to BTS and KMO tests, exploratory factor analysis with ‘varimax rotation’ were conducted to discover the underlying variables (Batra, Homer and Kahle, 2001; Coakes et al., 2008; Hair et al., 2005). Cronbach’s alphas test was conducted to examine the internal consistency of the measuring items for each variable so as to ensure the internal reliability of the measuring items (Batra et al., 2001; Hair et al., 2005). Cronbach’s alpha coefficients of 0.6 or above are regarded as acceptable, meaning the data are suitable for further analysis (Coakes et al., 2008; Hair et al., 2005). Confirmed internal consistency

guaranteed internal reliability and all variables were standardized to avoid the ‘multicollinearity’ problem (Marquardt, 1980).

4.10.4. Hypotheses Testing

In this study, linear regression analysis and multiple regression analysis were conducted to test both direct and indirect influences of the independent variable of entrepreneurial orientation, and the two moderators of knowledge sharing and customer orientation, on the dependent variable of firm performance using IBM SPSS 19.

Linear regression was used to test the direct influence of entrepreneurial orientation, knowledge sharing and customer orientation on firm performance. As entrepreneurial orientation consists of three dimensions, the influence of each of the dimensions, i.e. risk-taking, innovation and proactiveness, was also tested independently using regression analysis to ascertain their respective influences on firm performance. Moreover, since knowledge sharing also includes dimensions of knowledge donating and knowledge collecting, their respective influences on firm performance were also tested using linear regression analysis.

According to Baron and Kenny (1986), a moderator is a factor that influences the strength and direction of an independent variable on a dependent variable. The moderating effects of the two moderators used in this study, knowledge sharing and customer orientation, were tested with multiple regression analysis using the three-step approach suggested by Baron and Kenny (1986). A moderating effect was considered existent if the multiplicative term, i.e. “knowledge sharing” times “entrepreneurial orientation” or “customer orientation” times “entrepreneurial orientation”, was statistically significant (Baron and Kenny, 1986).

4.11. Ethical Issues

The study was conducted in full compliance with the latest policies and guidelines set by the Human Research Ethics Committee (HREC) of the University of Newcastle and the National Statement on Ethical Conduct in Human Research (2007). The questionnaire did not contain demeaning, misleading and personally identifiable questions or sensitive questions that might affect the interest of respondents or their

organizations.

The Participation Information Sheet provided to potential respondents to this study clearly explained the purpose of the study and that completion of the questionnaire was purely voluntary and strictly anonymous. Participants could choose to return a completed or non-completed questionnaire or not to return the questionnaire at all.

4.12. Summary

This chapter outlined the research methodology as well as the approaches of data collection and data analysis. A positivist paradigm and a quantitative research methodology were used to study the relationships among the four constructs of entrepreneurial orientation, firm performance, customer orientation, and knowledge sharing. The quantitative research in this study employed a postal self-administered questionnaire survey to gauge the perceptions of managers and business owners of cosmetics manufacturers in China. Justifications for the choice of the cross-sectional design and simple random sampling technique were elaborated. Questionnaire items were adapted from previously validated studies. The collected data were analyzed and tested by various statistical tools to ensure reliability, validity and consistency of the data. Finally, linear regression was used to test the direct influences of entrepreneurial orientation, customer orientation and knowledge sharing on firm performance, and multiple regression analysis was used to test the hypothesized moderating effect of customer orientation and knowledge sharing on the relationship between entrepreneurial orientation and firm performance.

Chapter 5 Data Analysis

5.1. Introduction

In Chapter 3 and Chapter 4, a research model with five hypotheses was developed and the research methodology to be used for assessing the research model by testing the five hypotheses was discussed, justified and evaluated. This Chapter presents the analyses of the collected data.

The Chapter consists of the following sections: section 5.2 provides an overview of the demographic profiles of the respondents and the firms they were working for; section 5.3 investigates the impact of non-response bias; section 5.4 examines the validity and reliability of the constructs and the questionnaire items; section 5.5 provides an overview of the descriptive statistics of the questionnaire items and computes the underlying constructs; section 5.6 presents the hypothesis testing results and reports on the findings; and finally section 5.7 summarizes the Chapter.

5.2. Demographic Profile of the Respondents

As described in Chapter 4, a total of 2,500 potential participants were randomly drawn from the sampling frame. A copy of questionnaire was sent to each of the potential participants. Of the 2,500 copies of questionnaire sent, 362 valid responses were received, representing a response rate of 14.5%. Before the collected data were analysed, descriptive statistics were used to give an overview of the demographic profiles of the 362 respondents and their firms. Demographic information about the respondents and their firms was collected through Part B of the questionnaire (shown as Appendix 1). The frequency distribution and percentage composition of each of the six respondent-related demographic variables and two firm-related demographic variables were analyzed using IBM SPSS version 19.0.

5.2.1. Gender Profile of the Respondents

Table 5.1 and Figure 5.1 below show the distribution of genders of the respondents. The frequency distribution shows that most of the respondents were male (69.1% or 250 out of 362). Only 30.9% (112 out of 362) of the respondents were female.

Table 5.1: Gender Profile of the Respondents

		Frequency	Percent	Cumulative Percent
Valid	Male	250	69.1	69.1
	Female	112	30.9	100.0
	Total	362	100.0	

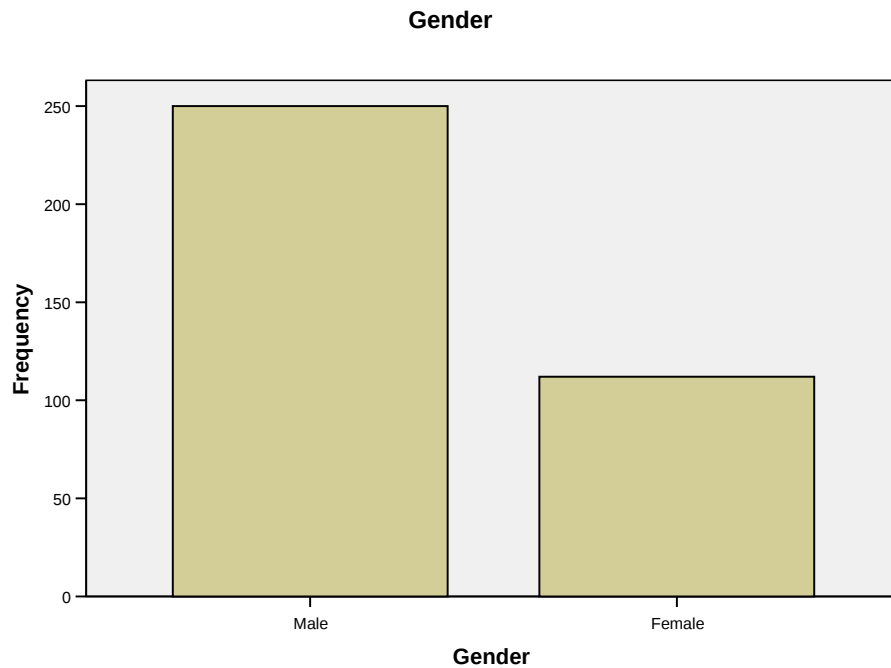


Figure 5.1: Gender Profile of the Respondents

5.2.2. Role Profile of the Respondents

Table 5.2 and Figure 5.2 below show the distribution of the roles of the respondents. The frequency distribution shows that majority of the respondents were managers (61.6% or 223 out of 362). Only 38.4% (139 out of 362) of the respondents were business owners.

Table 5.2: Role Profile of the Respondents

		Frequency	Percent	Cumulative Percent
Valid	Owner	139	38.4	38.4
	Manager	223	61.6	100.0
	Total	362	100.0	

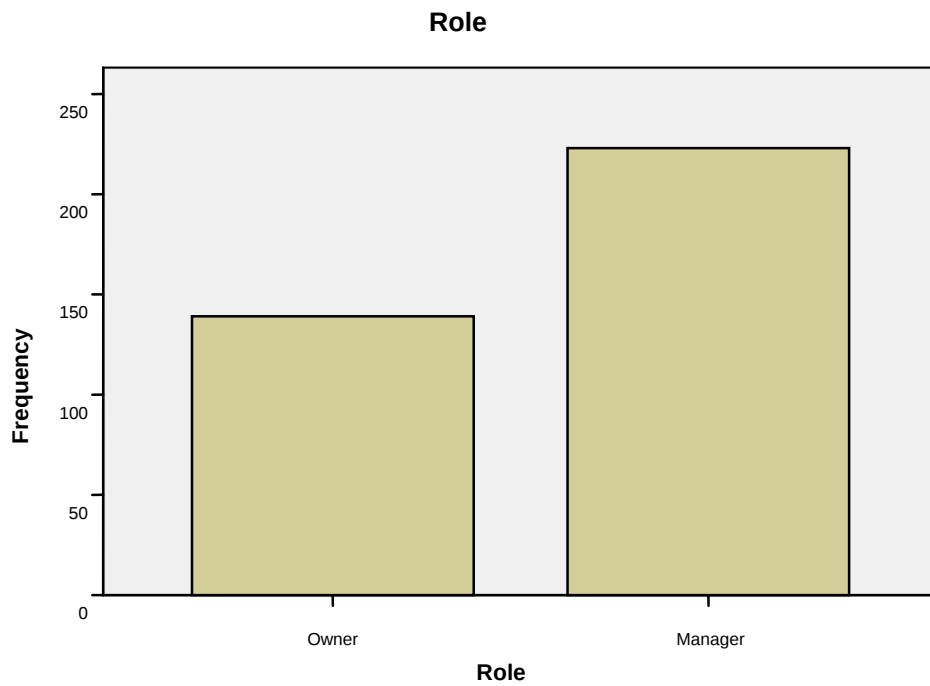


Figure 5.2: Role Profile of the Respondents

5.2.3. Marital Status of the Respondents

Table 5.3 and Figure 5.3 below show the distribution of the marital status of the respondents. The frequency distribution shows that most of the respondents were married (72.4% or 262 out of 362). Single respondents make up only 27.6% (100 out of 362) of the total.

Table 5.3: Marital Status of the Respondents

		Frequency	Percent	Cumulative Percent
Valid	Single	100	27.6	27.6
	Married	262	72.4	100.0
	Total	362	100.0	

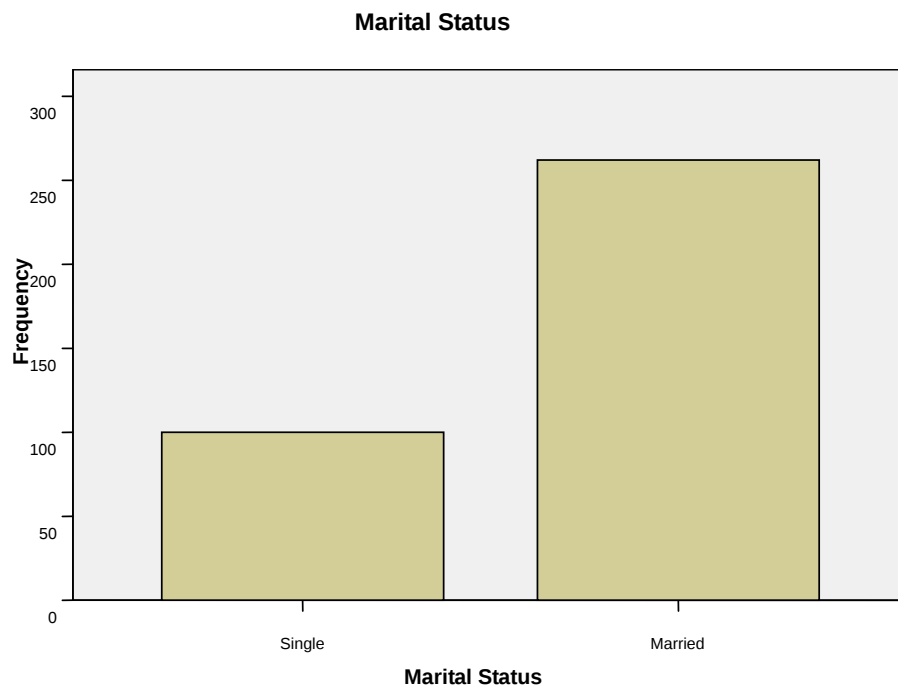


Figure 5.3: Marital Status of the Respondents

5.2.4. Entrepreneurial Experience of the Respondents

Table 5.4 and Figure 5.4 below show the distribution of entrepreneurial experience of the respondents. The frequency distribution shows that slightly over half of the respondents had entrepreneurial experience (51.9% or 188 out of 362), while 48.1% (174 out of 362) of the total had no entrepreneurial experience before.

Table 5.4: Entrepreneurial Experience of the Respondents

		Frequency	Percent	Cumulative Percent
Valid	Yes	188	51.9	51.9
	No	174	48.1	100.0
	Total	362	100.0	

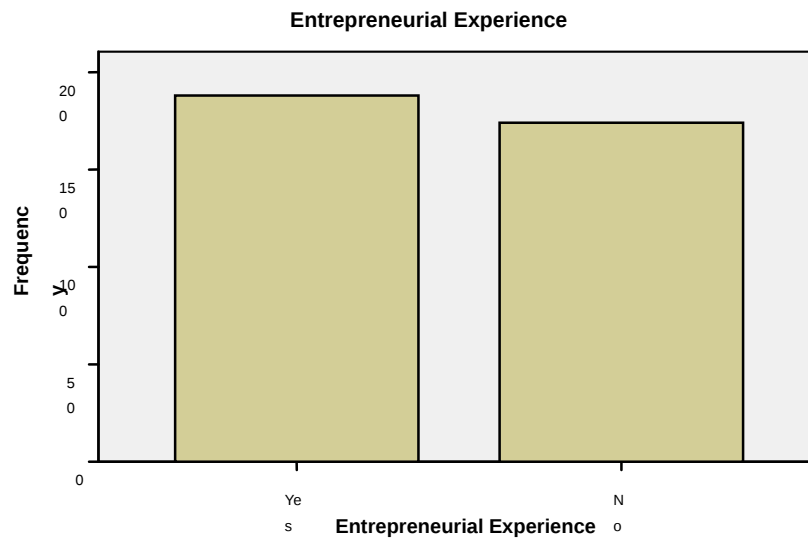


Figure 5.4: Entrepreneurial Experience of the Respondents

5.2.5. Business Models of the Firms

Table 5.5 and Figure 5.5 below show the distribution of business models of the firms to which the respondents belonged. The frequency distribution shows that 29.6% (107 out of 362) of the firms had their own brands and were not engaged in any OEM business, 23.2% (84 out of 362) of them were engaged in OEM business only, and 47.2% (171 out of 362) of them were engaged in both models of business, i.e., taking up OEM orders and developing their own brands at the same time.

Table 5.5: Business Model of the Firms

		Frequency	Percent	Cumulative Percent
Valid	Own brand	107	29.6	29.6
	OEM	84	23.2	52.8
	Both	171	47.2	100.0
	Total	362	100.0	

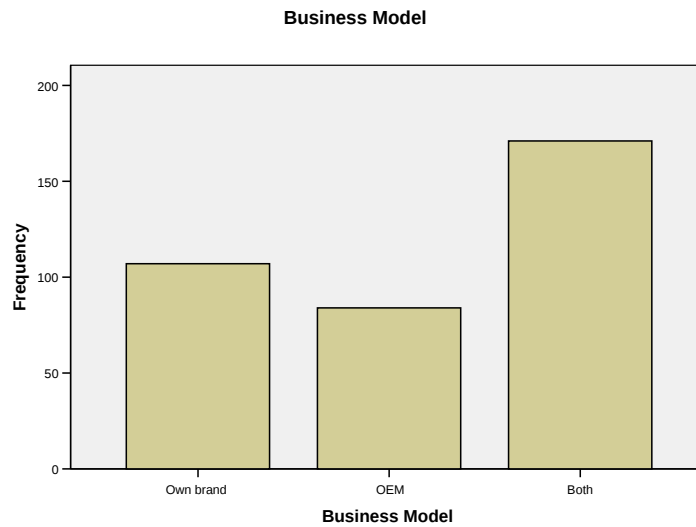


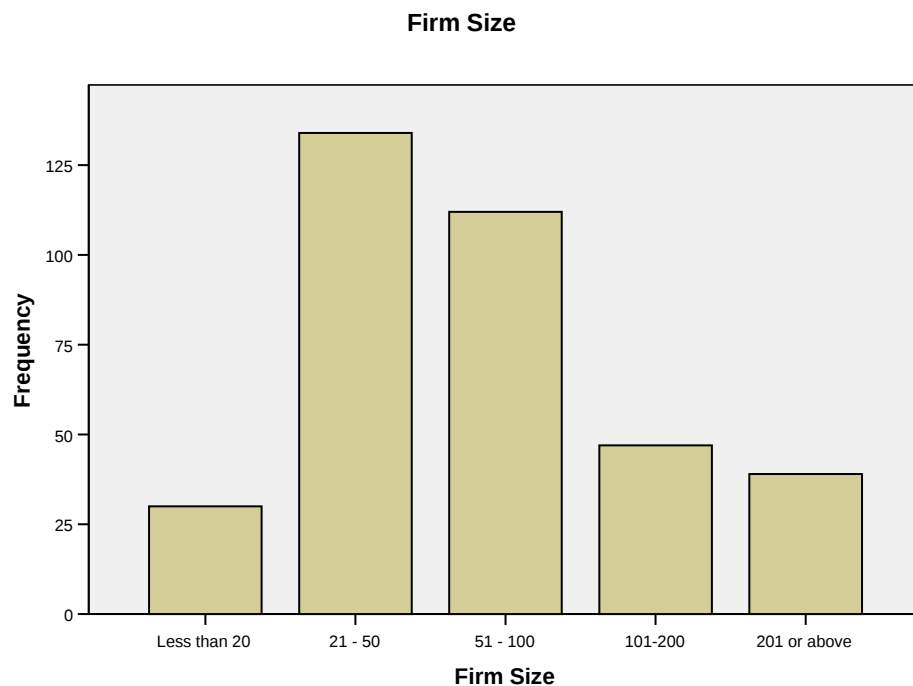
Figure 5.5: Business Model of the Firms

5.2.6. Firm Size Profile

Table 5.6 and Figure 5.6 below show the distribution of firm size profiles in terms of the number of employees hired by each of the firms concerned. The frequency distribution shows that the majority of firms had 21 to 100 employees (67.9% or 246 out of 362). Less than one-quarter of the firms had more than 100 employees (23.8% or 86 out of 362). Only 8.3% of the firms (30 out of 362) had 20 employees or less.

Table 5.6: Firm Size Profile

		Frequency	Percent	Cumulative Percent
Valid	Less than 20	30	8.3	8.3
	21 - 50	134	37.0	45.3
	51 - 100	112	30.9	76.2
	101-200	47	13.0	89.2
	201 or above	39	10.8	100.0
	Total	362	100.0	

**Figure 5.6: Firm Size Profile**

5.2.7. Tenure Profile of the Respondents

Table 5.7 and Figure 5.7 below show the distribution of tenure of the respondents. The frequency distribution shows that the majority of the respondents (68.5% or 248 out of 362) had worked for their firms for 2 to 10 years. A much smaller percentage of respondents (16.6% or 66 out of 362) had worked for their firm for more than 10 years. Only 14.9% (54 out of 362) of respondents had worked for their firms for less than 2 years.

Table 5.7: Tenure Profile of the Respondents

	Frequency	Percent	Cumulative Percent
Valid Less than 1 year	11	3.0	29.6
1 - 2 year(s)	43	11.9	52.8
2 to 5 years	113	31.2	
5 - 10 years	135	37.3	
More than 10 years	60	16.6	100.0
Total	362	100.0	

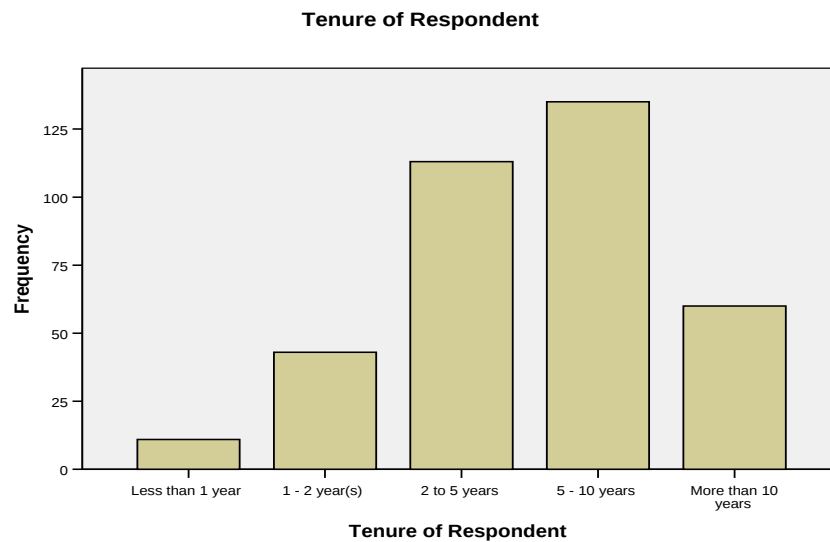


Figure 5.7: Tenure Profile of the Respondents

5.2.8. Educational Level of the Respondents

Table 5.8 and Figure 5.8 below show the distribution of educational levels of the respondents. The frequency distribution shows that the majority of the respondents (85.9% or 311 out of 362) were college or university graduates. A smaller percentage of the respondents (9.1% or 33 out of 362) had no tertiary education at all. Only 5% (18 out of 362) of them had a postgraduate degree.

Table 5.8: Educational Level of the Respondents

		Frequency	Percent	Cumulative Percent
Valid	Secondary or below	33	9.1	9.1
	College	135	37.3	46.4
	Undergraduate	176	48.6	95.0
	Postgraduate	18	5.0	100.0
	Total	362	100.0	

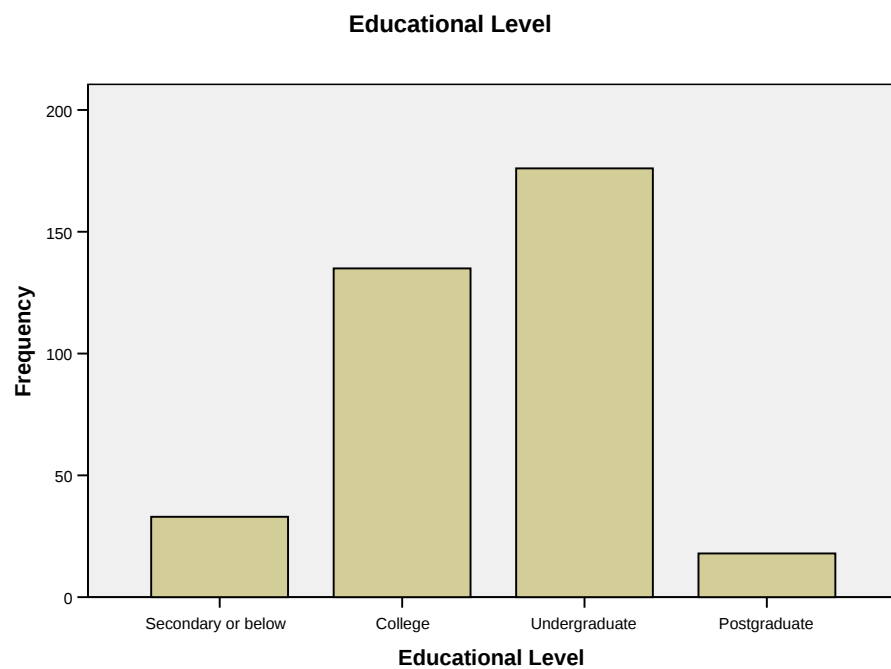


Figure 5.8: Educational Levels of the Respondents

5.3. Test of Non-response Bias

A copy of questionnaire was sent to each of the 2,500 potential participants randomly drawn from the sampling frame and 362 valid responses were eventually received, giving a response rate of 14.5%. As the response rate was not high, Chi-square tests were conducted to investigate the significance of non-response bias. To this end, the demographic information of early and late respondents was compared with respect to the eight demographic variables: gender, role, marital status, entrepreneurial experience, tenure, education level, business model, and size of firm.

5.3.1. Gender Profile of the Respondents

Table 5.9A shows the Chi-square test results. To investigate if there was any difference between the early and late respondent groups in terms of their gender profiles, the SPSS “crosstabs” procedure was used to obtain the test statistic and its associated p-value. The Pearson Chi-Square statistic is 1.293, with 1 degree of freedom and a significance level of 0.256, indicating that the difference between the early and late respondents is insignificant ($p < 0.05$) in terms of respondent gender profiles. The gender profile of respondents in the two groups (i.e. early and late respondents) is shown in Table 5.9B and Figure 5.9. In both respondent groups, male respondents comprise the majority (120 out of 181 and 130 out of 181 respectively).

Table 5.9A: Chi-Square Tests – Gender Profile of the Respondents

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.293(b)	1	.256		
Continuity Correction(a)	1.047	1	.306		
Likelihood Ratio	1.294	1	.255		
Fisher's Exact Test				.306	.153
Linear-by-Linear	1.289	1	.256		
N of Valid Cases	362				

a Computed only for a 2x2 table

b 0 cells (.0%) have expected count less than 5. The minimum expected count is 56.00.

Table 5.9B: Crosstab – Gender Profile of the Respondents

		Response		Total
		Early	Late	
Gender	Male	120	130	250
	Female	61	51	112
Total		181	181	362

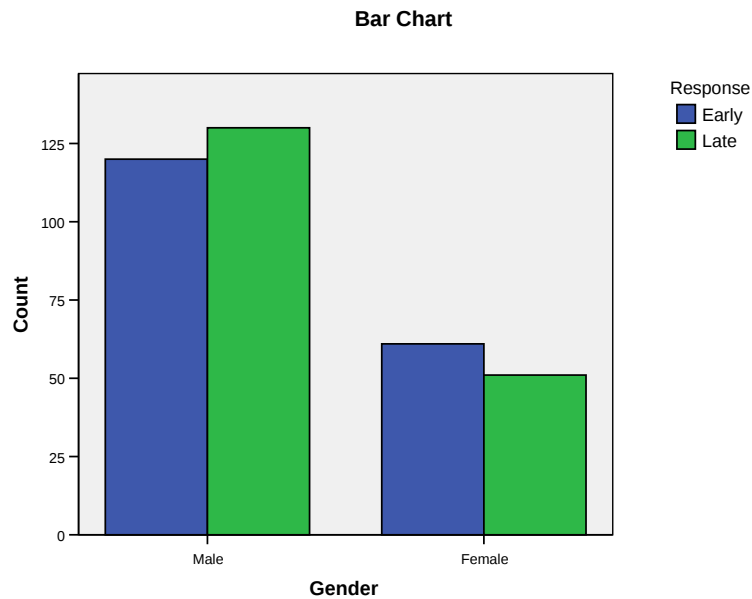


Figure 5.9: Gender Profile of the Respondents

5.3.2. Role Profile of the Respondents

Table 5.10A shows the Chi-square tests results. To investigate if there was any difference between the early and late respondent groups in terms of their role profiles, the SPSS “crosstabs” procedure was used to obtain the test statistic and its associated p-value. The Pearson Chi-Square statistic is 0.105, with 1 degree of freedom and a significance level of 0.746, indicating that the difference between the early and late respondents is insignificant ($p < 0.05$) in terms of respondent role profiles. The role profile of the respondents in the two groups is shown in Table 5.10B and Figure 5.10. In both respondent groups, managers comprise the majority (120 out of 181 and 130 out of 181 respectively).

Table 5.10A: Chi-Square Tests – Role Profile of the Respondents

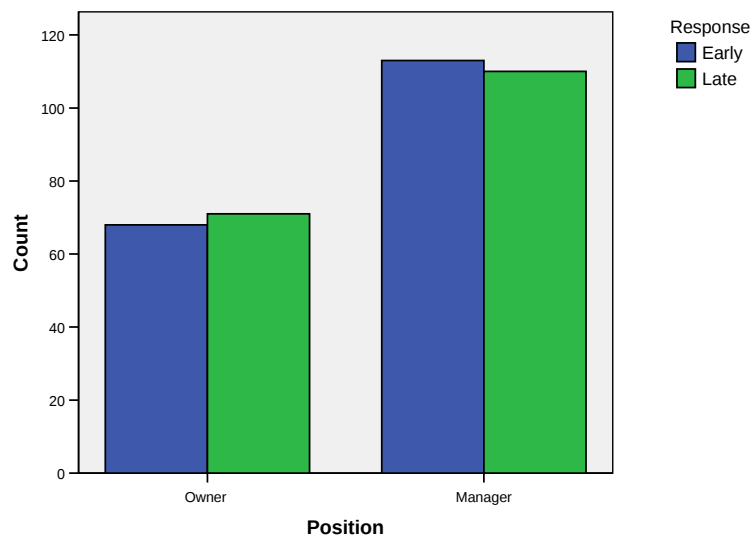
	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.105(b)	1	.746		
Continuity Correction(a)	.047	1	.829		
Likelihood Ratio	.105	1	.746		
Fisher's Exact Test				.829	.414
Linear-by-Linear	.105	1	.746		
N of Valid Cases	362				

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 69.50.

Table 5.10B: Crosstab – Role Profile of the Respondents

		Response		Total
		Early	Late	
Role	Owner	68	71	139
	Manager	113	110	223
Total		181	181	362

Bar Chart**Figure 5.10: Role Profile of the Respondents**

5.3.3. Marital Status of the Respondents

Table 5.11A shows the Chi-square tests results. To investigate if there was any difference between the early and late respondent groups in terms of their marital status, the SPSS “crosstabs” procedure was used to obtain the test statistic and its associated p-value. The Pearson Chi-Square statistic is 0.497, with 1 degree of freedom and a significance level of 0.481, indicating that the difference between the early and late respondents is insignificant ($p < 0.05$) in terms of respondent marital status. The marital status of the respondents in the two groups is shown in Table 5.11B and Figure 5.11. In both respondent groups, those who were married comprise the majority (134 out of 181 and 128 out of 181 respectively).

Table 5.11A: Chi-Square Tests - Marital Status of the Respondents

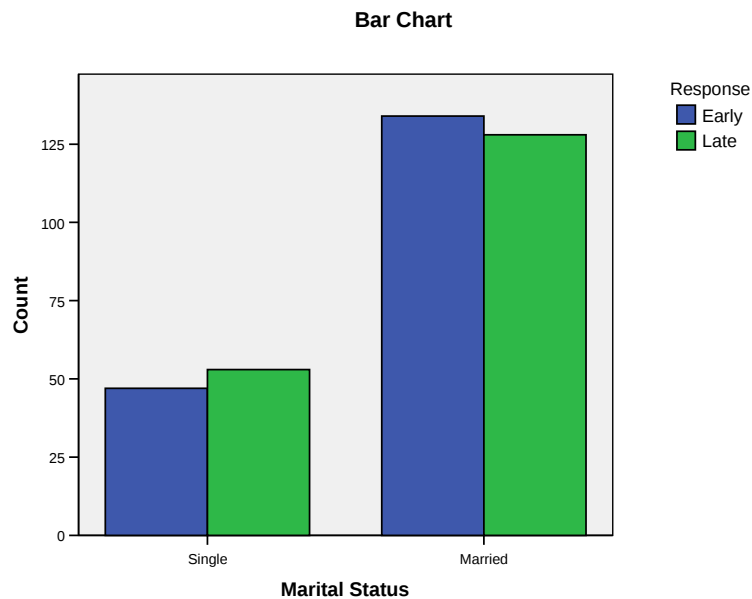
	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.497(b)	1	.481		
Continuity Correction(a)	.345	1	.557		
Likelihood Ratio	.498	1	.481		
Fisher's Exact Test				.557	.278
Linear-by-Linear	.496	1	.481		
N of Valid Cases	362				

a Computed only for a 2x2 table

b 0 cells (.0%) have expected count less than 5. The minimum expected count is 50.00.

Table 5.11B: Crosstab - Marital Status of the Respondents

		Response		Total
		Early	Late	
Marital Status	Single	47	53	100
	Married	134	128	262
Total		181	181	362

**Figure 5.11: Marital Status of the Respondents**

5.3.4. Entrepreneurial Experience of the Respondents

Table 5.12A shows the Chi-square tests results. To investigate differences between the early and late respondent groups in terms of their entrepreneurial experience, the SPSS “crosstabs” procedure was used to obtain the test statistic and its associated p-value. The Pearson Chi-Square statistic is 0.105, with 1 degree of freedom and a significance level of 0.746, indicating that the difference between the early and late respondents is insignificant ($p < 0.05$) in terms of respondent entrepreneurial experience. The entrepreneurial experience profiles of the respondents in the two groups are shown in Table 5.12B and Figure 5.12. There is an even distribution of respondents with and without entrepreneurial experience in both groups. The number of respondents with entrepreneurial experience in the early and late respondent groups is 99 and 89 respectively, while the number of those without entrepreneurial experience in the two respondent groups is 82 and 92 respectively.

Table 5.12A: Chi-Square Tests - Entrepreneurial Experience of the Respondents

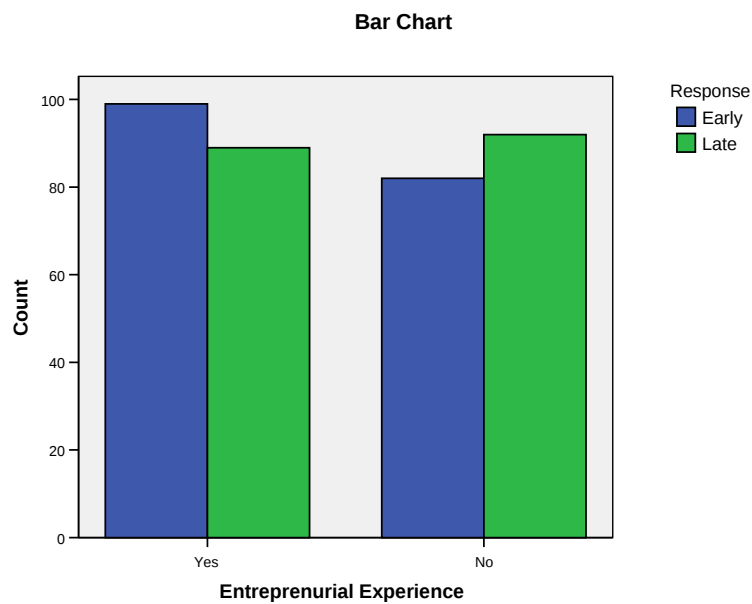
	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.107(b)	1	.293		
Continuity Correction(a)	.896	1	.344		
Likelihood Ratio	1.107	1	.293		
Fisher's Exact Test				.344	.172
Linear-by-Linear	1.104	1	.293		
N of Valid Cases	362				

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 87.00.

Table 5.12B: Crosstab - Entrepreneurial Experience of the Respondents

		Response		Total
		Early	Late	
Entrepreneurial Experience	Yes	99	89	188
	No	82	92	174
Total		181	181	362

**Figure 5.12: Entrepreneurial Experience of the Respondents**

5.3.5. Business Model Profile of the Firms

Table 5.13A shows the Chi-square tests results. To investigate if there was any difference between the early and late respondent groups in terms of the business model profiles of the firms they were working for, the SPSS “crosstabs” procedure was used to obtain the test statistic and its associated p-value. The Pearson Chi-Square statistic is 2.327, with 2 degrees of freedom and a significance level of 0.312, indicating that the difference between the early and late respondents is insignificant ($p < 0.05$) in terms of the business model profiles of the firms to which they belonged. The business model profile of the firms in the two respondent groups is shown in Table 5.13B and Figure 5.13. In both respondent groups, the firms engaged in both modes of business, i.e., OEM and own brand businesses (86 out of 181 and 85 out of 181 respectively), comprise the majority.

Table 5.13A: Chi-Square Tests - Business Model Profile of the Firms

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.327(a)	2	.312
Likelihood Ratio	2.332	2	.312
Linear-by-Linear Association	.538	1	.463
N of Valid Cases	362		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 42.00.

Table 5.13B: Crosstab - Business Model Profile of the Firms

		Response		Total
		Early	Late	
Business Model	Own brand	48	59	107
	OEM	47	37	84
	Both	86	85	171
Total		181	181	362

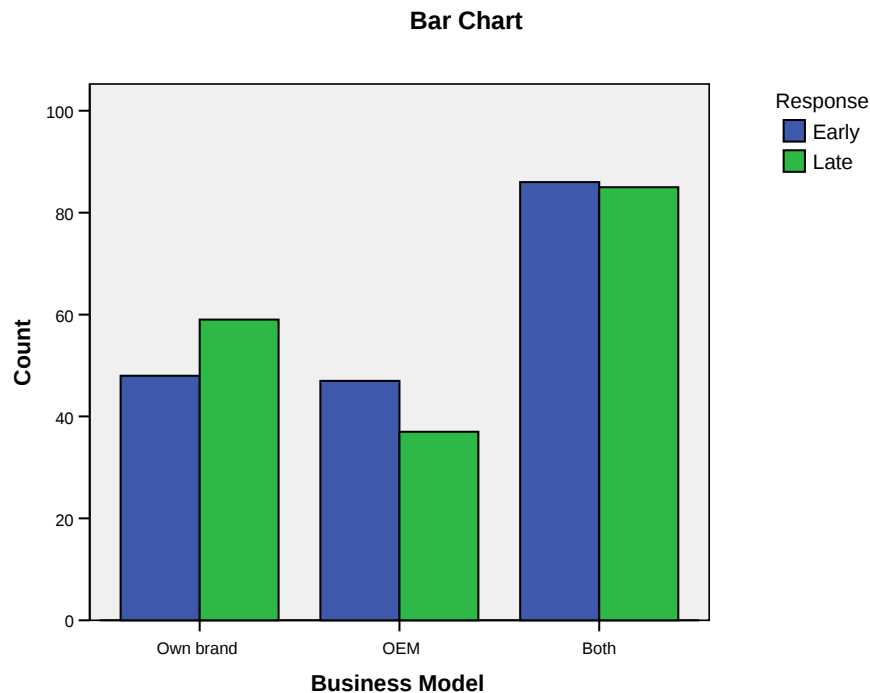


Figure 5.13: Business Model Profile of the Firms

5.3.6. Firm Size Profile

Table 5.14A shows the Chi-square tests results. To investigate if there was any difference between the early and late respondent groups in terms of the size of the firms where they worked, the SPSS “crosstabs” procedure was used to obtain the test statistic and its associated p-value. The Pearson Chi-Square statistic is 3.526, with 4 degrees of freedom and a significance level of 0.474, indicating that the difference between the early and late respondents is insignificant ($p < 0.05$) in terms of the size of the firms where they worked. Table 5.14B and Figure 5.14 shows the firm size composition of the two respondent groups. In both groups, those firms with 21 to 100 staff comprise the majority (125 out of 181 and 121 out of 181 respectively).

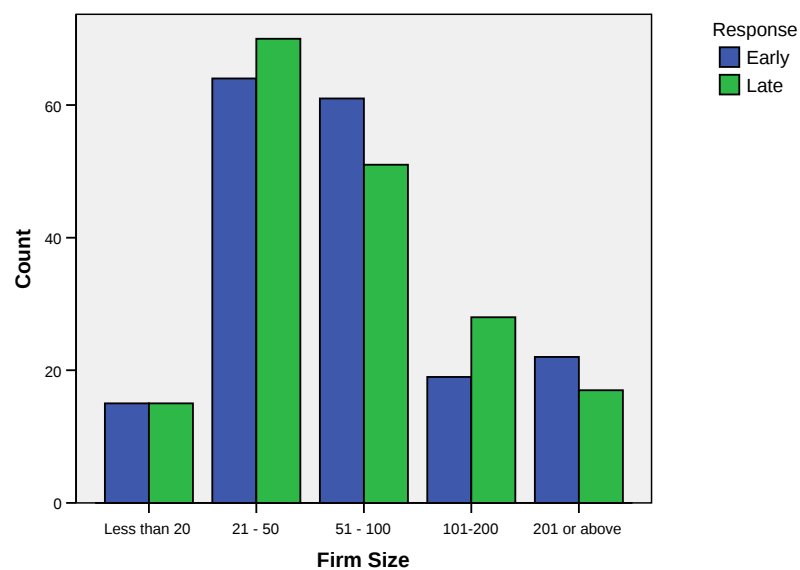
Table 5.14A: Chi-Square Tests - Firm Size Profile

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.526(a)	4	.474
Likelihood Ratio	3.540	4	.472
Linear-by-Linear Association	.110	1	.740
N of Valid Cases	362		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 15.00.

Table 5.14B: Crosstab - Firm Size Profile

		Response		Total
		Early	Late	
Firm Size	Less than 20	15	15	30
	21 - 50	64	70	134
	51 - 100	61	51	112
	101-200	19	28	47
	201 or above	22	17	39
Total		181	181	362

Bar Chart**Figure 5.14: Firm Size Profile**

5.3.7. Tenure Profile of the Respondents

Table 5.15A shows the Chi-square tests results. To investigate if there was any difference between the early and late respondent groups in terms of their tenure of service, the SPSS “crosstabs” procedure was used to obtain the test statistic and its associated p-value. The Pearson Chi-Square statistic is 6.993, with 4 degrees of freedom and a significance level of 0.136, indicating that the difference between the early and late respondents is insignificant ($p < 0.05$) in terms of their tenure of service. Table 5.15B and Figure 5.15 shows the tenure profile of the respondents in the two groups. In both respondent groups, the respondents who had worked for their firms for 2 to 10 years comprise the majority (126 out of 181 and 122 out of 181 respectively).

Table 5.15A: Chi-Square Tests - Tenure Profile of the Respondents

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.993(a)	4	.136
Likelihood Ratio	7.055	4	.133
Linear-by-Linear Association	2.158	1	.142
N of Valid Cases	362		

a 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.50.

Table 5.15B: Crosstab - Tenure Profile of the Respondents

		Response		Total
		Early	Late	
Tenure of Respondent	Less than 1 year	5	6	11
	1 - 2 year(s)	27	16	43
	2 to 5 years	54	59	113
	5 - 10 years	72	63	135
	More than 10 years	23	37	60
Total		181	181	362

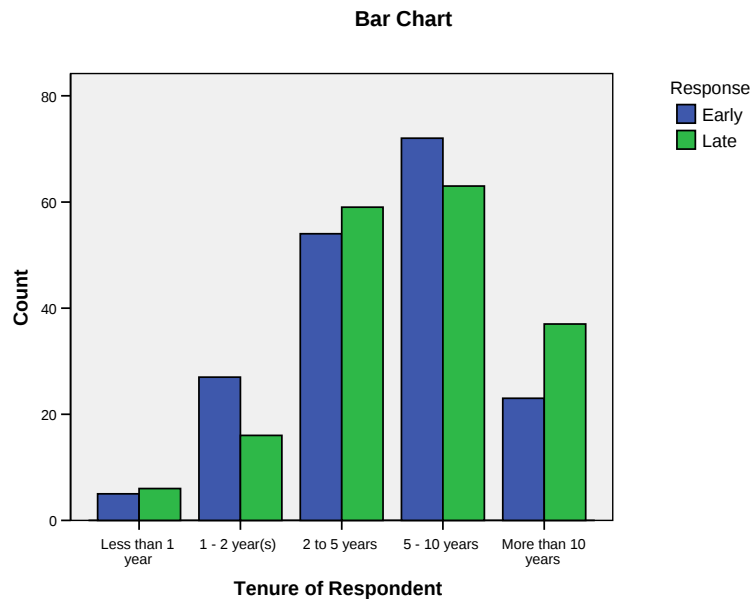


Figure 5.15: Tenure Profile of the Respondents

5.3.8. Educational Level of the Respondents

Table 5.16A shows the Chi-square tests results. To investigate if there was any difference between the early and late respondent groups in terms of their educational levels, the SPSS “crosstabs” procedure was used to obtain the test statistic and its associated p-value. The Pearson Chi-Square statistic is 7.545, with 3 degrees of freedom and a significance level of 0.056, indicating that the difference between the early and late respondents is insignificant ($p < 0.05$) in terms of their education levels. Table 5.16B and Figure 5.16 shows the education level of the respondents in the two groups. In both groups, respondents with a college or undergraduate degree comprise the majority (163 out of 181 and 148 out of 181 respectively). Although the late respondents are shown to have a slightly lower level of education than the early respondents, the difference is insignificant ($p = 0.056$).

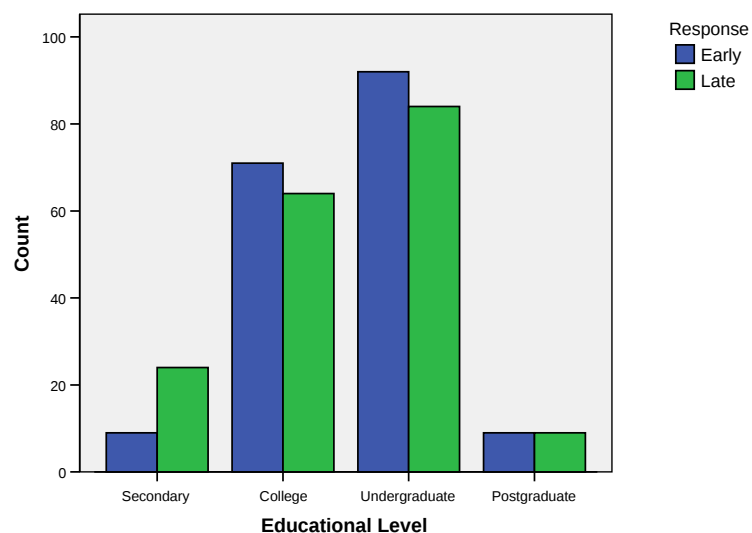
Table 5.16A: Chi-Square Tests - Educational Level of the Respondents

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.545	3	.056
Likelihood Ratio	7.802	3	.050
Linear-by-Linear Association	2.741	1	.098
N of Valid Cases	362		

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is .50.

Table 5.16B: Crosstabs - Educational Level of the Respondents

		Response		Total
		Early	Late	
Educational Level	Secondary or below	9	24	33
	College	71	64	135
	Undergraduate	92	84	176
	Postgraduate	9	9	18
Total		181	181	362

Bar Chart**Figure 5.16: Educational Level of the Respondents**

5.4. Validity and Reliability

Factor analysis and Cronbach's alpha test are widely recognized as the two most common statistical methods for assessing the validity and reliability of constructs and questionnaire items (Bian and Moutinho, 2009). Factor analysis, which checks whether the questionnaire scales for a variable are measuring a single underlying construct, is a common instrument used to examine the quality of the data collected (Coakes et al., 2008; Thakor and Goneau-Lessard, 2009). Cronbach's alpha, on the other hand, is a statistical tool widely used to check the internal consistency of questionnaire scales (Shin, Collier and Wilson, 2000). The questionnaire scales for assessing a latent construct are considered as adequately qualified for further study if the Cronbach's alpha value is 0.6 or higher (Coakes et al., 2008; Shin et al., 2000).

5.4.1. Factor Analysis for Reliability Testing

As all the measuring items were adapted from previously validated studies, the assumption was made that the constructs and their content validity had been well tested. However, to further enhance the quality of study, exploratory factor analysis (EFA) was used to test the construct validity of the measuring items (Cavana et al., 2001).

Principle component analysis, which extracts the underlying constructs of the questionnaire items, is one of the most common statistical techniques for data reduction and factor analysis (Hair, Black, Babin, Anderson and Tatham, 2005). In this study, principle component analysis with Varimax rotation was performed using SPSS on all questionnaire items to extract components with eigenvalues greater than 1.

Bartlett's test of sphericity and Kaiser-Meyer-Olkin (KMO), which measures sampling adequacy, are the two most common statistical tests to examine whether the basic assumptions for factor analysis have been met or not (Coakes et al., 2008; Hair et al., 2005). Table 5.17 shows that Bartlett's test yields a approximate Chi-square value of 4087.971, with 300 degrees of freedom and is significant ($p = .000$). The KMO Measure of Sampling Adequacy is 0.888, higher than the minimum acceptable level of 0.6 (Coakes et al., 2008), indicating that the questionnaire items are suitable for EFA.

Table 5.17: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.888
Bartlett's Test of Sphericity	Approx. Chi-Square	4087.971
	Df	300
	Sig.	.000

Each of the questionnaire items were loaded successfully onto one component with a factor loading of more than 0.4 (Hair et al., 2005). The components extracted with an eigenvalue above 1.0 explain 60.8% of the variance (see Table 5.18). Entrepreneurial orientation was the independent variable in this study. The EFA extracted a total of five instead of four components from all the questionnaire items. As suggested by factor loading results of EFA, entrepreneurial orientation comprised two different dimensions.

The first dimension of entrepreneurial orientation comprised questionnaire items A11, A12, A13 and A18. Of these 4 items, items A11 and A12 were about first mover advantage, developed to measure a firm's ability to stay ahead of its competitors. Item A13 was about policies in support of employees' leveraging of first mover advantage, while item A18 was about the sustainability of first mover advantage. In other words, first dimension of entrepreneurial orientation was about gaining and sustaining first mover advantage in a proactive manner and was, therefore, termed as "proactive entrepreneurial orientation".

The second dimension of entrepreneurial orientation comprised questionnaire items A14, A15, A16 and A17. Item A14 was about freedom to develop new ideas, item A15 was about top management's support of new product introduction, while items A16 and A17 were about stimulation of innovation and creativity in response to market needs. These items underscored the internal dynamics and the importance of bringing into play the innovative capabilities of a firm and the underlying construct was hence termed as "reactive entrepreneurial orientation".

All customer orientation related items were loaded successfully onto one underlying construct termed as "customer orientation"; all knowledge sharing related items were loaded successfully onto one underlying construct and this construct was termed as "knowledge sharing"; and all firm performance related items were loaded successfully onto one underlying construct and this construct was termed as "firm performance".

Table 5.18: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.218	28.873	28.873	7.218	28.873	28.873	3.898	15.593	15.593
2	3.195	12.779	41.652	3.195	12.779	41.652	3.898	15.590	31.183
3	2.259	9.034	50.686	2.259	9.034	50.686	2.887	11.549	42.731
4	1.464	5.856	56.542	1.464	5.856	56.542	2.646	10.582	53.314
5	1.068	4.272	60.814	1.068	4.272	60.814	1.875	7.500	60.814
6	.890	3.560	64.373						
7	.828	3.310	67.684						
8	.760	3.039	70.722						
9	.722	2.889	73.612						
10	.646	2.584	76.195						
11	.627	2.509	78.704						
12	.592	2.367	81.071						
13	.526	2.104	83.175						
14	.498	1.993	85.168						
15	.466	1.864	87.033						
16	.459	1.835	88.868						
17	.411	1.644	90.512						
18	.393	1.574	92.086						
19	.373	1.491	93.577						
20	.343	1.370	94.947						
21	.310	1.241	96.188						
22	.266	1.065	97.253						
23	.249	.998	98.250						
24	.223	.890	99.140						
25	.215	.860	100.000						

Extraction Method: Principal Component Analysis.

Table 5.19: Exploratory Factor Analysis Results

		Component				
		1	2	3	4	5
A11	In dealing with competitors, our company typically initiates actions which competitors respond to.					.667
A12	In dealing with competitors, our company is very often the first business to introduce new products/services, administrative techniques, operation, technologies, etc.					.592
A13	Our company stresses a fully delegated policy for employees.					.616
A14	Our company gives the freedom for individuals or teams to develop new ideas.				.728	
A15	In general, the top managers of our company have a strong tendency to be ahead of others in introducing novel ideas or products/services.				.721	
A16	Our company encourages and stimulates technological, product/service-market and administrative innovation.				.791	
A17	Our company stimulates creativity and experimentation.				.722	
A18	Our company's innovative initiatives are hard for competitors to successfully imitate.					.515
A21	Our sales growth is better than our main competitors.	.764				
A22	Our return on equity is better than our main competitors.	.777				
A23	Our return on asset is better than our main competitors.	.865				
A24	Our return on investment is better than our main competitors.	.839				
A25	Our overall performance is better than our main competitors.	.857				
A31	When I have learned something new, I tell my colleagues about it.		.639			
A32	When colleagues have learned something new, they tell me about it.		.667			
A33	Knowledge sharing among colleagues is considered normal in my company.		.656			
A34	I share information I have with colleagues when they ask for it.		.753			
A35	I share my skills with colleagues when they ask for it.		.769			
A36	Colleagues in my company share knowledge with me when I ask them to.		.758			
A37	Colleagues in my company share their skills with me when I ask them to.		.740			
A41	Our company is customer-oriented.			.696		
A42	Our company brings value to customers.			.697		
A43	Our company understands customer needs.			.674		
A44	Customer satisfaction is our company's objective.			.767		
A45	Our company values after-sale service.			.720		

5.4.2. Cronbach's Alpha for Reliability Testing

Cronbach's alpha tests were conducted to assess the consistency among the items in each component (construct) extracted by EFA (Hair et al, 2005; Verbeke and Bagozzi, 2000). Table 5.20 below shows that the five constructs have Cronbach's alpha values range between 0.638 and 0.908, indicating that the measuring scales of all constructs have an acceptable internal consistency for further analysis (Hair et al, 2005; Shin et al., 2000). It should be noted that though the Cronbach's Alpha value for proactive entrepreneurial orientation is low, it is still higher than the minimum acceptable level of 0.6.

Table 5.20: Cronbach's Alpha Values of Constructs

Constructs	Cronbach's Alpha	Number of Items
Proactive Entrepreneurial Orientation	.638	4
Reactive Entrepreneurial Orientation	.822	4
Firm Performance	.908	5
Knowledge Sharing	.857	7
Customer Orientation	.801	5

5.5. The Underlying Constructs

Findings in sections 5.3 and 5.4 above indicated that the data collected were suitable for further analysis. Before hypothesis testing could be performed, the five underlying constructs were computed by averaging the scores of their constituent questionnaire items identified by EFA (Hooley, Greenley, Cadogan and Fahy, 2005; Mittal and Lassar, 1996).

5.5.1. Descriptive Statistics for Proactive Entrepreneurial Orientation

The descriptive statistics for each of the four constituent items of proactive entrepreneurial orientation are summarized in Table 5.21, those for the underlying construct of proactive entrepreneurial orientation are summarized in Table 5.22. The corresponding histogram is shown in Figure 5.17.

Table 5.22 shows that the mean statistics of the four measuring items are in the range between 4.68 and 5.41. The mean statistic of the underlying construct of proactive entrepreneurial orientation is 5.1. All mean statistics are considerably above 4, indicating that the incumbents of the cosmetics industry, in general, exhibited a high level of proactive entrepreneurial orientation. The slightly negative skewness (skewness = -0.679) and slightly positive kurtosis (kurtosis = 0.460) in Table 5.22 indicate that the distribution of proactive entrepreneurial orientation is close to normal (see also Figure 5.17).

Table 5.21: Descriptive Statistics for Constituent Items of Proactive Entrepreneurial Orientation

Questionnaire Items	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
A11	362	5.41	1.145	-1.265	.128	1.514	.256
A12	362	5.13	1.214	-.581	.128	-.189	.256
A13	362	5.19	1.272	-.915	.128	.464	.256
A18	362	4.68	1.317	-.305	.128	-.322	.256

Table 5.22: Descriptive Statistics for Proactive Entrepreneurial Orientation

N	Mean	Std. Deviation	Skewness		Kurtosis	
Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
362	5.10152	.857720	-.679	.128	.460	.256

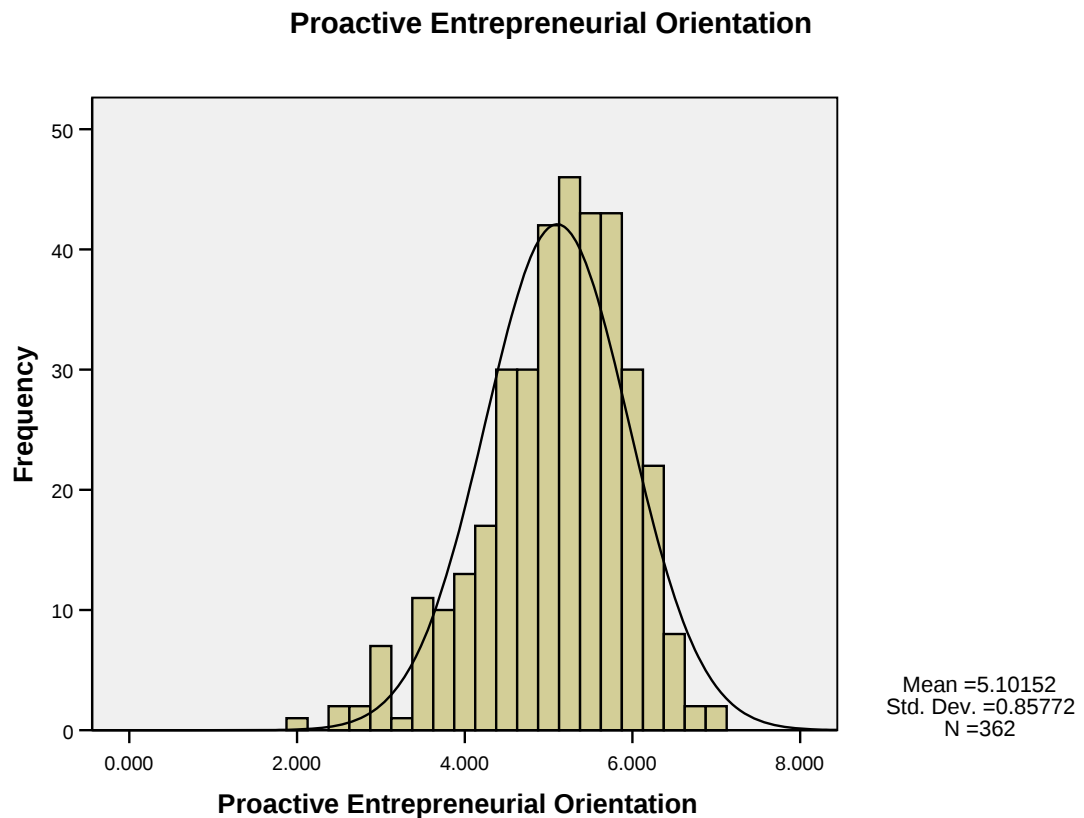


Figure 5.17: Histogram of Proactive Entrepreneurial Orientation

5.5.2. Descriptive Statistics for Reactive Entrepreneurial Orientation

The descriptive statistics for each of the four constituent items of reactive entrepreneurial orientation are summarized in Table 5.23, those for the underlying construct of proactive entrepreneurial orientation are summarized in Table 5.24. The corresponding histogram is shown in Figure 5.18.

The mean statistics of the four measuring items are in the range between 5.59 and 5.82. Table 5.24 shows that the mean statistic of the underlying construct of reactive entrepreneurial orientation is 5.7. All mean statistics are considerably above 4, indicating that the incumbents of the cosmetics industry, in general, exhibited an extremely high level of reactive entrepreneurial orientation. The negative skewness (skewness = -1.082) and slightly positive kurtosis (kurtosis = 2.293) in Table 5.24

indicate that the distribution of reactive entrepreneurial orientation is taller than normal distribution and has an asymmetry tail towards the lower values (see also Figure 5.18).

Table 5.23: Descriptive Statistics for Constituent Items of Reactive Entrepreneurial Orientation

Questionnaire Items	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
A14	362	5.59	1.108	-1.246	.128	1.976	.256
A15	362	5.69	.956	-.910	.128	.961	.256
A16	362	5.82	.949	-.943	.128	1.156	.256
A17	362	5.72	.961	-1.219	.128	2.697	.256

Table 5.24: Descriptive Statistics for Reactive Entrepreneurial Orientation

N	Mean	Std. Deviation	Skewness		Kurtosis	
Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
362	5.70511	.803745	-1.082	.128	2.293	.256

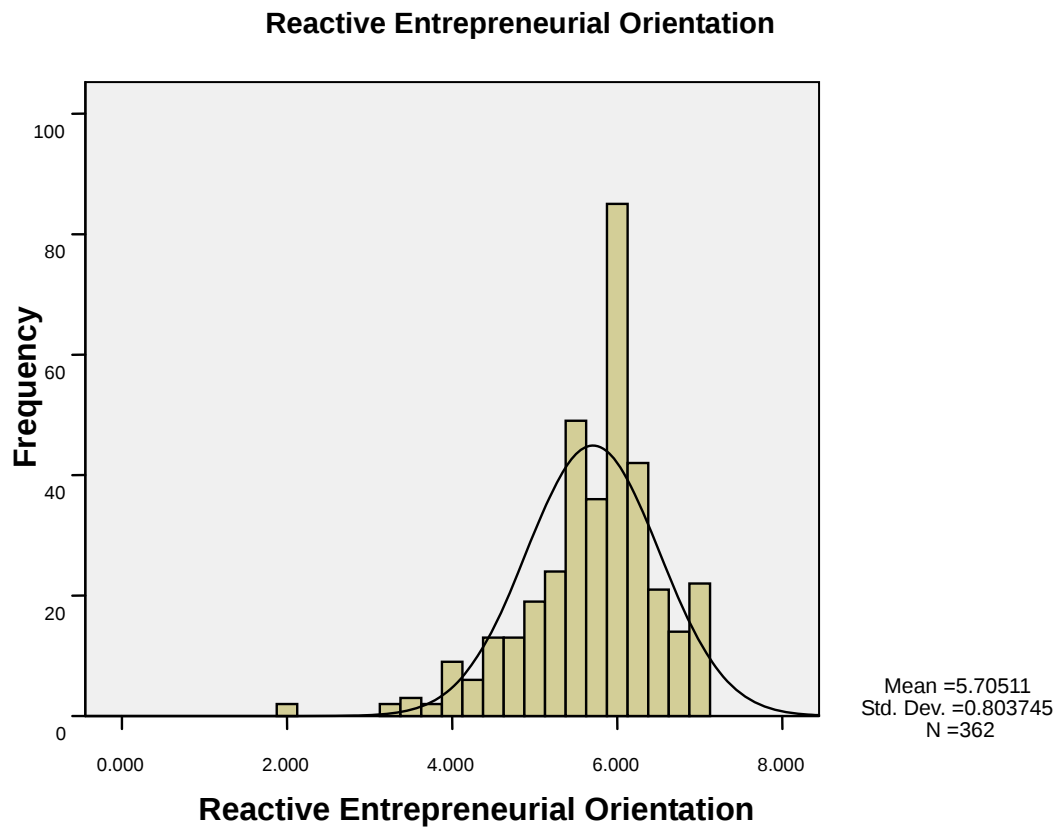


Figure 5.18: Histogram of Reactive Entrepreneurial Orientation

5.5.3. Descriptive Statistics for Firm Performance

The descriptive statistics for each of the five constituent items of firm performance are summarized in Table 5.25 and those for the underlying construct of firm performance are summarized in Table 5.26. The corresponding histogram is shown in Figure 5.19. The mean statistics of the five measuring items are in the range between 4.66 and 4.95. Table 5.26 shows that the mean statistic of the underlying construct of firm performance is 4.76. All mean statistics are considerably above 4, indicating that the incumbents of the cosmetics industry, in general, perceived their firms as performing better than their

competitors. The close to zero skewness (-0.039) and kurtosis (-0.059) indicate that the distribution of the firm performance was close to a normal distribution.

Table 5.25: Descriptive Statistics for Constituent Items of Firm Performance

Questionnaire Items	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
A21	362	4.95	1.146	-.241	.128	-.576	.256
A22	362	4.66	1.204	-.213	.128	-.091	.256
A23	362	4.66	1.229	-.007	.128	-.272	.256
A24	362	4.69	1.213	-.078	.128	-.373	.256
A25	362	4.84	1.207	-.046	.128	-.581	.256

Table 5.26: Descriptive Statistics for Firm Performance

N	Mean	Std. Deviation	Skewness		Kurtosis	
Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
362	4.76409	1.033367	-.039	.128	-.059	.256

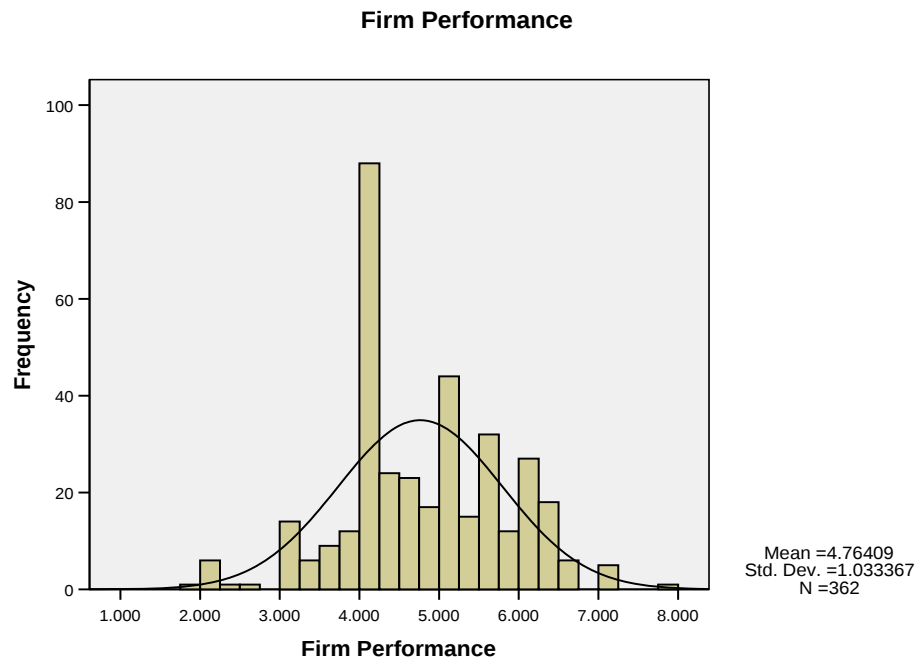


Figure 5.19: Histogram of Firm Performance

5.5.4. Descriptive Statistics for Knowledge Sharing

The descriptive statistics for each of the seven constituent items of knowledge sharing are summarized in Table 5.27, those for the underlying construct of knowledge sharing are summarized in Table 5.28. The corresponding histogram is shown in Figure 5.19. The mean statistics of the seven measuring items are in the range between 5.55 and 6.07. Table 5.28 shows that the mean statistic of the underlying construct of firm performance is 5.86. All mean statistics are considerably above 4, indicating that the incumbents of the cosmetics industry, in general, attached great importance to knowledge sharing. The slightly negative skewness (skewness = -0.599) and slightly positive kurtosis (kurtosis = 0.664) in Table 5.28 indicate that the distribution of knowledge sharing is close to normal (see also Figure 5.20).

Table 5.27: Descriptive Statistics for Constituent Items of Knowledge Sharing

Questionnaire Items	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
A31	362	5.94	.869	-1.673	.128	5.560	.256
A32	362	5.55	1.075	-1.037	.128	1.517	.256
A33	362	5.76	.896	-1.050	.128	2.234	.256
A34	362	6.07	.798	-1.312	.128	3.502	.256
A35	362	6.05	.783	-1.029	.128	1.855	.256
A36	362	5.84	.889	-1.077	.128	1.680	.256
A37	362	5.79	.833	-.826	.128	.716	.256

Table 5.28: Descriptive Statistics for Knowledge Sharing

N	Mean	Std. Deviation	Skewness		Kurtosis	
Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
362	5.85793	.647490	-.599	.128	.664	.256

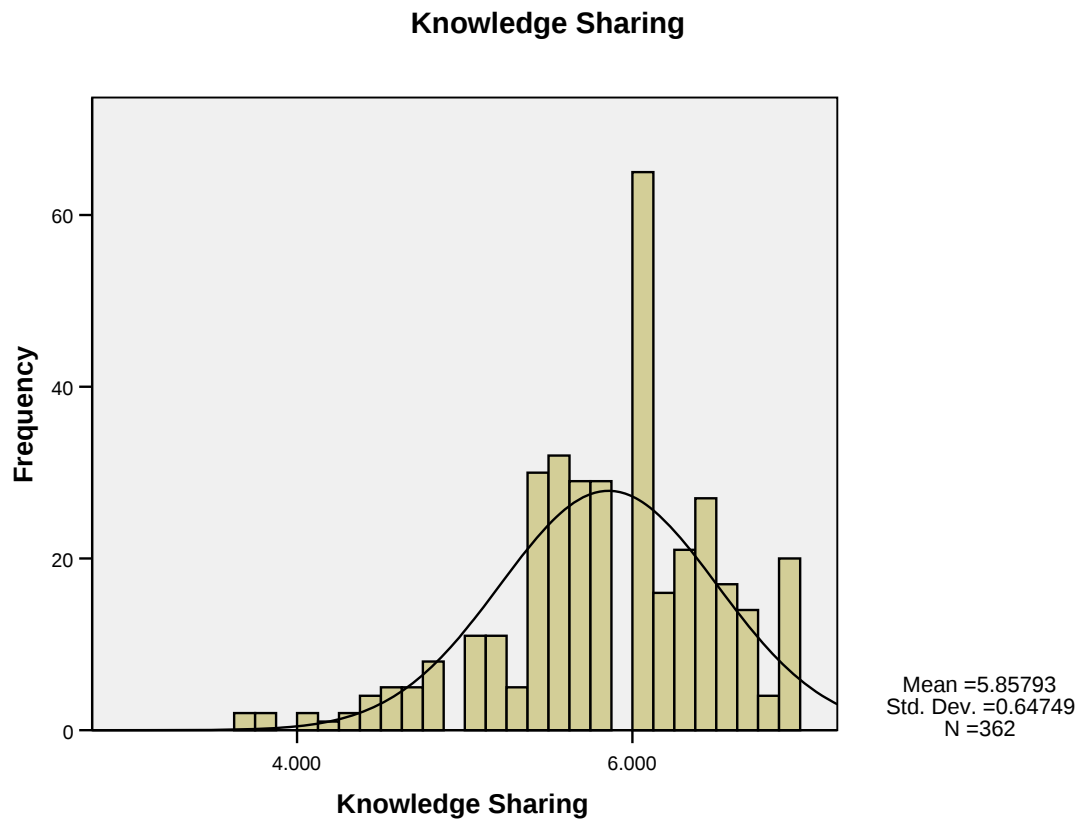


Figure 5.20: Histogram of Knowledge Sharing

5.5.5. Descriptive Statistics for Customer Orientation

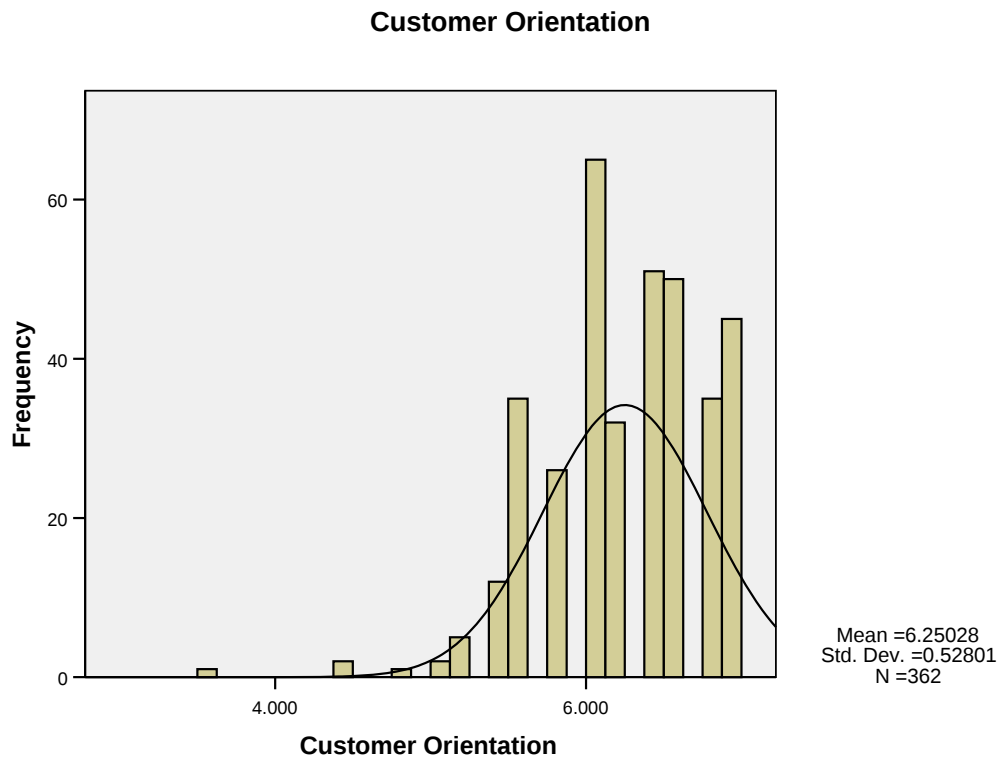
The descriptive statistics for each of the five constituent items of customer orientation are summarized in Table 5.29 while those for the underlying construct of customer orientation are summarized in Table 5.30. The corresponding histogram is shown in Figure 5.20. The mean statistics of the five measuring items are in the range between 6.03 and 6.36. Table 5.30 shows that the mean statistic of the underlying construct of customer orientation is 6.25. All mean statistics are considerably above 4, highlighting the importance of customer orientation to the cosmetics manufacturers.

Table 5.29: Descriptive Statistics for Constituent Items of Customer Orientation

Questionnaire Items	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
A41	362	6.36	.685	-1.120	.128	2.206	.256
A42	362	6.27	.731	-.934	.128	1.217	.256
A43	362	6.03	.725	-.445	.128	.087	.256
A44	362	6.32	.701	-.835	.128	.543	.256
A45	362	6.27	.696	-.715	.128	.434	.256

Table 5.30: Descriptive Statistics for Customer Orientation

N	Mean	Std. Deviation	Skewness		Kurtosis	
Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
362	6.25028	.528010	-.707	.128	1.331	.256

**Figure 5.21: Histogram of Customer Orientation**

5.6. Hypothesis Testing

The five hypotheses developed in Chapter 3 were tested as follows.

5.6.1. Direct Relationships

Hypothesis 1: Entrepreneurial orientation positively affects the firm performance of cosmetics manufacturers in China.

As the results of factor analysis suggested that entrepreneurial orientation in the cosmetics manufacturing industry comprised two distinctive dimensions, proactive entrepreneurial orientation and reactive entrepreneurial orientation, the first hypothesis was further split into two subordinate hypotheses:

Hypothesis 1a: Proactive Entrepreneurial orientation positively affects the firm performance of cosmetics manufacturers in China.

The linear regression test result shown in Table 5.31 confirms that firm performance is positive and significantly influenced by the proactive dimension of entrepreneurial orientation ($B = 0.609$, $\beta = 0.506$, $t = 11.118$, $p < 0.05$). The regression formula is:

$$\text{Firm Performance} = 1.657 + 0.609 * \text{Proactive Entrepreneurial Orientation}$$

Therefore, Hypothesis 1a is supported. Figure 5.22 shows a dots and curve diagram illustrating the relationship between proactive entrepreneurial orientation and firm performance.

Table 5.31: Relationship between Proactive Entrepreneurial Orientation and Firm Performance (H1a)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.657	.283		5.846	.000
Proactive Entrepreneurial Orientation	.609	.055	.506	11.118	.000

Dependent Variable: Firm Performance

Normal P-P Plot of Regression Standardized Residual

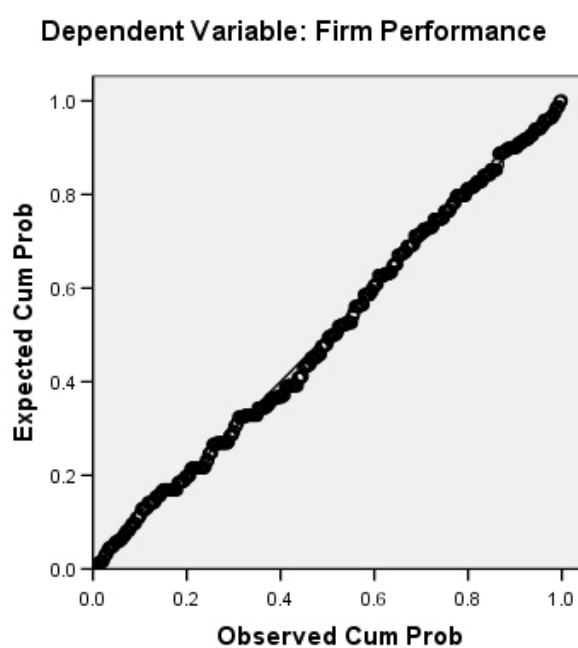


Figure 5.22: Proactive Entrepreneurial Orientation and Firm Performance

Hypothesis 1b: Reactive Entrepreneurial orientation positively affects the firm performance of cosmetics manufacturers in China.

The linear regression test results shown in Table 5.32 confirms that firm performance is also positive and significantly influenced by the reactive dimension of entrepreneurial

orientation ($B = 0.328$, $\beta = 0.255$, $t = 5.004$, $p < 0.05$), hence giving support to Hypothesis 1b. The regression formula is:

$$\text{Firm Performance} = 2.893 + 0.328 * \text{Reactive Entrepreneurial Orientation}$$

Figure 5.23 shows a dots and curve diagram illustrating the relationship between reactive entrepreneurial orientation and firm performance.

Table 5.32: Relationship between Reactive Entrepreneurial Orientation and Firm Performance (H1b)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.893	.377		7.665	.000
Reactive Entrepreneurial Orientation	.328	.066	.255	5.004	.000

Dependent Variable: Firm Performance

Normal P-P Plot of Regression Standardized Residual

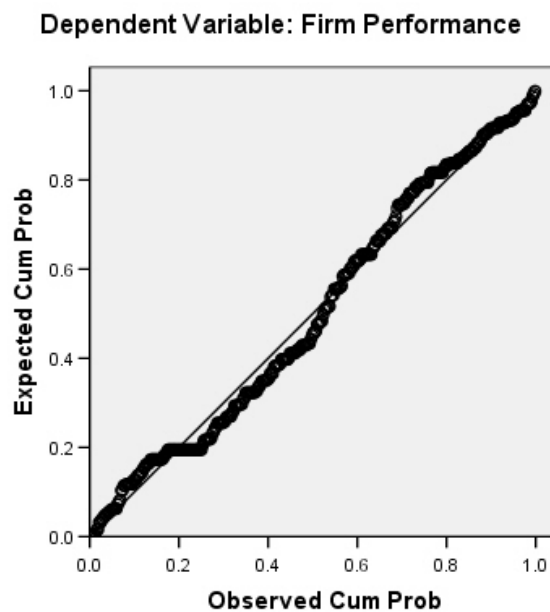


Figure 5.23: Reactive Entrepreneurial Orientation and Firm Performance

Given that the two subordinate hypotheses of Hypothesis 1 are supported, Hypothesis 1 is also supported. The results in Table 5.31 and Table 5.32 indicate that the proactive dimension of entrepreneurial orientation has a much stronger influence on firm performance than the reactive dimension of entrepreneurial orientation. The implications of this finding are detailed in Chapter 6.

Hypothesis 2: Customer orientation positively affects the firm performance of cosmetics manufacturers in China.

The linear regression test result in Table 5.33 confirms that firm performance is influenced by customer orientation ($B = 0.433$, $\beta = 0.221$, $t = 4.304$, $p < 0.05$), hence giving support to Hypothesis 2. The regression formula is:

$$\text{Firm Performance} = 2.058 + 0.433 * \text{Customer Orientation}$$

Figure 5.24 shows a dots and curve diagram illustrating the relationship between customer orientation and firm performance.

Table 5.33: Relationship between Customer Orientation and Firm Performance (H2)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.058	.631		3.262	.001
Customer Orientation	.433	.101	.221	4.304	.000

Dependent Variable: Firm Performance

Normal P-P Plot of Regression Standardized Residual

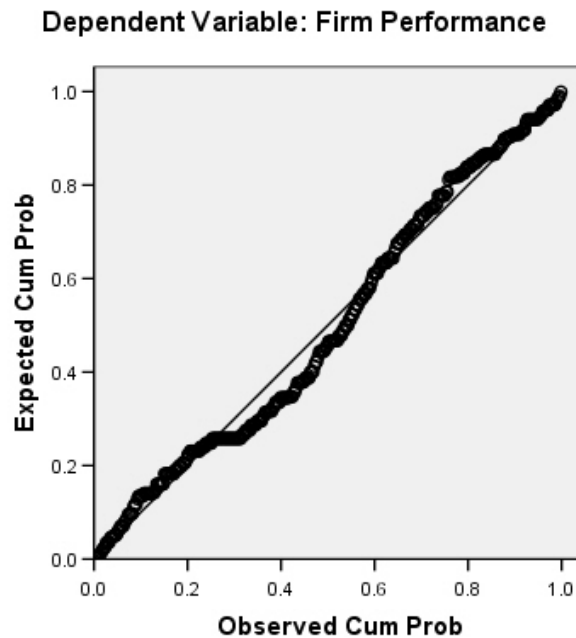


Figure 5.24: Customer Orientation and Firm Performance

Hypothesis 3: Knowledge sharing positively affects the firm performance of cosmetics manufacturers in China.

The linear regression test result in Table 5.34 confirms that firm performance is influenced by knowledge sharing ($B = 0.450$, $\beta = 0.282$, $t = 5.573$, $p < 0.05$), therefore, giving support to Hypothesis 3. The regression formula is:

$$\text{Firm Performance} = 2.130 + 0.450 * \text{Knowledge Sharing}$$

Figure 5.25 shows a dots and curve diagram illustrating the relationship between knowledge sharing and firm performance.

Table 5.34: Relationship between Knowledge Sharing and Firm Performance (H3)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.130	.476		4.477	.000
Knowledge Sharing	.450	.081	.282	5.573	.000

Dependent Variable: Firm Performance

Normal P-P Plot of Regression Standardized Residual

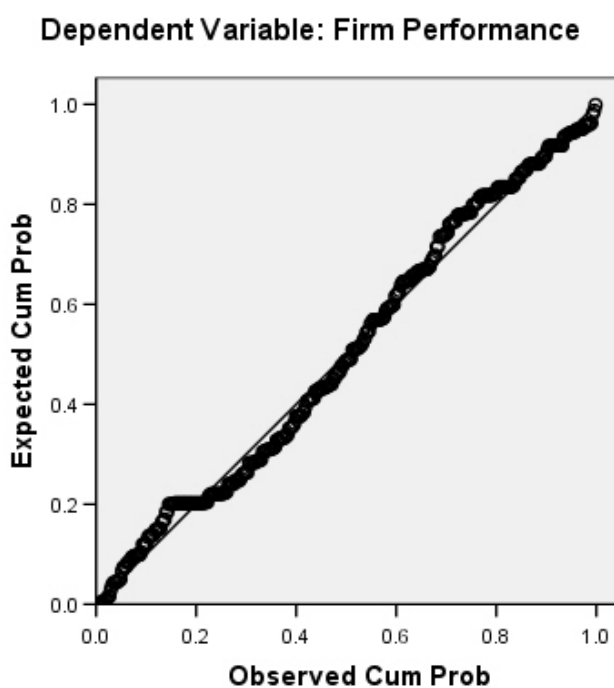


Figure 5.25: Knowledge Sharing and Firm Performance

5.6.2. Moderating Effects

Hypothesis 4: Customer orientation moderates the relationship between entrepreneurial orientation and firm performance of cosmetics manufacturers in China.

As noted before, entrepreneurial orientation in this study comprised two distinctive dimensions, i.e., proactive entrepreneurial orientation and reactive entrepreneurial orientation. The fourth hypothesis was accordingly split into two subordinate hypotheses:

Hypothesis 4a: Customer orientation moderates the relationship between proactive entrepreneurial orientation and firm performance of cosmetics manufacturers in China.

Hypothesis 4b: Customer orientation moderates the relationship between reactive entrepreneurial orientation and firm performance of cosmetics manufacturers in China.

Tables 5.35 and 5.36 show the results of multiple regression analysis using the steps discussed in Baron and Kenny (1986). Following this approach, possible moderating effect of customer orientation on the relationship between entrepreneurial orientation and firm performance was assessed. Firm-related variables, i.e. firm size and business model, were used as control variables.

The variable of business models was re-coded into two variables, OEM and Own Brand. If a firm was engaged in OEM only, its corresponding OEM field was coded as 1 and Own Brand field was coded as 0. If a firm produced all products under its own brand name, its corresponding OEM field was coded as 0 and Own Brand field as 1. If a firm was engaged in both, its corresponding OEM and Own Brand fields were coded as 1.

Table 5.35 shows the model summary and Table 5.36 shows the model coefficients of the three regression models of moderating role of customer orientation on the

relationship between proactive entrepreneurial orientation and firm performance. In model 1, by controlling the influence of firm size and business model, the independent variable of proactive entrepreneurial orientation displays a positive and significant influence on firm performance and the model explains 26.7% of the variance (Adjusted R Square = 0.267, F = 33.878, Sig = 0.000). In model 2, by adding the moderator of customer orientation, the explanation power of the model remains at 26.7% (F change is 0.768 and Sig. F. Change = 0.381), indicating the change is insignificant. As shown in Table 5.36, in model 3, the interactive term, i.e., proactive entrepreneurial orientation X customer orientation, displays a significant but negative influence on firm performance. The direction of influence is negative instead of positive; therefore, Hypothesis 4a is rejected.

Table 5.35: Model Summary – Customer Orientation Moderates the Relationship between Proactive Entrepreneurial Orientation and Firm Performance (H4a)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.525 ^a	.275	.267	.884708	.275	33.878	4	357	.000
2	.526 ^b	.277	.267	.884995	.002	.768	1	356	.381
3	.540 ^c	.292	.280	.876762	.015	7.718	1	355	.006

a. Predictors: (Constant), Proactive Entrepreneurial Orientation, Own Brand, Firm Size, OEM

Table 5.36: Coefficients – Customer Orientation Moderates the Relationship between Proactive Entrepreneurial Orientation and Firm Performance (H4a)

Model		Unstandardized Coefficients		t	Sig.
		B	Std. Error		
1	(Constant)	1.241	.334	3.713	.000
	Firm Size	.108	.044	2.458	.014
	OEM	.204	.109	1.870	.062
	Own Brand	-.052	.122	-.426	.670
	Proactive Entrepreneurial Orientation	.611	.055	11.193	.000
2	(Constant)	.815	.590	1.381	.168
	Firm Size	.110	.044	2.507	.013
	OEM	.204	.109	1.868	.063
	Own Brand	-.059	.122	-.478	.633
	Proactive Entrepreneurial Orientation	.591	.059	10.030	.000
	Customer Orientation	.084	.096	.877	.381
3	(Constant)	-6.830	2.813	-2.428	.016
	Firm Size	.106	.044	2.420	.016
	OEM	.175	.109	1.614	.108
	Own Brand	-.042	.121	-.342	.733
	Proactive Entrepreneurial Orientation	2.166	.570	3.801	.000
	Customer Orientation	1.326	.457	2.901	.004
	Proactive Entrepreneurial Orientation X Customer Orientation	-.254	.091	-2.778	.006

a. Dependent Variable: Firm Performance

Table 5.37 shows the model summary and Table 5.38 shows the model coefficients of the three regression models of moderating role of customer orientation on the relationship between reactive entrepreneurial orientation and firm performance. In model 1, by controlling the influence of firm size and business model, the independent variable of reactive entrepreneurial orientation displays a small but positive and significant influence on firm performance and the model explains 8.1% of the variance

(Adjusted R Square = 0.081, F = 8.925, Sig = 0.000). In model 2, by adding the moderator of customer orientation, the explanation power of the model increases slightly by 1.2%, i.e. from 8.1% to 9.3% (F change is 5.848 and Sig. F. Change = 0.016), indicating that the change is small but significant. By adding the interactive term, the explanation of the model increases slightly by 0.4%, from 9.3% in model 2 to 9.7% in model 3 (Adjusted R Square = 0.097). But the change is insignificant (F Change = 2.596, Sig. F. Change = 0.108). As shown in Table 5.38, in model 3, the interactive term, i.e., reactive entrepreneurial orientation X customer orientation, displays a insignificant ($p > 0.05$) and negative ($B = -0.124$, $p = 0.108$) influence on firm performance. Therefore, Hypothesis 4b is also rejected.

Hypothesis 4 is rejected because both of its subordinate hypotheses, H4a and H4b, are rejected.

Table 5.37: Model Summary – Customer Orientation Moderates the Relationship between Reactive Entrepreneurial Orientation and Firm Performance (H4b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.302 ^a	.091	.081	.990779	.091	8.925	4	357	.000
2	.325 ^b	.106	.093	.984119	.015	5.848	1	356	.016
3	.335 ^c	.112	.097	.981921	.006	2.596	1	355	.108

a. Predictors: (Constant), Reactive Entrepreneurial Orientation, Own Brand, Firm Size, OEM

b. Predictors: (Constant), Reactive Entrepreneurial Orientation, Own Brand, Firm Size, OEM, Customer Orientation

c. Predictors: (Constant), Reactive Entrepreneurial Orientation, Own Brand, Firm Size, OEM, Customer Orientation, Reactive Entrepreneurial Orientation X Customer Orientation

Table 5.38: Coefficients – Customer Orientation Moderates the Relationship between Reactive Entrepreneurial Orientation and Firm Performance (H4b)

Model		Unstandardized Coefficients		t	Sig.
		B	Std. Error		
1	(Constant)	2.413	.430	5.614	.000
	Firm Size	.092	.049	1.876	.062
	OEM	.294	.122	2.403	.017
	Own Brand	-.082	.137	-.599	.550
	Reactive Entrepreneurial Orientation	.341	.065	5.249	.000
2	(Constant)	1.196	.660	1.813	.071
	Firm Size	.099	.049	2.032	.043
	OEM	.281	.122	2.313	.021
	Own Brand	-.098	.136	-.724	.470
	Reactive Entrepreneurial Orientation	.263	.072	3.640	.000
3	Customer Orientation	.266	.110	2.418	.016
	(Constant)	-2.798	2.565	-1.091	.276
	Firm Size	.104	.049	2.135	.033
	OEM	.271	.121	2.228	.027
	Own Brand	-.089	.136	-.654	.513
	Reactive Entrepreneurial Orientation	1.010	.469	2.153	.032
	Customer Orientation	.932	.427	2.181	.030
	Reactive Entrepreneurial Orientation X Customer Orientation	-.124	.077	-1.611	.108

a. Dependent Variable: Firm Performance

Hypothesis 5: Knowledge sharing moderates the relationship between entrepreneurial orientation and firm performance of cosmetics manufacturers in China.

Same as Hypothesis 4, the fifth hypothesis was also split into two subordinate hypotheses:

Hypothesis 5a: Knowledge sharing moderates the relationship between proactive entrepreneurial orientation and firm performance of cosmetics manufacturers in China.

Hypothesis 5b: Knowledge sharing moderates the relationship between Reactive Entrepreneurial orientation and firm performance of cosmetics manufacturers in China.

The Baron and Kenny (1986) approach was also used to assess the moderating role of knowledge sharing on the relationship between entrepreneurial orientation and firm performance. Firm-related variables, firm size and business model, were again used as control variables.

Table 5.39 shows the model summary and Table 5.40 shows the model coefficients of the three regression models of moderating role of knowledge sharing on the relationship between proactive entrepreneurial orientation and firm performance. In model 1, by controlling the influence of firm size and business model, the independent variable of proactive entrepreneurial orientation has a positive and significant influence on firm performance and the model explains 26.7% of the variance (Adjusted R Square = 0.267, $F = 33.878$, Sig = 0.000). In model 2, by adding the moderator of knowledge sharing, the explanation power of the model increases significantly by 1.4% to 28.1% (Adjusted R Square = 0.281, F change = 7.964 and Sig. F Change = 0.005), indicating that the change is significant. As shown in Table 5.40, in model 3, the interactive term, i.e., proactive entrepreneurial orientation X knowledge sharing, displays a significant and positive influence on firm performance ($B = 0.191$, $p = 0.005$). Therefore, Hypothesis 5a is accepted.

Table 5.39: Model Summary – Knowledge Sharing Moderates the Relationship between Proactive Entrepreneurial Orientation and Firm Performance (H5a)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.525 ^a	.275	.267	.884708	.275	33.878	4	357	.000
2	.539 ^b	.291	.281	.876204	.016	7.964	1	356	.005
3	.554 ^c	.306	.295	.867861	.015	7.877	1	355	.005

a. Predictors: (Constant), Proactive Entrepreneurial Orientation, Own Brand, Firm Size, OEM

b. Predictors: (Constant), Proactive Entrepreneurial Orientation, Own Brand, Firm Size, OEM, Knowledge Sharing

c. Predictors: (Constant), Proactive Entrepreneurial Orientation, Own Brand, Firm Size, OEM, Knowledge Sharing, Proactive Entrepreneurial Orientation X Knowledge Sharing

Table 5.40: Coefficients – Knowledge Sharing Moderates the Relationship between Proactive Entrepreneurial Orientation and Firm Performance (H5a)

Model		Unstandardized Coefficients		t	Sig.
		B	Std. Error		
1	(Constant)	1.241	.334	3.713	.000
	Firm Size	.108	.044	2.458	.014
	OEM	.204	.109	1.870	.062
	Own Brand	-.052	.122	-.426	.670
	Proactive Entrepreneurial Orientation	.611	.055	11.193	.000
2	(Constant)	.261	.480	.544	.587
	Firm Size	.097	.044	2.215	.027
	OEM	.212	.108	1.958	.051
	Own Brand	-.030	.121	-.250	.802
	Proactive Entrepreneurial Orientation	.561	.057	9.872	.000
	Knowledge Sharing	.212	.075	2.822	.005
3	(Constant)	5.533	1.938	2.856	.005
	Firm Size	.099	.043	2.297	.022
	OEM	.230	.107	2.139	.033
	Own Brand	-.045	.120	-.377	.707
	Proactive Entrepreneurial Orientation	-.538	.396	-1.360	.175
	Knowledge Sharing	-.713	.338	-2.110	.036
	Proactive Entrepreneurial Orientation X Knowledge Sharing	.191	.068	2.807	.005

a. Dependent Variable: Firm Performance

Table 5.41 shows the model summary and Table 5.42 shows the model coefficients of the three regression models of moderating role of knowledge sharing on the relationship between reactive entrepreneurial orientation and firm performance. In model 1, by controlling the influence of firm size and business model, the independent variable of reactive entrepreneurial orientation has a small but positive and significant influence on firm performance and the model explains 8.1% of the variance (Adjusted R Square = 0.081, F = 8.925, Sig = 0.000). In model 2, by adding the moderator of knowledge sharing, the explanation power of the model increases by a slight 2.8%, i.e. from 8.1% to 10.9% (F change is 12.300 and Sig. F. Change = 0.001), indicating that the change is small but significant. By adding the interactive term, the explanation of the model remains the same (F Change = 0.867, Sig. F. Change = 0.352). As shown in Table 5.42, in model 3, the interactive term, i.e., reactive entrepreneurial orientation X knowledge sharing, displays an insignificant ($p > 0.05$), small and negative ($B = -0.072$, $p = 0.352$) influence on firm performance. Therefore, Hypothesis 5b is rejected.

Table 5.41: Model Summary – Knowledge Sharing Moderates the Relationship between Reactive Entrepreneurial Orientation and Firm Performance (H5b)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.302 ^a	.091	.081	.990779	.091	8.925	4	357	.000
2	.348 ^b	.121	.109	.975462	.030	12.300	1	356	.001
3	.351 ^c	.123	.109	.975644	.002	.867	1	355	.352

a. Predictors: (Constant), Reactive Entrepreneurial Orientation, Own Brand, Firm Size, OEM

b. Predictors: (Constant), Reactive Entrepreneurial Orientation, Own Brand, Firm Size, OEM, Knowledge Sharing

c. Predictors: (Constant), Reactive Entrepreneurial Orientation, Own Brand, Firm Size, OEM, Knowledge Sharing, Reactive Entrepreneurial Orientation X Knowledge Sharing

Table 5.42: Coefficients – Knowledge Sharing Moderates the Relationship between Reactive Entrepreneurial Orientation and Firm Performance (H5b)

Model		Unstandardized Coefficients		t	Sig.
		B	Std. Error		
1	(Constant)	2.413	.430	5.614	.000
	Firm Size	.092	.049	1.876	.062
	OEM	.294	.122	2.403	.017
	Own Brand	-.082	.137	-.599	.550
	Reactive Entrepreneurial Orientation	.341	.065	5.249	.000
2	(Constant)	1.259	.536	2.348	.019
	Firm Size	.074	.049	1.523	.129
	OEM	.289	.120	2.402	.017
	Own Brand	-.044	.135	-.329	.742
	Reactive Entrepreneurial Orientation	.226	.072	3.142	.002
3	Knowledge Sharing	.314	.089	3.507	.001
	(Constant)	-.972	2.455	-.396	.692
	Firm Size	.080	.049	1.625	.105
	OEM	.284	.120	2.358	.019
	Own Brand	-.036	.135	-.267	.789
	Reactive Entrepreneurial Orientation	.624	.433	1.440	.151
	Knowledge Sharing	.715	.440	1.625	.105
	Reactive Entrepreneurial Orientation X Knowledge Sharing	-.072	.077	-.931	.352

a. Dependent Variable: Firm Performance

Hypothesis 5 is considered as partially supported because one of its subordinate hypotheses is supported and the other is rejected.

5.6.3. Additional Tests

Although it was not hypothesized in Chapter 3, the results of multiple regression analysis indicated that the control variables of OEM and firm size may influence firm performance. One-way ANOVA was used to test whether the firms engaged in OEM businesses performed in a way significantly differed from those with no OEM businesses. Table 5.43 shows the results of one-way ANOVA. The between-groups sum of squares is 5.607, with 1 degree of freedom which yields a mean square of 5.607. The F statistic is 5.313 and the significance level is 0.022, indicating that there is a significant difference in firm performance between the two groups. As shown in Table 5.44, firms which engaged in OEM businesses perform significantly better than their non-OEM counterparts.

Table 5.43: ANOVA – Firm Performance Differences between OEM and Non-OEM groups

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.607	1	5.607	5.313	.022
Within Groups	379.886	360	1.055		
Total	385.493	361			

Table 5.44: Mean Comparison – OEM and non-OEM Groups

	OEM	Non-OEM
N	255	107
Mean	4.84471	4.57196
Std. Deviation	1.019978	1.044464

One-way ANOVA was also used to test whether there was a significant difference in firm performance among firms of different sizes. Table 5.45 shows the results of one-way ANOVA. The between-groups sum of squares is 3.310, with 4 degrees of freedom which yields a mean square of 0.827. The F statistic is 0.773 and the significance level

is 0.543, indicating that the difference in firm performance among firms of different sizes is insignificant.

Table 5.45: ANOVA – Firm Performance Differences of Different Firm Size Groups

	Sum of	Df	Mean Square	F	Sig.
Between Groups	3.310	4	.827	.773	.543
Within Groups	382.183	357	1.071		
Total	385.493	361			

5.7. Summary of Hypothesis Test Results

The three proposed hypotheses related to direct influences on firm performance are supported. The moderating role of customer orientation is rejected and the moderating role of knowledge sharing is partially supported. Table 5.46 below summarizes the test results and findings with reasons of hypotheses rejection highlighted in bold.

Table 5.46: Summary of Hypothesis Test Results and Findings

Hypothesis	Subordinate Hypothesis	Findings	Results	Overall Results
H1	H1a	B = 0.609, R = 0.506, t = 11.118, p = 0.000	Supported	Supported
	H1b	B = 0.328, R = 0.255, t = 5.004, p = 0.000	Supported	
H2	-	B = 0.433, R = 0.221, t = 4.304, p = 0.000	Supported	Supported
H3	-	B = 0.450, R = 0.282, t = 4.304, p = 0.000	Supported	Supported
H4	H4a	B = -0.254 , t = -2.778, p = 0.006	Rejected	Rejected
	H4b	B = -0.124 , t = -1.611, p = 0.108	Rejected	
H5	H5a	B = 0.191, t = 2.807, p = 0.005	Supported	Partially Supported
	H5b	B = -0.072 , t = -0.931, p = 0.352	Rejected	

5.8. Chapter Summary

The data analysis for this study consisted of four stages. The first stage gave an overview of the demographic profiles of the respondents, with Chi-square tests conducted to evaluate the impact of non-response bias. The second stage examined the quality of data by checking the validity and reliability of the collected data. The third stage computed the underlying variables based on the EFA results and lastly, the five hypotheses were tested using IBM SPSS.

Linear regression analysis was conducted on the first three hypotheses (H1, H2 and H3) to discover their respective influences on firm performance. The results indicated that the proactive and reactive dimensions of entrepreneurial orientation both have a positive and significant influence on firm performance and hence Hypothesis 1 is supported. The regression analysis results also confirmed that customer orientation and knowledge sharing both have a positive and significant influence on firm performance and hence Hypotheses 2 and 3 are supported.

The Baron and Kenny (1986) multiple regression approach was used to test the two moderating effects proposed in this study. The regression analysis results revealed that customer orientation plays a negative moderating role on the relationship between proactive dimension of entrepreneurial orientation and firm performance and exerts an insignificant influence on the relationship between reactive dimension of entrepreneurial orientation and firm performance, hence Hypothesis 4 is rejected. While the regression analysis results revealed that knowledge sharing moderates the relationship between the proactive dimension of entrepreneurial orientation and firm performance (giving support to H5a), it does not moderate the relationship between the reactive dimension of entrepreneurial orientation and firm performance (rejecting H5b), thereby Hypothesis 5 is only partially supported.

Induced by the results of regression analysis, additional tests were performed. Firms engaging in OEM businesses are found to be performing significantly better than those which had no OEM businesses. Moreover, firm size exerts no significant influence on firm performance.

Implications of the above findings, limitations of the study and suggestions for further research are discussed in Chapter 6.

Chapter 6 Discussion and Conclusion

The purpose of this study was to examine the interrelationships among the following drivers of firm performance: entrepreneurial orientation, customer orientation, and knowledge sharing. Using the cosmetics manufacturing industry in China as the setting, the study gauged respondents' perceptions with respect to the drivers. Quantitative methods were used to analyze the data. This chapter provides a thorough discussion of the findings and how these findings contribute to knowledge in both theory and practice. The chapter begins with a brief review of the research framework and ends with a discussion of the study's limitations and the ways to overcome them.

6.1. Research Framework

Entrepreneurship is a management and value creation process adopted to combine resources in a unique way to exploit opportunities and create wealth (Morris, Kuratko and Covin, 2005; Stevenson et al., 1989). To start up a business, money and human capital are the most basic needs, but for the value creation process once the business is up and running, it requires a motivating management system solidly underpinned and fostered by entrepreneurship, customer service and knowledge sharing. In line with this thinking, four constructs - entrepreneurial orientation, customer orientation, knowledge sharing, and firm performance - were featured in this study and the following questions were posed to examine the relationships among them:

1. What are the effects of entrepreneurial orientation on firm performance?
2. What are the effects of customer orientation and knowledge sharing on firm performance?
3. What are the respective moderating effects of customer orientation and knowledge sharing on the relationship between entrepreneurial orientation and firm performance?

To help answer the above questions, five hypotheses were developed. Questions 1 and 2 were addressed by examining the direct causal effects of entrepreneurial orientation, customer orientation and knowledge sharing on firm performance; and question 3 was addressed by investigating the existence of moderating effects of customer orientation and knowledge sharing on the relationship between entrepreneurial orientation and firm performance.

Hypothesis 1: Entrepreneurial orientation positively affects the firm performance of cosmetics manufacturers in China.

Hypothesis 2: Customer orientation positively affects the firm performance of cosmetics manufacturers in China.

Hypothesis 3: Knowledge sharing positively affects the firm performance of cosmetics manufacturers in China.

Hypothesis 4: Customer orientation moderates the relationship between entrepreneurial orientation and firm performance of cosmetics manufacturers in China.

Hypothesis 5: Knowledge sharing moderates the relationship between entrepreneurial orientation and firm performance of cosmetics manufacturers in China.

However, as the EFA results revealed that entrepreneurial orientation could be split into two dimensions - “proactive entrepreneurial orientation” and “reactive entrepreneurial orientation” - Hypothesis 1 was separated into two subordinate hypotheses as follows:

H1a: Proactive entrepreneurial orientation positively affects the firm performance of cosmetics manufacturers in China.

H1b: Reactive entrepreneurial orientation positively affects the firm performance of cosmetics manufacturers in China.

Hypotheses 4 and 5 were also split into the following two pairs of subordinate hypotheses:

H4a: Customer orientation moderates the relationship between proactive entrepreneurial orientation and firm performance of cosmetics manufacturers in China.

H4b: Customer orientation moderates the relationship between reactive entrepreneurial orientation and firm performance of cosmetics manufacturers in China.

H5a: Knowledge sharing moderates the relationship between proactive entrepreneurial orientation and firm performance of cosmetics manufacturers in China.

H5b: Knowledge sharing moderates the relationship between reactive entrepreneurial orientation and firm performance of cosmetics manufacturers in China.

Quantitative methodology was used to conduct the study and regression analysis, using SPSS, was used to test the hypotheses.

6.2. Discussion of Research Findings

The demographic data of this study showed that the respondents were mostly male (69.1%), married (72.4%), and served as managers (61.6%) in the firms to which they belonged. The much higher percentage of male respondents may be a reflection of China being traditionally a male dominant country, although the Chinese women are starting to also exert their influence. About half of the respondents (52%) had entrepreneurial experiences. As for the size of the firms, the majority of the firms (68%)

employed 21 to 100 employees, indicating that most of the firms were SMEs, with those having a workforce of 201 or more making up only 10.8% of the total. Regarding business models of the firms, as discussed in Chapter 5, 29.6% of the firms manufactured cosmetics products under their own brand names only, 23.2% of them engaged in OEM businesses but had no brands of their own, while 47.2% of them engaged in both OEM and own brand production. In other words, close to 77% of the firms had their own brands and those engaged in manufacturing products for other brands, totalled slightly over 70%.

6.2.1. Direct Influences

Four factors were hypothesized to have direct influences on firm performance: proactive entrepreneurial orientation (H1a), reactive entrepreneurial orientation (H1b), customer orientation (H2), and knowledge sharing (H3). While all of these factors were found to have a significant, positive and direct influence on firm performance, the strength of their influence varied. Of the four factors, proactive entrepreneurial orientation was found to have exerted the highest level of influence on firm performance with a regression weight of 0.506, while the strengths of the other three factors were much lower, with regression weights ranging between 0.221 and 0.282. The differences in the strengths of direct influences indicate that, to the cosmetics manufacturers in China, proactive entrepreneurial orientation is the most important determinant of firm performance.

6.2.2. Moderating Effects of Customer Orientation

It was hypothesized in this study that customer orientation played a positive role in moderating the relationship between entrepreneurial orientation and firm performance. In other words, the direct influence of entrepreneurial orientation on firm performance was postulated to be strengthened by the factor of customer orientation. Compared to less customer oriented competitors, a firm with high levels of customer orientation was expected to perform better due to the positive moderating role that customer orientation plays in the relationship between entrepreneurial orientation and firm performance.

However, contrary to what had been postulated, the results from data analysis reveal that customer orientation has a negative and significant moderating effect ($B = -0.254$, $t = -2.778$, $p < 0.05$) on the relationship between proactive entrepreneurial orientation and firm performance. The direction of effect as revealed is the reverse of what had been predicted. Therefore, instead of enhancing the positive influence, customer orientation actually inhibits the positive effects of proactive entrepreneurial orientation on firm performance. Moreover, results from the data analysis also show that customer orientation has no role to play in moderating the relationship between reactive entrepreneurial orientation and firm performance ($p > 0.05$).

6.2.3. Moderating Effects of Knowledge Sharing

It was hypothesized in this study that knowledge sharing played a positive role in moderating the relationship between entrepreneurial orientation and firm performance. In other words, the direct influence of entrepreneurial orientation on firm performance was postulated to be strengthened by the factor of knowledge sharing. Compared to competitors who were less committed to knowledge sharing, a firm which is highly committed to knowledge sharing was expected to perform better due to the positive moderating role that knowledge sharing played in the relationship between entrepreneurial orientation and firm performance.

However, results from the data analysis reveal that the factor of knowledge sharing behaves differently under different dimensions of entrepreneurial orientation. As predicted, knowledge sharing is found to have a positive and significant moderating effect ($B = 0.191$, $t = 2.807$, $p < 0.05$) on the relationship between proactive entrepreneurial orientation and firm performance. The influence of proactive entrepreneurial orientation on firm performance is strengthened when knowledge sharing comes into play. A firm with high commitments to knowledge sharing stands to perform better due to the positive moderating effects exerted by the factor on the proactive entrepreneurial orientation and firm performance relationship. However, on the reactive dimensions entrepreneurial orientation, no moderating effect of knowledge sharing ($p > 0.05$) on the relationship has been identified.

6.2.4. Additional Tests

Although firm size and business model were not hypothesized in this study, the multiple regression analysis results suggested that the control variables of OEM and firm size might have an influence on firm performance. The one-way ANOVA results indicated that firms engaged in OEM businesses performed significantly better than those which were not involved in such mode of business. Moreover, the one-way ANOVA results indicated that firm size did not exert any significant influence on firm performance.

6.3. Contributions and Implications

This study contributes to multiple aspects of entrepreneurial research. Grounded in entrepreneurial orientation, customer orientation and knowledge sharing literature, a research model that described and predicted the effects of entrepreneurial orientation, customer orientation and knowledge sharing on firm performance was developed and tested empirically using data collected from the cosmetics manufacturing industry in China.

It is noteworthy to mention that unlike previous studies, which have been conducted in the Western and developed nations, this study was conducted in China, an emerging economy which has yet to be fully researched on the topics of cosmetics manufacturing and firm performance. In June, 2011, World Luxury Association (WLA), a non-profit making organisation based in the US, predicted that China would replace Japan to become the world's largest luxury goods market by early 2012 (Xinhua, 2011). Increased spending on luxury goods not only signals the presence of an expanding group of well-heeled customers, but also a population that is increasingly concerned with their looks and willing to spend a lot on products that they believe can improve their appearances and/or image. With a market growing at a nominal rate of 16.9% year-on-year (Li & Fung Research Centre, 2011), the cosmetics sector in China presents both opportunities and challenges. Being the first study to look into the antecedents of firm performance in the cosmetics manufacturing industry in China, the empirical evidence gathered sheds light on people's understanding of both direct and indirect

effects of the antecedents (the two dimensions of entrepreneurial orientation, customer orientation, and knowledge sharing) on the consequence of firm performance. By using China as the research setting, this study widens the current scope of entrepreneurial research, and the management implications may prove useful to practitioners in the cosmetics industry.

This study has theoretical importance because, whereas previous studies of entrepreneurial orientation have mainly focused on the respective direct influences of different dimensions of entrepreneurial orientation on firm performance, it investigated the complicated interplay among constructs. A major revelation resulting from this approach is the varying degrees of influence that the proactive and reactive entrepreneurial orientations have on firm performance and the interaction of these two dimensions with the hypothesized moderators. Customer orientation was found to have a moderating effect on the proactive dimension of entrepreneurial orientation only and the effect was negative and significant. This suggests that the implementation of customer oriented measures may weaken the influence of proactive entrepreneurial orientation on firm performance. Possible explanations for this are presented in the latter parts of this section.

This study confirms that entrepreneurial orientation, both proactive and reactive, contributes to firm performance. The contribution of entrepreneurial orientation to business has been widely discussed in the literature, but no specific attention has been given to how this orientation is applied in a real business context. Analysis of the data collected for this study reveals that entrepreneurial orientation, in the context of cosmetics manufacturers in China, is pursued by leveraging proactive and reactive approaches, sometimes simultaneously, sometimes in turns and sometimes separately. This finding has practical significance for owners and managers of cosmetics SMEs in China, because for the last thirty years the cosmetics market in China has been dominated by global players and domestic producers have had great difficulty in penetrating the middle to high-end markets. To break this impasse, cosmetics SMEs in China have two options. One option is to follow the footsteps of Bawang by identifying a market niche and marrying it with a unique product to gain first mover advantage.

The other option is to mimic the business model of Mininurse and Yue-Sai by building up brand awareness and waiting patiently for acquisition offers from big companies. Whichever option is chosen, entrepreneurial orientation, customer orientation and knowledge sharing are essential.

It is clear from the findings that the proactive dimension of entrepreneurial orientation exerts the highest level of influence on firm performance. Proactive entrepreneurial orientation is related to first mover strategies. According to a recent report on the China's cosmetics market (Li & Fung Research Centre, 2011), in 2009, the top 10 players in the shampoo and conditioner segment had over 95% of the market share. In a concentrated market such as this, being proactive and acting fast when an opportunity is spotted is the best way for small domestic firms to gain a foothold in the market. Bawang was among the first producers in China to target the herbal medicine shampoo segment. By pairing proactive marketing strategies with a special formula that other firms had no access to, Bawang soon gained a considerable market share in south China along with brand recognition in Hong Kong and Macau. Seeing Bawang's success with herbal medicine shampoo, international players such as P&G jumped on the bandwagon with Rejoice Essentials, a shampoo with Chinese herbal extracts. Building on the success of its herbal medicine shampoo, Bawang moved quickly to tap the growing male grooming market and then the lucrative skincare market. The strategy of the company is to identify and meet a niche need in the market before any competitors. To management practitioners, recognizing the importance of proactive entrepreneurial orientation is just the first steps to building a brand name. To bring into full play the advantages of being the first mover, the support of quality customer services and expertise not shared by competitors is a must.

The findings of this study also confirm the direct positive effects of customer orientation and knowledge sharing on firm performance. Performance is case specific and decision-maker specific (Lebas, 1995). The majority of domestic cosmetics manufacturers in China are trapped in the predicament of low brand recognition and low selling price. To move up the value ladder, market intelligence systems must be applied to gather useful information about the high-income customers that they intend to target,

to understand their purchasing habits and, more importantly, their personal care needs and wants. With this information, the manufacturers may then kick start the knowledge sharing process to analyze customer needs and wants, match these needs and wants with their product development and manufacturing capabilities, translate them into product features and work to ensure that the product launch is supported with effective marketing and branding strategies. This approach proved effective in Shanghai Jahwa's development and marketing of Herborist, a label for medium-priced personal care products. Since gaining success in the domestic market, the firm has teamed up with Sephora to promote the line to customers in Europe. Interestingly, according to China Daily Europe (Yan, 2010), the products are sold at a relatively higher price than that in China's domestic market. The pricing strategy has three purposes, firstly, to cover the extra costs involved in selling abroad; secondly, to capitalize on the "cultural premium"; and thirdly, to build up a higher-end brand image in the hope that the fame earned in foreign markets may eventually elevate the product's standing in the domestic market.

One major task of this study was to ascertain the moderating roles of customer orientation and knowledge sharing on the relationship between entrepreneurial orientation and firm performance. While the study confirms the existence of moderating effects of knowledge sharing on the relationship between the proactive entrepreneurial orientation and firm performance, no such effects were found between reactive entrepreneurial orientation and firm performance. This finding not only highlights the importance of proactive entrepreneurial orientation and knowledge sharing to firm performance, but also the risk involved in being the first mover in the industry. Proactive entrepreneurial orientation means stepping out of the comfort zone to bridge a market gap in a new arena ahead of all others. The high risk involved demands exceptional knowledge of the market and customer needs, and more importantly, supply of innovative ideas generated by intensive knowledge sharing. The finding signals that for managers who pursue proactive entrepreneurial orientation, knowledge sharing must be advocated, practiced and managed throughout the product life cycle. Managers can only enjoy the benefits of being the first mover in the market if they are more sensitive and responsive to the markets that they are serving.

The negative moderating effects of customer orientation on the relationship between proactive entrepreneurial orientation and firm performance indicates that while customer orientation is important to firm performance, firms should be warned that following customer needs too closely can undermine the positive effects that proactive entrepreneurial orientation may have on firm performance. As discussed earlier, manager can only reap the benefits of the first mover strategies if they are sensitive and responsive to the markets that they are serving. Modern cosmetics are, after all, mass produced items that attempt to meet the personal needs of individual customers. Putting too much attention on serving a small selected niche of customers may lead to misallocation of resources, opportunity loss or other decision-making mistakes that may erode the competitive advantage of a firm. High customer orientation exhibited by the firms surveyed suggested that they might have invested too much on serving their existing customers and too little on acquiring new customers. Customer relationship building is not a free lunch, and entrepreneurship is achieved when and only when resources are managed in a way that can be used to create value, exploit opportunities and create wealth (Morris et al., 2005, Stevenson et al., 1989). Customer oriented behavior in excess of the tipping point may put a business under risk, and risk-taking that creates no value is a waste of resources. One possible solution to this dilemma is mass customization. This strategy allows firms to meet the individual needs of the customers without jeopardizing the benefit of mass production. Another possible solution is to market the product as a prestigiously prescribed product - a tactic which has been actively pursued by MTM in promoting its skincare formulations in the Asia Pacific market in recent years. The MTM products are claimed to be blended specially based on the specific needs of individual customers. Each bottle of formulation bears the name of the customer to underline the high prestige and the exclusivity of the product.

The additional tests reveal that firm size has no effect on firm performance, indicating a lack of economy of size in the sample surveyed. One possible explanation may be that the cosmetics manufacturing industry is a stalemate industry. Other than P&G, Unilever and a few other global giants, the cosmetics manufacturing industry is made up of

numerous SMEs among whom there is fierce competition that has created near perfect competition. Unless these firms can come up with unique products capable of bringing them to a different arena, they will have no other alternative but to compete with one another on the fronts of operational efficiency, low overheads and cost-cutting measures. Findings show that firms engaging in OEM activities outperform those without such activities. There are two possible explanations: one is that OEM activities provide a source of stable income to firms engaging in them; the other is that engaging in such activities enables firms to learn from the practices of business giants. Therefore, it is suggested that SMEs should seek out opportunities for getting OEM orders from large firms. The learning opportunity will speed up the upgrading and transformation of the SMEs in terms of both management and operational processes. Bringing their practices, standards and manufacturing techniques in line with the leading players will enhance their capabilities and strengthen their positions when a fresh market opportunity is spotted.

6.4. Limitations and Further Research

The ensuing paragraphs identify the limitations of this study and the possible areas of inquiry that can be pursued to add to the body of knowledge in the field of entrepreneurship.

The adoption of a positivism paradigm and the use of quantitative research methodology imposed the first limitation. Quantitative methodology with quantitative research tools and techniques were used to examine the relationships among the four constructs of this study: entrepreneurial orientation, firm performance, customer orientation, and knowledge sharing. It is possible that there are other variables that affect or moderate the hypothesized relationship. The interplay of influences exerted by different variables may yield results that shed further light on the study of the entrepreneurial orientation and firm performance link. Further studies using both quantitative and qualitative approaches can be conducted to explore other relationships.

Second, the study may also be limited in terms of its generalizability. The study

successfully collected data from 362 respondents, which comfortably exceeded the 200 samples originally proposed. Though the number of sample collected enhanced the quality of the study, the data on which the findings were based were specific to the perceptions of managers or owners of cosmetic manufacturing firms in China. The culturally specific and sector-specific sample may affect the applicability of the implications discussed to other fields, cultures or geographical locations. Further studies should be conducted to ascertain how generalizable the findings would be to other settings or practitioners in other sectors.

The third limitation of the study is related to the revelation that the two moderators of customer orientation and knowledge sharing exerted no influence on the relationship between reactive entrepreneurial orientation and firm performance. This finding may suggest that the correlations involved might be more complicated than originally hypothesized. To address this issue, further study using a mixed approach research can be done to take advantage of triangulation. Qualitative research techniques, such as a qualitative case study, can be used in the first place to see how the different factors interact and play in dynamic circumstances. The findings uncovered can be used to guide a detailed literature review to identify more research gaps, more research questions and hence to develop a more comprehensive research model. Building on these results, a large scale empirical study using quantitative methods may then be conducted to collect data from a wider population. Qualitative research may then be used to support the findings from the quantitative empirical study in order to obtain a more precise and comprehensive picture.

The fourth limitation concerns with the contextual characteristics of the study. The research model does not contain any constructs that capture the contextual characteristics unique to the cosmetics manufacturing firms in China. Further study with constructs incorporated to capture the contextual characteristics can be conducted to gain more insights and hence make more theoretical and managerial contributions.

Finally, the cross-sectional nature of this study confines the study to snapshot statistical relationships without taking into account of the possible changes in perception over

time. Just as it takes a long time for a business to grow, time is needed for entrepreneurial oriented behaviors to impact a firm's performance. A longitudinal approach, which addresses the time-lag between cause (i.e. entrepreneurial orientation) and effect (i.e. firm performance) may enhance understanding of the casual relationships and help determine if there are any other contributing factors.

References

- Abernathy, W.B. (2008) Implications and Applications of a Behavior Systems Perspective, *Journal of Organizational Behavior Management*, **28** (2), pp. 123-138.
- Adèr, H.J., Mellenbergh, G.J. and Hand, D.J. (2008) Advising on research methods: A consultant's companion. Huizen, The Netherlands: Johannes van Kessel Publishing.
- Avital, M. (2000) Dealing with time in social inquiry: A tension between method and lived experience, *Organization Science*, **11** (6), pp. 665-673.
- Adner, R. and Levinthal, D. (2001) Demand Heterogeneity and Technology Evolution: Implications for Product and Process Innovation, *Management Science*, **47** (5), pp. 611-628.
- Akgun, A. E., Keskin, H. and Byrne, J. (2009) Organizational emotional capability, product and process innovation, and firm performance: An empirical analysis, *Journal of Engineering and Technology Management*, **26** (3), pp. 103-130.
- Alavi, M. and Leidner, D.E. (2001) Review: Knowledge management and knowledge management systems: Conceptual foundations and research issues. *MIS Quarterly*, **25**, pp. 107-136.
- Al-Alawi, A.I., Al-Marzooqi, N.Y. and Mohammed, Y.F. (2007) Organizational culture and knowledge sharing: critical success factors, *Journal of Knowledge Management*, **11** (2), pp. 22 – 42
- American Consulate General (2011) *Cosmetics and Toiletries Market Overview*, American Consulate General, Hong Kong, U.S. Commercial Service.

- Armstrong, J.S. and Overton, T.S. (1977) Estimating Nonresponse Bias in Mail Surveys. *Journal of Marketing Research*, **14** (3), pp. 396-402.
- Audretsch, D.B. and Thurik, A.R. (2003) Entrepreneurship, Industry Evolution and Economic Growth, *Advances in Austrian Economics*, **6**, pp. 39-56.
- Auh, S.Y. and Menguc, B. (2007) Performance implications of the direct and moderating effects of centralization and formalization on customer orientation, *Industrial Marketing Management*, **36**, pp. 1022–1034
- Aydin, S. and Özer, G. (2005) The analysis of antecedents of customer loyalty in the Turkish mobile telecommunication market, *European Journal of Marketing*, **39** (7/8), pp. 910 – 925.
- Baba, M.L., Gluesing, J., Ratner, H. and Wagner, K.H. (2004) The contexts of knowing: natural history of a globally distributed team, *Journal of Organizational Behavior*, **25**, pp. 547-587.
- Baker, W.E. and Sinkula, J.M. (2009) The Complementary Effects of Market Orientation and Entrepreneurial Orientation on Profitability in Small Businesses, *Journal of Small Business Management*, **47** (4), pp. 443-4654.
- Baron, R.M. and Kenny, D.A. (1986) The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations, *Journal of Personality and Social Psychology*, **51** (6), pp. 1173-1182.
- Barringer, B.R. and Bluedorn, A.C. (1999) The Relationship Between Corporate Entrepreneurship and Strategic Management, *Strategic Management Journal*, **20**, pp. 421-444.

- Bart, C. and Baetz, M. (1998) The relationship between Mission statements and firm performance: An exploratory study, *The Journal of Management Studies*, **35** (6), pp. 823-853.
- Batra, R., Homer, P. and Kahle, L.R. (2001), Values, Susceptibility to Normative Influence, and Attribute Importance Weights: A Nomological Analysis, *Journal of Consumer Psychology*, **11**(2), pp. 115-128
- Bawang International (2010) *Annual Report*, Hong Kong: Bawang International.
- Becerra-Fernandez, I. and Sabherwal R. (2001) Organizational knowledge management: A contingency perspective. *Journal of Management Information Systems*, **18** (1), pp. 23-55.
- Begley, T.M. (1995) Using founder status, age of firm and company growth rate as the basis for distinguishing entrepreneurs from managers of smaller business. *Journal of Business Venturing*, **10** (3), pp. 249-63
- Berman, S.L., Down, J. and Hill, C.W.L. (2002) Tacit knowledge as a source of competitive advantage in the national basketball association. *Academy of Management Journal*, **45** (1), pp. 13-31.
- Berthon, P., Hulbert, J.M. and Pitt, L., (2004) Innovation or customer orientation? An empirical investigation, *European Journal of Marketing*, **38** (9/10), pp. 1065-1090.
- Bian, X. and Moutinho, L. (2009) An investigation of consumers' perceptions of counterfeit branded products, original branded products and purchase consideration, *Journal of Business Research*, **62** (3), pp. 368-378.
- Birch, D. L. (1987) *Job Creation in America*, New York: The Free Press.

- Blackburn, R.A. and Smallbone, D. (2008) Researching small firms and entrepreneurship in the UK: developments and distinctiveness, *Entrepreneurship Theory and Practice*, **32** (2), pp. 267-288.
- Bloom, M. and Milkovich, G.T. (1998) Relationships among Risk, Incentive Pay, and Organizational Performance, *The Academy of Management Journal*, **41** (3), pp. 283-297.
- Bock, G.W., Zmud, R.W., Kim Y.G. and Lee J.N. (2005) Behavioral intention formation in knowledge sharing: Examining the roles of extrinsic motivators, social-psychological forces, and organizational climate. *MIS Quarterly*, **29**, pp. 87-112.
- Bollinger, A.S. and Smith, R.D. (2001) Managing organizational knowledge as a strategic asset, *Journal of Knowledge Management*, **5** (1), pp. 8-18.
- Brockhaus, R.H. (1980) Risk taking propensity of entrepreneurs, *The Academy of Management Journal*, **23** (3), pp. 509-520.
- Brown, M.W., Mowen, J.C., Donava, D.T. and Licata, J.W. (2002) The customer orientation of service workers: personality trait influences on self and supervisor performance ratings, *Journal of Marketing Research*, **39** (1), pp. 110-19.
- Bryman, A. (2008) *Social Research Methods*, 3rd. ed., New York: Oxford University Press.
- Buss, T. F. (2002) Emerging high-growth firms and economic development policy, *Economic development quarterly*, **16** (1), pp. 17-19.
- Capon, C. (2008) *Understanding Strategic Management*, Harlow: Pearson Education Ltd.

- Carland, J.C. and Carland, J.W. (2004) Economic development: Changing the policy to support entrepreneurship, *Academy of Entrepreneurship Journal*, **10** (2), pp. 105-114.
- Carland, J.W., Hoy, F., Boulton, W.R. and Carland, J.A. (1984) Differentiating entrepreneurs from small business owners, *The Academy of Management Review*, **9** (2), pp. 354-359.
- Casillas, J.C., Moreno, A.M. and Barbero, J.L. (2010) A Configurational Approach of the Relationship Between Entrepreneurial Orientation and Growth of Family Firms, *Family Business Review*, **23** (1), pp. 27-44
- Cavana, R.Y., Delahaye, B.L. and Sekaran, U. (2001) *Applied Business Research: Qualitative and Quantitative Methods*, Milton, Queensland: John Wiley & Sons.
- Chandler, G.N., McKelvie, A. and Davidsson, P. (2009) Asset specificity and behavioral uncertainty as moderators of the sales growth — Employment growth relationship in emerging ventures, *Journal of Business Venturing*, **24** (4), pp. 373-387.
- Chang, T.S. and Zhu, W. (2011) Enhancing corporate reputation for market expansion in China: customer orientation and the mediating effect of product and service quality, *Journal of Strategic Marketing*, **19** (2), pp. 153–170
- Chatterjee, S., Wiseman, R.M., Fiegenbaum, A. and Devers, C.E. (2003) Integrating Behavioural and Economic Concepts of Risk into Strategic Management: the Twain Shall Meet, *Long Range Planning*, **36** (1), pp. 61-79.
- Checkland, P. and Holwell, S. (1998) *Information, Systems and Information Systems: Making Sense of The Field*, Chichester, UK: John Wiley

- Choi, S.Y., Lee, H. and Yoo, Y. (2010) knowledge sharing, application, and team performance: a field study, *MIS Quarterly*, **34** (4), pp. 855-870.
- Creswell, J.W. (1994) *Research Design: Qualitative and Quantitative Approaches*, London: Sage.
- Christopher, M.G., Payne, A. and Ballantyne, D.F. (1993) *Relationship marketing: bringing quality, customer service and marketing together*. Oxford: Butterworth Heinemann.
- Coakes, S.J., Steed, L. and Price, J. (2008) *SPSS Version 15.0 for Windows: Analysis without Anguish*, John Wiley & Sons Australia, Ltd.
- Collis, D.J. and Rukstad, M.G. (2008) Can You Say What Your Strategy Is? *Harvard Business Review*, **86** (4), pp. 82-90.
- Connelly, C.E. and Kelloway, E.K. (2003) Predictors of employees' perceptions of knowledge sharing cultures, *Leadership & Organization Development Journal*, **24** (5), pp. 294-301.
- Covin, J.G., Green, K.M. and Slevin, D.P. (2006) Strategic process effects on the entrepreneurial orientation-sales growth rate relationship, *Entrepreneurship Theory and Practice*, **30** (1), pp. 57-81.
- Covin, J.G. and Slevin, D.P. (1989) Strategic management of small firms in hostile and benign environments. *Strategic Management Journal*, **10** (1), pp. 75-87.
- Covin, J.G. and Slevin, D.P. (1991) A Conceptual Model of Entrepreneurship as Firm Behavior,” *Entrepreneurship Theory & Practice*, **16** (1), pp. 7-25.
- Cress, U. and Kimmerle, J. (2008) A systemic and cognitive view on collaborative knowledge building with wikis, *Computer-Supported Collaborative*

Learning, **3** (2), pp. 105–122.

Cummings, K.K. (2001). Knowledge Management: development strategy or business strategy? *Information Development*, **17** (3), pp. 163-173.

Dabic, M., Ortiz-De-Urbina-Griado, M. and Romero-Martinez, A.M. (2011) Human resource , management in entrepreneurial firms: a literature review, *International Journal of Manpower*, **32** (1), pp. 14-33.

Davenport, T.H., and Prusak, L. (1998) *Working knowledge*. Boston: Harvard Business School Press.

Davidsson, P., Low, M.B. and Wright, M. (2001) Editor's Introduction: Low and MacMillan Ten Years On: Achievements and Future Directions for Entrepreneurship Research, *Entrepreneurship: Theory & Practice*, **25** (4), pp. 5-6.

Day, D.V. (2011) Integrative perspectives on longitudinal investigations of leader development: From childhood through adulthood, *The Leadership Quarterly*, In Press.

Day, J., Reynolds, P. and Lancaster, G. (2006) Entrepreneurship and the small to medium-sized enterprise: A divergent/convergent paradox in thinking patterns between advisers and SME owner-managers, *Management Decision*, **44** (5), pp. 581-597.

De Vries, R.E., Van den Hooff, B. and De Ridder, J.A. (2006) Explaining Knowledge Sharing: The Role of Team Communication Styles, Job Satisfaction, and Performance Beliefs, *Communication Research*, **33** (2), pp. 115-135.

De Wet, J.H.V.H. and du Toit, E. (2007) Return on equity: A popular but flawed measure of corporate financial performance, *South African Journal of*

Business Management, **38** (1), pp. 59-69.

Deakins, D. and Freel, M. (2009) *Entrepreneurship and Small Firms*, 5th ed. London, McGraw Hill.

Debowski, S (2006) *Knowledge management*, Queensland: John Wiley & Sons, Australia Ltd, Milton.

Denscombe, M. (2002) *Ground Rules for Good Research. A 10 point guide for social research*, Maidenhead: Open University Press.

Denis, D.J. (1994) Investment Opportunities and the Market Reaction to Equity Offerings, *Journal of Financial and Quantitative Analysis*, **29**, pp. 159-177

Deshpande, R., Farely, J.U. and Webster, F.E. Jr. (1993) Corporate culture, customer orientation and innovativeness in Japanese firms: A quadrate analysis, *Journal of Marketing*, **57** (1), pp. 23-37.

Dess, G.G. and Lumpkin, G.T. (2005) The Role of Entrepreneurial Orientation in Stimulating Effective Corporate Entrepreneurship, *Academy of Management Executive*, **19** (1), pp. 147-156.

Donavan, T., Brown, T.J. and Mowen, J.C. (2004) Internal benefits of service-worker customer orientation: job satisfaction, commitment, and organizational citizenship behaviours. *Journal of Marketing*, **68** (1), pp. 128-146.

Drucker, P.F. (1954) *The Practice of Management*, New York: Harper and Row.

Drucker, P.F. (1985) *Innovation and Entrepreneurship*, New York: Collins Business

Duffy, M.E. (1985) Designing nursing research: the qualitative-quantitative debate, *Journal of Advanced Nursing*, **10**, pp. 225–232.

- Dyer, J.H. and Nobeoka, K. (2000) Creating and managing a high-performance knowledge sharing network: The Toyota case, *Strategic Management Journal*, **21**, pp. 345-367.
- Engelen, A. (2010) Entrepreneurial orientation as a function of national cultural variations in two countries, *Journal of International Management*, **16**, pp. 354-368.
- Euromonitor International (2009) *China: How to Get a Piece of the Action in Beauty and Personal Care*, Euromonitor International, December 2009.
- Fahey, L., and Prusak, L. (1998) The eleven deadliest sins of knowledge management, *California Management Review*, **40** (3), pp. 265-276.
- Fayolle, A. and Basso, O. (2010) Entrepreneurial spirit and corporate entrepreneurship in large companies, *International Journal of Entrepreneurship and Small Business*, **10** (3), pp. 307-323.
- Feldhusen, J. and Bungert, F. (2009) Pattern Languages to Create a Holistic Methodology for Product Development and to Derive Enterprise-Specific Engineering Guidelines, In Schlick, C. M. (Eds), *Industrial Engineering and Ergonomics*, **Part 2**, pp. 131-141, Berlin Heidelberg: Springer
- Ferrier, W.J. (2001) Navigating the competitive landscape: The drivers and consequences of competitive aggressiveness, *Academy of Management Journal*, **44** (4), pp. 858-877.
- Flanders, S. (2011) *Questions for the new number 2*, Stephanomics: From the BBC's economics editor Stephanie Flanders, Available at: http://www.bbc.co.uk/blogs/thereporters/stephanieflanders/2011/02/questions_for_the_new_number_2.html [access June 23, 2011].

- Gartner, W.B. (1989) "Who Is an Entrepreneur?" Is the Wrong Question, *Entrepreneurship: Theory & Practice*, **13** (4), pp. 47-68.
- Gasse, Y. (1982) Elaborations on the psychology of the entrepreneur. In C. Kent, D. Sexton, and K. Vesper (Eds.), *Encyclopedia of Entrepreneurship* (pp. 57-71), Englewood Cliffs, N.J., Prentice-Hall.
- Gatignon H. and Xuereb J. (1997) Strategic orientation of the firm and new product Performance, *Journal of Marketing Research*, **34** (1), pp. 77-90.
- Gebauer, H., Gustfsson, A. and Witell, L. (2011) Competitive advantage through service differentiation by manufacturing companies, *Journal of Business Research*, In Press.
- Ghalayini, A.M. and Nobble, J.S. (1996) The changing basis of performance measurement, *International Journal of Operations and Production Management*, **16** (8), pp. 63-80.
- Gilbert, B.A., Audretsch, D.B. and McDougall, P.P. (2004), The Emergence of Entrepreneurship Policy, *Small Business Economics*, **22**, pp. 313-323.
- Gopal, A., Bosrom, R., and Chin, W. (1992) Applying Adaptive Structuration Theory to Investigate the Process of Group Support Systems Use, *Journal of Management Information Systems*, **9** (3), pp. 45-69.
- Grant, R.M. (1996) Toward a knowledge-based theory of firm, *Strategic Management Journal*, **17** (Winter Special Issue), pp. 109-122.
- Gray, V. (1976) Models of Comparative State Politics: A Comparison of Cross-Sectional and Time Series Analysis, *American Journal of Political Science*, **20** (2), pp. 235-256.

- Green, K.M., Covin, J.G. and Slevin, D.P. (2008) Exploring the relationship between strategic reactivity and entrepreneurial orientation: The role of structure-style fit, *Journal of Business Venturing*, **23** (3), pp. 356-383
- Guba, E.G. and Lincoln, Y.S. (1994) Competing paradigms in qualitative research, In: Denzin and Lincoln (eds.), *Handbook of Qualitative Research*, pp. 105-117, London: Sage.
- Guth, W.D. and Ginsberg, A. (1990) Guest editors' introduction: Corporate entrepreneurship. *Strategic Management Journal*, **11** (Summer Special Issue), pp. 5-15.
- Hair, J.F., Black, B., Babin, B., Anderson, R.E. and Tatham, R.L. (2005) *Multivariate Data Analysis*, Prentice Hall.
- Herron, L. and Sapienza, H.J. (1992) The entrepreneur and the initiation of new venture launch activities, *Entrepreneurship: Theory and Practice*, **17** (1), pp. 49-55.
- Hirschheim, R. (1985) Information systems epistemology: An historical perspective, In: Mumford, Hirschheim and Fitzberald (eds.), *Research Methods in Information Systems*, North-Holland, Amsterdam, 1985, pp. 13-38.
- Hofer, C., Eroglu, C. and Hofer, A.R. (2012) The effect of lean production on financial performance: The mediating role of inventory leanness, *International Journal of Production Economics*, In Press.
- Hooley, G., Greenley, G., Cadogan, J. and Fahy, J. (2005) The performance impact of marketing resources, *Journal of Business Research*, **58** (1), pp. 18-27.
- Hopkinsa, B.E. (2007) Western cosmetics in the gendered development of consumer culture in China, *Feminist Economics*, **13** (3/4), pp. 287-306

- Hoppe, H.C. (2000) Second-mover advantages in the strategic adoption of new technology under uncertainty, *International Journal of Industrial Organization*, **18**, pp. 315–338.
- Hoppe, H.C. and Lehmann-Grube, U. (2001) Second-Mover Advantages in Dynamic Quality Competition, *Journal of Economics & Management Strategy*, **10** (3), pp. 419-433.
- Hou, X.J., Zhu, D. and Zheng, M.H. (2011) Clinical Nursing Faculty Competence Inventory – development and psychometric testing, *Journal of Advanced Nursing*, **67** (5), pp. 1109-1117.
- Hsu, C.C., Tan, K.C., Laosirihongthong, T. and Leong, G. K. (2011) Entrepreneurial SCM competence and performance of manufacturing SMEs, *International Journal of Production Research*, In Press.
- Hsu, I.C. (2008) Knowledge sharing practices as a facilitating factor for improving organizational performance through human capital: A preliminary test, *Expert Systems with Applications*, **35** (3), pp. 1316-1326.
- Huang, C.C. (2009) Knowledge sharing and group cohesiveness on performance: An empirical study of technology R&D teams in Taiwan, *Technovation*, **29** (11), pp. 786-797.
- Hult, G.T.M., Snow, C.C. and Kandemir, D. (2003) The Role of Entrepreneurship in Building Cultural Competitiveness in Different Organizational Types, *Journal of Management*, **29** (3), pp. 401–426
- Hunt, S.D. and Morgan, R.M. (1995) The comparative advantage theory of competition, *Journal of Marketing*, **59** (2), pp. 1-15.
- Hussey, J. and Hussey, R. (2003) *Business Research: A Practical Guide For*

Undergraduate and Postgraduate Students, 2nd ed., Palgrave Macmillan, New York.

Ji, M.F. and McNeal, J.U. (2001) How Chinese Children's Commercials Differ from Those of the United States: A Content Analysis, *Journal of Advertising*, **30** (3), pp. 79-92

Jones, E., Busch, P. and Dacin, P. (2003) Firm market orientation and salesperson customer orientation: interpersonal and intrapersonal influences on customer service and retention in business-to-business buyer–seller relationships, *Journal of Business Research*, **56** (4), pp. 323-340

Judd, V.C. (2003) Achieving a customer orientation through “people-power”: the “5th P”, *European Journal of Marketing*, **37** (10), pp. 1301-1313.

Julien, P.A. (1993) Small businesses as a research subject: Some reflections on knowledge of small businesses and its effects on economic theory, *Small Business Economics*, **5** (2), pp. 157-166.

Kahn, K.B. (2001) Market orientation, interdepartmental integration and product development performance. *Journal of Product Innovation Management*, **18** (5), pp. 314-323.

Kaldor, N. (1934) The equilibrium of the firm, *Economic Journal*, **44**, pp. 60-76.

Kansikas, J., Laakkonen, A., Sarpo, V. and Kontinen, T. (2012) Entrepreneurial leadership and familiness as resources for strategic entrepreneurship, *International Journal of Entrepreneurial Behaviour & Research*, **18** (2), pp.141 - 158

Kaplan, R.S. and Norton, D.P. (1992) The Balanced Scorecard-Measures That Drive Performance, *Harvard Business Review*, **70** (1), pp. 71-79.

- Kerin, R.A., Varadarajan, P.R. and Peterson, R.A. (1992) First-Mover Advantage: A Synthesis, Conceptual Framework, and Research Propositions, *Journal of Marketing*, **56**, pp. 33-52.
- Kiessling, T., Harvey, M. and Moeller, M. (2010) Supply-chain corporate venturing through acquisition: Key management team retention, *Journal of World Business*, In Press
- Killion, U. (2006) *A modern Chinese journey to the West: economic globalization and dualism*, New York: Nova Science Publishers, Inc.
- Kim, W.C. and Mauborgne, R. (2005) *Blue Ocean Strategy*. Boston: Harvard Business School Press
- Koplin, H.T. (1963) The Profit Maximization Assumption, *Oxford Economic Papers*, New Series, **15** (2), pp. 130-139.
- Kreiser, P.M., Marino, L.D. and Weaver, K.M. (2002) Assessing the psychometric properties of the entrepreneurial orientation scale: A multi-country analysis. *Entrepreneurship Theory and Practice*, **26**, pp. 71-92.
- Krepapa, A., Berthon, P., Webb, D. and Pitt, L. (2003) Mind the gap: an analysis of service provider versus customer perceptions of market orientation and the impact on satisfaction, *European Journal of Marketing*, **37** (1/2), 197-218.
- Kumar, S. and Sharma, A.K. (2011) Further evidence on relative and incremental information content of EVA and traditional performance measures from select Indian companies, *Journal of Financial Reporting and Accounting*, **9** (2), pp.104-118.
- Kumar, K., Subramanian, R. and Yauger, C. (1998) Examining the Market Orientation-Performance Relationship: A Context-Specific Study, *Journal of*

Management, **24** (2), pp. 201-233.

Liao, S.H., Fei, W.C. and Chen, C.C. (2007) Knowledge sharing, absorptive capacity, and innovation capability: an empirical study of Taiwan's knowledge intensive industries, *Journal of Information Science*, **33** (3), pp. 340-359

Lal, D. (1995) India and China: Contrasts in economic liberalization?, *World Development*, **23** (9), pp. 1475-1494.

Lebas, M.J. (1995) Performance measurement and performance management, *International Journal of Production Economics*, **41**, pp. 23-35.

Lee, S.M. and Peterson, S.J. (2000) Culture, entrepreneurial orientation, and global competitiveness. *Journal of World Business*, **35** (4), 401-416.

Leibenstein, H. (1968) Entrepreneurship and Development, *American Economic Review*, **58** (2), pp. 72-83.

Levin W.C. (1988) *Sociological Ideas. Concepts and Applications*, Belmont, CA: Wadsworth Publishing Co.

Lichtenstein, B. and Brush, C. (2001) How Do Resource Bundles Develop and Change in New Ventures? A Dynamic Model and Longitudinal Exploration, *Entrepreneurship: Theory & Practice*, **25** (3), pp. 37-59.

Liao, S.H., Fei, W.C. and Chen, C.C. (2007) Knowledge sharing, absorptive capacity, and innovation capability: an empirical study of Taiwan's knowledge intensive industries, *Journal of Information Science*, **33** (3), pp. 340-359

Lieberman, M.B. and Montgomery, D.B. (1988) First-Mover Advantages, *Strategic Management Journal*, **9** (Special Issue: Strategy Content Research), pp. 41-58.

- Li & Fung Research Centre (2011) *China's cosmetics market, 2010*, Hong Kong: Li & Fung Research Centre.
- Lin, H.F. (2007) Knowledge sharing and firm innovation capability: an empirical study, *International Journal of Manpower*, **28** (3/4), pp. 315-332.
- Liu, P.L. (2011) Empirical study on influence of critical success factors on ERP knowledge management on management performance in high-tech industries in Taiwan, *Expert Systems with Applications*, **38** (8), pp.10696–10704
- Litzinger, W.D. (1965) The motel entrepreneur and the motel manager, *Academy of Management Journal*, **8** (4), pp. 268-281.
- Liu, S.S., Luo, X.M. and Shi, Y.Z. (2002) Integrating customer orientation, corporate entrepreneurship, and learning orientation in organizations-in-transition: an empirical study, *International Journal of Research in Marketing*, **19** (4), pp. 367-382.
- Loewe, M. and Shaughnessy, E.L. (1999) *The Cambridge History of Ancient China: From the Origins of Civilization to 221 BC*, Cambridge, UK: Cambridge University Press
- Longman Dictionary of Contemporary English (1998) *Longman Dictionary of Contemporary English*, London: Longman Group Ltd.
- Lounsbury, M. (1998) Collective Entrepreneurship: The Mobilization of College and University Recycling Coordinators, *Journal of Organizational Change Management*, **11** (1), pp. 50-69.
- Low, M.B. and Macmillan, I.C. (1988) Entrepreneurship: Past Research and Future Challenges, *Journal of Management*, **14** (2), pp. 139-161.

- Low, M.B. (2001) The Adolescence of Entrepreneurship Research: Specification of Purpose, *Entrepreneurship: Theory & Practice*, **25** (4), pp. 17-25.
- Lumpkin, G.T. and Dess, G.G. (1996) Clarifying the entrepreneurial orientation construct and linking it to performance, *Academy of Management Review*, **21** (1), pp. 135–173.
- Lumpkin, G.T. and Dess, G.G. (2001) Linking two dimensions of entrepreneurial orientation to firm performance: The moderating role of environment industry life cycle, *Journal of Business Venturing*, **16** (5), pp. 429-451.
- Malhotra, N., Hall, J., Shaw, M. and Oppenheim, P. (2004) *Essentials of marketing research: An applied orientation*. Frenchs Forest, NSW: Pearson Education.
- Maiti, J., Chatterjee, S. and Bangdiwala, S.I. (2004) Determinants of work injuries in mines - an application of structural equation modelling, *International Journal of Injury Control and Safety Promotion*, **11** (1), pp. 29-37.
- Manev, I.M., Gyoshev, B.S. and Manolova, T.S. (2005) The role of human and social capital and entrepreneurial orientation for small business performance in a transitional economy, *International Journal of Entrepreneurship and Innovation Management*, **5** (3/4), pp. 298-318.
- Marchisio, G., Mazzola, P., Sciascia, S., Miles, M. and Astrachan, J. (2010) Corporate venturing in family business: The effects on the family and its members, *Entrepreneurship and Regional Development*, **22** (3-4), pp. 349-377.
- Marquardt, D.W. (1980) A Critique of Some Ridge Regression Methods: Comment, *Journal of the American Statistical Association*, **75** (369), pp. 87-91.
- Mbarika, V.W. and Byrd, T.A. (2009) An Exploratory Study of Strategies to Improve Africa's Least Developed Economies; Telecommunications Infrastructure:

The Stakeholders Speak, *IEEE Transactions on Engineering Management*, **56** (2), pp. 312-328.

McClelland, D.C. (1961) *The Achieving Society*, Princeton, NJ: Van Nostrand.

McClelland, D.C. (1971) "Entrepreneurship and achievement motivation: approaches to the science of socioeconomic development," in Lengyel, P. (ed.) Paris: U.N.E.S.C.O.

McDermott, R., and O'Dell, C. (2001) Overcoming cultural barriers to sharing knowledge, *Journal of Knowledge Management*, **6**, pp. 76-85.

McWilliams, A. and Smart, D.L. (1993) Efficiency v. structure-conduct-performance: Implications for strategy research and practice, *Journal of Management*, **19** (1), pp. 63-78.

Medori, D. and Steeple, D. (2000) A framework for auditing and enhancing performance measurement systems, *International Journal of Operations & Production Management*, **20** (5), pp. 520-533.

Messeghem, K. (2003) Strategic Entrepreneurship and Managerial Activities in SMEs, *International Small Business Journal*, **21** (2), pp. 197-212.

Miller, D. (1983) The correlates of entrepreneurship in three types of firms, *Management Science*, **29**, pp. 770-791.

Miller, D. and Friesen, P.H. (1978) Archetypes of strategy formulation, *Management Science*, **24** (9), pp. 921-933.

Miller, D. and Friesen, P.H. (1983) Strategy-Making and Environment: The Third Link, *Strategic Management Journal*, **4** (3), pp. 221-235.

Mittal, B. and Lassar, W.M. (1996) The Role of Personalization in Service Encounters,

Journal of Retailing, **72** (1), pp. 95-109.

Montenegro, A. (2001) On sample size and precision in ordinary least squares, *Journal of Applied Statistics*, **28** (5), pp. 603-605

Montoro-Sánchez, A. and Soriano, D.R. (2011) Human resource management and corporate entrepreneurship, *International Journal of Manpower*, **32** (1), pp. 6-13

Morris, M.H., Kurato, D.F. and Covin, J.G. (2008) *Corporate entrepreneurship and innovation*, 2nd ed., Mason: Thomson Higher Education.

Morris, M.H. and Paul, G.W. (1987) The relationship between entrepreneurship and marketing in established firms, *Journal of Business Venturing*, **2** (2), pp. 247–259.

Mueller, B.A., Titus Jr., V.K., Covin, J.G. and Slevin, D.P. (2010) Pioneering Orientation and Firm Growth: Knowing When and to What Degree Pioneering Makes Sense, *Journal of Management*, In Press.

Mueller, T.A. and Gemunden, H.G. (2009) Founder team interaction, customer and competitor orientation in software ventures, *Management Research News*, **32** (6), pp. 539-554.

Murphy, M.E. (1986) *Richard Cantillon, entrepreneur and economist*, New York: Oxford University Press

Murray, J.K., Kotabe, M. and Wildt, A.R. (1995) Strategic and Financial Performance Implications of Global Sourcing Strategy: A Contingency Analysis, *Journal of International Business Studies*, **26** (1), pp. 181-202.

Naldi, L., Nordqvist, M., Sjöberg, K. and Wiklund, J. (2007) Entrepreneurial

Orientation, Risk Taking, and Performance in Family Firms, *Family Business Review*, **20** (1), pp. 33-47.

Narver, J. and Slater, S. (1990) The effect of market orientation on business profitability, *Journal of Marketing*, **54** (4), 20-35.

Neely A., Adams, C. and Crowe, P. (2001) The Performance Prism in Practice, *Measuring Business Excellence*, **5** (2), pp 6-12

Neely, A., Mills, J., Platts, K., Gregory, M. and Richards, H. (1996) Performance measurement system design: Should process based approaches be adopted? *International Journal of Production Economics*, **46-47**, pp. 423-431.

Neuman, W.L. (2006) *Social Research Methods: Qualitative and Quantitative Approaches*, 6th Ed., Boston: Pearson.

Nonaka I., and Konno, N. (1998) The concept of 'Ba': Building a foundation for knowledge creation, *California Management Review*, **40** (3), pp. 40-54.

Nonaka, I. (1994) A dynamic theory of organizational knowledge creation, *Organization Science*, **5**, pp. 14-37.

Nunnally, J. (1978) *Psychometric Theory*. New York: McGraw-Hill.

Parker, S.C. (2011) Intrapreneurship or entrepreneurship?, *Journal of Business Venturing*, **26** (1), pp. 19-34.

Peccei, R. and Rosenthal, P. (1997) The antecedents of employee commitment to customer service: Evidence from a UK service context, *International Journal of Human Resource Management*, **8** (1), pp. 66-86.

Perry, C. and Gummesson, E. (2004) Action research in marketing, *European Journal of Marketing*, **38** (3/4), pp. 310 – 320.

- Peterson, R. and Berger, D. (1971) Entrepreneurship in Organizations: Evidence from the Popular Music Industry, *Administrative Science Quarterly*, **16** (1), pp. 97-106.
- Phan, P.H., Wright, M., Ucbasaran, D. and Tan, W.L. (2009) Corporate entrepreneurship: Current research and future directions, *Journal of Business Venturing*, **24** (3), pp. 197-205
- Pindyck, R.S. and Rubinfeld, D.L. (2009) *Microeconomics*, 7th ed., New Jersey: Pearson Prentice Hall.
- Pitt, L., Webb, D., Berthon, P and Krepapa, A. (2003) Mind the gap: an analysis of service provider versus customer perceptions of market orientation and the impact on satisfaction, *European Journal of Marketing*, **37** (1/2), pp. 197-218.
- Platow, M.J., van Knippenberg, D., Haslam, S.A., van Knippenberg, B. and Spears, R. (2006) A special gift we bestow on you for being representative of us: Considering leader charisma from a self-categorization perspective, *British Journal of Social Psychology*, **45** (2), pp. 303-320.
- Podoyntsina, K., Van der Bij, H. and Song, M. (2012) The Role of Mixed Emotions in the Risk Perception of Novice and Serial Entrepreneurs, *Entrepreneurship Theory and Practice*, **36** (1), pp.115–140.
- Polanyi, M. (1967) *The tacit dimension*. London: Routledge and Keoan Paul.
- Porter, M.E. (1985) *Competitive Advantage*, New York: Free Press.
- Porter, M.E. (1990) *The Competitive Advantage of Nations*, London: Macmillan.
- Poutziouris, P. (2003) The strategic orientation of owner-managers of small ventures:

Evidence from the UK small business economy, *International Journal of Entrepreneurial Behaviour and Research*, **9** (5), pp. 185 - 214

Qu, R. (2009) The Impact of Market Orientation and Corporate Social Responsibility on Firm Performance, *Asia Pacific Journal of Marketing and Logistics*, **21** (4) pp. 570-582.

Robinson, S. (2010) European entrepreneurs: problems, profits and plans, *Proceedings of the Academy for Studies in International Business*, **10** (1), pp. 47-52.

Raju, P.S., Lonial, S.C. and Crum, M.D. (2011) Market orientation in the context of SMEs: A conceptual framework, *Journal of Business Research*, In Press.

Rauch, A., Wiklund, J., Lumpkin, G.T. and Frese, M. (2009) Entrepreneurial orientation and business performance: An assessment of past research and suggestion for the future, *Entrepreneurship Theory and Practice*, **33** (3), pp. 761-781.

Ross, S., Westerfield, R. and Jaffe, J. (2009) *Corporate Finance*, 9th ed., New York: McGraw-Hill.

Rundh, B. (2011) Development of customer value in a supply chain: managerial thinking about strategic marketing, *Journal of Business & Industrial Marketing*, **26** (4), pp. 260–272

Rust, R.T., Zahorik, A.J. and Keiningham, T.L. (1996) *Service Marketing*, New York: HarperCollins.

Salavou, H. (2004) The concept of innovativeness: should we need to focus?, *European Journal of Innovation Management*, **7** (1), pp. 33-44.

Sarasvathy, S.D. and Venkataraman, S. (2011) Entrepreneurship as Method: Open Questions for an Entrepreneurial Future, *Entrepreneurship Theory and*

Practice, **35** (1), In Press.

Saunders, C. and Miranda S. (1998) Information acquisition in group decision making, *Information & Management*, **34**, pp. 55-74.

Saxe, R. and Weitz, B.A. (1982) The SOCO scale: a measure of the customer orientation of salespeople, *Journal of Marketing Research*, **19**, pp. 343-351.

Schumpeter, J.A. (1934) *The Theory of Economic Development*, Cambridge, Harvard University Press.

Schumpeter, J.A. (1949) *The Theory of Economic Development*, 3rd ed., Cambridge, Harvard University Press.

Schumpeter, J.A. (1951) Economic Theory and Entrepreneurial History, in R.V. Clemence (ed.), *Essays on Economic Topics of Joseph Schumpeter*, New York: Kennikat Press.

Schumpeter, J.A. (2003) *Capitalism, Socialism and Democracy: with a new introduction by Richard Swedberg*, New York: Routledge.

Scott, P.S. and Gibbons, P.T. (2009) How subsidiaries are battling to survive and grow, *Strategy & Leadership*, **37** (4), pp. 43 - 47.

Shahzada, B.M., Jan, V., Wim, V.G. and Herwig, M. (2009) Creating Customer Value through SOA and Outsourcing: A NEBIC Approach, *International Journal of Human and Social Sciences*, **4** (1), pp. 18-24.

Sharma, S. (2000) Managerial Interpretations and Organizational Context as Predictors of Corporate Choice of Environmental Strategy, *The Academy of Management Journal*, **43** (4), pp. 681-697.

Shane, S. (1994) Why do rates of entrepreneurship vary over time? *Proceedings of the*

Academy of Management, pp. 90-94.

Shane, S. (1996) Explaining variation in rates of entrepreneurship in the United States: 1899–1988, *Journal of Management*, **22**, pp. 747–781.

Shapero, A. and Sokol, L. (1982) The social dimensions of entrepreneurship. In: Kent, C.A. Sexton, D.L. and Vesper K.H. (eds). *Encyclopedia of Entrepreneurship*, Englewood Cliffs, NJ: Prentice-Hall. pp. 72–90.

Sharma, P. and Chrisman, J. (1999) Toward a Reconciliation of the Definitional Issues in the Field of Corporate Entrepreneurship, *Entrepreneurship Theory and Practice*, **23** (3), pp. 11-27,

Shimizu, K. (2011) Risks of Corporate Entrepreneurship: Autonomy and Agency Issues, *Organization Science*, In Press.

Shin, H., Collier, D.A. and Wilson, D.D. (2000) Supply management orientation and supplier/buyer performance, *Journal of Operations Management*, **18** (3), pp. 317-333

Shoham, A. and Fiegenbaum, A. (2002) Competitive determinants of organizational risk-taking attitude: the role of strategic reference points, *Management Decision*, **40** (2), pp. 127 – 141.

Singh, R. and Koshy, A. (2012) A new conceptualization of salesperson's customer orientation: Propositions and implications, *Marketing Intelligence & Planning*, **30** (1), pp.69 – 82.

Smallbone, D., Leigh, R. and North, D. (1995) The characteristics of high-growth SMEs, *International Journal of Entrepreneurial Behaviour and Research*, **1** (3), pp. 44-62.

- Smith, H., and McKeen, J. (2003) Instilling a knowledge sharing culture, available at: <http://www2.warwick.ac.uk/fac/soc/wbs/conf/olkc/archive/oklc3/papers/id25.pdf> (accessed 30 May 2010).
- Smith, N.R. and Miner, J.B. (1983) Type of entrepreneur, type of firm, and managerial motivation: Implications for organizational life cycle theory, *Strategic Management Journal*, **4** (4), pp. 325-340.
- Song, J.H. and Kim, H.M. (2009) The integrative structure of employee commitment: The influential relations of individuals' characteristics in a supportive learning culture, *Leadership & Organization Development Journal*, **30** (3), pp. 240-255.
- Stam, W. and Elfring, T. (2008) Entrepreneurial Orientation and New Venture Performance: the Moderating Role of Intra-and Extraindustry Social Capital, *Academy of Management Journal*, **51** (1), pp. 97-111.
- Stead, M. (1995) Management Ratios: How they fail shareholders, *Management Accounting*, **73** (11), pp. 38-39.
- Steinman, C., Deshpande, R. and Farley, J.U. (2000) Beyond market orientation: when customers and suppliers disagree, *Journal of the Academy of Marketing Science*, **28** (1), pp. 109-119.
- Stevenson, H., Roberts, M.J., and Grousbeck, D.E. (1989) *New Business Ventures and the Entrepreneur*, 3rd Ed. Homewood, IL: Irwin Publishing.
- Stevenson, H.H. and Jarillo, J.C. (1990) A paradigm of entrepreneurship: entrepreneurial management, *Strategic Management Journal*, **11** (5), pp. 17-27.
- St-Jean, E., LeBel, L. and Audet, J. (2010) Entrepreneurial orientation in the forestry

industry: a population ecology perspective, *Journal of Small Business and Enterprise Development*, **17** (2), pp. 204-217.

Stock, R.M. and Hoyer, W.D. (2005) An attitude-behavior model of salespeople's customer orientation, *Journal of the Academy of Marketing Science*, **33** (4), pp. 536-552.

Swieringa, R.J. and Weick, K.R. (1987) Management accounting and action, *Accounting, Organizations and Society*, **12** (3), pp. 293-308.

Tassabehji, R. (2010) Understanding e-auction use by procurement professionals: motivation, attitudes and perceptions, *Supply Chain Management: An International Journal*, **15** (6), pp. 425 – 437

Teng, B.S. (2007) Corporate Entrepreneurship Activities through Strategic Alliances: A Resources-Based Approach toward Competitive Advantage, *Journal of Management Studies*, **44**, 119-142.

Thakor, M.V. and Goneau-Lessard, K. (2009) Development of a scale to measure skepticism of social advertising among adolescents, *Journal of Business Research*, **62** (12), pp. 1342-1349.

van de Ven, A.H. and Ferry, D.L. (1980) *Measuring and Assessing Organizations*, N.Y.: John Wiley & Sons

van den Hooff, B. and de Ridder, J.A. (2004) Knowledge sharing in context: the influence of organizational commitment, communication climate and CMC use on knowledge sharing, *Journal of Knowledge Management*, **8** (6), pp. 117-130.

van der Sluis, J., van Praag, M. and Vijverberg, W. (2005) Entrepreneurship Selection and Performance: A Meta-Analysis of the Impact of Education in

- Developing Economies, *World Bank Economic Review*, **19** (2), pp. 225-261.
- van Horne, J.C. (1998) *Financial management and policy*, 11th ed. Englewood Cliffs, NJ: Prentice-Hall
- van Praag, C.M. (2003) Business survival and success of young small business owners, *Small Business Economics*, **21** (1), pp. 1-17.
- Varadarajan, R., Yadav, M.S. and Shankar, V. (2008) First-Mover Advantage in an Internet-Enabled Market Environment: Conceptual Framework and Propositions, *Journal of the Academy of Marketing Science*, **36** (3), pp. 293–308.
- Venkatraman, N. and Ramanujam, V. (1986) Measurement of business economic performance: An examination of method convergence, *Journal of Management*, **13** (1), pp. 109-122.
- Verbeke, W. and Bagozzi, R.P. (2000) Sales Call Anxiety: Exploring What It Means When Fear Rules a Sales Encounter, *Journal of Marketing*, **64**, pp. 88-101.
- Verganti, R. (2011) Radical Design and Technology Epiphanies: A New Focus for Research on Design Management, *Journal of Product Innovation Management*, **28** (3), pp. 384-388.
- Vesper, K.H. (1980) *New Venture Strategies*, Englewood Cliffs, N.J.:Prentice Hall.
- Von Krogh, G., Nonaka, I. and Rechsteiner, L. (2012) Leadership in Organizational Knowledge Creation: A Review and Framework, *Journal of Management Studies*, **49** (1), pp. 240-277
- Voss, Z.G., Voss, G.B. and Moorman, C. (2005) An empirical examination of the complex relationships between entrepreneurial orientation and stakeholder

- support, *European Journal of Marketing*, **39** (9/10), pp. 1132-1150.
- Waksberg, J. (1978) Sampling Methods for Random Digit Dialing, *Journal of the American Statistical Association*, **73** (361), pp. 40-46.
- Wang, C.L. and Ahmed, P.K. (2004) The development and validation of the organisational innovativeness construct using confirmatory factor analysis, *European Journal of Innovation Management*, **7** (4), pp. 303-313.
- Wang, G.W. (1990) *The culture of Chinese merchants*, University of Toronto-York University, Joint Centre for Asia Pacific Studies.
- Wang, G.W. (2001) *Don't Leave Home: Migration and the Chinese*, Singapore: Times Academic Press.
- Weber, R. (2004) The Rhetoric of Positivism Versus Interpretivism, *MIS Quarterly*, **28** (1), pp 3-12.
- Weldy, T.G. and Gillis, W.E. (2010) The learning organization: variations at different organizational levels, *The Learning Organization*, **17** (5), pp. 455-470
- Wiklund, J. and Shepherd, D. (2003), Knowledge-Based Resources, Entrepreneurial Orientation, and the Performance of Small and Medium-Sized Businesses, *Strategic Management Journal*, **24** (13), pp. 1307-1314.
- Wiklund, J. (1999) The sustainability of the entrepreneurial orientation-performance relationship, *Entrepreneurship: Theory and Practice*, **24** (1), pp. 37-48.
- Wiklund, J. and Shepherd, D. (2003) Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses, *Strategic Management Journal*, **24** (13), pp. 1307-1314.
- Wiklund, J. and Shepherd, D. (2005) Entrepreneurial orientation and small business: a

- configurational approach, *Journal of Business Venturing*, **20** (1), pp. 71-91.
- Williams, M.R., and Attaway, J.S. (1996) Exploring Salesperson's Customer Orientation as a Mediator of Organizational Culture's Influence on Buyer-Seller Relationships, *Journal of Personal Selling & Sales Management*, **16** (4), pp. 33-52.
- Wyman, J., Price, J. H., Jordan, T.R., Dake, J. A. and Telljohann, S.K. (2006) Parents' perceptions of the role of schools in tobacco use prevention and cessation for youth, *Journal of Community Health*, **31** (3), pp. 225-248.
- Xinhua (2011) China to pass Japan as top luxury market in 2012, *China Daily*, Available at: http://www.chinadaily.com.cn/business/2011-06/10/content_12670694.htm [accessed October 1, 2011].
- Zablah, A.R., Franke, G.R., Brown, T.J. and Bartholomew, D.E. (2012) How and When Does Customer Orientation Influence Frontline Employee Job Outcomes? A Meta-Analytic Evaluation, *Journal of Marketing*, In Press.
- Yan, Z. (2010) Chinese cosmetics giant builds on french debut, *China Daily European Weekly*, Available at: http://europe.chinadaily.com.cn/business/2010-12/10/content_11683936.htm [accessed October 1, 2011].
- Yang, Y.C. and Hsu, J.M. (2010) Organizational process alignment, culture and Innovation, *African Journal of Business Management*, **4** (11), pp. 2231-2240.
- Yen, Y.X., Wang, E.S.T. and Horng, D.F. (2011) Suppliers' willingness of customization, effective communication, and trust: a study of switching cost antecedents, *Journal of Business & Industrial Marketing*, **26** (4), pp. 250-259.
- Zhang, J. (2010) *Sector Briefing: Cosmetics Market in South China*, UK Trade & Investment.

Zhao, Y., Li, Y., Lee, S.H. and Chen, L.B. (2011) Entrepreneurial Orientation, Organizational Learning, and Performance: Evidence From China, *Entrepreneurship Theory and Practice*, **35** (2), pp. 293-317.

Appendix 1 Information Sheet

Newcastle Business School,
Faculty of Business and Law,
Level 3, University House,
University of Newcastle,
Callaghan 2300,
NSW Australia,

For further information:

Supervisor: Dr. Canon Tong

Tel: (86) 135 3098 8800 or (852) 2722 6677

Email: canon.tong@newcastle.edu.au

Student: Mr. Allen Tan

Tel: (852) 62125683

Email: ma.tan@uon.edu.au

Information Statement for the Research Project

The impact of customer orientation and knowledge management on the relationship between entrepreneurial orientation and firm performance of cosmetics manufacturers in China

Dear Sir/Madam:

You are invited to participate in the research project identified above which is being conducted by Dr. Canon Tong, Newcastle Business School and Allen Tan, a candidate of the Doctor of Business Administration degree from the Newcastle Business School, University of Newcastle.

The research is part of Allen Tan's studies of Doctor of Business Administration at the University of Newcastle, supervised by Dr. Canon Tong.

Why is the research being done?

The aim of this research is to examine the impact of customer orientation and knowledge management on the relationship between entrepreneurial orientation and firm performance of cosmetics manufacturers in China. The research findings of this study will provide new insights on the key dimensions of entrepreneurial orientation and innovation management to benefit both academic research and management practices.

Who can participate in the research?

We are seeking people who are currently managers or owners of Cosmetics Manufacturers in China to participate in this research. Your name was collected and randomly selected from public domain websites and databases. If you are not currently manager or owner of Cosmetics Manufacturers in China, then unfortunately you are not eligible to participate.

What choice do you have?

Participation in this research is entirely voluntary. Only those people who give their informed consent will be included in this study.

Whether or not you decide to participate, your decision will not disadvantage you or your organization. Your decision to participate, or not to participate, will have no effect on your employment and no one will know whether or not you participated. If you do decide to participate, you may withdraw from the project at any time prior to the submission of your completed questionnaire.

Please note that as the questionnaire is to be completed anonymously, the data cannot be withdrawn from the study after you have returned the completed questionnaire to the researchers.

What would you be asked to do?

You are invited to fill out an anonymous questionnaire about your perceptions on entrepreneurial orientation in relation to firm performance by returning the completed questionnaire to the researchers with the pre-addressed and postage pre-paid envelope enclosed, within ONE month upon receipt of this invitation. You are requested to complete the questionnaire honestly and to the best of your knowledge and experience.

How much time will it take?

The anonymous questionnaire will take approximately 10 minutes to complete.

What are the risks and benefits of participating?

There will be no personal benefit to you in participating in this research. No legal, physical or psychological risks are expected by participating in this study. However, findings of the study should benefit both organizations in the industry and the community at large.

How will your privacy be protected?

All information provided by you will be treated as strictly confidential. Access to the data is only limited to the student researcher and supervisor. All data collected will be stored securely in a locked cabinet and electronic files will be protected with password that will not be released to any other party. The questionnaires will be shredded after final acceptance of the thesis by the Office of Graduate Studies. Prior to being shredded, all data will be securely stored in Allen Tan's office and electronic files which will be protected with password, only the researchers will have access to the data.

As this is a University research, at least a verified electronic copy of data will be securely stored at the Newcastle Business School, University of Newcastle, for a minimum period of 5 years from the date of final acceptance of the thesis. Your identity will at all times remain anonymous.

How will the information collected be used?

The information collected will be used in a thesis to be submitted by Allen Tan as part of his Doctor of Business Administration degree. Individual participants and organisations will not be identified in any reports arising from the study.

You may contact the researcher via email (ma.tan@uon.edu.au) for a copy of the report. The findings of this study may be published in a scholarly journal but neither you nor your company will be named or be able to be identified from the published report.

What do you need to do to participate?

Please read this Information Statement and be sure you understand its contents before you consent to participate. If there is anything

you do not understand, or you have questions, please contact the student researcher.

If you would like to participate, please do the following:

Complete the anonymous questionnaire which will take approximately 10 minutes of your time;

Send the completed questionnaire back to the student researcher using the postage prepaid envelope provided (This also constitutes your implied consent to participate) to return your response to the researchers.

Further information

If you need any further information please contact Dr. Canon Tong (please refer to the contact information on the first page of this letter) or Allen Tan at Tel: (852) 6212568 or e-mail: ma.tan@uon.edu.au.

Thank you for considering this invitation.

Allen Tan

Complaints about this research

This project has been approved by the University's Human Research Ethics Committee, Approval No. H- 2011-0177.

Should you have concerns about your rights as a participant in this research, or you have a complaint about the manner in which the research is conducted, please contact the researcher, or, if an independent person is preferred, please contact the Human Research Ethics Officer, Research Office, The Chancellery, The University of Newcastle, University Drive, Callaghan NSW 2308, Australia, telephone 61 2 492 16333, email Human-Ethics@newcastle.edu.au.

Appendix 2 Questionnaire

Newcastle Business School,
Faculty of Business and Law,
Level 3, University House,
University of Newcastle,
Callaghan 2300,
NSW Australia,

For further information:

Supervisor: Dr. Canon Tong

Tel: + (86) 135 3098 8800 or (852) 2722 6677

Email: canon.tong@newcastle.edu.au

Student researcher: Mr. Allen Tan

Tel: (852) 62125683

Email: ma.tan@uon.edu.au

Questionnaire for the Research Project

The impact of customer orientation and knowledge sharing on the relationship between entrepreneurial orientation and firm performance of cosmetics manufacturers in China

Thank you for volunteering to answer this questionnaire. The purpose of the research is to examine the impact of customer orientation and knowledge sharing on the relationship between entrepreneurial orientation and firm performance of cosmetics manufacturers in China. The findings of the study are expected to bring benefits to both organizations in the industry and the community at large. Your answers are valuable to us.

The information collected by this survey will be strictly confidential. You and your organization will not be personally identified. This research project has been approved by the Human Research Ethics Committee of the University of Newcastle, Australia (Approval No. H-2011-0177).

The questionnaire may take about 10 minutes to complete. Please indicate your responses to the questions and statements on pages 2 to 4 of this questionnaire by putting a tick (✓) in the square box (☐). Please give only one answer to each question. Upon completing the questionnaire, please send it back to the student researcher using the postage prepaid envelope provided. Thank you very much for your participation.

	Strongly Disagree 非常不同意	Disagree 不同意	Slightly Disagree 略不同意	Neutral 中性	Slightly Agree 略同意	Agree 同意	Strongly Agree 非常同意
A1. Entrepreneurial Orientation 创业导向							
1. In dealing with competitors, our company typically initiates actions which competitors respond to. 在面对竞争时，每当本公司有所策动，对手也不得不采取行动。	☐	☐	☐	☐	☐	☐	☐
2. In dealing with competitors, our company is very often the first business to introduce new products/services, administrative techniques, operation, technologies, etc. 在面对竞争时，本公司往往是首个引进新产品／服务、新行政管理技术、新运作模式和新科技的企业。	☐	☐	☐	☐	☐	☐	☐
3. Our company stresses a fully delegated policy for employees. 本公司奉行权力全面下放的政策。	☐	☐	☐	☐	☐	☐	☐
4. Our company gives the freedom for individuals or teams to develop new ideas. 本公司的员工或团队都有革故鼎新，引进新想法的自由。	☐	☐	☐	☐	☐	☐	☐
5. In general, the top managers of our company have a strong tendency to be ahead of others in introducing novel ideas or products/services. 一般而言，本公司高层管理人员锐意革新，致力在引进新概念或新产品／服务方面超越对手。	☐	☐	☐	☐	☐	☐	☐
6. Our company encourages and stimulates technological, product/service-market and administrative innovation. 本公司鼓励并促进科技、产品／服务和行政管理方面的创新。	☐	☐	☐	☐	☐	☐	☐
7. Our company stimulates creativity and experimentation. 本公司促进创意和试验。	☐	☐	☐	☐	☐	☐	☐
8. Our company's innovative initiatives are hard for competitors to successfully imitate. 本公司的创新举措让对手难以成功仿效。	☐	☐	☐	☐	☐	☐	☐

		Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
		非常不同意	不同意	略不同意	中性	略同意	同意	非常同意
A2. Firm Performance	经营绩效							
1.	Our sales growth is better than our main competitors. 本公司的销售增长比主要竞争对手高。	☐	☐	☐	☐	☐	☐	☐
2.	Our return on equity is better than our main competitors. 本公司的股本回报率比主要竞争对手大。	☐	☐	☐	☐	☐	☐	☐
3.	Our return on asset is better than our main competitors. 本公司的资产回报率比主要竞争对手大。	☐	☐	☐	☐	☐	☐	☐
4.	Our return on investment is better than our main competitors. 本公司的投资回报率比主要竞争对手大。	☐	☐	☐	☐	☐	☐	☐
5.	Our overall performance is better than our main competitors. 本公司的整体经营绩效比主要竞争对手好。	☐	☐	☐	☐	☐	☐	☐

		Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
		非常不同意	不同意	略不同意	中性	略同意	同意	非常同意
A3. Knowledge Sharing	知识共用							
1.	When I have learned something new, I tell my colleagues about it. 当我掌握新知识后，我会与同事分享。	☐	☐	☐	☐	☐	☐	☐
2.	When colleagues have learned something new, they tell me about it. 当同事掌握新知识后，他们会与我分享。	☐	☐	☐	☐	☐	☐	☐
3.	Knowledge sharing among colleagues is considered normal in my company. 同事之间知识共用在本公司是一件很平常的事。	☐	☐	☐	☐	☐	☐	☐
4.	I share information I have with colleagues when they ask for it. 如果同事有所要求，我会与他们分享信息。	☐	☐	☐	☐	☐	☐	☐
5.	I share my skills with colleagues when they ask for it. 如果同事有所要求，我会向他们传授技巧。	☐	☐	☐	☐	☐	☐	☐
6.	Colleagues in my company share knowledge with me when I ask them to. 如果我有所要求，同事会与我分享信息。	☐	☐	☐	☐	☐	☐	☐
7.	Colleagues in my company share their skills with me when I ask them to. 如果我有所要求，同事会向我传授技巧。	☐	☐	☐	☐	☐	☐	☐

		Strongly Agree 非常同意	Agree 同意	Slightly Agree 略同意	Neutral 中性	Slightly Disagree 略不同意	Disagree 不同意	Strongly Disagree 非常不同意
A4. Customer Orientation 顾客导向								
1.	Our company is customer-oriented. 本公司以客为本。	☐	☐	☐	☐	☐	☐	☐
2.	Our company brings value to customers. 本公司致力为客户创造价值。	☐	☐	☐	☐	☐	☐	☐
3.	Our company understands customer needs. 本公司了解客户需要。	☐	☐	☐	☐	☐	☐	☐
4.	Customer satisfaction is our company's objective. 令客户满意是本公司的宗旨。	☐	☐	☐	☐	☐	☐	☐
5.	Our company values after-sale service. 本公司注重售后服务。	☐	☐	☐	☐	☐	☐	☐

B. Demographic Information 基本资料		
1.	My gender is: 我的性别是：	男 ☐ Male 女 ☐ Female
2.	My main role in the company is: 我在公司的主要角色是：	股东/老板 ☐ Owner 经理 ☐ Manager
3.	My marital status is: 我的婚姻状况是：	单身 ☐ Single 已婚 ☐ Married
4.	I have experience in starting my own business: 我曾创业：	是 ☐ Yes 否 ☐ No
5.	Operating mode: 企业经营模式：	自有品牌 ☐ Own brand 代工 ☐ OEM 二者皆有 ☐ Both
6.	Firm size: 企业规模：	少于 20 人 ☐ Less than 20 21 人至 50 人 ☐ 21 to 50 51 人至 100 人 ☐ 51 to 100 101 人至 200 人 ☐ 101 to 200 201 人或以上 ☐ 201 or above
7.	I have worked in the company for: 我在公司工作了：	少于 1 年 ☐ Less than 1 year 1 年以上, 2 年以下 ☐ 1 to 2 year(s) 2 年以上, 5 年以下 ☐ 2 to 5 years 5 年以上, 10 年以下 ☐ 5 to 10 years 10 年以上 ☐ More than 10 years
8.	My educational level is: 我的教育程度是：	小学或以下 ☐ Primary or below 中学 ☐ Secondary School 大专 ☐ College 本科 ☐ Undergraduate 研究院或以上 ☐ Postgraduate or above

~ End of Questionnaire ~

Thank you for your participation. Please send the completed questionnaire back to the student researcher using the postage prepaid envelope provided.

Appendix 3 Endorsement of Translation



THE HONG KONG MANAGEMENT ASSOCIATION

FAIRMONT HOUSE, 14TH FLOOR,
8 COTTON TREE DRIVE, CENTRAL, HONG KONG.
TEL: 2526 6516
INTERNET: <http://www.hkma.org.hk>
E-MAIL: hkma@hkma.org.hk

香 港 管 理 專 業 協 會

香港中環紅棉路八號
東亞大樓十四字樓

Circular No.
通告第

DBA505 Ethics-Applications

Date
日期

15 July 2011

Translation Verification

This serves to confirm that the attached Chinese copy of Questionnaire submitted by Mr Tan, Ma Yu Allen (student no.: 3080675), is a true and accurate translation of the English version.

Should you have any queries, please feel free to contact Mickey Lau of the local Newcastle DBA Secretariat of the Hong Kong Management Association on (852) 27748513 or by email at mickeylau@hkma.org.hk.



Appendix 4 Approval Letter of Ethics

HUMAN RESEARCH ETHICS COMMITTEE



Notification of Expedited Approval

To Chief Investigator or
Project Supervisor: **Mr Canon Tong**

Cc Co-investigators /
Research Students: **Mr Ma Tan**

Re Protocol: **The impact of customer orientation and knowledge sharing on the
relationship between entrepreneurial orientation and firm performance of
cosmetics manufacturers in China**

Date: **21-Jul-2011**

Reference No: **H-2011-0177**

Date of Initial
Approval: **20-Jul-2011**

Thank you for your **Response to Conditional Approval** submission to the Human Research Ethics Committee (HREC) seeking approval in relation to the above protocol.

Your submission was considered under **Expedited** review by the Chair/Deputy Chair.

I am pleased to advise that the decision on your submission is **Approved** effective **20-Jul-2011**.

For noting: Please state in the Participant Information Statement *how* the research findings will benefit organisations within the industry and the community at large.

In approving this protocol, the Human Research Ethics Committee (HREC) is of the opinion that the project complies with the provisions contained in the National Statement on Ethical Conduct in Human Research, 2007, and the requirements within this University relating to human research.

Approval will remain valid subject to the submission, and satisfactory assessment, of annual progress reports. *If the approval of an External HREC has been "noted" the approval period is as determined by that HREC.*

The full Committee will be asked to ratify this decision at its next scheduled meeting. A formal *Certificate of Approval* will be available upon request. Your approval number is **H-2011-0177**.

If the research requires the use of an Information Statement, ensure this number is inserted at the relevant point in the Complaints paragraph prior to distribution to potential participants
You may then proceed with the research.

Conditions of Approval

This approval has been granted subject to you complying with the requirements for *Monitoring of Progress, Reporting of Adverse Events, and Variations to the Approved Protocol* as detailed below.

PLEASE NOTE:

In the case where the HREC has "noted" the approval of an External HREC, progress reports and reports of adverse events are to be submitted to the External HREC only. In the case of Variations to the approved protocol, or a Renewal of approval, you will apply to the External HREC for approval in the first instance and then Register that approval with the University's HREC.

- ***Monitoring of Progress***

Other than above, the University is obliged to monitor the progress of research projects involving human participants to ensure that they are conducted according to the protocol as approved by the HREC. A progress report is required on an annual basis. Continuation of your HREC approval for this project is conditional upon receipt, and satisfactory assessment, of annual progress reports. You will be advised when a report is due.

- ***Reporting of Adverse Events***

1. It is the responsibility of the person **first named on this Approval Advice** to report adverse events.
2. Adverse events, however minor, must be recorded by the investigator as observed by the investigator or as volunteered by a participant in the research. Full details are to be documented, whether or not the investigator, or his/her deputies, consider the event to be related to the research substance or procedure.
3. Serious or unforeseen adverse events that occur during the research or within six (6) months of completion of the research, must be reported by the person first named on the Approval Advice to the (HREC) by way of the Adverse Event Report form within 72 hours of the occurrence of the event or the investigator receiving advice of the event.
4. Serious adverse events are defined as:
 - o Causing death, life threatening or serious disability.
 - o Causing or prolonging hospitalisation.
 - o Overdoses, cancers, congenital abnormalities, tissue damage, whether or not they are judged to be caused by the investigational agent or procedure.
 - o Causing psycho-social and/or financial harm. This covers everything from perceived invasion of privacy, breach of confidentiality, or the diminution of social reputation, to the creation of psychological fears and trauma.
 - o Any other event which might affect the continued ethical acceptability of the project.
5. Reports of adverse events must include:
 - o Participant's study identification number;
 - o date of birth;
 - o date of entry into the study;
 - o treatment arm (if applicable);
 - o date of event;
 - o details of event;
 - o the investigator's opinion as to whether the event is related to the research

- procedures; and
- o action taken in response to the event.

6. Adverse events which do not fall within the definition of serious or unexpected, including those reported from other sites involved in the research, are to be reported in detail at the time of the annual progress report to the HREC.

- ***Variations to approved protocol***

If you wish to change, or deviate from, the approved protocol, you will need to submit an *Application for Variation to Approved Human Research*. Variations may include, but are not limited to, changes or additions to investigators, study design, study population, number of participants, methods of recruitment, or participant information/consent documentation. **Variations must be approved by the (HREC) before they are implemented** except when Registering an approval of a variation from an external HREC which has been designated the lead HREC, in which case you may proceed as soon as you receive an acknowledgement of your Registration.

Linkage of ethics approval to a new Grant

HREC approvals cannot be assigned to a new grant or award (ie those that were not identified on the application for ethics approval) without confirmation of the approval from the Human Research Ethics Officer on behalf of the HREC.

Best wishes for a successful project.

Professor Alison Ferguson

Chair, Human Research Ethics Committee

For communications and enquiries:

Human Research Ethics Administration

Research Services
Research Integrity Unit
HA148, Hunter Building
The University of Newcastle
Callaghan NSW 2308
T +61 2 492 18999
F +61 2 492 17164
Human-Ethics@newcastle.edu.au