

**ENTREPRENEURIAL ORIENTATION, ABSORPTIVE  
CAPACITY, MARKET ORIENTATION AND  
TECHNOLOGICAL INNOVATION CAPABILITIES  
OF SMES IN KURDISTAN, IRAQ**

**By**

**ABDULQADIR RAHOMEE AHMED AL-JANABI**



**UUM**  
**Universiti Utara Malaysia**

**DOCTOR OF PHILOSOPHY  
UNIVERSITI UTARA MALAYSIA  
January 2016**

ENTREPRENEURIAL ORIENTATION, ABSORPTIVE  
CAPACITY, MARKET ORIENTATION AND  
TECHNOLOGICAL INNOVATION CAPABILITIES  
OF SMES IN KURDISTAN, IRAQ



By

ABDULQADIR RAHOMEE AHMED AL-JANABI

UUM  
Universiti Utara Malaysia

Thesis Submitted to  
Othman Yeop Abdullah Graduate School of Business,  
University Utara Malaysia,  
in Fulfillment of the Requirement for the Degree of Doctor of Philosophy



**Kolej Perniagaan**  
(College of Business)  
**Universiti Utara Malaysia**

**PERAKUAN KERJA TESIS / DISERTASI**  
(Certification of thesis / dissertation)

Kami, yang bertandatangan, memperakukan bahawa  
(We, the undersigned, certify that)

**ABDULQADIR RAHOMEE AHMED**

calon untuk Ijazah **DOCTOR OF PHILOSOPHY (MARKETING)**  
(candidate for the degree of)

telah mengemukakan tesis / disertasi yang bertajuk:  
(has presented his/her thesis / dissertation of the following title)

**ENTREPRENEURIAL ORIENTATION, ABSORPTIVE CAPACITY, MARKET ORIENTATION AND  
TECHNOLOGICAL INNOVATION CAPABILITIES OF SMEs IN KURDISTAN, IRAQ**

seperti yang tercatat di muka surat tajuk dan kulit tesis / disertasi.  
(as it appears on the title page and front cover of the thesis / dissertation).

Bahawa tesis/disertasi tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan, sebagaimana yang ditunjukkan oleh calon dalam ujian lisan yang diadakan pada: **26 Januari 2016**. (That the said thesis/dissertation is acceptable in form and content and displays a satisfactory knowledge of the field of study as demonstrated by the candidate through an oral examination held on: **26 January 2016**).

Pengerusi Viva : **Assoc. Prof. Dr. Salniza Bt. Md. Salleh**  
(Chairman for Viva)

Tandatangan  
(Signature)

Pemeriksa Luar : **Assoc. Prof. Dr. Mohammad B. Ismail**  
(External Examiner)

Tandatangan  
(Signature)

Pemeriksa Dalam : **Prof. Dr. Rosli B. Mahmood**  
(Internal Examiner)

Tandatangan  
(Signature)

Tarikh: **26 Januari 2016**  
(Date)

Nama Pelajar  
(Name of Student)

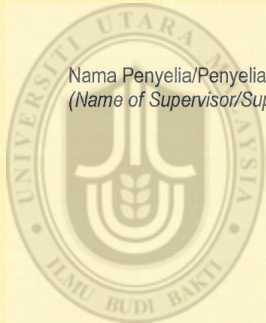
: Abdulqadir Rahomee Ahmed

Tajuk Tesis / Disertasi  
(Title of the Thesis / Dissertation)

: Entrepreneurial Orientation, Absorptive Capacity, Market  
Orientation and Technological Innovation Capabilities of SMEs in  
Kurdistan, Iraq

Program Pengajian  
(Programme of Study)

: Doctor of Philosophy (Marketing)



Nama Penyelia/Penyelia-penyelia  
(Name of Supervisor/Supervisors)

: Assoc. Prof. Dr. Nor Azila Mohd Noor

Tandatangan  
(Signature)

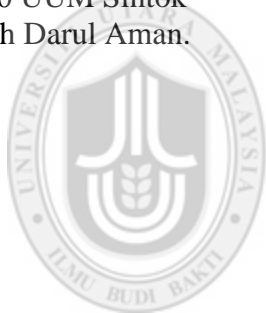
**UUM**  
Universiti Utara Malaysia

## PERMISSION TO USE

In presenting this thesis as part of the fulfilment of the requirement for the degree of doctor of philosophy from University Utara Malaysia, I agree that the University library may make it freely available for inspection. I also agree with the permission for copying of this thesis in any manner, whether in whole or in part for scholarly purposes may be granted by my supervisor or in her absence by the Dean of Othman Yeop Abdullah Graduate School of Business, University Utara Malaysia. It is understood that any copying or publication or use of this thesis or its parts thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to UUM in any scholarly use that may comprise of any material from my thesis.

Request for permission to copy or to make other use of the materials in this thesis, whether in whole or in part should be addressed to:

Dean of Othman Yeop Abdullah Graduated School of Business  
Universiti Utara Malaysia  
06010 UUM Sintok  
Kedah Darul Aman.



## ABSTRACT

Innovation capabilities have become an important component for small and medium enterprises (SMEs) in the industrial sector to cope with intense competition and to meet customers' needs. Due to inconsistency in the findings of previous studies on the antecedent factors that may influence these capabilities, this study intended to empirically examine the relationships between entrepreneurial orientation, absorptive capacity, market orientation, and technological innovation capabilities among the industrial SMEs in an unstable environment, and also to determine whether market orientation has a mediating role in the relationship between entrepreneurial orientation, absorptive capacity, and technological innovation capabilities. This study adopted the Resource-Based Theory as an underpinning theory for its assumptions and to develop its model. Self-administered questionnaires were distributed to the industrial SMEs owners in the Kurdistan region of Iraq. A total of 432 innovative enterprises were involved in this study, making an overall 63.9% response rate. This study utilized the partial least squares structural equation modelling (PLS-SEM) to establish the validity and reliability of the measurement model and to test the relationships. The outcomes of this study show that both absorptive capacity and entrepreneurial orientation have significant influences on technological innovation capabilities. Furthermore, the results indicate that market orientation has a partial mediating role in the nexus between absorptive capacity and technological innovation capabilities, but it has not been found to mediate the relationship between entrepreneurial orientation and technological innovation capabilities. This study offers theoretical and practical contributions for academics and professionals. The limitations of the study have been addressed and some valuable suggestions for future research work are offered.

**Keywords:** absorptive capacity, entrepreneurial orientation, market orientation, technological innovation capabilities.

## ABSTRAK

Keupayaan inovasi telah menjadi satu komponen penting bagi industri kecil dan sederhana (IKS) dalam sektor industri untuk menghadapi persaingan sengit dan memenuhi keperluan pelanggan. Oleh kerana dapatan kajian terdahulu mengenai faktor-faktor yang boleh mempengaruhi keupayaan-keupayaan ini didapati tidak konsisten, maka kajian ini cuba untuk mengkaji secara empirikal hubungan antara orientasi keusahawanan, kemampuan untuk menyerap, orientasi pasaran, dan keupayaan inovasi teknologi bagi industri IKS dalam persekitaran yang tidak stabil. Selain itu, kajian ini juga bertujuan untuk menentukan sama ada orientasi pasaran memainkan peranan sebagai perantara dalam hubungan antara orientasi keusahawanan, kemampuan untuk menyerap, dan keupayaan inovasi teknologi. Kajian ini menggunakan teori berasaskan sumber sebagai teori yang menjadi asas bagi andaian dan asas untuk membangunkan modelnya. Soal selidik tadbir sendiri telah diedarkan kepada pemilik industri IKS di wilayah Kurdistan, Iraq. Sebanyak 432 buah syarikat inovatif terlibat dalam kajian ini, menjadikan kadar tindak balas secara keseluruhannya sebanyak 63.9%. Kajian ini menggunakan pemodelan persamaan terkecil berstruktur (PLS-SEM) bagi mewujudkan kesahan dan kebolehpercayaan pengukuran model dan untuk menguji hubungan-hubungan tersebut. Hasil kajian ini menunjukkan bahawa kemampuan untuk menyerap dan orientasi keusahawanan mempunyai pengaruh yang besar ke atas keupayaan inovasi teknologi. Tambahan pula, keputusan menunjukkan bahawa orientasi pasaran memainkan peranan sebagai perantara separa dalam pertalian antara kemampuan untuk menyerap dan keupayaan inovasi teknologi, tetapi tidak menjadi perantara bagi hubungan antara orientasi keusahawanan dan keupayaan inovasi teknologi. Kajian ini memberikan sumbangan dalam bidang teori dan praktikal kepada ahli akademik dan profesional. Batasan bagi kajian ini telah ditangani dan beberapa cadangan yang bernilai bagi kajian akan datang turut dikemukakan.

**Kata kunci:** kemampuan menyerap, orientasi keusahawanan, orientasi pasaran, keupayaan inovasi teknologi.

## ACKNOWLEDGEMENT

It is with immense gratitude that I acknowledge the huge support and help of some people.

Foremost, I would like to express my sincere gratitude to my advisor Assoc. Prof. Dr. Nor Azila Mohd Noor for the continuous support of my Ph.D study and research, for her patience, motivation, enthusiasm, and immense knowledge. Her guidance helped me in all the time of research and writing of this thesis. I could not have imagined having a better advisor and mentor for my Ph.D. study.

Besides my advisor, I would like to thank the rest of my thesis committee: Assoc. Prof. Dr. Salniza Md Salleh, Prof. Dr. Rosli Mahmood, Assoc. Prof Dr. Mohammad Ismail, for the constructive comments and invaluable suggestions.

My sincere thanks also goes to Prof. Dr. Hassan Ali, Prof. Dr. Dileep Kumar, Assoc. Prof Dr. Faiz Ahmad, and Prof. Dr. Nik Kamariah Bt Nik Mat, for offering me the best Knowledge in the field of scientific research and leading me working on diverse exciting researches.

All my gratitude to my father, mother for supporting me spiritually throughout all steps of my life.

I would like to thank my wife for standing beside me throughout my career and writing this research. She has been my supporter for continuing to improve my knowledge and move my career forward.

My deepest appreciation for all brothers, sisters and all my family members for their support and prayers.

Thanks also go to all friends and SMEs owners who helped me in the data collection stage in the Kurdistan region of Iraq and OYA-GSB office staff for their continuing cooperation.



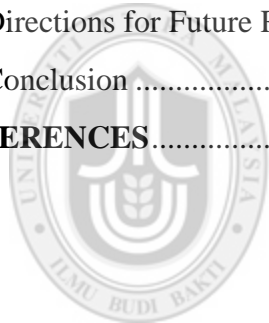
## TABLE OF CONTENTS

<b>Title</b>	<b>Page</b>
<b>TITLE PAGE</b>	<b>i</b>
<b>CERTIFICATION OF THESIS WORK</b>	<b>iii</b>
<b>PERMISSION TO USE</b>	<b>v</b>
<b>ABSTRACT</b>	<b>vi</b>
<b>ABSTRAK</b>	<b>vii</b>
<b>ACKNOWLEDGEMENTS</b>	<b>viii</b>
<b>TABLE OF CONTENTS</b>	<b>ix</b>
<b>LIST OF TABLES</b>	<b>xiii</b>
<b>LIST OF FIGURES</b>	<b>xv</b>
<b>LIST OF APPENDICES</b>	<b>Xvi</b>
<b>LIST OF ABBREVIATIONS</b>	<b>xvii</b>
<b>CHAPTER ONE: INTRODUCTION</b> .....	<b>1</b>
1.1 Research Background .....	1
1.2 Research Problem .....	8
1.3 Research Questions .....	17
1.4 Research Objectives .....	18
1.5 Significance of the Study .....	19
1.6 Definition of terms .....	24
1.7 Research Scope .....	25
1.8 Organization of the Thesis .....	25
<b>CHAPTER TWO: LITERATUR REVIEW</b> .....	<b>27</b>
2.1 Introduction .....	27
2.2 Technological Innovation Capabilities .....	27
2.2.1 Product Innovation Capabilities .....	35
2.2.2 Process Innovation Capabilities .....	37
2.3 Innovation-Related Terms .....	41

2.3.1. Creativity .....	41
2.3.2 Invention.....	42
2.3.3 Change.....	42
2.4 Antecedents of Technological Innovation .....	42
2.5 Technological Innovation within SMEs .....	45
2.6 Entrepreneurial Orientation Conceptualization .....	48
2.6.1 The essential components of entrepreneurial orientation.....	49
2.7. Absorptive capacity conceptualization .....	54
2.7.1 Knowledge Acquisition.....	56
2.7.2 Knowledge Assimilation .....	57
2.7.3 Knowledge Transformation.....	58
2.7.4 Knowledge exploitation .....	60
2.8 Market orientation conceptualization.....	61
2.8.1 The essential components of market orientation.....	64
2.8.2 The importance of market orientation.....	65
2.8.3 The mediation role of market orientation.....	67
2.9 Underpinning Theory.....	70
2.10 Theoretical framework.....	77
2.11 Hypotheses Development .....	80
2.12 Chapter Summary .....	93
<b>CHAPTER THREE: RESEARCH METHODOLOGY .....</b>	<b>94</b>
3.1 Introduction.....	94
3.2 Research Design.....	94
3.3 Research Approach .....	96
3.4 Population .....	98
3.5 Sampling Design.....	100
3.6 Unit of Analysis .....	103
3.7 Questionnaire Design.....	105
3.8 Structure of Questionnaire .....	106
Section 1: General Information. ....	106
Section 2: Dependent Variable – Technological Innovation Capabilities. ....	106

Section 3: Independent Variable – Entrepreneurial Orientation. ....	109
Section 4: Independent Variable – Absorptive Capacity. ....	111
Section 5: Mediator Variable – Market Orientation.....	113
3.9 Questionnaire translation .....	115
3.10 Pilot study .....	116
3.10.1 Instrument Validity.....	117
3.10.2 Instrument reliability .....	118
3. 11 Data Collection Procedures.....	121
3.12 Data Analysis Techniques.....	123
3.12.1 Descriptive Analysis.....	123
3.12.2 Hypotheses Testing .....	123
3.13 Chapter Summary .....	125
<b>CHAPTER FOUR: DATA ANALYSIS AND RESULTS</b> .....	126
4.1 Introduction.....	126
4.2. Demographic Distribution of the Respondents.....	126
4.3 Testing Non-Response Bias .....	132
4.4 Descriptive Statistics.....	134
4.5 Testing the Goodness of the Measurements .....	135
4.5.1 Testing the Measurement Model of “Outer Model” using PLS approach .....	135
4.5.2 The Assessment of the Structural “Inner” Model and Hypotheses Testing Procedures.....	156
4.6 Mediation Effect Analysis .....	159
4.7 The Prediction Quality of the Model .....	164
4.7.1 R squared Value and Effect Size.....	164
4.7.2 Cross-Validated Redundancy .....	165
4.7.3 The Model’s Overall Goodness of Fit.....	166
4.8 Chapter Summary .....	167
<b>CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATIONS</b> .....	168
5.1 Introduction.....	168

5.2 Recapitulation of the Research Findings .....	168
5.3 Discussion .....	172
5.3.1 The effects of exogenous variables (Entrepreneurial Orientation and Absorptive Capacity) on Technological Innovation Capabilities .....	172
5.3.2 The effects of exogenous variables (Entrepreneurial Orientation and Absorptive Capacity) on Market Orientation.....	175
5.3.3 The effects of Market Orientation on Technological Innovation Capabilities .....	178
5.3.4 The Mediation role of Market Orientation .....	180
5.4 Research Contributions and Implications .....	183
5.4.1 Theoretical Contributions.....	184
5.4.2 Practical Implications .....	190
5.5 Limitations of the Study.....	193
5.6 Directions for Future Research .....	195
5.7 Conclusion .....	197
<b>REFERENCES</b> .....	199



## LIST OF TABLES

Table		Page
Table 2.1	Innovation definitions .....	30
Table 2.2	Market orientation definitions .....	63
Table 3.1	Industrial Activities for the Target Population .....	100
Table 3.2	Sample distribution on each industrial activities based on its percentage from entire target population .....	103
Table 3.3	List of research variables .....	106
Table 3.4	Technological Innovation Measures .....	108
Table 3.5	Entrepreneurial Orientation Measures .....	110
Table 3.6	Absorptive Capacity Measures .....	112
Table 3.7	Market Orientation Measures .....	114
Table 3.8	Factor Analysis and Reliability of the Final Instrument (Pilot Study) ...	120
Table 4.1	Respondent According to Filter Question .....	126
Table 4.2	Procedures of Missing Data Status .....	127
Table 4.3	Returned questionnaires .....	127
Table 4.4	Participant's Demographic Information .....	131
Table 4.5	Group Statistics of Independent Sample t-test .....	133
Table 4.6	Independent Sample t-test Results for Non-Response Bias .....	133
Table 4.7	Descriptive Statistics of the Constructs .....	134
Table 4.8	The Cross Loadings Factors for Exogenous and Endogenous variables	138
Table 4.9	Significance of the factor loading .....	142
Table 4.10	Convergent Validity Analysis .....	145
Table 4.11	Correlations and discriminant validity .....	148
Table 4.12	Heterotrait-Monotrait Ratio (HTMT) criterion values .....	151
Table 4.13	Heterotrait-Monotrait (HTMT) statistical test .....	152
Table 4.14	Establishment of Second-Order Constructs .....	155
Table 4.15	Results of the Structural "Inner" Model .....	158

Table 4.16    Testing the Mediation Effect of Market Orientation (MO) ..... 164  
Table 4.17    Effect Size on Endogenous Variables ..... 165  
Table 4.18    Prediction Relevance of the Model ..... 166



## LIST OF FIGURES

Figure	Page
Figure 2.1 Theoretical Research Framework .....	79
Figure 4.1 Research Model .....	135
Figure 4.2 Path Algorithm Results .....	137
Figure 4.3 Path Analysis Result .....	157
Figure 4.4 The Impact of EO, ACAP, MO on TIC .....	159
Figure 4.5 The Direct Paths Model (c) .....	161



**UUM**  
Universiti Utara Malaysia

## LIST OF APPENDICES

Appendix	Page
Appendix A1 Questionnaire English Version .....	242
Appendix A2 Questionnaire Kurdish Version .....	250
Appendix B Factor Analysis Results for Pilot Study .....	257
Appendix C Testing Non-Response Bias Results .....	266
Appendix D Permeation letter to access to Ministry of Trading and Industry in Kurdistan region .....	268
Appendix E Permeations to collect data from UUM .....	271
Appendix F Permeations to collect data from Ministry of higher education in Kurdistan region .....	273



**UUM**  
Universiti Utara Malaysia



## LIST OF ABBREVIATIONS

ACAP	Absorptive Capacity
CIPE	Center for International Private Enterprises
EO	Entrepreneurial Orientation
GDP	Gross Domestic Product
KFCCI	Kurdistan Federation Chamber of commerce and Industry/ Iraq
KRG	Kurdistan Region Government
MO	Market Orientation
NPD	New Product Development
PRDI	Product Innovation
PRSI	Process Innovation
RBV	Resource-Based View
SIGIR	Special Inspector General for Iraq Reconstruction
SMEs	Small and Medium Enterprises
TI	Technological Innovation
USAID	U.S. Agency for International Development



Universiti Utara Malaysia

# CHAPTER ONE

## INTRODUCTION

### 1.1 Research Background

It is well known that the industrial sector usually develops faster than other economic sectors, due to the distinctive capability of industries to embrace technological and manufacturing innovations and modern management methods, in addition to their orientation towards production specialization in various fields. Hence, industrial enterprises play a vital role because they overlap with other sectors and have great opportunities to contribute to a larger portion of the gross domestic product (GDP) (Bakar & Ahmad, 2010; Pullen, de Weerd-Nederhof, Groen, & Fisscher, 2012).

The private industrial sector, especially Small and Medium Enterprises (SMEs), plays a focal role to achieve noticeable economic leaps and high income levels, which can be sustained for the long-term through production and exportation activities (González-Loureiro & Pita-Castelo, 2013; Westerberg & Frishammar, 2012). Additionally, SMEs serve as an efficient way to bring about the new technologies that contribute to developing and integrating all other economic sectors (Guo & Shi, 2012).

Since 2007, a growing interest in the industrial SMEs has been emerging in the Kurdistan region of Iraq, particularly, to move the industry wheel and solve the problem of unemployment (Batal, Alrawy & Ali, 2011). Nevertheless, there are

The contents of  
the thesis is for  
internal user  
only

## REFERENCES

- Abdul Aziz, R., Mahmood, R., Tajudin, A., Abdullah, M. H., Aziz, R. A., Mahmood, R., ... Abdullah, M. H. (2014). The relationship between entrepreneurial orientation and business performance of SMEs in Malaysia. *International Journal of Management Excellence*, 2(3), 221–226. doi:10.0001%2Fijme.v2i3.96
- Adhikari, A., & Gill, M. (2012). Impact of Resources Capabilities and Technology on Market Orientation of India B2B Firms. *Journal of Services Research*, 11(2), 75–98.
- Adler, P., & Shenhar, A. (1990). Adapting Your Technological Base: The Organizational Challenge. *Sloan Management Review*, 32(1), 25–37.
- Al-Hyari, K., Al-Weshah, G., & Alnsour, M. (2012). Barriers to internationalisation in SMEs: evidence from Jordan. *Marketing Intelligence & Planning*, 30(2), 188–211. doi:10.1108/02634501211211975
- Ali, F. (2013). The reality of economic diversification in the Kurdistan region of Iraq. Retrieved from <http://kawanakurd.com>
- Aljanabi, A. R. A., & Noor, N. A. M. (2015a). Critical Determinants of Technological Innovation: A Conceptual Framework and a Case Study from Iraq. *International Business Research*, 8(2), 16–27. doi:10.5539/ibr.v8n2p16
- Aljanabi, A. R. A., & Noor, N. A. M. (2015b). The Mediating role of Market Orientation on Entrepreneurial Orientation, Absorptive Capacity and Technological Innovation Capabilities. *Asian Social Science*, 11(5), 219–234. doi:10.5539/ass.v11n5p219
- Alpkan, L., Bulut, C., Gunday, G., Ulusoy, G., & Kilic, K. (2010). Organizational support for intrapreneurship and its interaction with human capital to enhance innovative performance. *Management Decision*, 48(5), 732–755.

doi:10.1108/00251741011043902

- Alpkan, L. ütfiha., Şanal, M., & Ayden, Y. ükse. (2012). Market Orientation, Ambidexterity and Performance Outcomes. *Procedia - Social and Behavioral Sciences*, 41, 461–468. doi:10.1016/j.sbspro.2012.04.056
- Al-Swidi, A. K., & Mahmood, R. (2012). Total quality management, entrepreneurial orientation and organizational performance: The role of organizational culture. *African Journal of Business Management*, 6(13), 4717–4727. doi:10.5897/AJBM11.2016
- Alvarez, S. a. (2001). The entrepreneurship of resource-based theory. *Journal of Management*, 27(6), 755–775. doi:10.1177/014920630102700609
- Amiryany, N., Huysman, M., Man, A.-P. De, & Clodt, M. (2012). Acquisition reconfiguration capability. *European Journal of Innovation Management*, 15(2), 177–191. doi:10.1108/14601061211220968
- Anca, L., & Cruceru, F. (2012). Achieving marketing success through strategic orientation of the organisation. *Romanian Journal of Marketing*, 4(4), 29–32.
- Andersén, J. (2012). Protective capacity and absorptive capacity: Managing the balance between retention and creation of knowledge-based resources. *The Learning Organization*, 19(5), 440–452. doi:10.1108/09696471211239730
- Andersén, J., & Kask, J. (2012). Asymmetrically realized absorptive capacity and relationship durability. *Management Decision*, 50(1), 43–57. doi:10.1108/00251741211194868
- Anderson, J. C., & Gerbing, D. W. (1991). Predicting the performance of measures in a confirmatory factor analysis with a pretest assessment of their substantive validities. *Journal of Applied Psychology*, 76(5), 732–740. doi:10.1037//0021-9010.76.5.732

- Ar, I. M., & Baki, B. (2011). Antecedents and performance impacts of product versus process innovation: Empirical evidence from SMEs located in Turkish science and technology parks. *European Journal of Innovation Management*, 14(2), 172–206. doi:10.1108/14601061111124885
- Armstrong, J. ., & Overton, T. (1977). Estimating Nonresponse Bias in Mail Surveys The Wharton School , University of Pennsylvania Terry S . Overton Marketing Scientist , Merck , Sharp and Dohme. *Journal of Marketing Research*, 14(1), 396–402.
- Astrachan, C. B., Patel, V. K., & Wanzanried, G. (2014). A comparative study of CB-SEM and PLS-SEM for theory development in family firm research. *Journal of Family Business Strategy*, 5(1), 116–128. doi:10.1016/j.jfbs.2013.12.002
- Atkinson, W. (2014). Iraq's Kurdistan Region Stable and Growing. Retrieved from <https://www.pmi.org/learning/PM-Network/2014/kurdistan-growing-and-stable.aspx>
- Atuahene-gima, & Ko. (2001). An Empirical Investigation of the Effect of Market Orientation and Entrepreneurship Orientation Alignment on Product Innovation. *Organization Science*, 12(1), 54–74. doi:org/10.1287/orsc.12.1.54.10121
- Atuahene-Gima, K., Slater, S. F., & Olson, E. M. (2005). The Contingent Value of Responsive and Proactive Market Orientations for New Product Program Performance. *Journal of Product Innovation Management*, 22(6), 464–482. doi:10.1111/j.1540-5885.2005.00144.x
- Avlonitis, G. J., & Salavou, H. E. (2007). Entrepreneurial orientation of SMEs, product innovativeness, and performance. *Journal of Business Research*, 60(5), 566–575. doi:10.1016/j.jbusres.2007.01.001
- Babbie, E. (2011). *Introduction to Social Research* (Fifth Edit.). Canada: Learning,

Wadsworth Cengage.

- Baer, M. (2012). Putting Creativity to Work: The Implementation of Creative Ideas in Organizations. *Academy of Management Journal*, 55(5), 1102–1119. doi:10.5465/amj.2009.0470
- Bakar, & Mahmood, R. (2014). Linking Transformational Leadership and Corporate Entrepreneurship to Performance in the Public Higher Education Institutions in Malaysia. *Advances in Management & Applied Economics*, 4(3), 109–122. doi:10.1016/j.jbusvent.2005.02.005
- Bakar, L. J. A., & Ahmad, H. (2010). Assessing the relationship between firm resources and product innovation performance: A resource-based view. *Business Process Management Journal*, 16(3), 420–435. doi:10.1108/14637151011049430
- Baker, W. E., & Sinkula, J. M. (1999). The Synergistic effect of Market Orientation and Learning Orientation on Organizational Performance. *Journal of Academy of Marketing Science*, 27(4), 411–427. doi:10.1177/0092070399274002
- Baker, W. E., & Sinkula, J. M. (2005). Market Orientation and the New Product Paradox. *Journal of Product Innovation Management*, 22(6), 483–502. doi:10.1111/j.1540-5885.2005.00145.x
- Baker, W. E., & Sinkula, J. M. (2007). Does Market Orientation Facilitate Balanced Innovation Programs? An Organizational Learning Perspective. *Journal of Product Innovation Management*, 24(4), 316–334. doi:10.1111/j.1540-5885.2007.00254.x
- Baker, W. E., & 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), 443–464. doi:10.1111/j.1540-627X.2009.00278.x

- Baregheh, A., Rowley, J., & Sambrook, S. (2009). Towards a multidisciplinary definition of innovation. *Management Decision*, 47(8), 1323–1339. doi:10.1108/00251740910984578
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99–120. doi:10.1177/014920639101700108
- Barney, J. ., Xue, L., & Ray, G. (2013). Impact of Information Technology Capital on Firm Scope and Performance: The Role of Asset Characteristics, 56(4), 1125–1147.
- Barney, J., Mike, W., & Ketchen, J. (2001). The resource-based view of the firm: Ten years after 1991. *Journal of Management*, 27(6), 625–641. doi:10.1177/014920630102700601
- Baron, R. M., & 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), 1173–1182. doi:10.1037//0022-3514.51.6.1173
- Basterretxea, I., & Martinez, R. (2012). Impact of Management and Innovation Capabilities on Performance: Are Cooperative Different? *Annals of Public and Cooperative Economics* 83:3, 83, 357–381.
- Batal, Alrawy, & A. (2011). The Role of Private Banks In Financing Small and Medium Enterprises in. *AL-Anbar University Journal of Economic and Administration Sciences*, 4(7), 44–68. Retrieved from <http://www.iasj.net/iasj>
- Bear, M., & Frese, M. (2003). Innovation is not enough : climates for initiative and psychological safety , process innovations , and firm performance. *Journal of Organizational Behavior*, 24(1), 45–68. doi:10.1002/job.Published



- Beck, L., Janssens, W., Debruyne, M., & Lommelen, T. (2011). A Study of the Relationships Between Generation, Market Orientation, and Innovation in Family Firms. *Family Business Review*, 24(3), 252–272. doi:10.1177/0894486511409210
- Bhamra, R., Dani, S., & Bhamra, T. (2011). Competence understanding and use in SMEs: a UK manufacturing perspective. *International Journal of Production Research*, 49(10), 2729–2743. doi:10.1080/00207541003738873
- Bhuian, S. N., Menguc, B., & Bell, S. J. (2005). Just entrepreneurial enough: the moderating effect of entrepreneurship on the relationship between market orientation and performance. *Journal of Business Research*, 58(1), 9–17. doi:10.1016/S0148-2963(03)00074-2
- Bigliardi, B., & Dormio, A. I. (2009). An empirical investigation of innovation determinants in food machinery enterprises. *European Journal of Innovation Management*, 12(2), 223–242. doi:10.1108/14601060910953988
- Blesa, A., & Ripolles, M. (2003). The Role of Market Orientation in the Relationship between Entrepreneurial Proactiveness and Performance. *Journal of Entrepreneurship*, 12(1), 1–19. doi:10.1177/097135570301200101
- Boguslauskas, V., & Kvedaraviciene, G. (2009). Difficulties in identifying Company ‘s Core Competencies and Core Processes. *Commerce of Engineering Decisions*, 2(1), 75–82.
- Börjesson, S., Elmquist, M., & Hooge, S. (2014). The challenges of innovation capability building: Learning from longitudinal studies of innovation efforts at Renault and Volvo Cars. *Journal of Engineering and Technology Management*, 31, 120–140. doi:10.1016/j.jengtecman.2013.11.005

- Boso, N., Cadogan, J. W., & Story, V. M. (2012a). Complementary effect of entrepreneurial and market orientations on export new product success under differing levels of competitive intensity and financial capital. *International Business Review*, 21(4), 667–681. doi:10.1016/j.ibusrev.2011.07.009
- Boso, N., Cadogan, J. W., & Story, V. M. (2012b). Entrepreneurial orientation and market orientation as drivers of product innovation success: A study of exporters from a developing economy. *International Small Business Journal*, 31(1), 57–81. doi:10.1177/0266242611400469
- Bouncken, R. B., & Kraus, S. (2013). Innovation in knowledge-intensive industries: The double-edged sword of competition. *Journal of Business Research*, 66(10), 2060–2070. doi:10.1016/j.jbusres.2013.02.032
- Bowen, S. (2011). *October 30, 2011 Quarterly Report to Congress*. Arlington. Retrieved from <http://www.sigir.mil/>
- Bowen, S. (2012). *April 2012 Quarterly Report to Congress*. Arlington. Retrieved from <http://www.sigir.mil/>
- Branzei, O., & Vertinsky, I. (2006). Strategic pathways to product innovation capabilities in SMEs. *Journal of Business Venturing*, 21(1), 75–105. doi:10.1016/j.jbusvent.2004.10.002
- Bryman, A., & Bell, E. (2011). *Business Research Methods* (Third Edit.). New York: Oxford University Press.
- Byrne, B. M. (2010). *Structural Equation Modeling with AMOS Basic Concepts, Applications, and Programming* (Second Edi.). USA: Taylor & Francis Group.
- Caccia-Bava, M. D. C., Guimaraes, T., & Harrington, S. J. (2006). Hospital organization

- culture, capacity to innovate and success in technology adoption. *Journal of Health Organisation and Management*, 20(3), 194–217. doi:10.1108/14777260610662735
- Cambra-Fierro, J. J., Hart, S., Polo-Redondo, Y., & Fuster-Mur, A. (2011). Market and learning orientation in times of turbulence: relevance questioned? An analysis using a multi-case study. *Quality & Quantity*, 46(3), 855–871. doi:10.1007/s11135-011-9429-x
- Camelo, C., Fernández-Alles, M., & Hernández, A. B. (2010). Strategic consensus, top management teams, and innovation performance. *International Journal of Manpower*, 31(6), 678–695. doi:10.1108/01437721011073373
- Camisón, C., & Forés, B. (2010). Knowledge absorptive capacity: New insights for its conceptualization and measurement. *Journal of Business Research*, 63(7), 707–715. doi:10.1016/j.jbusres.2009.04.022
- Camisón, C., & Villar-López, A. (2012a). On How Firms Located in an Industrial District Profit from Knowledge Spillovers: Adoption of an Organic Structure and Innovation Capabilities. *British Journal of Management*, 23, no–no. doi:10.1111/j.1467-8551.2011.00745.x
- Camisón, C., & Villar-López, A. (2012b). Organizational innovation as an enabler of technological innovation capabilities and firm performance. *Journal of Business Research*, 67(1), 2891–2902. doi:10.1016/j.jbusres.2012.06.004
- Carbonell, P., & Escudero, A. I. R. (2010). The effect of market orientation on innovation speed and new product performance. *Journal of Business & Industrial Marketing*, 25(7), 501–513. doi:10.1108/08858621011077736
- Carmen, C., & José, G. M. (2008). The role of technological and organizational innovation

- in the relation between market orientation and performance in cultural organizations. *European Journal of Innovation Management*, 11(3), 413–434. doi:10.1108/14601060810889035
- Celuch, K., & Murphy, G. (2010). SME Internet use and strategic flexibility: the moderating effect of IT market orientation. *Journal of Marketing Management*, 26(1-2), 131–145. doi:10.1080/02672570903574296
- Cervera, A., Molla, A., & Sanchez, M. (2001). Antecedents and consequences of market orientation in public organisations. *European Journal of Marketing*, 35(11), 1259–1286.
- Cha, E.-S., Kim, K. H., & Erlen, J. a. (2007). Translation of scales in cross-cultural research: issues and techniques. *Journal of Advanced Nursing*, 58(4), 386–95. doi:10.1111/j.1365-2648.2007.04242.x
- Chalmers, D. M., & Balan-Vnuk, E. (2012). Innovating not-for-profit social ventures: Exploring the microfoundations of internal and external absorptive capacity routines. *International Small Business Journal*, 31(7), 785–810. doi:10.1177/0266242612465630
- Chang, S., Gong, Y., Way, S. a., & Jia, L. (2013). Flexibility-Oriented HRM Systems, Absorptive Capacity, and Market Responsiveness and Firm Innovativeness. *Journal of Management*, 39(7), 1924–1951. doi:10.1177/0149206312466145
- Chao, M. C.-H., & Spillan, J. E. (2010). The journey from market orientation to firm performance: A comparative study of US and Taiwanese SMEs. *Management Research Review*, 33(5), 472–483. doi:10.1108/01409171011041901
- Chen, J.-S., & Tsou, H.-T. (2012). Performance effects of IT capability, service process

- innovation, and the mediating role of customer service. *Journal of Engineering and Technology Management*, 29(1), 71–94. doi:10.1016/j.jengtecman.2011.09.007
- Chen, Y. (2012). Risk in integrated leapfrogging mode of technological innovation. *Kybernetes*, 41(10), 1423–1439. doi:10.1108/03684921211276657
- Cheng, & Chen, J.-S. (2013). Breakthrough innovation: the roles of dynamic innovation capabilities and open innovation activities. *Journal of Business & Industrial Marketing*, 28(5), 444–454. doi:10.1108/08858621311330281
- Cheng, C.-F., Chang, M.-L., & Li, C.-S. (2012). Configural paths to successful product innovation. *Journal of Business Research*. doi:10.1016/j.jbusres.2012.10.006
- Chung, H. F. L. (2012). Export market orientation, managerial ties, and performance. *International Marketing Review*, 29(4), 403–423. doi:10.1108/02651331211242638
- CIPE. (2007). *Kurdistan Business Agenda*. *Kurdistan Business Agenda* (Vol. 28). Washington DC. doi:10.1093/her/cyt035
- Clardy, a. (2008). Human Resource Development and the Resource-Based Model of Core Competencies: Methods for Diagnosis and Assessment. *Human Resource Development Review*, 7(4), 387–407. doi:10.1177/1534484308324144
- Clark, L., & Watson, D. (1995). Constructing Validity: Basic Issues in Objective Scale Development. *The American Psychological Association*, 7(3), 309–319. doi:10.1037/1040-3590.7.3.309
- Classen, Gils, Bammens, & Carree. (2012). The Search Breadth of Family SMEs. *Journal of Small Business Management*, 50(2), 191–215.
- Cochran, W. G. (1977). *Sampling Techniques* (Third Edit., Vol. 76). USA: John Wiley & Sons.

- Cohen, Manion, L., & Morrison, K. (2007). *Research Methods in Education* (Sixth Edit.). UK: Routledge Taylor & Francis Group.
- Cohen, W., & Levinthal, D. (1990). Absorptive Capacity : A New Perspective on Learning and Innovation Wesley M . Cohen ; Daniel A . Levinthal Absorptive Capacity : A New Perspective on Learning and Innovation. *Administrative Science Quarterly*, 35(1), 128–152. doi:0001-8392/90/3501-0128/\$1.00
- Cooper, & Schindler, P. (2014). *Business Research Methods* (Twelfth Ed.). New York City: McGraw-Hill Education.
- Cooper, R. G. (1994). New Products: The Factors that Drive Success. *International Marketing Review*, 11(1), 60–76. doi:10.1108/02651339410057527
- Costică, M. B. (2013). Harmonization process in defining small and medium-sized enterprises . Arguments for a quantitative definition versus a qualitative one. *Theoretical and Applied Economics*, 20(9), 103–114.
- Covin, J. G., & Miller, D. (2014). International Entrepreneurial Orientation: Conceptual Considerations, Research Themes, Measurement Issues, and Future Research Directions. *Entrepreneurship Theory and Practice*, 38(1), 11–44. doi:10.1111/etap.12027
- Covin, J. G., & Wales, W. J. (2012). The Measurement of Entrepreneurial Orientation. *Entrepreneurship Theory and Practice*, 36(4), 677–702. doi:10.1111/j.1540-6520.2010.00432.x
- Creswell, J. W. (2009). *Research Design Qualitative, Quantitative, and Mixed Methods approaches* (Third Edit.). USA: Sage Publications, Inc.
- Crossan, M. M., & Apyadin, M. (2010). A Multi-Dimensional Framework of

- Organizational Innovation: A Systematic Review of the Literature. *Journal of Management Studies*, 47(6), 1154–1191. doi:10.1111/j.1467-6486.2009.00880.x
- Damanpour, F. (1991). Organizational Innovation: A Meta-Analysis of Effects of Determinants and Moderators. *Academy of Management Journal*, 34(3), 555–590. doi:10.2307/256406
- Danneels, E. (2002). The dynamics of product innovation and firm competences. *Strategic Management Journal*, 23(12), 1095–1121. doi:10.1002/smj.275
- Delmas, M., Hoffmann, V. H., & Kuss, M. (2011). Under the Tip of the Iceberg: Absorptive Capacity, Environmental Strategy, and Competitive Advantage. *Business & Society*, 50(1), 116–154. doi:10.1177/0007650310394400
- Deng, P. (2010). Absorptive capacity and a failed cross-border M&A. *Management Research Review*, 33(7), 673–682. doi:10.1108/01409171011055771
- Dhewanto, W., Prasetio, E. A., Ratnaningtyas, S., Herliana, S., Chaerudin, R., Aina, Q., ... Rachmawaty, E. (2012). Moderating Effect of Cluster on Firm's Innovation Capability and Business Performance: A Conceptual Framework. *Procedia - Social and Behavioral Sciences*, 65(ICIBSoS), 867–872. doi:10.1016/j.sbspro.2012.11.212
- Diaz-Pichardo, R., Cantu-Gonzalez, C., Lopez-Hernandez, P., & McElwee, G. (2012). From Farmers to Entrepreneurs: The Importance of Collaborative Behaviour. *Journal of Entrepreneurship*, 21(1), 91–116. doi:10.1177/097135571102100104
- Drucker, P. (2002). The Discipline of Innovation. *Harvard Business Review*, August, 95–102.
- Easterby-Smith, M., & Prieto, I. M. (2008). Dynamic Capabilities and Knowledge Management: an Integrative Role for Learning? \*. *British Journal of Management*,

19(3), 235–249. doi:10.1111/j.1467-8551.2007.00543.x

Eisenman, M. (2013). Understanding Aesthetic Innovation in The Context of Technological Evolution. *Academy of Management Review*, 38(3), 332–351. Retrieved from <http://dx.doi.org/10.5465/amr.2011.0262>

Eris, E. D., & Ozmen, T. O. (2012). The Effect of Market Orientation , Learning Orientation and Innovativeness on Firm Performance : A Research from Turkish Logistics Sector. *International Journal of Economic Sciences and Applied Research*, 5(1), 77–108.

Ettlie, J. E., & Reza, E. M. (1992). Organizational Integration and Process Innovation. *Academy of Management Journal*, 35(4), 795–827.

Feghali, T., & El-Den, J. (2008). Knowledge transformation among virtually-cooperating group members. *Journal of Knowledge Management*, 12(1), 92–105. doi:10.1108/13673270810852412

Ferraresi, A. a., Quandt, C., Santos, S., & Frega, J. (2012). Knowledge management and strategic orientation: leveraging innovativeness and performance. *Journal of Knowledge Management*, 16(5), 688–701. doi:10.1108/13673271211262754

Flatten, Engelen, A., Zahra, S. a., & Brettel, M. (2011). A measure of absorptive capacity: Scale development and validation. *European Management Journal*, 29(2), 98–116. doi:10.1016/j.emj.2010.11.002

Flatten, T., Greve, G., & Brettel, M. (2011). Absorptive Capacity and Firm Performance in SMEs: The Mediating Influence of Strategic Alliances. *European Management Review*, 8(3), 137–152. doi:10.1111/j.1740-4762.2011.01015.x

Fleming, J. . (1985). An Index of Fit for Factor Scales. *Educational and Psychological*



*Measurement*, 45(1), 725–728.

Fletcher, M., & Prashantham, S. (2011). Knowledge assimilation processes of rapidly internationalising firms: Longitudinal case studies of Scottish SMEs. *Journal of Small Business and Enterprise Development*, 18(3), 475–501. doi:10.1108/14626001111155673

Flores, L. G., Zheng, W., Rau, D., & Thomas, C. H. (2010). Organizational Learning: Subprocess Identification, Construct Validation, and an Empirical Test of Cultural Antecedents. *Journal of Management*, 38(2), 640–667. doi:10.1177/0149206310384631

Foerstl, K., & Kirchoff, J. F. (2016). The role of absorptive and desorptive capacity in sustainable supply management – A longitudinal analysis. *International Journal of Physical Distribution & Logistics Management*, 46(2), 1–51. doi:10.1108/IJPDLM-05-2015-0138

Foley, A., & Fahy, J. (2009). Seeing market orientation through a capabilities lens. *European Journal of Marketing*, 43(1/2), 13–20. doi:10.1108/03090560910923201

Fornell, C., & Larcker, F. (1981). Structural Equation Models With Unobservable Variables and Measurement Error: Algebra and Statistics. *Journal of Marketing Research*, XVIII(August), 382–389.

Foss, N. J., & Ishikawa, I. (2007). Towards a Dynamic Resource-based View: Insights from Austrian Capital and Entrepreneurship Theory. *Organization Studies*, 28(5), 749–772. doi:10.1177/0170840607072546

Galbreath, J. (2005). Which resources matter the most to firm success? An exploratory study of resource-based theory. *Technovation*, 25(9), 979–987.

doi:10.1016/j.technovation.2004.02.008

- Gallego, J., Rubalcaba, L., & Hipp, C. (2012). Organizational innovation in small European firms: A multidimensional approach. *International Small Business Journal*, 31(5), 563–579. doi:10.1177/0266242611430100
- Gallié, E.-P., & Legros, D. (2011). Firms' human capital, R&D and innovation: a study on French firms. *Empirical Economics*, 43(2), 581–596. doi:10.1007/s00181-011-0506-8
- García-Morales, V. J., Bolívar-Ramos, M. T., & Martín-Rojas, R. (2013). Technological variables and absorptive capacity's influence on performance through corporate entrepreneurship. *Journal of Business Research*. doi:10.1016/j.jbusres.2013.07.019
- Gaur, S. S., Vasudevan, H., & Gaur, A. S. (2011). Market orientation and manufacturing performance of Indian SMEs: Moderating role of firm resources and environmental factors. *European Journal of Marketing*, 45(7/8), 1172–1193. doi:10.1108/030905611111137660
- Gebauer, H., Worch, H., & Truffer, B. (2012). Absorptive capacity, learning processes and combinative capabilities as determinants of strategic innovation. *European Management Journal*, 30(1), 57–73. doi:10.1016/j.emj.2011.10.004
- Goktan, a. B., & Miles, G. (2011). Innovation speed and radicalness: are they inversely related? *Management Decision*, 49(4), 533–547. doi:10.1108/00251741111126477
- González-Benito, Ó., González-Benito, J., & Muñoz-Gallego, P. a. (2009). Role of entrepreneurship and market orientation in firms' success. *European Journal of Marketing*, 43(3/4), 500–522. doi:10.1108/03090560910935550
- González-Loureiro, M., & Pita-Castelo, J. (2013). A model for assessing the contribution of innovative SMEs to economic growth: The intangible approach. *Economics Letters*,

116(3), 312–315. doi:10.1016/j.econlet.2012.03.028

- Gray, C. (2006). Absorptive capacity, knowledge management and innovation in entrepreneurial small firms. *International Journal of Entrepreneurial Behaviour & Research*, 12(6), 345–360. doi:10.1108/13552550610710144
- Grinstein, A. (2008a). The effect of market orientation and its components on innovation consequences: a meta-analysis. *Journal of the Academy of Marketing Science*, 36(2), 166–173. doi:10.1007/s11747-007-0053-1
- Grinstein, A. (2008b). The relationships between market orientation and alternative strategic orientations: A meta-analysis. *European Journal of Marketing*, 42(1/2), 115–134. doi:10.1108/03090560810840934
- Guan, J. C., Yam, R. C. M., Mok, C. K., & Ma, N. (2006). A study of the relationship between competitiveness and technological innovation capability based on DEA models. *European Journal of Operational Research*, 170(3), 971–986. doi:10.1016/j.ejor.2004.07.054
- Guo, Zhao, J., & Tang, J. (2013). The role of top managers' human and social capital in business model innovation. *Chinese Management Studies*, 7(3), 447–469. doi:10.1108/CMS-03-2013-0050
- Guo, T., & Shi, Z. (2012). Systematic Analysis on the Environment of Innovative Small and Medium Enterprises. *Physics Procedia*, 24, 1214–1220. doi:10.1016/j.phpro.2012.02.181
- Hair, Hult, G., Ringle, C., & Sarstedt, M. (2014). *A Primer on Partial Least Squares Structural Equation Modeling. Long Range Planning* (First edit., Vol. 46). Singapore: Sage.

- Hair, Ringle, C., & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *The Journal of Marketing Theory and Practice*, 19(2), 139–152. doi:10.2753/MTP1069-6679190202
- Hair, Sarstedt, M., Ringle, M. M., & Mena, J. A. (2011). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40(3), 414–433. doi:10.1007/s11747-011-0261-6
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis* (Seventh Ed.). USA: Prentice Hall.
- Hall, R., & Andriani, P. (2003). Managing knowledge associated with innovation. *Journal of Business Research*, 56(2), 145–152. doi:10.1016/S0148-2963(01)00287-9
- Han, Z., & Erming, X. (2012). Knowledge assimilation and exploitation: Comparison in corporations with different ownership identity. *Nankai Business Review International*, 3(1), 31–51. doi:10.1108/20408741211201908
- Henard, D. H., & Szymanski, D. M. (2001). Why Some New Products Are More Successful Than Others. *Journal of Marketing Research*, 37(August), 362–75. doi:org/10.1509/jmkr.38.3.362.18861
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43, 115–135. doi:10.1007/s11747-014-0403-8
- Herath, H., & Mahmood, R. (2013). Strategic Orientation Based Research Model of SME Performance for Developing Countries. *Rev. Integr. Bus. Econ. Res*, 2(1), 430–446.
- Hodgkinson, I. R., Hughes, P., & Hughes, M. (2012). Absorptive capacity and market orientation in public service provision. *Journal of Strategic Marketing*, 20(3), 211–229. doi:10.1080/0965254X.2011.643915

- Hollen, R. M. a., Van Den Bosch, F. a. J., & Volberda, H. W. (2013). The Role of Management Innovation in Enabling Technological Process Innovation: An Inter-Organizational Perspective. *European Management Review*, 10(1), 35–50. doi:10.1111/emre.12003
- Hong, J., Song, T. H., & Yoo, S. (2013). Paths to Success: How Do Market Orientation and Entrepreneurship Orientation Produce New Product Success? *Journal of Product Innovation Management*, 30(1), 44–55. doi:10.1111/j.1540-5885.2012.00985.x
- Huang, & Wang, Y.-L. (2011). Entrepreneurial orientation, learning orientation, and innovation in small and medium enterprises. *Procedia - Social and Behavioral Sciences*, 24, 563–570. doi:10.1016/j.sbspro.2011.09.004
- Huang, H.-C., Lai, M.-C., & Lin, T.-H. (2011). Aligning intangible assets to innovation in biopharmaceutical industry. *Expert Systems with Applications*, 38(4), 3827–3834. doi:10.1016/j.eswa.2010.09.043
- Huang, J.-W., & Li, Y.-H. (2009). The mediating effect of knowledge management on social interaction and innovation performance. *International Journal of Manpower*, 30(3), 285–301. doi:10.1108/01437720910956772
- Hughes, M., Hughes, P., & Morgan, R. E. (2007). Exploitative Learning and Entrepreneurial Orientation Alignment in Emerging Young Firms: Implications for Market and Response Performance. *British Journal of Management*, 18(4), 359–375. doi:10.1111/j.1467-8551.2007.00519.x
- Hughes, P., Morgan, R. E., & Kouropalatis, Y. (2008). Market knowledge diffusion and business performance. *European Journal of Marketing*, 42(11/12), 1372–1395. doi:10.1108/03090560810903718

- Hult, G. T. M., & Ketchen, D. J. (2001). Does market orientation matter?: a test of the relationship between positional advantage and performance. *Strategic Management Journal*, 22(9), 899–906. doi:10.1002/smj.197
- Hung, R. Y.-Y., Lien, B. Y.-H., Fang, S.-C., & McLean, G. N. (2010). Knowledge as a facilitator for enhancing innovation performance through total quality management. *Total Quality Management & Business Excellence*, 21(4), 425–438. doi:10.1080/14783361003606795
- Hunt, S. D., & Morgan, R. M. (1995). The Comparative Advantage Theory of Competition. *Journal of Marketing*, 59(April), 1–15.
- Hurley, F. R., & Hult, G. M. (1998). innovation, market orientation, and Organizational Learning: An Integration and Empirical Examination.pdf. *Journal of Marketing*, 62(July), 42–54.
- Hurmelinna-Laukkanen, P. (2012). Constituents and outcomes of absorptive capacity – appropriability regime changing the game. *Management Decision*, 50(7), 1178–1199. doi:10.1108/00251741211246950
- IFC. (2011). *Iraq Country Profile-Enterprise Surveys*. Danvers. Retrieved from <http://www.enterprisesurveys.org>
- Iii, P. E. B., Damanpour, F., & Santoro, M. D. (2009). The Application of External Knowledge : Organizational Conditions for Exploration and Exploitation. *Journal of Management Studies*, 46(May), 481–509. doi:10.1111/j.1467-6486.2009.00829.x
- Inauen, M., & Schenker-Wicki, A. (2011). The impact of outside-in open innovation on innovation performance. *European Journal of Innovation Management*, 14(4), 496–520. doi:10.1108/14601061111174934

- Ishak, A. K. (2012). *Personality, Occupational Stress and Wellness among Prison officers: The Mediating Role of self efficacy and Perceived Fairness*. (Unpublished doctoral thesis). University Utara Malaysia.
- Jantunen, A. (2005). Knowledge-processing capabilities and innovative performance: an empirical study. *European Journal of Innovation Management*, 8(3), 336–349. doi:10.1108/14601060510610199
- Javalgi, R. G., Hall, K. D., & Cavusgil, S. T. (2014). Corporate entrepreneurship, customer-oriented selling, absorptive capacity, and international sales performance in the international B2B setting: Conceptual framework and research propositions. *International Business Review*, 23(6), 1193–1202. doi:10.1016/j.ibusrev.2014.04.003
- Jaworski, B., Kohli, A., & Sahay, a. (2000). Market-Driven Versus Driving Market. *Journal of the Academy of Marketing Science*, 28(1), 45–54.
- Jiménez-Jiménez, D., & Valle, R. S. (2011). Innovation, organizational learning, and performance. *Journal of Business Research*, 64(4), 408–417. doi:10.1016/j.jbusres.2010.09.010
- Jiménez-Jimenez, D., Valle, R. S., & Hernandez-Espallardo, M. (2008). Fostering innovation: The role of market orientation and organizational learning. *European Journal of Innovation Management*, 11(3), 389–412. doi:10.1108/14601060810889026
- Johannessen, J.-A., & Olsen, B. (2011). What creates innovation in a globalized knowledge economy? A cybernetic point of view. *Kybernetes*, 40(9/10), 1395–1421. doi:10.1108/03684921111169459
- Jones, R., & Rowley, J. (2011). Entrepreneurial marketing in small businesses: A

- conceptual exploration. *International Small Business Journal*, 29(1), 25–36.  
doi:10.1177/0266242610369743
- Jung-Erceg, P., Pandza, K., Armbruster, H., & Dreher, C. (2007). Absorptive capacity in European manufacturing: a Delphi study. *Industrial Management & Data Systems*, 107(1), 37–51. doi:10.1108/02635570710719043
- Kamal, E. M., & Flanagan, R. (2012). Understanding absorptive capacity in Malaysian small and medium sized (SME) construction companies. *Journal of Engineering, Design and Technology*, 10(2), 180–198. doi:10.1108/17260531211241176
- Kamasak, R., & Bulutlar, F. (2010). The influence of knowledge sharing on innovation. *European Business Review*, 22(3), 306–317. doi:10.1108/09555341011040994
- Keh, H. T., Nguyen, T. T. M., & Ng, H. P. (2007). The effects of entrepreneurial orientation and marketing information on the performance of SMEs. *Journal of Business Venturing*, 22(4), 592–611. doi:10.1016/j.jbusvent.2006.05.003
- Ketchen, J., Hult, G. m., & Slater, S. F. (2007). Research Notes and Commentaries Toward Greater Understanding of Market Orientation and The Resource-Based Theory. *Strategic Management Journal*, 28(April), 961–964. doi:10.1002/smj
- KFCCI. (2012). Kurdistan Region Companies Directory. Iraq Erbil: Kurdistan Federation Chamber of commerce and Industry/ Iraq.
- Kim, Lee, B., & Oh, K. (2009). The effect of R&D and technology commercialization capabilities on the innovation performance of Korean it SMEs: The case of direct and indirect recipients of public R&D funding. In *PICMET '09 - 2009 Portland International Conference on Management of Engineering & Technology* (pp. 1531–1541). Ieee. doi:10.1109/PICMET.2009.5261985



- Kim, Zhan, W., & Erramilli, M. K. (2011). Resources and performance of international joint ventures: the moderating role of absorptive capacity. *Journal of Asia Business Studies*, 5(2), 145–160. doi:10.1108/15587891111152311
- Kim, N., Im, S., & Slater, S. F. (2013). Impact of Knowledge Type and Strategic Orientation on New Product Creativity and Advantage in High-Technology Firms. *Journal of Product Innovation Management*, 30(1), 136–153. doi:10.1111/j.1540-5885.2012.00992.x
- Klomp, J. (2011). The measurement of human capital: a multivariate macro-approach. *Quality & Quantity*, 47(1), 121–136. doi:10.1007/s11135-011-9507-0
- Knoppen, D., Saenz, M. J., & Johnston, D. a. (2011). Innovations in a relational context: Mechanisms to connect learning processes of absorptive capacity. *Management Learning*, 42(4), 419–438. doi:10.1177/1350507610389684
- Ko, H.-T., & Lu, H.-P. (2010). Measuring innovation competencies for integrated services in the communications industry. *Journal of Service Management*, 21(2), 162–190. doi:10.1108/09564231011039277
- Kohli, A. K., & Jaworski, B. J. (1990). Market Orientation : The Construct, research Proposition, and Managerial Implications. *Journal of Marketing*, 54(April), 1–18.
- Kohli, A. K., & Jaworski, B. J. (1993). Market Orientation: Antecedents and Consequences. *Journal of Marketing*, 57(July), 53–70. Retrieved from <http://www.jstor.org/stable/1251854>
- Kohli, A. K., Jaworski, B. J., & Kumar, A. (1993). MARKOR : A Measure of Market Orientation. *Journal of Marketing Research*, 30(November), 467–478. Retrieved from <http://www.jstor.org/stable/3172691>

- Kostopoulos, K., Papalexandris, A., Papachroni, M., & Ioannou, G. (2011). Absorptive capacity, innovation, and financial performance. *Journal of Business Research*, 64(12), 1335–1343. doi:10.1016/j.jbusres.2010.12.005
- Kotabe, M., Jiang, C. X., & Murray, J. Y. (2011). Managerial ties, knowledge acquisition, realized absorptive capacity and new product market performance of emerging multinational companies: A case of China. *Journal of World Business*, 46(2), 166–176. doi:10.1016/j.jwb.2010.05.005
- Kothari, C. R. (2004). *Research Methodology: Methods and techniques* (First Edit.). New Delhi: New Age International.
- Krejcie, R. V, & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, 38, 607–610.
- Kristensson, P., Gustafsson, A., & Witell, L. (2011). Collaboration with Customers - Understanding the Effect of Customer-Company Interaction in New Product Development. In *2011 44th Hawaii International Conference on System Sciences* (pp. 1–9). Ieee. doi:10.1109/HICSS.2011.110
- Kropp, F., Lindsay, N. J., & Shoham, A. (2006). Entrepreneurial, market, and learning orientations and international entrepreneurial business venture performance in South African firms. *International Marketing Review*, 23(5), 504–523. doi:10.1108/02651330610703427
- Laforet, S. (2011). A framework of organisational innovation and outcomes in SMEs. *International Journal of Entrepreneurial Behaviour & Research*, 17(4), 380–408. doi:10.1108/13552551111139638
- Lall, S. (1992). Technological capabilities and industrialization. *World Development*, 20(2),

165–186. doi:10.1016/0305-750X(92)90097-F

Lau, A. K. W., Yam, R. C. M., & Tang, E. P. Y. (2010). The impact of technological innovation capabilities on innovation performance: An empirical study in Hong Kong. *Journal of Science and Technology Policy in China*, 1(2), 163–186. doi:10.1108/17585521011059893

Lavie, D. (2006). The Competitive advantage of Interconnected Firms: An Extension of The Resource-Based View. *Academy of Management Review*, 31(3), 638–658.

Lawson, B., & Samson, D. (2001). Developing Innovation Capability in Organisations: a Dynamic Capabilities Approach. *International Journal of Innovation Management*, 05(03), 377–400. doi:10.1142/S1363919601000427

Lee, Leong, L.-Y., Hew, T.-S., & Ooi, K.-B. (2013). Knowledge management: a key determinant in advancing technological innovation? *Journal of Knowledge Management*, 17(6), 848–872. doi:10.1108/JKM-08-2013-0315

Lee, T.-S., & Tsai, H.-J. (2005). The effects of business operation mode on market orientation, learning orientation and innovativeness. *Industrial Management & Data Systems*, 105(3), 325–348. doi:10.1108/02635570510590147

Lertwongsatien, & Ravichandran. (2005). Effect of Information Systems Resources and Capabilities on Firm Performance: A Resource-Based Perspective. *Journal of Management Information System*, 21(4), 237–276.

Li. (2011). Sources of External Technology, Absorptive Capacity, and Innovation Capability in Chinese State-Owned High-Tech Enterprises. *World Development*, 39(7), 1240–1248. doi:10.1016/j.worlddev.2010.05.011

Li, Wei, Z., & Liu, Y. (2010). Strategic Orientations, Knowledge Acquisition, and Firm

- Performance: The Perspective of the Vendor in Cross-Border Outsourcing. *Journal of Management Studies*, 47(8), 1457–1482. doi:10.1111/j.1467-6486.2010.00949.x
- Li, Y., Zhao, Y., Tan, J., & Liu, Y. (2008). Moderating Effects of Entrepreneurial Orientation on Market Orientation-Performance Linkage: Evidence from Chinese Small Firms. *Journal of Small Business Management*, 46(1), 113–133. doi:10.1111/j.1540-627X.2007.00235.x
- Liao, Fei, W.-C., & 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), 340–359. doi:10.1177/0165551506070739
- Liao, Welsch, H., & Stoica, M. (2003a). Organizational Absorptive Capacity and Responsiveness: An Empirical Investigation of Growth-Oriented SMEs. *ET&P, Fall*, 63–86.
- Liao, Welsch, H., & Stoica, M. (2003b). Organizational Absorptive Capacity and Responsiveness: An Empirical Investigation of Growth-Oriented SMEs. *Entrepreneurship Theory and Practice*, 28(1), 63–85. doi:10.1111/1540-8520.00032
- Liao, Wu, C. -c., Hu, D. -c., & Tsui, K. -a. (2010). Relationships between knowledge acquisition, absorptive capacity and innovation capability: an empirical study on Taiwan's financial and manufacturing industries. *Journal of Information Science*, 36(1), 19–35. doi:10.1177/0165551509340362
- Liao, C., & Chechen, S. (2006). Exploring the Role of Knowledge Management for Enhancing Firm's Innovation and Performance. In *Proceedings of the 39th Hawaii International Conference on System Sciences* (Vol. 00, pp. 1–10).
- Lin, Peng, C., & Kao, D. (2008). The innovativeness effect of market orientation and

- learning orientation on business performance. *International Journal of Manpower*, 29(8), 752–772. doi:10.1108/01437720810919332
- Lin, Y., & Wu, L.-Y. (2013). Exploring the role of dynamic capabilities in firm performance under the resource-based view framework. *Journal of Business Research*, 20(20), 1–7. doi:10.1016/j.jbusres.2012.12.019
- Lings, I. N., & Greenley, G. E. (2010). Internal market orientation and market-oriented behaviours. *Journal of Service Management*, 21(3), 321–343. doi:10.1108/09564231011050788
- Liu, X. (2010). Can international acquisition be an effective way to boost innovation in developing countries?: Evidences from China's TFT-LCD industry. *Journal of Science and Technology Policy in China*, 1(2), 116–134. doi:10.1108/17585521011059866
- Loi, R., Lam, L. W., Ngo, H. Y., & Cheong, S. (2013). Flying High, Landing Soft": An innovative entrepreneurial curriculum for Chinese SMEs going abroad. *Journal of Chinese Entrepreneurship*, 5(1), pp. 645–658. doi:http://dx.doi.org/10.1108/02683940010305270
- Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the Entrepreneurial Orientation Construct and Linking It to Performance. *The Academy of Management Review*, 21(1), 135. doi:10.2307/258632
- Luo, X., Zhou, L., & Liu, S. S. (2005). Entrepreneurial firms in the context of China's transition economy: an integrative framework and empirical examination. *Journal of Business Research*, 58(3), 277–284. doi:10.1016/S0148-2963(03)00159-0
- MacKinnon, D., & Fairchild, A. (2010). Current Directions in Mediation Analysis. *Curr*

*Dir Psychol Sci*, 18(1), 16–20. doi:10.1111/j.1467-8721.2009.01598.x.Current

Mahmood, R., & Hanafi, N. (2013). Entrepreneurial Orientation and Business Performance of Women-Owned Small and Medium Enterprises in Malaysia: Competitive Advantage as a Mediator. *International Journal of Business and Social Science*, 4(1), 82–90.

Malhotra, N. K., Lee, O. F., & Usley, C. (2012). Mind the gap: The mediating role of mindful marketing between market and quality orientations, their interaction, and consequences. *International Journal of Quality & Reliability Management*, 29(6), 607–625. doi:10.1108/02656711211245629

Marczyk, G., DeMatteo, D., & Festinger, D. (2005). *Essentials of Research Design and Methodology* (First Eedi.). New Jersey: John Wiley & Sons, Inc.

Martín-de Castro, G., Delgado-Verde, M., Navas-López, J. E., & Cruz-González, J. (2013). The moderating role of innovation culture in the relationship between knowledge assets and product innovation. *Technological Forecasting and Social Change*, 80(2), 351–363. doi:10.1016/j.techfore.2012.08.012

Martinkenaite, I. (2012). Antecedents of knowledge transfer in acquisitions. *Baltic Journal of Management*, 7(2), 167–184. doi:10.1108/17465261211219796

Martins, J. D. M. (2012). Analytical dimensions of knowledge transfer to the subsidiaries. *European Business Review*, 24(5), 465–477. doi:10.1108/09555341211254535

Mason-Jones, R., & Towill, D. (2016). Open innovation in SMEs: a systematic literature review. *Int J Logistics Management*, 9(1), 58–73.

Mathews, J. a. (2002). A resource-based view of Schumpeterian economic dynamics. *Journal of Evolutionary Economics*, 12(1-2), 29–54. doi:10.1007/s00191-002-0106-z

- Menguc, B., & Auh, S. (2010). Development and return on execution of product innovation capabilities: The role of organizational structure. *Industrial Marketing Management*, 39(5), 820–831. doi:10.1016/j.indmarman.2009.08.004
- Messersmith, J. G., & Wales, W. J. (2011). Entrepreneurial orientation and performance in young firms: The role of human resource management. *International Small Business Journal*, 31(2), 115–136. doi:10.1177/0266242611416141
- Messinis, G., & Ahmed, A. D. (2013). Cognitive skills, innovation and technology diffusion. *Economic Modelling*, 30, 565–578. doi:10.1016/j.econmod.2012.10.002
- Michailova, S., & Jormanainen, I. (2011). Knowledge transfer between Russian and Western firms: Whose absorptive capacity is in question? *Critical Perspectives on International Business*, 7(3), 250–270. doi:10.1108/17422041111149525
- Miczka, S., & Größler, A. (2010). Merger dynamics: Using system dynamics for the conceptual integration of a fragmented knowledge base. *Kybernetes*, 39(9/10), 1491–1512. doi:10.1108/03684921011081132
- Miller, D. (1983). The Correlation of Entrepreneurship in three Types of Firms. *Management Science*, 29(7), 770–791. doi:org/10.1287/mnsc.29.7.770
- Miller, D., & Friesen, P. H. (1982). Innovation in conservative and entrepreneurial firms: Two models of strategic momentum. *Strategic Management Journal*, 3(1), 1–25. doi:10.1002/smj.4250030102
- MOP. (2009). *The Republic of South Korea Courses From 2004 to the End of 2008 For the KRG employees*. Erbil.
- Morris, M. H., Coombes, S., Schindehutte, M., & Allen, J. (2007). Antecedents and Outcomes of Entrepreneurial and Market Orientations in a Non-profit Context:

- Theoretical and Empirical Insights. *Journal of Leadership & Organizational Studies*, 13(4), 12–39. doi:10.1177/10717919070130040401
- Mothe, C., & Thi, T. U. N. (2010). The link between non-technological innovations and technological innovation. *European Journal of Innovation Management*, 13(3), 313–332. doi:10.1108/14601061011060148
- MTIKRG. (2013). Industrial Factories Directory. Kurdistan Region of Iraq - Erbil: Ministry of Trade and Industry Kurdistan Region of Iraq.
- Muller-Seitz, G., & Guttel, W. (2013). Toward a choreography of congregating: A practice-based perspective on organizational absorptive capacity in a semiconductor industry consortium. *Management Learning*, 0(0). doi:10.1177/1350507613497323
- Muscio, A. (2007). The Impact of absorptive Capacity on SMEs' Collaboration. *Economics of Innovation and New Technology*, 16(8), 653–668. doi:10.1080/10438590600983994
- Nagati, H., & Rebolledo, C. (2012). The role of relative absorptive capacity in improving suppliers' operational performance. *International Journal of Operations & Production Management*, 32(5), 611–630. doi:10.1108/01443571211226515
- Narvekar, R. S., & Jain, K. (2006). A new framework to understand the technological innovation process. *Journal of Intellectual Capital*, 7(2), 174–186. doi:10.1108/14691930610661845
- Narver, C. J., & Slater, F. S. (1990). The effect of Market Orientation on Business Profitability. *Journal of Marketing*, 54(4), 20–35.
- Nasution, H. N., & Mavondo, F. T. (2008). Organisational capabilities: antecedents and implications for customer value. *European Journal of Marketing*, 42(3/4), 477–501.



doi:10.1108/03090560810853020

Neuman, W. L. (2007). *Basics of Social Research Qualitative and Quantitative Approaches* (Second Edi.). USA: Pearson Education.

Newbert, S. L. (2007). Empirical Research on The Resource-Based View of The Firm: An assessment and Suggestion for Future Research. *Strategic Management Journal*, 28, 121–146. doi:10.1002/smj

Newman, A., Prajogo, D., & Atherton, A. (2016). The influence of market orientation on innovation strategies. *Journal of Service Theory and Practice*, 26(1), 72–90.

Ngo, L. V., & O’Cass, A. (2013). Innovation and business success: The mediating role of customer participation. *Journal of Business Research*, 66(8), 1134–1142. doi:10.1016/j.jbusres.2012.03.009

Nonaka, I., Toyama, R., & Nagata, A. (2000). A New Perspective on the Theory of the. *Industrial and Corporate Changes*, 9(1), 1–20. doi:10.1093/icc/9.1.1

O’Cass, a., & Sok, P. (2013). The role of intellectual resources, product innovation capability, reputational resources and marketing capability combinations in SME growth. *International Small Business Journal*. doi:10.1177/0266242613480225

O’Connor, G. C. (2008). Major Innovation as a Dynamic Capability: A System Approach. *Journal of Product Innovation Management*, 25(Mi), 313–330. doi:10.1111/j.1540-5885.2008.00304.x

OECD. (2005). *Oslo manual*. Oslo. Retrieved from <http://www.oecd.org/sti/inno/2367580.pdf>

Olavarrieta, S., & Friedmann, R. (2008). Market orientation, knowledge-related resources and firm performance. *Journal of Business Research*, 61(6), 623–630.

doi:10.1016/j.jbusres.2007.06.037

- Ooi, K.-B., Lin, B., Teh, P.-L., & Chong, A. Y.-L. (2012). Does TQM support innovation performance in Malaysia's manufacturing industry? *Journal of Business Economics and Management*, *13*(2), 366–393. doi:10.3846/16111699.2011.620155
- Otero-Neira, Arias, M. J. F., & Lindman, M. T. (2013). Market Orientation and Entrepreneurial Proclivity: Antecedents of Innovation. *Global Business Review*, *14*(3), 385–395. doi:10.1177/0972150913496719
- Otero-Neira, C., Lindman, M. T., & Fernández, M. J. (2009). Innovation and performance in SME furniture industries: An international comparative case study. *Marketing Intelligence & Planning*, *27*(2), 216–232. doi:10.1108/02634500910944995
- Park, T. and &, & Rhee, J. (2012). Antecedents of knowledge competency and performance in born globals: The moderating effects of absorptive capacity. *Management Decision*, *50*(8), 1361–1381. doi:10.1108/00251741211261971
- Parrilli, M. D., & Elola, A. (2011). The strength of science and technology drivers for SME innovation. *Small Business Economics*, *39*(4), 897–907. doi:10.1007/s11187-011-9319-6
- Perdomo-Ortiz, J., González-Benito, J., & Galende, J. (2009). The intervening effect of business innovation capability on the relationship between Total Quality Management and technological innovation. *International Journal of Production Research*, *47*(18), 5087–5107. doi:10.1080/00207540802070934
- Pérez-Luño, A., Wiklund, J., & Cabrera, R. V. (2011). The dual nature of innovative activity: How entrepreneurial orientation influences innovation generation and adoption. *Journal of Business Venturing*, *26*(5), 555–571.

doi:10.1016/j.jbusvent.2010.03.001

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *The Journal of Applied Psychology*, 88(5), 879–903. doi:10.1037/0021-9010.88.5.879

Polo Peña, A. I., Jamilena, D. M. F., & Molina, M. Á. R. (2012). Validation of a market orientation adoption scale in rural tourism enterprises. Relationship between the characteristics of the enterprise and extent of market orientation adoption. *International Journal of Hospitality Management*, 31(1), 139–151. doi:10.1016/j.ijhm.2011.06.005

Prieto, I. M., & Revilla, E. (2006). Assessing the Impact of Learning Capability on Business Performance: Empirical Evidence from Spain. *Management Learning*, 37(4), 499–522. doi:10.1177/1350507606070222

Pullen, A., de Weerd-Nederhof, P. C., Groen, A. J., & Fisscher, O. a. M. (2012). SME Network Characteristics vs. Product Innovativeness: How to Achieve High Innovation Performance. *Creativity and Innovation Management*, 21(2), 130–146. doi:10.1111/j.1467-8691.2012.00638.x

Raju, P. S., Lonial, S. C., & Crum, M. D. (2011). Market orientation in the context of SMEs: A conceptual framework. *Journal of Business Research*, 64(12), 1320–1326. doi:10.1016/j.jbusres.2010.12.002

Ramadani, V., & Gerguri, S. (2011). Innovations: principles and strategies. *Advances In Management*, 4(7), 101–110. doi:10.1002/jsc.888

Ramayah, M., Hafeez, T., & Mohamad, A. (2016). The effect of market orientation as a

mediating variable in the relationship between entrepreneurial orientation and SMEs performance. *Nankai Business Review International Article Information*, 33(2005), 233–246.

RAND. (2012). *Summary of Four Studies to Develop the Private Sector, Education, Health Care, and Data for Decisionmaking for the Kurdistan Region—Iraq*. Arlington. Retrieved from [www.rand.org](http://www.rand.org)

RAND. (2014). *Strategies for Private-Sector Development and Civil-Service Reform in the Kurdistan Region—Iraq*. Arlington. Retrieved from [www.rand.org](http://www.rand.org)

Ray, G., Barney, J. B., & Muhanna, W. a. (2004). Capabilities, business processes, and competitive advantage: choosing the dependent variable in empirical tests of the resource-based view. *Strategic Management Journal*, 25(1), 23–37. doi:10.1002/smj.366

RDSKR. (2011). *Regional Development Strategy for Kurdistan Region report 2012-2016*. Erbil.

RDSKR. (2014). *Regional Development Strategy for Kurdistan Region 2015-2019*. Erbil.

Regmi, K., Jennie, N., & Paul, P. (2010). Understanding the Processes of Translation and Transliteration in Qualitative Research. *International Journal of Qualitative Methods*, 9(1), 16–26.

Ren, R., & Yu, Z. (2016). Innovation-orientation, dynamic capabilities and evolution of the informal Shanzhai firms in China: a case study. *Journal of Entrepreneurship in Emerging Economies*, 8(1), 1–12.

Renko, M., Alan, C., & Brännback, M. (2009). The Effect of a Market Orientation, Entrepreneurial Orientation, and Technological Capability on Innovativeness: A Study

- of Young Biotechnology Ventures in the United States and in Scandinavia. *Journal of Small Business Management*, 47(3), 331–369.
- Ritter, T., & Gemünden, H. G. (2004). The impact of a company's business strategy on its technological competence, network competence and innovation success. *Journal of Business Research*, 57(5), 548–556. doi:10.1016/S0148-2963(02)00320-X
- Sandmeier, P., Morrison, P. D., & Gassmann, O. (2010). Integrating Customers in Product Innovation: Lessons from Industrial Development Contractors and In-House Contractors in Rapidly Changing Customer Markets. *Creativity and Innovation Management*, 19(2), 89–106. doi:10.1111/j.1467-8691.2010.00555.x
- Sarros, J. C., Cooper, B. K., & Santora, J. C. (2008). Building a Climate for Innovation Through Transformational Leadership and Organizational Culture. *Journal of Leadership & Organizational Studies*, 15(2), 145–158. doi:10.1177/1548051808324100
- Sarstedt, M., Ringle, C. M., Smith, D., Reams, R., & Hair, J. F. (2014). Partial least squares structural equation modeling (PLS-SEM): A useful tool for family business researchers. *Journal of Family Business Strategy*, 5(1), 105–115. doi:10.1016/j.jfbs.2014.01.002
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (Fifth Edit.). England: Pearson Education Limited.
- Saunila, M., & Ukko, J. (2014). Intangible aspects of innovation capability in SMEs: Impacts of size and industry. *Journal of Engineering and Technology Management*, 33, 32–46. doi:10.1016/j.jengtecman.2014.02.002
- Sciascia, S., D'Oria, L., Bruni, M., & Larrañeta, B. (2014). Entrepreneurial Orientation in

- low- and medium-tech industries: The need for Absorptive Capacity to increase performance. *European Management Journal*, 32(5), 761–769. doi:10.1016/j.emj.2013.12.007
- Sekaran, U., & Bougie, R. (2009). *Research Methods for Business :A Skill Building Approach* (Fifth Edit.). Great Britain: John Wiley& Sons Ltd.
- Sen, B. (2010). Theory, research and practice in library management 8: Market orientation. *Library Management*, 31(4/5), 344–353. doi:10.1108/01435121011046380
- Shin, & Aiken. (2012). The mediating role of marketing capability: evidence from Korean companies. *Asia Pacific Journal of Marketing and Logistics*, 24(4), 658–677. doi:10.1108/13555851211259070
- Singh, Y. K. (2006). *Fundamental of Research Methodology and Statistics* (First Edit.). New Delhi: New Age International.
- Slater, F. S., & Narver, J. C. (1995). Market Orientation and the Learning Organization. *Journal of Marketing*, 59(July), 63–74. Retrieved from <http://www.jstor.org/stable/1252120>
- Smith, & Chang, C. (2010). Improving customer outcomes through the implementation of customer relationship management: Evidence from Taiwan. *Asian Review of Accounting*, 18(3), 260–285. doi:10.1108/13217341011089658
- Smith, M., Graca, M., Antonacopoulou, E., & Ferdinand, J. (2008). Absorptive Capacity: A Process Perspective. *Management Learning*, 39(5), 483–501. doi:10.1177/1350507608096037
- Sparrow, J., Tarkowski, K., Lancaster, N., & Mooney, M. (2009). Evolving knowledge integration and absorptive capacity perspectives upon university-industry interaction

within a university. *Education + Training*, 51(8/9), 648–664.  
doi:10.1108/00400910911005217

Srivastava, Gnyawali, D. R., & Hatfield, D. E. (2015). Behavioral implications of absorptive capacity: The role of technological effort and technological capability in leveraging alliance network technological resources. *Technological Forecasting and Social Change*, 92, 346–358. doi:10.1016/j.techfore.2015.01.010

Srivastava, M. K., & Gnyawali, D. R. (2011). When Do Relational Resources Matter? Leveraging Portfolio Technological Resources for Breakthrough Innovation. *Academy of Management Journal*, 54(4), 797–810. doi:10.5465/AMJ.2011.64870140

Stock, R. M., & Zacharias, N. A. (2010). Patterns and performance outcomes of innovation orientation. *Journal of the Academy of Marketing Science*, 39(6), 870–888. doi:10.1007/s11747-010-0225-2

Subramanian, A. M. (2012). A Longitudinal Study of the Influence of Intellectual Human Capital on Firm Exploratory Innovation. *IEEE Transactions on Engineering Management*, 59(4), 540–550. doi:10.1109/TEM.2011.2179648

Sulawesi, N., & Wuryaningrat, N. F. (2013). An Empirical Study on Small and Medium Enterprises Knowledge Sharing , Absorptive Capacity and Innovation Capabilities : *International Journal of Business*, 15(1), 61–78.

Sun, P. Y. T., & Anderson, M. H. (2010). An Examination of the Relationship Between Absorptive Capacity and Organizational Learning, and a Proposed Integration. *International Journal of Management Reviews*, 12(2), 130–150. doi:10.1111/j.1468-2370.2008.00256.x

Suying, G., Rong, C., Zhang, Y., & Zhang, S. (2011). The Impact of Human Capital on

Technological Innovation Capability ---Data from Beijing ' Tianjin ' and Hebei Regions. In *E -Business and E -Government (ICEE), 2011 International Conference* (pp. 1–4). doi:978-1-4244-8694-6/11/\$26.00

Taghian, M. (2010). Marketing planning: Operationalising the market orientation strategy. *Journal of Marketing Management*, 26(9-10), 825–841. doi:10.1080/02672571003683813

Tas, D. (2012). Endemic corruption in the Iraqi public sector: Can anti-money laundering measures provide the cure? *Journal of Money Laundering Control*, 15(4), 458–482. doi:10.1108/13685201211266033

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, 18(7), 509–533. doi:0143-2095/97/070509-25\$17.50

Tenenhaus, M., Vinzi, V. E., Chatelin, Y.-M., & Lauro, C. (2005). PLS path modeling. *Computational Statistics & Data Analysis*, 48(1), 159–205. doi:10.1016/j.csda.2004.03.005

Tepic, M., Fortuin, F., Kemp, R. G. M., & Omta, O. (2014). Innovation capabilities in food and beverages and technology -based innovation projects. *British Food Journal*, 116(2), 228–250. doi:10.1108/BFJ-09-2011-0243

Todorovic, Z. W., & Ma, J. (2008). Entrepreneurial and market orientation relationship to performance: The multicultural perspective. *Journal of Enterprising Communities: People and Places in the Global Economy*, 2(1), 21–36. doi:10.1108/17506200810861230

Tsai, W. (2001). Knowledge Transfer in Intraorganizational Networks : Effects of Network



- Position and Absorptive Capacity on Business Unit Innovation and Performance. *Academy of Management Journal*, 44(5), 996–1004. doi:10.2307/3069443
- Tseng, C.-Y., Pai, D. C., & Hung, C.-H. (2011). Knowledge absorptive capacity and innovation performance in KIBS. *Journal of Knowledge Management*, 15(6), 971–983. doi:10.1108/13673271111179316
- Tsiotsou, R. H., & Vlachopoulou, M. (2011). Understanding the effects of market orientation and e-marketing on service performance. *Marketing Intelligence & Planning*, 29(2), 141–155. doi:10.1108/0263450111117593
- Tuominen, M., & Hyvönen, S. (2004). Organizational Innovation Capability: A Driver for Competitive Superiority in Marketing Channels. *The International Review of Retail, Distribution and Consumer Research*, 14(3), 277–293. doi:10.1080/09593960410001678417
- Türker, M. V. (2012). A model proposal oriented to measure technological innovation capabilities of business firms – a research on automotive industry. *Procedia - Social and Behavioral Sciences*, 41, 147–159. doi:10.1016/j.sbspro.2012.04.019
- Type, A., & Marketing, I. (2016). Types of embedded ties in buyer-supplier relationships and their combined effects on innovation performance. *Journal of Business & Industrial Marketing*, 31(2), 1–35.
- USAID. (2011). USAID Participates at the 4th Iraq Agro-Food Expo in Erbil. Retrieved from <http://www.usaid.gov/news-information/press-releases/usaid-participates-4th-iraq-agro-food-expo-erbil>
- Ven, A., & Huber, G. (1990). Longitudinal Field research Methods for Studying Processes of Organizational Change. *Organization Science*, 1(3), 213–219.

- Verhees, F. J. H. M., Meulenber, M. T. G., & Pennings, J. M. E. (2010). Performance expectations of small firms considering radical product innovation. *Journal of Business Research*, 63(7), 772–777. doi:10.1016/j.jbusres.2009.06.006
- Wales, W. J., Gupta, V. K., & Mousa, F.-T. (2011). Empirical research on entrepreneurial orientation: An assessment and suggestions for future research. *International Small Business Journal*, 31(4), 357–383. doi:10.1177/0266242611418261
- Wales, W. J., Parida, V., & Patel, P. C. (2013). Research Notes and Commentaries Too Much of a Good Thing? Absorptive Capacity , Firm performance , and the Moderating Role of Entrepreneurial Orientation. *Strategic Management Journal*, 633(October 2012), 622–633. doi:10.1002/smj
- Wang, & Han, Y. (2011). Linking properties of knowledge with innovation performance: the moderate role of absorptive capacity. *Journal of Knowledge Management*, 15(5), 802–819. doi:10.1108/13673271111174339
- Wang, Lu, I., & Chen, C. (2008). Evaluating firm technological innovation capability under uncertainty. *Technovation*, 28(6), 349–363. doi:10.1016/j.technovation.2007.10.007
- Wang, C. L., & Altinay, L. (2012). Social embeddedness, entrepreneurial orientation and firm growth in ethnic minority small businesses in the UK. *International Small Business Journal*, 30(1), 3–23. doi:10.1177/0266242610366060
- Wang, C. L., & Chung, H. F. L. (2013). The moderating role of managerial ties in market orientation and innovation: An Asian perspective. *Journal of Business Research*, 66(12), 2431–2437. doi:10.1016/j.jbusres.2013.05.031
- Weerawardena, J., & Coote, L. (2001). An Empirical Investigation into Entrepreneurship and Organizational Innovation-based Competitive Strategy. *Journal of Research in*

*Marketing and Entrepreneurship*, 3(1), 51–70. doi:10.1108/14715200180001477

- Weigelt, C., & Sarkar, M. B. (2012). Performance Implication of Outsourcing for Technological Innovation: Managing the Efficiency and Adaptability trade-Off. *Strategic Management Journal*, 216(November 2009), 189–216. doi:10.1002/smj
- Westerberg, M., & Frishammar, J. (2012). Innovation Performance. *Journal of Small Business Management*, 50(2), 283–309. doi:10.1111/j.1540-627X.2012.00354.x
- Wetzels, M., Schröder, G., & Oppen, C. (2009). Using PLS path Modeling for Assessing Hierarchical Construct Models: Guidelines and Empirical Illustration. *MIS Quarterly*, 33(1), 177–195.
- Wiklund, J., & Shepherd, D. (2003). Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses. *Strategic Management Journal*, 24(13), 1307–1314. doi:10.1002/smj.360
- Williams, J. E. M. (2003). Export information use in small and medium-sized industrial companies: An application of Diamantopoulos' and Souchon's scale. *International Marketing Review*, 20(1), 44–66. doi:10.1108/02651330310462266
- Xia, Z., Yu, H., Xia, Y., & Li, W. (2011). Effects of Human Capital on Technological Innovation: A Literature Review. In *2011 International Conference on Management and Service Science* (pp. 1–3). Ieee. doi:10.1109/ICMSS.2011.5998073
- Yamamoto, Y., & Bellgran, M. (2013). Four Types of Manufacturing Process Innovation and their Managerial Concerns. *Procedia CIRP*, 7, 479–484. doi:10.1016/j.procir.2013.06.019
- Yeşil, S., Koska, A., & Büyükbeşe, T. (2013). Knowledge Sharing Process, Innovation Capability and Innovation Performance: An Empirical Study. *Procedia - Social and*

*Behavioral Sciences*, 75, 217–225. doi:10.1016/j.sbspro.2013.04.025

- Yolles, M., Fink, G., & Dauber, D. (2011). Organisations as emergent normative personalities: part 1, the concepts. *Kybernetes*, 40(5/6), 635–669. doi:10.1108/03684921111142223
- Yozgat, Şişman, & Gemlik. (2012). The Assessment of Viewpoint to Core Competence Understanding of Successful Companies in Developing Countries ( The Case Study of Turkey ). *International Journal of Business and Social Science*, 3(6), 25–32.
- Zahra & George, G. (2002). Absorptive capacity: A review, Reconceptualization, and Extension. *Academy of Management Review*, 27(2), 185–203. doi:10.5465/AMR.2002.6587995
- Zahra, S. a. (2008). Being entrepreneurial and market driven: implications for company performance. *Journal of Strategy and Management*, 1(2), 125–142. doi:10.1108/17554250810926339
- Zahra, S. a., & Hayton, J. C. (2008). The effect of international venturing on firm performance: The moderating influence of absorptive capacity. *Journal of Business Venturing*, 23(2), 195–220. doi:10.1016/j.jbusvent.2007.01.001
- Zawislak, P. A., Alves, A. C., Tello-gamarra, J., Barbieux, D., & Reichert, F. M. (2012). Innovation Capability : From Technology Development to Transaction Capability. *J. Technol. Manag. Innov*, 7(2), 14–28.
- Zebal, M. A., & Goodwin, D. R. (2012). Market orientation and performance in private universities. *Marketing Intelligence & Planning*, 30(3), 339–357. doi:10.1108/02634501211226302
- Zellweger, T. M., Nason, R. S., & Nordqvist, M. (2011). From Longevity of Firms to

Transgenerational Entrepreneurship of Families: Introducing Family Entrepreneurial Orientation. *Family Business Review*, 25(2), 136–155.  
doi:10.1177/0894486511423531

Zhang, J., Benedetto, C. A. D., & Hoenig, S. (2009). Product Innovation Performance, and the Mediating Role of Knowledge Utilization: Evidence from Subsidiaries in China. *Journal of International Marketing*, 17(2), 42–58.

Zhang, J., & Duan, Y. (2010). The impact of different types of market orientation on product innovation performance: Evidence from Chinese manufacturers. *Management Decision*, 48(6), 849–867. doi:10.1108/00251741011053433

Zhang, Z., Wu, H., Zhang, X., & Zhou, G. (2009). A study of the relationship between R&D capability and innovation performance based on high-tech firms in optics valley of China. In *2009 16th International Conference on Industrial Engineering and Engineering Management* (pp. 1922–1926). Ieee. doi:10.1109/ICIEEM.2009.5344279

Zhao, X., & Liang, L. (2011). The impact of openness on innovation performance of China's firms: From the perspective of knowledge attributes. In *2011 IEEE International Conference on Industrial Engineering and Engineering Management* (pp. 1078–1082). Ieee. doi:10.1109/IEEM.2011.6118081

Zhou, Minshall, T., & Hampden-Turner, C. (2010). Building Innovation Capabilities: an Inquiry Into the Dynamic Growth Process of University Spin-Outs in China. *International Journal of Innovation and Technology Management*, 7(3), 273–302.  
doi:10.1142/S0219877010002082

Zhou, K. Z., & Tse, D. K. (2005). The Effects of Strategic Orientations on Technology- and Market-Based. *Journal of Marketing*, 69(April), 42–60.

doi:<http://dx.doi.org/10.1509/jmkg.69.2.42.60756>

Zikmund, W., Babin, B., Carr, J., & Griffin, M. (2010). *Business Research Methods* (Eighth Edi.). Canada: South-Western, Cengage Learning.

Zortea-Johnston, E., Darroch, J., & Matear, S. (2011). Business orientations and innovation in small and medium sized enterprises. *International Entrepreneurship and Management Journal*, 8(2), 145–164. doi:10.1007/s11365-011-0170-7

