

THE IMPACT OF ENTREPRENEURIAL ORIENTATION AND FIRM  
PERFORMANCE: MEDIATING ROLE OF OPEN INNOVATION, STUDY OF  
FURNITURE MANUFACTURING COMPANIES IN MALAYSIA

FAZAL AKBAR

A thesis submitted in  
fulfillment of the requirement for the award of the Degree of  
Doctor of Philosophy in Technology Management and Business

Faculty of Technology Management and Business Universiti Tun Hussein Onn  
Malaysia

MARCH 2022

## DEDICATION

I dedicate this thesis to my Father and Mother. I also dedicate this thesis to my family members:

Fazli Haleem

Dr. Fazli Wadood Advocate. Fazal Aziz

My sweet daughter: Aafia

This is in recognition of their myriad perseverance during my long absence. I love you all and may Allah bless our lives.



PTTA UTHM  
PERPUSTAKAAN TUNKU TUN AMINAH

## ACKNOWLEDGEMENT

رَبِّ زِدْنِي عِلْمًا

My Lord, increase me in knowledge.

*In the name of Allah, the most Beneficent the most Gracious, Praise be to Him Who sustained my life to this moment to accomplish this work.*

Alhamdulillah rabbil aalamin.

My gratitude goes to my supervisor in person of Prof Dr. Abdul Talib Bin Bon, who supervised the work up to its completion. I am also expressing my appreciation to the examiners whose constructive comments and observations improved the quality of the research to meet up with the required standard.

To my parents who inculcated good virtues in me and guided me on the importance of knowledge since my childhood, I have no words to express my indebtedness rather than to say may Allah make Al-Jannat al-Firdaus their final abode. I would like to express my thanks to my brothers and sisters for their unconditional love and prayers. Special thanks goes to Fazli Haleem my elder brother for his support, and to Dr Fazli Wadood for his kindness and guidance and moral support. At last I would like to thank Fazli Aziz for his kind wishes and prayers. I would like to mention Mr. Noor Ali Shah through his humble support I was able to survive in Malaysia, thank you very much. A special appreciation goes to my beloved wife and our daughter Aafia, for standing with me through this journey. I felt the sense of emptiness, loneliness, and all emotional battles you went through during my absence. Your unparalleled affection, encouragement and support had greatly contributed towards the realization of this feat.

Your endurance and sacrifice are greatly acknowledged.

May Allah reward everyone in the best of ways

## ABSTRACT

Entrepreneurship and innovation are topics of great interest for the scientific community, firms and for all major governments worldwide. Malaysian furniture industry play an important role in economic development and income growth. However, increasing business competition has placed Malaysian furniture companies in a vulnerable position especially by cheap furniture producing countries like Vietnam and China. Undoubtedly, their success in responding to the challenges of their business environment depends, in great part, on their strategy for engaging in entrepreneurial behaviours and openness to innovation. The aim of the study was to empirically examine entrepreneurial orientation and open innovation dimensions that can be used by owner/managers/entrepreneurs whenever deciding whether or not to introduce innovation into the Malaysian manufacturing sector. The research used mixed-method research design in a QUAN-qual context to administer survey questionnaires and interviews of furniture manufacturer's managers and owner's in Johor state respectively. In the quantitative strand, a purposive sampling strategy was used to administer questionnaires to a total of 150 furniture firms' owner/managers in Johor state. A total of 82 questionnaires were finally used in the analysis. The low response rate was due to the Covid-19 pandemic, however according to GPower sampling measures these response were adequate. Using a purposive case sampling strategy, a total of 5 furniture firm's managers/owners were purposefully selected from three different locations in Johor Malaysia to participate in the interview. The quantitative data was analysed using Statistical Package for Social Science (SPSS) and Partial Least Squares Structural Equation Modelling Software, SmartPLS 3.2.6. The qualitative data was coded, categorised and then later analysed through Thematic Network Analysis. The research findings strengthens understanding of the EO and IO concept and their relations to firm performance within a context to those reported in prior studies. The R-square value for firm performance reached 0.409, for inbound innovation 0.308, and for outbound innovation were 0.268, accordingly. Even then, the overall R-square value for firm performance is 0.409, implying that the study's independent variables can demonstrate 40.9 percent of the variance in firm performance. Independent entrepreneurial orientation constructs can describe 30.8 percent of inbound innovation variance and 26.8 percent of outbound innovation heterogeneity. The study's empirical findings provide the basis for recommendations for furniture industry in enhancing their EO and IO for policy-makers to design entrepreneurship and innovation support programs and initiatives for the industry.

## ABSTRAK

Umumnya, keusahawanan dan inovasi merupakan topik yang sangat menarik bagi komuniti sejagat, firma dan semua kerajaan di seluruh dunia. Industri perabot di Malaysia memainkan peranan penting dalam pembangunan ekonomi dan pertumbuhan pendapatan. Namun begitu, persaingan perniagaan yang semakin meningkat telah meletakkan daya saing syarikat-syarikat perabot di Malaysia dalam kedudukan yang terdedah terutamanya dari negara pengeluar perabot murah seperti Vietnam dan China. Dalam usaha untuk mencetuskan perbincangan mengenai kemungkinan menyediakan budaya keusahawanan yang boleh digunakan untuk menangani inovasi dan kelebihan daya saing ke atas negara-negara persaingan dalam industri yang sama, Penyelidikan ini menggunakan reka bentuk penyelidikan kaedah bercampur dalam konteks *quan-qual* untuk mentadbir soal selidik dan temuduga kepada pengurus dan pemilik firma pengeluar perabot di negeri Johor. Dalam kaedah kuantitatif terkandas, strategi persampelan rawak pelbagai peringkat digunakan untuk mentadbir soal selidik kepada 150 pemilik dan pengurus firma perabot di negeri Johor, Malaysia. Sebanyak 82 borang soal selidik akhirnya digunakan dalam analisis. Dengan kadar maklum balas yang rendah adalah disebabkan pandemik Covid-19. Dengan menggunakan strategi persampelan kes yang purposif, seramai tiga orang pengurus dan pemilik firma perabot telah dipilih dari tiga lokasi berbeza di Johor untuk menyertai temuduga tersebut. Data kuantitatif dianalisis menggunakan *Statistical Package for Social Science (SPSS)* dan *Partial Least Squares Structural Equation Modelling Software, SmartPLS 3.2.6*. Data kualitatif telah dikodkan, dikategorikan dan kemudian dianalisa menggunakan *Thematic Network Analysis*. Dapatan kajian telah mengukuhkan pemahaman tentang konsep EO dan IO serta hubungannya dengan prestasi yang dilaporkan dalam konteks kajian terdahulu. Tambahan pula, ini merupakan kajian EO dan IO yang pertama dalam industri perabot di Malaysia yang sekurang-kurangnya menggabungkan kaedah penyelidikan kualitatif dan kuantitatif. Dengan mengintegrasikan kaedah campuran, kajian ini membolehkan penyelidik memberi penerangan yang sangat jelas, mendalam dan menyeluruh untuk menjawab semua persoalan kajian. Nilai R-kuasa dua untuk prestasi firma mencapai 0.409, untuk inovasi masuk 0.308, dan untuk inovasi keluar adalah 0.268, sewajarnya. Walaupun begitu, nilai R-kuasa dua keseluruhan untuk prestasi firma ialah 0.409, membayangkan bahawa pemboleh ubah bebas kajian boleh menunjukkan 40.9 peratus varians dalam prestasi firma. Hasil kajian empirikal telah menunjukkan asas yang disyorkan untuk industri perabot bagi meningkatkan EO dan IO kepada pembuat dasar dalam reka bentuk keusahawanan dan program sokongan inovasi serta inisiatif kepada industri.

## CONTENTS

<b>TITLE</b>	<b>I</b>
<b>DEDICATION</b>	<b>ii</b>
<b>ACKNOWLEDGEMENT</b>	<b>iii</b>
<b>ABSTRACT</b>	<b>iv</b>
<b>ABSTRAK</b>	<b>v</b>
<b>CONTENTS</b>	<b>vi</b>
<b>LIST OF TABLES</b>	<b>xi</b>
<b>LIST OF FIGURES</b>	<b>xi</b>
<b>LIST OF ABBREVIATIONS</b>	<b>xiv</b>
<b>LIST OF APPENDICES</b>	<b>xv</b>
<b>CHAPTER 1 INTRODUCTION</b>	<b>1</b>
1.1 Introduction	1
1.2 Background to the study	2
1.3 Research problem	7
1.4 Research questions	10
1.5 Research objectives	10
1.6 Significance of the research	11
1.7 Scope of the study	12
1.8 Organisation of the thesis	12
1.9 Definitions of key terms	13
1.10 Summary	15
<b>CHAPTER 2 LITERATURE REVIEW</b>	<b>16</b>
2.1 Introduction	16
2.2 Firm Performance	17
2.3 Open Innovation	20

2.4	Concept of open innovation	21
2.4.1	Inbound open innovation	24
2.4.2	Outbound open Innovation	25
2.4.3	Criticism of open innovation	27
2.5	Entrepreneurship	28
2.6	Entrepreneurial Orientation	31
2.7	Entrepreneurial Orientation Dimensions	34
2.7.1	Autonomy	35
2.7.2	Innovativeness	37
2.7.3	Risk-Taking	39
2.7.4	Proactiveness	41
2.7.5	Competitive Aggressiveness	42
2.8	Development of theoretical framework	48
2.8.1	Recourse-Based View	51
2.8.2	Dynamic capability theory	53
2.8.3	RBV and DC supporting this research	55
2.9	Research Framework	56
2.9.1	Research assessment model and hypotheses development	57
2.9.2	Relationship between Entrepreneurial Orientation dimensions and Firm Performance	58
2.9.3	Relationship between open innovation and firm performance	64
2.9.4	Relationship between entrepreneurial orientation and open innovation	70
2.9.5	Mediation effects of open innovation on entrepreneurial orientation and firm performance	74
2.10	Summary	78
<b>CHAPTER 3 RESEARCH METHODOLOGY</b>		<b>80</b>
3.1	Introduction	80
3.2	Research process flowchart	81
3.3	Research philosophy	82

3.3.1	Philosophical worldview	84
3.4	Justification for choosing Pragmatism as a research worldview	86
3.5	Research approach	87
3.6	Overview of mixed methods research	87
3.6.1	Mixed methods typology	89
3.6.2	Justification for the choice of Explanatory Sequential Mixed Method	93
3.7	Research design	94
3.8	Unit of analysis	95
3.9	Population of the research	95
3.10	Sample design	95
3.10.1	Sample frame	96
3.10.2	Sampling technique	96
3.10.3	Sample size	97
3.11	Methods of data collection	101
3.11.1	Quantitative data collection	102
3.11.2	Qualitative data collection	104
3.12	Methods of data analysis	105
3.12.1	Qualitative data analysis	105
3.12.2	Quantitative data analysis	107
3.13	Mediation Analysis	108
3.14	Validation of research instruments	110
3.15	Pilot test result	111
3.16	Reliability analysis	112
3.17	Summary	114

## **CHAPTER 4 DATA ANALYSIS AND RESULTS** **116**

4.1	Introduction	116
4.2	Questionnaire administration	116
4.3	Preliminary data analysis	117
4.3.1	Missing value analysis MVA	117
4.3.2	Diagnosis of outliers	119
4.3.1	Test of data normality	122



4.4	Common Method Variance	123
4.4.1	Socio-demographic characteristics of respondents	124
4.5	Descriptive analysis	126
4.5.1	Innovativeness responses	126
4.5.2	Proactiveness responses	127
4.5.3	Risk-Taking responses	129
4.5.4	Competitive aggressiveness responses	130
4.5.5	Autonomy	131
4.5.6	Inbound open innovation responses	132
4.5.7	Outbound open innovation responses	133
4.5.8	Firm performance responses	134
4.6	Validation of research assessment model	135
4.6.1	Assessment of measurement (inner) model	137
4.6.2	Structural (outer) model evaluation	144
4.6.3	Evaluation of mediators	152
4.7	Hypotheses testing	158
4.8	Qualitative data analysis	165
4.9	Interview	166
4.9.1	Readiness to employ entrepreneurial orientation	172
4.9.2	Readiness and implementation of open innovation	180
4.10	Summary	188
<b>CHAPTER 5 DISCUSSION, RECOMMENDATIONA &amp; CONCLUSIONS</b>		<b>190</b>
5.1	Introduction	190
5.2	Research overview	190
5.2.1	Research question one	192
5.2.2	Research question two	196
5.2.3	Research question three	200
5.2.4	Research question four	202
5.2.5	Research question five	204
5.3	Research implication and contribution	209
5.3.1	Academic contribution	209
5.3.2	Management and Firm implications	211



	x
5.3.3 Policy implication	212
5.4 Limitations and recommendations for future research	213
5.4.1 Limitations of research	213
5.4.2 Recommendations for future research	214
5.5 Conclusion	215
<b>REFERENCES</b>	<b>217</b>



## LIST OF TABLES

1. 1: Market Shares of the Major Countries by Percentage, (CSIL, 2015)	4
2. 1: Definition by different author'	21
2. 2: Different Author's definition of Entrepreneurship	30
2. 3: Definitions of Entrepreneurial Orientation by different authors	33
2. 4: Dimensions of Entrepreneurial Orientation Adapted from (Lumpkin & Dess, 1996)	35
2. 5: Taxonomy of previous research on entrepreneurial orientation	44
2. 6: Theories used in different studies	49
2. 7: Taxonomy of conceptual and empirical literature on EO and performance	58
2. 8: Taxonomy of open innovation and firm performance	66
3. 1: Philosophical Assumptions with Implications for Practice	83
3. 2: Research Paradigm (Saunders <i>et al.</i> , 2009; Guba & Lincoln, 2005)	84
3. 3: Designs for mixed methods research (Cameron, 2009; Caracelli & Greene, 1997)	89
3. 4: Major Mix method design types (Cameron, 2009; Creswell & Plano Clark, 2007)	90
3. 5: Guidelines for sample size determinants for qualitative interview	101
3. 6: Questionnaire items	103
3. 7: Reliability analysis of the questionnaire scales	113
4. 1: Analysis of questionnaire administration	117
4. 2: Descriptive Statistics	120
4. 3: Residuals Statistics	122
4. 4: Socio-demographic characteristics of respondents	125
4. 5: Respondents response towards innovativeness	126
4. 6: Respondents response towards proactiveness	128
4. 7: Respondents response to risk-taking	129



## LIST OF FIGURES

1. 1: The Main Furniture Exporting Countries 2009-2014, USD Billion (CSIL,	4
2. 1: Circumscribing the domain of business performance adapted from (Murphy <i>et al.</i> , 1996)	18
2. 2: Research framework of the study	56
3. 1: Research Process Flowchart	81
3. 2: Mixed Methods Research Designs (Creswell, 2013b)	91
3. 3: Flowchart of the Proposed Exploratory Sequential Mixed Methods	92
3. 4: Screen shot of G-Power interface showing the required sample size	100
3. 5: Structure of a Thematic Network Source: Attride-Stirling (2001)	107
3. 6: Hoyle and Kenny's (1999) mediation test	109
3. 7: Multiple Mediation representation Source:	110
4. 1: Measurement model loadings and AVE	139
4. 2: Composite reliability of model	142
4. 3: The structural model indicating the t-values of the respective path coefficients and factor loadings	146
4. 4: R-square of endogenous constructs	150
4. 5: Effect size ( $f^2$ )	151
4. 6: Mediation analysis of inbound innovation (t-statistics)	154
4. 7: Mediation analysis of outbound innovation (t-statistics)	157
4. 8: Effect of entrepreneurial orientation on performance. Source Interview survey (2021)	173
4. 9: Effect of open innovation and firm performance. Source: Interview Survey (2021)	184

**LIST OF ABBREVIATIONS**

EO	-	Entrepreneurial Orientation
OI	-	Open Innovation
OBI	-	Outbound Open Innovation
INI	-	Inbound Open Innovation
FP	-	Firm Performance
EOA	-	Entrepreneurial Orientation Autonomy
EOCA	-	Entrepreneurial Orientation Competitive Aggressiveness
EORT	-	Entrepreneurial Orientation Risk-Taking
EOP	-	Entrepreneurial Orientation Proactiveness
EOI	-	Entrepreneurial Orientation Innovativeness
PLS	-	Partial Least Square
SEM	-	Structural Equation Modelling
SPSS	-	Statistical Program for Social Sciences
Quan	-	Quantitative
Qual	-	Qualitative
MMR	-	Mixed Methods Research
HTMT	-	Heterotrait-Monotrait ratio
R&D	-	Research and Development
RBV	-	Resource Based View
DC	-	Dynamic Capability
SMEs	-	Small and Medium Enterprises
MFA	-	Muar Furniture Association
EFA	-	Exploratory Factor Analysis
KMO	-	Kaiser-Mayer-Olkin
CM	-	Composite Reliability

**LIST OF APPENDICES**

<b>APPENDIX</b>	<b>TITLE</b>	<b>PAGE</b>
A	Application to request company's information	290
B	Survey Questionnaire	291
C	Expert Validity	300
D	Missing value analysis	321
E	Common Method Bias	322
F	Convergent Validity of Measurement Model	323
G	Univariate Normality	324
H	Multivariate Normality	337
I	Cross Loadings	342
J	Vita	344



PT TAAUTHM  
PERPUSTAKAAN TUNKU TUNJUNGINAH

## CHAPTER 1

### INTRODUCTION

#### 1.1 Introduction

In today's complex and changing business world, innovation and entrepreneurship have become key concepts for sustainable economic development. Sustainable economic, social and environmental development is important to the performance of the organization (Bilevičienė & Bilevičiūtė, 2015; Rezk, Ibrahim, Tvaronavičienė, Sakr, & Piccinetti, 2015). Hence, Organizations must respond to changing business environments, technological capabilities and customer needs (Baregheh, Rowley, & Sambrook, 2009). In other words, organizations must innovate to increase competitiveness and achieve sustainable business performance (Kumar, Boesso, Favotto, & Menini, 2012; Rezk *et al.*, 2015; Tvaronavičienė, 2014; Laužikas, Tindale, Tranavičius, & Kičiatovas, 2015).

In the current economic environment, measuring business performance (BP) through the impact of entrepreneurial orientation (EO) and open innovation(OI) is a key issue for academic scholars and entrepreneurs in practice (Akbar *et al.*, 2020; Carvalho, 2016). In recent years, many disciplines have shown great interest in the three main constructs used in many empirical studies (Kraus *et al.*,2018; Akbar *et al.*, 2020). Entrepreneurial-oriented and open innovation can be seen as a new trend in assessing company performance (Kollmann & Stöckmann, 2014; Ventor, 2014; Spithoven, Vanhaverbeke, & Roijackers, 2013; Carvalho & Sugano, 2017; Ranasinghe, Yajid, Khatibi, & Azam, 2018). Organizations are transforming their business model from a traditional vertical integration model with internal R & D activities to an open business model. Another words, the organizations are adopting



open innovation and entrepreneurship strategies.

Then again, according to West, Salter, Vanhaverbeke, & Chesbrough, (2014), although open innovation research has been widely cited and influenced the direction of innovation research, it has had a significant impact on the broader management and economics disciplines. Entrepreneurship is among the most important management topics, as highlighted by (Hossain, 2013). This topic becomes more significant because, according to Soriano & Huarng, (2013), in recent years, the interrelationships between innovation, entrepreneurship, and new business creation have become apparent in an active research trend that incorporates knowledge of different academic methods.

## 1.2 Background to the study

With the advent of globalization, the business environment has become more uncertain and complex. The environment is constantly changing and the needs of the market and customers are constantly changing (Prajogo & Ahmed, 2006; Cámara, 2018). Organizations are forced to learn new knowledge to develop new products to meet the needs of new markets and new customers. As a result, organizations can gain a competitive advantage by pursuing innovation in marketing and entrepreneurial activities (Barsh, Capozzi, & Davidson, 2013; Chapman & Hyland, 2004). Entrepreneurship, innovation, environment, sustainability and internationalization are topics of great interest to the scientific community, businesses and all major governments and government agencies worldwide (Cámara, 2018). This is even more pronounced today due to the deepening global business cycle and the economic cycles of the countries where companies operate (Fabian, Molina, & Labianca, 2009; Raymond, St-Pierre, Uwizeyemungu, & Le Dinh, 2014).

It has been determined that entrepreneurial orientation plays an important role in the success of global entrepreneurs (Aziz, Mahmood, Tajudin, & Abdullah, 2014). The entrepreneurial phenomenon is on the rise and ever growing (Aziz *et al.*, 2014; Camara, 2018). With the creation of new enterprises, the world has become an entrepreneurial economy, and entrepreneurs are hailed as the new heroes of economic development and competing companies (Entebang, 2011; Sathe, 2004). In

a highly competitive and rapidly changing environment, it is necessary to incorporate entrepreneurial methods into the foundations of strategic management (McGrath & MacMillan, 2000). Therefore, a great deal of research on entrepreneurial orientation has made people realize that entrepreneurial orientation is an important component in strategic management and the literature on entrepreneurship (Ireland, Kyratko, & Morris, 2002). Entrepreneurial orientation refers to decisions about companies adopting strategies that are innovative, proactive, risk-taking, autonomous, and competitively motivated (Gartner & Shane, 1995; Thornton, 1999; Lumpkin & Dess, 1996; Cools & Van den Broeck, 2007). Entrepreneurial orientation contribute to performance from the perspective of company development and financial performance. This situation presents the challenge of determining the impact of entrepreneurial orientation on company performance, confirming previous research related to the study and noting the impact, if any, on inadequate entrepreneurial knowledge or management in the business environment.

Furniture Market size exceeded USD 545.78 billion in 2020 and is estimated to exhibit 5.4% CAGR from 2021 to 2027. The industry is forecast to cross 62,496.5 Kilo Tons volume by 2027, growing at around 4.8% growth rate (Global Market Insight, 2020). This amount corresponds to 1.09% of the World Trade of Manufacturers. This value has increased at a steady rate of 4% since 2009 (CSIL, 2015; MS, 2018). In exporting furniture China has overtaken Italy since 2009 (MS, 2018). Formerly, Italy and Germany were important furniture exporters. Since 2009, Germany and Italy have been battling in terms of furniture export value. As shown in Figure 1.2, China has risen swiftly in comparison to Germany, Italy, Poland, Vietnam, and the United States.

Table 1.1 divides the world's 70 most prominent countries into three groups: High Income Countries, Middle Income Countries, and Low Income Countries. The highest contributors to furniture manufacturing and export include seven of the highest High Income Countries and four of the highest Middle and Low Income Countries.

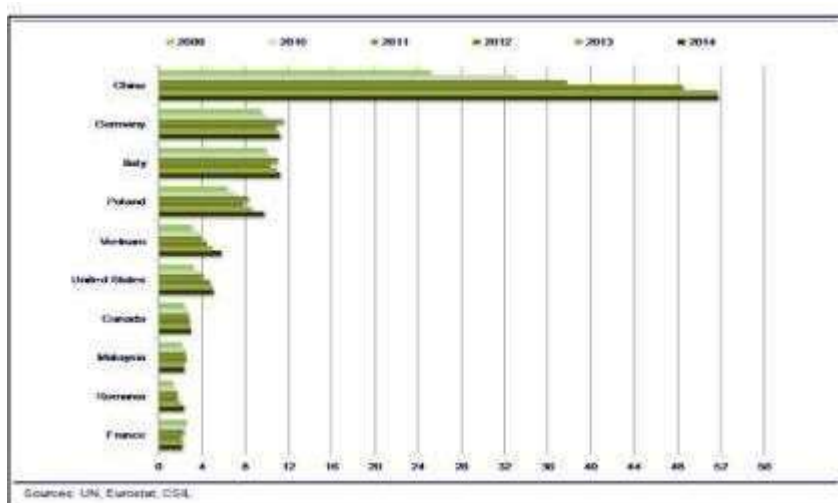


Figure 1. 1: The Main Furniture Exporting Countries 2009-2014, USD Billion (CSIL, 2015)

It's indeed worth noting that between 2005 and 2014, both production and export value of High Income Countries decreased. The growing countries, particularly China, saw a large growth. Nonetheless, the percentage of High Income Countries has fallen by 20%, while China's exports have climbed from 16.6% to 36.2 percent. Vietnam, that was formerly ranked lower than Malaysia in terms of global furniture export value before 2009, rapidly overtook Malaysia to become the fifth largest furniture exporting country in 2014, surpassing the United States. After a downturn in 2009 owing to the crisis, global furniture consumption has regained its upward trend. Furniture consumption is expected to increase by 3.6 percent in real terms globally, with low growth in South America and Europe and continued rapid growth (over 5%) in Asia (CSIL, 2015).

Table.1.1: Market Shares of the Major Countries by Percentage, (CSIL, 2015)

	Production		Exports	
	2005	2014	2005	2014
By High Income Countries / Middle and Low Income Countries				
High Income Countries				
Major Industrial Countries				

Table.1.1: Market Shares of the Major Countries by Percentage, (CSIL, 2015) (continued)

Canada	3.5	1.9	5.4	2.1
France	3.2	1.9	3.0	1.6
Germany	6.5	4.8	9.1	7.9
Italy	8.2	4.2	12.7	7.9
Japan	4.5	2.2	0.6	0.5
United Kingdom	3.5	2.1	1.6	0.9
United States	21.7	10.0	3.6	3.6
Subtotal G7	50.9	27.0	36.1	24.4
Other High Income Countries	21.3	15.2	30.4	23.0
Total High Income Countries	72.2	42.1	66.5	47.5
Middle And Low Income Countries				
Major Furniture Exporting Middle and Low Income Countries				
China	14.6	45.0	16.6	36.2
Vietnam	0.7	1.5	2.2	4.1
Malaysia	0.9	0.8	2.4	1.7
Turkey	1.3	1.3	0.7	1.5
Other Middle and Low Income Countries	10.2	9.3	11.5	9.1
Total Middle and Low Income Countries	27.8	57.9	33.5	52.5
World (70 Countries)	100.0	100.0	100.0	100.0
By Geographical Region				
EU (28) of which:	37.0	23.2	55.8	41.2
Old EU Members (15)	30.9	17.6	41.0	27.0
New EU Members (13)	5.3	5.0	13.6	13.5
Norway, Switzerland, And Iceland	0.8	0.5	1.2	0.7
Central-East Europe Outside The EU And Russia	2.6	2.6	1.4	2.5
Asia And Pacific Of Which:	30.1	57.7	29.4	47.5
China	14.6	45.0	16.6	36.2
Japan	4.5	2.2	0.6	0.5
Other Asia And Pacific	11.0	10.6	12.2	10.8
Middle East And Africa	2.0	1.7	1.3	1.0
North America Of Which:	26.2	12.4	10.7	7.2
United States	21.7	10.0	3.6	3.6
Canada	3.5	1.9	5.4	2.1

Table.1.1: Market Shares of the Major Countries by Percentage, (CSIL, 2015) (continued)

Mexico	1.1	0.5	1.7	1.5
South America	2.2	2.4	1.5	0.5
World Total (70 Countries)	100.0	100.0	100.0	100.0

Understanding of entrepreneurship and entrepreneurial orientation are essential characteristics of business development and broader economic growth (Lumpkin & Dess, 1996; Rodriguez-Gutierrez, Fuentes-Fuentes, & Rodriguez-Ariza, 2013), both for their contribution to the solution to unemployment (Rambe & Mosweunyane, 2017; Cámara, 2018), and as well as the development of technological innovations (Hisrich, 1988; Acs & Audretsch, 2005; Fellnhofer, 2018). According to Campos, la Parra, & Parellada, (2012), entrepreneurial orientation has received considerable conceptual and empirical attention and represents one of the few areas for which entrepreneurial research has accumulated knowledge. In this context, it is not surprising that the literature has conducted numerous studies to study the relationship between entrepreneurial orientation and performance of SMEs (Wiklund & Shepherd, 2005; Avlonitis & Salavou, 2007; Wang, 2008; Rauch *et al.*, 2009; Martin & Javalgi, 2016; and Cámara, 2018).

Similarly, innovation management is an area that requires more research from the scientific community (Birkinshaw, Hamel, & Mol, 2008; Carvalho & Sugano, 2017; Cámara, 2018). Several constructs have emerged in this area of research. The key of these appeared in 2003 and was labeled "Open Innovation". Identify this construct through collaboration and knowledge flow to accelerate the innovation process in the literature (Nelson & Winter, 1982; Powell, Koput, & Smith-Doerr, 1996; Granstrand, Patel, & Pavitt, 1997; Chiesa & Manzini, 1997; Dalotă & Grigore, 2010; Veugelers & Cassiman, 1999). Open innovation has been considered a hot topic in the scientific community over the past decade (Chesbrough & Bogers, 2014; Cámara, 2018).

Thus, a question that arises is what is the relations concerning entrepreneurial orientation, open innovation and firm performance in Malaysian furniture industry? As a thesis, we expect that the dimensions of entrepreneurial orientation are drivers

to the macro-process of open innovation, partaking both positive influence on firm performance. Additionally, we expect that the macro process of open innovation could utter a superior influence on firm performance than the entrepreneur-oriented dimension, because entrepreneurs are positioned longer than open innovation.

### 1.3 Research problem

Furniture manufacturing is the fastest growing sub-sector in Malaysia's timber industry, accounting for nearly 8% of Malaysia's gross domestic product (GDP) (Akbar, *et al.*, 2017). Malaysia's furniture business has the potential to make a substantial contribution to the country's economy. However, furniture companies, on the other hand, must design and implement their strategy by engaging in entrepreneurial behaviors in order to survive and prosper in a dynamic business climate. Nonetheless, in recent times, Malaysian furniture manufacturers had been under increasing competition from other cheap furniture producers, particularly China and Vietnam (Jegatheswaran Ratnasingam *et al.*, 2013). Therefore, it is important that Malaysian furniture manufacturers implement strategies to boost efficiency, and innovation (Akbar *et al.*, 2017). Performance management is the key to success for any manufacturing sector. This study has taken into consideration the performance in various stages in furniture manufacturers by employing EO and open innovation. Entrepreneurial orientation (EO) is a popular strategy-making paradigm in strategic management and entrepreneurship. EO has been discovered as impacting business performance in prior studies, both conceptually and statistically (Akbar *et al.*, 2020; Camara, 2018).

As a result, it is believed that EO will improve the performance of the Malaysian furniture industry, especially given the country's scarcity of resources. Additionally, other research have not been able to identify a substantial and favorable relationship between EO and business performance, according to the open innovation literature (Carvalho, 2017 and Camara, 2018; Osman *et al.*, 2018a). The notion that multiple studies have revealed little or no relation between EO, OI, and company performance implies that more research is needed.



Although open innovation is one of the hottest topics in innovation research, there are still some criticisms of the paradigm. Hossain (2013) points out that open innovation overlaps with other concepts, such as user generation, crowdsourcing, and distributed innovation. Huizingh (2011) emphasizes more that open innovation has become an umbrella that covers, connects and integrates a range of existing activities. Finally, it has been established that entrepreneurial orientation is closely related to open innovation, and a lot of research has been done in recent years (Chaston & Scott, 2013; Carvalho, 2016; Ahn, Minshall, & Mortara, 2017; Schmelzle & Tate, 2017; Cámara, 2018). These investigations find that entrepreneurial orientation facilitates open innovation processes (Ju, Chen, Yu, & Wei, 2013; Ritala, Henttonen, Salojärvi, Sainio, & Saarenketo, 2013; Carvalho & Sugano, 2017). The relationship between OI and performance depends on the type of open innovation strategy the company pursues (Cámara, 2018; Akbar *et al.*, 2020). Significantly, open innovation strategies can be defined as inbound or outbound, and Ju *et al.*, (2013) and Carvalho, (2016), discover that inbound strategies affect performance, while outbound strategies do not. These findings indicate that more and more research is needed to verify the extent to which the types of strategies adopted by open innovation affect different types of performance (Cámara, 2018). In this research both kinds of strategies (inbound and outbound) are considered to influence the firm performance.

The theoretical lenses for this study used resource-based view (RBV) that focuses on the use of dynamic capability theory (DC). Both theories have pointed to the industry's limited resources and capabilities as the basis of the problem, implying that scholars should take a resource-based approach. Despite the fact that there is ample evidence that intense rivalry is a cumulative element driving the industry climate. Although the Resource-Based View (RBV) of a firm's competitiveness and performance emphasizes the firm's internal resources and capabilities (Barney, 2001; Barney *et al.*, 2001), the dynamic capability theory asserts that a firm's competitiveness and thus performance is determined by the competition environment's characteristics and the firm's ability to achieve a powerful strategic position through planned effective competitive strategies. Significantly these capabilities can be dynamic and modified or renewed (Teece, Pisano, & Shuen,

1997). Finally, it also shows that the company's dynamic capabilities and its level of entrepreneurial orientation directly affect performance (Monteiro, Soares, & Rua, 2017; Cámara, 2018; Carvalho, 2016).

Lack of research was reported on problems encountered by furniture industry such as inability or difficulty in finding access to financing and working capital (Osman *et al.*, 2018a) and low returns in research and development (R&D) due to lack of entrepreneurial skills because of the hefty amount of investments required to realize it (Ambad *et al.*, 2020; Osman *et al.*, 2018b). Lack of knowledge among entrepreneurs in the utilization of technology (innovation) which is still relatively low poses and becomes another problem or serves as a constraint for entrepreneurs to move forward to enhance their business growth and sustainability (Ratnasingam *et al.*, 2018). In the furniture industry, there is also limited research on firm's performance in building the capacity and capability of an entrepreneur to achieve success, growth, and competitiveness of its performance measurement (Ratnasingam *et al.*, 2018; Osman *et al.*, 2018b).

The problem with these firms is that of management best practices and entrepreneur characteristic that are performed by the SMEs in the furniture industry. In developing countries such as Malaysia, most research on entrepreneurship and open innovation are based on small businesses (Ambad & Wahab, 2013a; Cascio & Montealegre, 2016; Miller & Le Breton-Miller, 2011). Fundamentally, the challenges facing large companies are different from those facing smaller companies. This is usually because both types of companies have different organizational design and management styles (Ambad & Wahab, 2013a; Cascio & Montealegre, 2016). Research finds that manufacturing and innovation strategies adopted by large and small companies are also different (Wagner & Hansen, 2005; Müller & Bostrom, 2016; Emőke–Szidónia, 2015; Theriou & Chatzoudes, 2015). Accordingly, it is important to conduct separate studies on the mediating effect of open innovation on entrepreneurial orientation and firm performance according to firm size.

This is because it is questionable whether the results of studies on small firms can be generalized to larger firms. Furthermore, to date there is no significant study of EO, OI, and their association with firm performance in Malaysia, particularly in furniture industry Malaysia. Inconclusive findings of EO-firm performance with



## REFERENCES

- Abbate, T., & Coppelino, R. (2015). Open Innovation and Creativity: Conceptual Framework and Research Propositions. *Studi E Ricerche Economico-Aziendali Ed Ambien- Tali, Messina*, 21(22), 1–9.
- Abdi, H. (2007). Partial Least Square Regression PLS-Regression. *Measurement and Statistics*, 4(13), 280–293. <https://doi.org/10.1039/9781849739344-00280>
- Acs, Z. J., & Audretsch, D. B. (2005). Entrepreneurship, Innovation and Technological Change. *Foundations and Trends® in Entrepreneurship*, 1(4), 149–195. <https://doi.org/10.1561/03000000004>
- Adams, R., Bessant, J., & Phelps, R. (2006). Innovation Management Measurement: A Review. *International Journal of Management Reviews*, 8(1), 21–47. <https://doi.org/10.1111/j.1468-2370.2006.00119.x>
- Ahn, J. M., Minshall, T., & Mortara, L. (2017). Understanding the Human Side of Openness: The Fit Between Open Innovation Modes and CEO Characteristics. *R&D Management*, 22(November), 1–14. <https://doi.org/10.1111/radm.12264>
- Ahn, J., Mortara, L., & Minshall, T. (2013). The Effects of Open Innovation on Firm Performance: A Capacity Approach. *STI Policy Review*, 4(1), 74–93. Retrieved from <http://stipolicyreview.net/>
- Aimran, A. N., Afthanorhan, W. M. A. W., & Razali, N. H. M. (2015). Moderated Mediation Using Partial Least Square Structural Equation Modeling (PLS-SEM). *International Journal of Engineering & Technology Research*, 3(2), 1–10. <https://doi.org/10.1002/9781444316568.wiem02031>
- Akbar, F., Razak, A., Wadood, F., & Al-subari, S. N. A. (2017). The Importance of Smes , And Furniture Manufacturing Smes in Malaysia: A Review of Literature. *International Journal of Business Management*, 2(4), 119–130.

- Akbar, F., Razak Bin Omar, A., Wadood, F., & Bin Tasmin, R. (2017). The Effect of Marketing Strategies Construct on Firm Performance: Results from Pilot Survey. *Path of Science*, 3(4), 5.1-5.7. <https://doi.org/10.22178/pos.21-5>
- Al Zefeiti, S. M. B., & Mohamad, N. A. (2015). Methodological Considerations in Studying Transformational Leadership and its Outcomes. *International Journal of Engineering Business Management*, 7(1), 1–11. <https://doi.org/10.5772/60429>
- Alegre, J., & Chiva, R. (2013). Linking Entrepreneurial Orientation and Firm Performance: The Role of Organizational Learning Capability and Innovation Performance. *Journal of Small Business Management*, 51(4), 491–507. <https://doi.org/10.1111/jsbm.12005>
- Ali Memon, M., Ting, H., Ramayah, T., Chuah, F., & Cheah, J.-H. (2017). A Review of the Methodological Misconceptions and Guidelines Related to the Application of Structural Equation Modeling: A Malaysian Scenario. *Journal of Applied Structural Equation Modeling*, 1(1), 14.
- Allen, T. D. (2001). Family-Supportive Work Environments: The Role of Organizational Perceptions. *Journal of Vocational Behavior*, 58(3), 414–435. <https://doi.org/10.1006/jvbe.2000.1774>
- Aloulou, W., & Fayolle, A. (2005). A Conceptual Approach of Entrepreneurial Orientation Within Small Business Context. *Journal of Enterprising Culture*, 13(1), 21–45. <https://doi.org/10.1142/S0218495805000045>
- Alzuod, M. A. K., Isa, M. F. M., & Othman, S. Z. B. (2017). Intellectual Capital, Innovative Performance and the Moderating Effect of Entrepreneurial Orientation among Small and Medium- sized Enterprises in Jordan. *International Review of Management and Marketing*, 7(2), 309–315.
- Ambad, S. N. A., & Wahab, K. A. (2013a). Entrepreneurial Orientation Among Large Firms in Malaysia: Contingent Effects of Faculty of Business Management MARA University of Technology Islamic Science University of Malaysia. *International Journal of Business and Social Science*, 4(16), 96–107.

- Ambad, S. N. A., & Wahab, K. A. (2013b). Entrepreneurial Orientation Among Large Firms in Malaysia: Contingent Effects of Hostile Environments. *International Journal of Business and Social Science*, 4(16), 96–107.
- Anderson, B. S., Kreiser, P. M., Kuratko, D. F., Hornsby, J. S., & Eshima, Y. (2015). Reconceptualizing Entrepreneurial Orientation. *Strategic Management Journal*, 36(1), 1579–1596. <https://doi.org/10.1002/smj>
- Andrews, K. R. (1971). The Concept of Corporate Strategy. *Revista Innovar Journal*, 22(May), 21–28.
- Ansoff, H. I. (1965). *Strategic Options Framework*. *Corporate Strategy*, 3(1), 134–138. Retrieved from <http://41.77.4.165:6510/faculty.msb.edu/homak/homahelpsite/webhelp/Content/Growth Matrix - Ansoff Growth Matrix.pdf>
- Ardichvili, A., Cardozo, R., & Ray, S. (2003). A Theory of Entrepreneurial Opportunity Identification and Development. *Journal of Business Venturing*, 18(2), 187–193. <https://doi.org/10.1007/s00128-017-2113-7>
- Armstrong, C. E., & Shimizu, K. (2007). A Review of Approaches to Empirical Research on the Resource-Based View of the Firm. *Journal of Management*, 33(6), 959–986. <https://doi.org/10.1177/0149206307307645>
- Arshad, A. S., Rasli, A., Arshad, A. A., & Zain, Z. M. (2014). The Impact of Entrepreneurial Orientation on Business Performance: A Study of Technology-based SMEs in Malaysia. *Procedia - Social and Behavioral Sciences*, 130(1996), 46–53. <https://doi.org/10.1016/j.sbspro.2014.04.006>
- Arshi, T. A. (2016). *Entrepreneurial Orientation and its Impact on Innovation Intensity in the Omani Corporate Sector*. University of Bedfordshire.
- Avlonitis, G. J., & Salavou, H. E. (2007). Entrepreneurial Orientation of SMEs, Product Innovativeness, and Performance. *Journal of Business Research*, 60, 566–575. <https://doi.org/10.1016/j.jbusres.2007.01.001>
- Awwad, M. S., & Ali, H. K. (2012). Emotional Intelligence and Entrepreneurial Orientation: The Moderating Role of Organizational Climate and Employees' Creativity. *Journal of Research in Marketing and Entrepreneurship*, 14(1), 115–136. <https://doi.org/10.1108/14715201211246869>

- Aziz, R. A., Mahmood, R., Tajudin, A., & Abdullah, M. H. (2014). The Relationship Between Entrepreneurial Orientation and Business Performance of SMEs in Malaysia. *International Journal of Management Excellence*, 2(3), 221–239. <https://doi.org/10.17722/ijme.v2i3.96>
- Banholzer, W. F., & Vosejka, L. J. (2011). Risk Taking and Effective R&D Management. *Annual Review of Chemical and Biomolecular Engineering*, 2(1), 173–188. <https://doi.org/10.1146/annurev-chembioeng-061010-114241>
- Banu, G. S., Dumitrescu, A., Purcărea, A. A., & Isărescu, S. W. (2016). Defining Open Innovation Concept Using Business Process Modeling. *Procedia Technology*, 22(10), 1020–1027. <https://doi.org/10.1016/j.protcy.2016.01.135>
- Baregheh, A., Rowley, J., & Sambrook, S. (2009). Towards A Multidisciplinary Definition of. *Innovation. Management Decision*, 47(8), 1323–1339. <https://doi.org/10.1108/00251740910984578>
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99–120.
- Barney, J. B. (1986). Strategic Factor Markets: Expectations, Luck, and Business Strategy. *Management Science*, 32(10), 1231–1241. <https://doi.org/10.1287/mnsc.32.10.1231>
- Barney, J. B. (2001). Resource-Based Theories of Competitive Advantage : A ten-year Retrospective on the Resource-Based View. *Journal of Management*, 27(3), 643–650. <https://doi.org/10.1177/014920630102700602>
- 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. <https://doi.org/10.1177/1350506818764762>
- Barringer, B. R., & Bluedorn, A. C. (1999). The relationship between corporate entrepreneurship and strategic management. *Strategic Management Journal*, 20(5), 421–444. [https://doi.org/10.1002/\(SICI\)1097-0266\(199905\)20:5<421::AID-SMJ30>3.0.CO;2-O](https://doi.org/10.1002/(SICI)1097-0266(199905)20:5<421::AID-SMJ30>3.0.CO;2-O)
- Barsh, J., Capozzi, M. M., & Davidson, J. (2013). Leadership and Innovation Characteristics. *The McKinsey Quarterly*, 38(April), 63–92. <https://doi.org/10.1016/B978-0-12-396993-4.00004-7>

- Bassellier, G., Reich, B. H., & Benbasat, I. (2001). Information Technology Competence of Business Managers: A Definition and Research Model. *Journal of Management Information Systems*, 17(4), 159–182. <https://doi.org/10.1080/07421222.2001.11045660>
- Basso, O., Fayolle, A., & Bouchard, V. (2010). Entrepreneurial Orientation: The Making of a Concept. *The International Journal of Entrepreneurship and Innovation*, 10(4), 313–321. <https://doi.org/10.5367/000000009790012327>
- Beard, J. W., & Sumner, M. (2004). Seeking Strategic Advantage in the Post- Net era: Viewing ERP Systems from the Resource-Based Perspective. *Journal of Strategic Information Systems*, 13(2), 129–150. <https://doi.org/10.1016/j.jsis.2004.02.003>
- Beasley, T. M. (2015). Tests of Mediation: Paradoxical Decline in Statistical Power as a Function of Mediator Collinearity. *University of Alabama at Birmingham*, 82(3), 283–306. <https://doi.org/10.1038/mp.2011.182>
- Beavers, A. S., Lounsbury, J. W., Richards, J. K., Huck, S. W., Skolits, G. J., & Esquivel, S. L. (2013). Practical Considerations for Using Exploratory Factor Analysis in Educational Research. *Practical Assessment, Research & Evaluation*, 18(6), 1–13.
- Becherer, R. C., & Maure, J. G. (1999). The Proactive Personality Disposition and Entrepreneurial Behavior among Small Company Presidents. *Journal of Small Business Management*, 22(2), 28–37.
- Becherer, R. C., & Maurer, J. G. (1998a). The Moderating Effect of Environmental Variables on the Entrepreneurial and Marketing Orientation of Entrepreneur-led Firms. *Entrepreneurship: Theory & Practice*, 34(23), 41–57.
- Becherer, R. C., & Maurer, J. G. (1998b). The Moderating Effect of Environmental Variables on the Entrepreneurial and Marketing Orientation of Entrepreneur-led Firms. *Entrepreneurship: Theory & Practice*, 10(3), 41–57.
- Bengtsson, L., Lakemond, N., Lazzarotti, V., Manzini, R., Pellegrini, L., & Tell, F. (2015). Open to a Select Few? Matching Partners and Knowledge Content for Open Innovation Performance. *Creativity and Innovation Management*, 24(1), 72–86. <https://doi.org/10.1111/caim.12098>

- Bengtsson, M., & Johansson, M. (2011). Clashes Between Contending Market Regimes: A Challenge for Firms in Converging Industries. *European Business Review*, 23(5), 454–476. <https://doi.org/10.1108/09555341111158119>
- Bianchi, M., Cavaliere, A., Chiaroni, D., Frattini, F., & Chiesa, V. (2011). Organisational Modes for Open Innovation in the Bio- Pharmaceutical Industry: An Exploratory Analysis. *Technovation*, 31(1), 22–33. <https://doi.org/10.1016/j.technovation.2010.03.002>
- Bianchini, D., De Antonellis, V., & Melchiori, M. (2008). Flexible Semantic-Based Service Matchmaking and Discovery. *World Wide Web*, 11(2), 227–251. <https://doi.org/10.1007/s11280-007-0040-y>
- Bilevičienė, T., & Bilevičiūtė, E. (2015). Influence of Employment on Strategy of Sustainable Development Implementation. *Journal of Security and Sustainability Issues*, 4(3), 520–535. [https://doi.org/10.9770/jssi.2015.4.3\(3\)S](https://doi.org/10.9770/jssi.2015.4.3(3)S)
- Birch, D. (1979). Achievement and A Breakthrough for Entrepreneurship and Small Business Research. *Pioneers in Entrepreneurship and Small Business Research*, 6–7.
- Birkinshaw, J., Hamel, G., & Mol, M. J. (2008). Management Innovation. *Academy of Management Review*, 4(1), 25–33. <https://doi.org/10.1111/j.1399-3089.1997.tb00161.x>
- Birley, S. (1989). Female Entrepreneurs: Are they Really any Different? *Journal of Small Business Management*, 1(1), 1–19. <https://doi.org/10.1111/j.1432-0436.2007.00244.x>
- Bleeker, I. (2011). *The Influence Of Entrepreneurial Orientation On The Innovation Process: An Empirical Research on Manufacturing SMEs*. University of Twente. <https://doi.org/10.1108/JKIC-09-2013-0017>
- Bogers, M., Zobel, A. K., Afuah, A., Almirall, E., Brunswicker, S., Dahlander, L., ... Ter Wal, A. L. J. (2017). The Open Innovation Research Landscape: Established Perspectives and Emerging Themes Across Different Levels of Analysis. *Industry and Innovation*, 24(1), 8–40. <https://doi.org/10.1080/13662716.2016.1240068>



- Brannen, J. (2005). Mixed Methods Research: A Discussion Paper. *ESRC National Centre for Research Methods*, 5, 1–30.  
[https://doi.org/10.1658/1100-9233\(2004\)015\[0085:SAAMIP\]2.0.CO;2](https://doi.org/10.1658/1100-9233(2004)015[0085:SAAMIP]2.0.CO;2)
- Breckler, S. J. (1990). Applications of Covariance Structure Modelling in Psychology: Cause for concern? *Psychology Bulletin*, 107(2), 260–273.
- Breunig, K. J., Aas, T. H., & Hydle, K. M. (2014). Incentives and Performance Measures for Open Innovation Practices. *Measuring Business Excellence*, 18(1), 45–54. <https://doi.org/10.1108/MBE-10-2013-0049>
- Brödner, P. (2013). Reflective Design of Technology for Human Needs. *AI and Society*, 28(1), 27–37. <https://doi.org/10.1007/s00146-012-0389-z>
- Brooks, J. G., & Brooks, M. G. (1993). *In Search of Understanding: The case for Constructivist Classrooms*. Alexandria, VA: Association of Supervision and Curriculum Development. (First). California: Alexandria, VA.
- Brown, J. S. (2003, May). *Innovating Innovation*. *Open Innovation by Henry Chesbrough*, 1–4. Retrieved from [http://www.johnseelybrown.com/fwd\\_openinnovation.html](http://www.johnseelybrown.com/fwd_openinnovation.html)
- Brown, J. S., & Hagel III, J. (2005). The Next Frontier of Innovation. *The McKinsey Quarterly*, 3(3), 82–91. Retrieved from <http://johnseelybrown.com/pushpull.pdf>
- Brown, T. E., Davidsson, P., & Wiklund, J. (2001). An Operationalization of Stevenson's Conceptualization of Entrepreneurship as Opportunity-Based Firm Behavior. *Strategic Management Journal*, 22(10), 953–968. <https://doi.org/10.1002/smj.190>
- Brunswick, S., & Vanhaverbeke, W. (2015). Open Innovation in Small and Medium-Sized Enterprises (SMEs): External Knowledge Sourcing Strategies and Internal Organizational Facilitators. *Journal of Small Business Management*, 53(4), 1241–1263. <https://doi.org/10.1111/jsbm.12120>
- Bryman, A. (2004). Qualitative Research on Leadership: A Critical but Appreciative Review. *The Leadership Quarterly*, 15(6), 729–769. <https://doi.org/10.1016/j.leaqua.2004.09.007>
- Bryman, A. (2015). Business Research Methods Advanced Excel for Scientific Data Analysis Feminist Perspective on Social Approaches to Qualitative

- Approaches to Social. *Business Research Methods ALAN*, 2, 629–630.  
<https://doi.org/10.1016/B978-0-12-387000-1.01001-9>
- Calantone, R. J., Cavusgil, T. S., & Zhao, Y. (2004). Learning Orientation, Firm Innovation Capability, and Firm Performance. *Industrial Marketing Management*, 31, 515–524.
- Cámara, F. J. R. (2018). Entrepreneurial Orientation, Export Performance and Green Innovation Performance: The Mediating Effect of Open Innovation in SMES. *Strategy Enterprise and Innovation*, 2(February).
- Cameron, R. (2009). A Sequential Mixed Model Research Design: Design , Analytical and Display Issues. *International Journal of Multiple Research Approaches*, 3(2), 140–152. <https://doi.org/10.5172/mra.3.2.140>
- Campos, H. M., la Parra, J. P. N. de, & Parellada, F. S. (2012). The Entrepreneurial Orientation-Dominant Logic-Performance Relationship in New Ventures: An Exploratory Quantitative Study. *BAR - Brazilian Administration Review*, 9(May 2012), 60–77. <https://doi.org/10.1590/S1807-76922012000500005>
- Cannavale, C., & Nadali, I. Z. (2019). Entrepreneurial Orientations and Performance: A Problematic Explanatory Approach in the Iranian Knowledge-Based Industry. *Journal of Entrepreneurship*, 28(1), 68–93. <https://doi.org/10.1177/0971355718810295>
- Caputo, M., Lamberti, E., Cammarano, A., & Michelino, F. (2016). Exploring the Impact of Open Innovation on Firm Performances. *Management Decision*, 54(7), 1788–1812. <https://doi.org/10.1108/MD-02-2015-0052>
- Carley, K. M. (2002). Intra-organizational Computation and Complexity. *Social and Decision Sciences Working Papers*, 15(2), 1–16. Retrieved from [c:%5CORjan%5CSU%5CSkrifter%5CCarleyWP.pdf%5Cnhttp://www.casos.ece.cmu.edu](http://www.casos.ece.cmu.edu)
- Carter, C. R., & Rogers, D. S. (2008). A Framework of Sustainable Supply Chain Management: Moving Toward New Theory. *International Journal of Physical Distribution and Logistics Management*, 38(5), 360–387. <https://doi.org/10.1108/09600030810882816>
- Carvalho, E. G. (2016). *Linking Open Innovation , Entrepreneurial Orientation and Firm Performance in Brazilian Startups*. Universidade Federal de Lavras.



- Carvalho, E. G., & Sugano, J. Y. (2017). Towards a Theory Regarding Open Innovation and Entrepreneurship: A Meta-Synthesis from Qualitative Studies in small and medium enterprises and start-ups. *Systems & Management*, 12(1), 14–24. <https://doi.org/10.20985/1980-5160.2017.v12n1.931>
- Cascio, W. F., & Montealegre, R. (2016). How Technology Is Changing Work and Organizations. *The Annual Review of Organizational Psychology and Organizational Behavior*, 3(3), 349–375. <https://doi.org/10.1146/annurev-orgpsych-041015-062352>
- Casillas, J. C., & Moreno, A. M. (2010). *The Relationship Between Entrepreneurial Orientation and Growth: The Moderating Role of Family Involvement*. *Entrepreneurship and Regional Development*, 22(3–4), 265–291. <https://doi.org/10.1080/08985621003726135>
- Cassiman, B., & Valentini, G. (2016). Open Innovation: Are Inbound and Outbound Knowledge Flows Really Complementary? *Strategic Management Journal*, 37(1), 116–132. <https://doi.org/10.1002/smj>
- Chan, J., To, H. P., & Chan, E. (2006). Reconsidering Social Cohesion: Developing a Definition and Analytical Framework for Empirical Research. *Social Indicators Research*, 75(2), 273–302. <https://doi.org/10.1007/s11205-005-2118-1>
- Chan Kim, W., & Mauborgne, R. (2005). Value Innovation: A Leap into the Blue Ocean. *Journal of Business Strategy*, 26(4), 22–28. <https://doi.org/10.1108/02756660510608521>
- Chapman, R., & Hyland, P. (2004). Complexity and Learning Behaviors in Product Innovation. *Technovation*, 24(7), 553–561. [https://doi.org/10.1016/S0166-4972\(02\)00121-9](https://doi.org/10.1016/S0166-4972(02)00121-9)
- Chaston, I., & Scott, G. J. (2013). Entrepreneurship and Open Innovation in an Emerging Economy. *Management Decision*, 50(7), 1161–1177. <https://doi.org/10.1108/00251741211246941>
- Chatenier, E. Du, Verstegen, J. A. A. M., Biemans, H. J. A., Mulder, M., & Omta, O. (2009). The Challenges of Collaborative Knowledge Creation in Open Innovation Teams. *Human Resource Development Review*, 8(3), 350–381. <https://doi.org/10.1177/1534484309338265>

- Chen, J., Neubaum, D. O., Reilly, R. R., & Lynn, G. S. (2014). The Relationship between Team Autonomy and New Product Development Performance under Different Levels of Technological Turbulence Author: *Journal of Operations Management*, 33–34, 83– 96. <https://doi.org/10.1016/j.jom.2014.10.001>
- Chen, Y. C., Li, P. C., & Evans, K. R. (2012). Effects of Interaction and Entrepreneurial Orientation on Organizational Performance: Insights into Market Driven and Market Driving. *Industrial Marketing Management*, 41(6), 1019–1034. <https://doi.org/10.1016/j.indmarman.2012.01.017>
- Chen, Y. S., Lai, S. B., & Wen, C. T. (2006). The Influence of Green Innovation Performance on Corporate Advantage in Taiwan. *Journal of Business Ethics*, 67(4), 331–339. <https://doi.org/10.1007/s10551-006-9025-5>
- Cheng, C. C. J., & Huizingh, E. K. R. E. (2014). When Is Open Innovation Beneficial? The Role of Strategic Orientation. *Journal of Product Innovation Management*, 31(6), 1235–1253. <https://doi.org/10.1111/jpim.12148>
- Chesbrough, H. (2006). *Open Innovation: A New Paradigm for Understanding Industrial Innovation*. Oxford University Press, 12(11), 1–27. <https://doi.org/citeulike-article-id:5207447>
- Chesbrough, H., & Bogers, M. (2014a). Explicating Open Innovation: Clarifying an Emerging Paradigm for Understanding Innovation. *New Frontiers in Open Innovation*. Oxford: *Oxford University Press*, Forthcoming, 3, 3–28. Retrieved from [http://papers.ssrn.com/sol3/Papers.cfm?abstract\\_id=2427233](http://papers.ssrn.com/sol3/Papers.cfm?abstract_id=2427233)
- Chesbrough, H., & Bogers, M. (2014b). Explicating Open Innovation: Clarifying an Emerging Paradigm for Understanding Innovation. *New Frontiers in Open Innovation*. Oxford: *Oxford University Press*, Forthcoming, 3, 3–28.
- Chesbrough, H. W. (2003). Open Innovation: The New Imperative for Creating and Profiting from Technology Henry. *Harvard Business School Publishing Corporation* (1st ed., Vol. 6). Boston: Library of Congress.
- Chesbrough, H. W. (2006). Open Innovation: The New Imperative for Creating and Profiting from Technology. *Harvard Business School Publishing Corporation* (1st ed., Vol. 7). Boston: Library of Congress.

- Chesbrough, H. W., & Garman, A. R. (2009). How Open Innovation Can Help You Cope in Lean Times. *Harvard Business Review*, 87(12), 68–76. Retrieved from [www.hbr.org](http://www.hbr.org)
- Chiaroni, D., Chiesa, V., & Frattini, F. (2010). Unravelling the Process from Closed to Open Innovation: Evidence from Mature, Asset-Intensive Industries. *R&D Management*, 40(3), 222–245. Retrieved from <https://web-b-ebSCOhost-com.bibliopam.univ-catholille.fr/ehost/pdfviewer/pdfviewer?vid=3&sid=1ae4fca0-83d1-4504-a8d7-d313c8fe694a%40sessionmgr110&hid=124>
- Chiaroni, D., Chiesa, V., & Frattini, F. (2011). The Open Innovation Journey: How Firms Dynamically Implement the Emerging Innovation Management Paradigm. *Technovation*, 31(1), 34–43. <https://doi.org/10.1016/j.technovation.2009.08.007>
- Chiesa, V., & Manzini, R. (1997). Managing Virtual R D Organisations: Lessons from the Pharmaceutical Industry. *International Journal of Technology Management*, 13(5), 471. <https://doi.org/10.1504/IJTM.1997.001677>
- Child, D. (2006). The Essential of Factor Analysis. London: *Billing & Sons Ltd., Guildford and London.*
- Cho, H. J., & Pucik, V. (2005). Relationship Between Innovativeness, Quality, Growth, Profitability, and Market Value. *Strategic Management Journal*, 26(6), 555–575. <https://doi.org/10.1002/smj.461>
- Chow. (2006). The Relationship Between Entrepreneurial Orientation and Firm Performance in China. *Hong Kong: Irene.*
- Christensen, C. M., & Overdorf, M. (2000). Meeting the Challenge of Disruptive Change. *Harvard Business Review*, 80(5), 94–101. <https://doi.org/10.1002/rwm3.20019>
- Clark, D. L., Lotto, L. S., & Astuto, T. A. (1984). Effective Schools And School Improvement: A Comparative Analysis of Two Lines of Inquiry. *Educational Administration Quarterly*, 20(3), 5695–5698. <https://doi.org/10.1074/jbc.272.2.843>
- Clausen, T., & Korneliussen, T. (2012). The Relationship Between Entrepreneurial Orientation and Speed to the Market: The Case of Incubator Firms in

- Norway. *Technovation*, 32(9–10), 560–567.  
<https://doi.org/10.1016/j.technovation.2012.05.004>
- Clegg, F. (1990). *Simple Statistics : A Course Book for the Social Sciences*. London: *Cambridge University Press*.
- Clulow, V., Barry, C., & Gerstman, J. (2007). The Resource- Based View and Value: the Customer- Based View of the Firm. *Journal of European Industrial Training*, 31(1), 19–35.  
<https://doi.org/10.1108/03090590710721718>
- Cohen, L., Manion, L., & Morrison, K. (2013). *Research Methods in Education* (6th ed.). London: *Taylor & Francis or Routledge's*.
- Cohen, W. M., & Levinthal, D. A. (1990). Absorptive Capacity: A New Perspective on Learning and Innovation. *Administrative Science Quarterly*, 35(1), 128.  
<https://doi.org/10.2307/2393553>
- Collie, S. L., & Rine, P. J. (2009). Survey Design : Getting the Results you Need. *Office of Process Simplification*, 5(2), 1–30. Retrieved from [http://www.virginia.edu/processsimplification/resources/survey\\_design.pdf](http://www.virginia.edu/processsimplification/resources/survey_design.pdf)
- Comrey, A. L., & Lee, H. B. (2013). *A First Course in Factor Analysis*. New York: *Psychology Press*.
- Cools, E., & Van den Broeck, H. (2007). The Hunt for the Heffalump Continues: Can Trait and Cognitive Characteristics Predict Entrepreneurial Orientation? *Journal of Small Business Strategy*, 18(2), 23–41.
- Costello, A. B., & Osborne, J. W. (2005). Best Practices in Exploratory Factor Analysis : Four Recommendations for Getting the Most From Your Analysis. *Practical Assessment, Research & Evaluation*, 10(7), 1–9.
- Coulthard, M. (2007a). The Role of Entrepreneurial Orientation on Firm Performance and the Potential Influence of Relational Dynamism. *Journal of global business and technology*, 3(1), 29.
- Coulthard, M. (2007b). The Role of Entrepreneurial Orientation on Firm Performance and the Potential Influence of Relational Dynamism. Monash University, *Business and Economics*, Working Paper, 18(7), 1–12.  
[https://doi.org/10.1016/S0006-8993\(97\)01529-1](https://doi.org/10.1016/S0006-8993(97)01529-1)

- Coupey, M., & Roux, Y. (2007). Investigating the Relationship Between Entrepreneurial and Market Orientations within French SMEs and Linking it to Performance. *Umeå University*.
- Covin, J. G., & Covin, T. J. (1990). Competitive Aggressiveness, Environmental Context, and Small Firm Performance. *Entrepreneurship Theory and Practice*, 14(4), 35–50. <https://doi.org/10.1177/104225879001400406>
- Covin, J. G., Green, K. M., & Slevin, D. P. (2006). Strategic Process Effects on the Entrepreneurial Orientation-Sales Growth Rate Relationship. *Entrepreneurship: Theory and Practice*, 30(1), 57–81. <https://doi.org/10.1111/j.1540-6520.2006.00110.x>
- Covin, J. G., & Lumpkin, G. T. (2011). Entrepreneurial Orientation Theory and Research: Reflections on a Needed Construct. *Entrepreneurship: Theory and Practice*, 35(5), 855–872. <https://doi.org/10.1111/j.1540-6520.2011.00482.x>
- Covin, J. G., & Miles, M. P. (1999a). Corporate Entrepreneurship and the Pursuit of Competitive Advantage. *Entrepreneurship Theory and Practice*, 23(3), 47–63. <https://doi.org/10.1177/104225879902300304>
- Covin, J. G., & Miles, M. P. (1999b). Corporate Entrepreneurship and the Pursuit of Competitive Advantage. *Entrepreneurship Theory and Practice*, 23(3), 47–63. <https://doi.org/10.1177/104225879902300304>
- Covin, J. G., & Slevin, D. P. (1989). Strategic Management of Small Firms in Hostile and Benign Environments. *Strategic Management Journal*, 10(1), 75–87.
- Covin, J. G., & Slevin, D. P. (1991a). A Conceptual Model of Entrepreneurship as Firm Behavior. *Entrepreneurship Theory and Practice*, 2(4), 1–17.
- Covin, J. G., & Slevin, D. P. (1991b). A Conceptual Model of Entrepreneurship as Firm Behavior. *Entrepreneurship Theory and Practice*, 21(2), 1–13.
- Covin, J. G., & Wales, W. J. (2012). The Measurement of Entrepreneurial Orientation. *Entrepreneurship: Theory and Practice*, 36(4), 677–702. <https://doi.org/10.1111/j.1540-6520.2010.00432.x>

- Crema, M., Verbano, C., & Venturini, K. (2014). Linking strategy with open innovation and performance in SMEs. *Measuring Business Excellence*, 18(2), 14–27. <https://doi.org/10.1108/MBE-07-2013-0042>
- Creswell, J. W. (2013a). *A Concise Introduction to Mixed Methods Research*. Sage (2nd ed., Vol. 48). London: SAGE Publications. <https://doi.org/10.1111/1475-6773.12117>
- Creswell, J. W. (2013b). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches* (1st ed.). Los Angeles: SAGE Publications Ltd.
- CROOK, T. R., JR, D. J. K., COMBS, J. G., & TODD, S. Y. (2008). Services, Industry Evolution, and the Copetitive Strategies of Product Firms. *Academy of Management Journal*, 51(2), 315–334. <https://doi.org/10.1002/smj>
- Crossan, M. M., & Apaydin, M. (2010). A Multi-Dimensional Framework of Organizational Innovation: A Systematic Review of the Literature. *Journal of Management Studies*, 47(6), 1154–1191. <https://doi.org/10.1111/j.1467-6486.2009.00880.x>
- Crotty, M. (2003). *The Foundations of Social Research: Meaning and Perspective in the Research Process*. SAGE Publications (3rd ed.). London: Thousand Oaks, CA: Sage. <https://doi.org/10.1017/CBO9781107415324.004>
- Cruz-González, J., López-Sáez, P., Navas-López, J. E., & Delgado-Verde, M. (2015). Open Search Strategies and Firm Performance: The Different Moderating Role of Technological Environmental Dynamism. *Technovation*, 35, 32–45. <https://doi.org/10.1016/j.technovation.2014.09.001>
- Cruz-Ros, S., Garzón, D., & Mas-Tur, A. (2017). Entrepreneurial Competencies and Motivations to Enhance Marketing Innovation in Europe. *Psychology and Marketing*, 34(11), 1031–1038. <https://doi.org/10.1002/mar.21042>
- Dahlander, L., & Gann, D. M. (2010). How Open is Innovation? *Research Policy*, 39(6), 699–709. <https://doi.org/10.1016/j.respol.2010.01.013>
- Dai, L., Maksimov, V., Gilbert, B. A., & Fernhaber, S. A. (2014). Entrepreneurial Orientation and International Scope: The Differential Roles of Innovativeness, Proactiveness, and Risk-Taking. *Journal of Business*



- Venturing*, 29(4), 511–524.  
<https://doi.org/10.1016/j.jbusvent.2013.07.004>
- Dalotă, M.-D., & Grigore, S. (2010). Small And Medium Enterprise'S Growth And New Technologies Implementation. *Romanian Economic and Business Review*, 6(2), 7–18.
- Dawes, J. (1999). The Relationship Between Subjective and Objective Company Performance Measures in Market Orientation Research : Further Empirical Evidence EBSCOhost. *Marketing Bulletin*, 10(3), 65–75.
- Day, G. S., & Wensley, R. (1988). Assessing Advantage: A Framework for Diagnosing Competitive Superiority. *Journal of Marketing*, 52(2), 1–20.
- De Fabrício, R. S., Da Silva, F. R., Simões, E., Galeale, N. V., & Akabane, G. K. (2015). Strengthening of Open Innovation Model: Using Startups and Technology Parks. *IFAC-PapersOnLine*, 28(3), 14–20.  
<https://doi.org/10.1016/j.ifacol.2015.06.051>
- De Jong, J. P. J., & Den Hartog, D. N. (2007). How Leaders Influence Employees' Innovative Behaviour. *European Journal of Innovation Management*, 10(1), 41–64. <https://doi.org/10.1097/SPV.0b013e3182a331a9>
- Dess, G. G., & Lumpkin, G. T. (2005a). The Role of Entrepreneurial Orientation in Stimulating Effective Corporate Entrepreneurship. *Academy of Management Executive*, 19(1), 147–156. <https://doi.org/10.5465/AME.2005.15841975>
- Dess, G. G., Lumpkin, G. T., & Covin, J. G. (1997). Entrepreneurial Strategy Making and Firm Performance: Tests of Contingency and Configurational Models. *Strategic Management Journal*, 18(July 1995), 677–695.
- Dieronitou, I. (2014). The Ontological and Epistemological Foundations of Qualitative and Quantitative Approaches To Research. *International Journal of Economics, Commerce and Management*, II(10), 1–17. Retrieved from <http://ijecm.co.uk/>
- Dittrich, K., & Duysters, G. (2007). Networking as a Means to Strategy Change: The Case of Open Innovation in Mobile Telephony. *The Journal of Product Innovation Management*, 24(22), 510–521.
- Diyoke, I. C. (2014). Entrepreneurship Development in Nigeria: Issues, Problems and Prospects. *International Journal of Technical Research and Applications*,

10(10), 19–23. Retrieved from <http://www.ijtra.com/special-issue-view/entrepreneurship-development-in-nigeria-issues-problems-and-prospects.pdf>

Dodgson, M., Gann, D., & Salter, A. (2006). The Role of Technology in the Shift Towards Open Innovation: The Case Proctor & Gamble. *R&D Management Oxford*, 36(3), 333–346.

Dodgson, M., Gann, D., & Salter, A. (2014). *The Management of Technological Innovation Strategy and Practice*. Oxford University Press, 2, 1–23.

Drucker. (1994). The Theory of the Business. *The Antidote*, 2(1), 9–11. <https://doi.org/10.1108/eum0000000006404>

Drucker, P. F. (2002). The Discipline of Innovation. *Harvard Business Review*, 20(December), 1–9.

Easterby-Smith, M., Thorpe, R., & Jackson, P. R. (2012). *Management Research : Mark Easterby-Smith, Richard Thorpe and Paul Jackson (4th ed.)*. London: Los Angeles ; London : SAGE, 2012.

Ebrahimi, P., & Mirbargkar, S. M. (2017). Green Entrepreneurship and Green Innovation for SME Development in Market Turbulence. *Eurasian Business Review*, 7(2), 203–228. <https://doi.org/10.1007/s40821-017-0073-9>

Edelman, L. F., Brush, C. G., & Manolova, T. (2005). Co-alignment in the Resource-Performance Relationship: Strategy as Mediator. *Journal of Business Venturing*, 20(3), 359–383. <https://doi.org/10.1016/j.jbusvent.2004.01.004>

Eder, P. J. (2007). *Integrating The Componential and Interactionist Models of Employee Creativity Preview*. university of Delaware.

Edmond, V. P., & Wiklund, J. (2010). The Historic Roots Of Entrepreneurial Orientation Research. *Martin J. Whitman School of Management*, 6(2), 1–10.

Effelsberg, M. (2013). Open Innovation in GERMAN Biotechnology - An Empirical Analysis of the Management of Innovation Alliances. *International Journal of Globalisation and Small Business*, 5(4), 225. <https://doi.org/10.1504/IJGSB.2013.056812>

Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic Capabilities : What are They ? *Strategic Management Journal*, 11(21), 1105–1121.



- Eisenhardt, K. M., & Santos, F. M. (2002). Knowledge-Based View: A New Theory of Strategy? *Strategy and Management*, 44(3), 44–61. <https://doi.org/10.5860/choice.44-1617>
- Emőke–Szidónia, F. (2015). International Entrepreneurial Orientation and Performance of Romanian Small and Medium-sized firms: Empirical Assessment of Direct and Environment Moderated Relations. *Procedia Economics and Finance*, 32(15), 186–193. [https://doi.org/10.1016/s2212-5671\(15\)01381-7](https://doi.org/10.1016/s2212-5671(15)01381-7)
- Enkel, E., Gassmann, O., & Chesbrough, H. (2009). Open R&D and Open Innovation: Exploring the Phenomenon. *R and D Management*, 39(4), 311–316. <https://doi.org/10.1111/j.1467-9310.2009.00570.x>
- Entebang, H. (2011). Entrepreneurial Orientation and Corporate Entrepreneurship Performance of Government-Linked Companies in Malaysia. *Queen's University Management School*, 2(1), 1–47. <https://doi.org/10.1360/zd-2013-43-6-1064>
- Entrialgo, M., Fernández, E., & Vázquez, C. J. (2001). The Effect of the Organizational Context on SME's Entrepreneurship: Some Spanish Evidence. *Small Business Economics*, 16(3), 223–236. <https://doi.org/10.1023/A:1011175104850>
- Eroğlu, O., & Picak, M. (2011). Entrepreneurship, National Culture and Turkey. *International Journal of Business and Social*, 2(16), 146–151. <https://doi.org/10.1093/acprof:oso/9780199570096.001.0001>
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1–7. <https://doi.org/10.11648/j.ajtas.20160501.11>
- Fabian, F., Molina, H., & Labianca, G. (2009). Understanding Decisions to Internationalize by Small and Medium-sized Firms Located in an Emerging Market. *Management International Review*, 49(5), 537–563. <https://doi.org/10.1007/s11575-009-0007-6>
- Fabrigar, L. R., Wegener, D. T., Maccallum, R. C., & Strahan, E. J. (1999). Evaluating the Use of Exploratory Factor Analysis in Psychological Research. *Psychological Methods*, 4(3), 272–299.

- Faems, D., De Visser, M., Andries, P., & Van Looy, B. (2010). Technology Alliance Portfolios and Financial Performance: Value-Enhancing and Cost-Increasing Effects of Open Innovation. *Journal of Product Innovation Management*, 27(6), 785–796. <https://doi.org/10.1111/j.1540-5885.2010.00752.x>
- Fellnhofner, K. (2018). Drivers of Innovation Success in Sustainable Businesses. *Journal of Cleaner Production*, 167, 1534–1545. <https://doi.org/10.1016/j.jclepro.2017.08.197>
- Fellnhofner, K. (2019). Entrepreneurially Oriented Employees and Firm Performance: Mediating Effects. *Management Research Review*, 42(1), 25–48. <https://doi.org/10.1108/MRR-01-2017-0009>
- Fernandes, C. I., Ferreira, J. J. M., & Raposo, M. L. (2013). Drivers to Firm Innovation and their Effects on Performance: An International Comparison. *International Entrepreneurship and Management Journal*, 9(4), 557–580. <https://doi.org/10.1007/s11365-013-0263-6>
- Fernández-Mesa, A., & Alegre, J. (2015). Entrepreneurial Orientation and Export Intensity: Examining the Interplay of Organizational Learning and Innovation. *International Business Review*, 24(1), 148–156. <https://doi.org/10.1016/j.ibusrev.2014.07.004>
- Ferreira, J. J., & Azevedo, S. G. (2007). *Entrepreneurial Orientation as a Main Resource and Capability on Small Firm's Growth* (10 No. 5682). Munich Personal RePEc Archive (Vol. 9). Munich. Retrieved from [https://mpra.ub.uni-muenchen.de/5682/1/MPRA\\_paper\\_5682.pdf](https://mpra.ub.uni-muenchen.de/5682/1/MPRA_paper_5682.pdf)
- Ferreira, J. J., Azevedo, S. G., & Ortiz, R. F. (2011). Contribution of Resource-Based View and Entrepreneurial Orientation on Small Firm Growth. *Cuadernos de Gestión*, 11(1), 95–116. <https://doi.org/10.5295/cdg.100185jf>
- Ferrier, W. J. (2001). Navigating the Competitive Landscape: The Drivers and Consequences of Competitive Aggressiveness. *The Academy of Management Journal*, 44(4), 858–877. <https://doi.org/10.2307/3069419>
- Field, A. (2009). *Discovering Statistics Using SPSS (and sex and drugs and rock “n” roll)* (Third). Los Angeles: SAGE Publications Inc.
- Field, A. (2013). *Discovering Statistics using IBM SPSS Statistics* (4th ed.). London: Sage Publications.

- Fini, R., Grimaldi, R., Marzocchi, G. L., & Sobrero, M. (2012). The Determinants of Corporate Entrepreneurial Intention Within Small and Newly Established Firms. *Entrepreneurship: Theory and Practice*, 36(2), 387–414. <https://doi.org/10.1111/j.1540-6520.2010.00411.x>
- Fitjar, R. D., & Rodríguez-Pose, A. (2011). When Local Interaction Does Not Suffice: Sources of Firm Innovation in Urban Norway. *Environment and Planning A*, 43(6), 1248–1267. <https://doi.org/10.1068/a43516>
- Fitjar, R. D., & Rodríguez-Pose, A. (2013). Firm Collaboration and Modes of Innovation in Norway. *Research Policy*, 42(1), 128–138. <https://doi.org/10.1016/j.respol.2012.05.009>
- Flowers, P. (2009). Research Philosophies – Importance and Relevance. *Leading Learning and Change*, 1(3), 1–5. Retrieved from [http://www.networkedcranfield.com/cell/Assignment Submissions/research philosophy - issue 1 - final.pdf](http://www.networkedcranfield.com/cell/Assignment%20Submissions/research%20philosophy%20-%20issue%201%20-%20final.pdf)
- Fok-Yew, O., & Ahmad, H. (2014). The Effect of Change Management on Operational Excellence moderated by Commitment to Change: Evidence from Malaysia. *International Journal of Innovation and Applied Studies*, 9(2), 615–631.
- Forsman, H. (2011). Innovation Capacity and Innovation Development in Small Enterprises. A Comparison Between the Manufacturing and Service Sectors. *Research Policy*, 40(5), 739–750. <https://doi.org/10.1016/j.respol.2011.02.003>
- Fredrick, G. O. (2018). Effect of Entrepreneurial Orientation on SMEs Product Innovativeness. *International Journal of Management and Commerce Innovations*, 5(2), 829–833.
- Freiling, J., & Schelhowe, C. L. (2014). The Impact of Entrepreneurial Orientation on the Performance of Internationalization. *Journal of Entrepreneurship Management and Innovation*, 10(4), 169–199.
- Frishammar, J., & Andersson, S. (2009). The Overestimated Role of Strategic Orientations for International Performance in Smaller Firms. *Journal of International Entrepreneurship*, 7(1), 57–77. <https://doi.org/10.1007/s10843-008-0031-9>

- Galindo, M. Á., & Méndez-Picazo, M. T. (2013). Innovation, Entrepreneurship and Economic Growth. *Management Decision*, 51(3), 501–514. <https://doi.org/10.1108/00251741311309625>
- Garcia, R., & Calantone, R. (2002). A Critical Look at Technological Innovation Typology and Innovativeness Terminology: A Literature Review. *The Journal of Product Innovation Management*, 7(9), 110–132. [https://doi.org/10.1016/S0737-6782\(01\)00132-1](https://doi.org/10.1016/S0737-6782(01)00132-1)
- Gartner, W. B., & Shane, S. A. (1995). Measuring Entrepreneurship Over Time. *Journal of Business Venturing*, 10(4), 283–301. [https://doi.org/10.1016/0883-9026\(94\)00037-U](https://doi.org/10.1016/0883-9026(94)00037-U)
- Garud, R., & Nayyar, P. R. (1994). Transformative Capacity: Continual Structuring by Intertemporal Technology Transfer. *Strategic Management Journal*, 15(5), 365–385. Retrieved from <https://about.jstor.org/terms>
- Gassmann, O., & Enkel, E. (2004). Towards a Theory of Open Innovation: Three Core Process Archetypes. *R&D Management Conference*, 10(May 2014), 1–18. <https://doi.org/10.1.1.149.4843>
- Gassmann, O., Enkel, E., & Chesbrough, H. (2010). The Future of Open Innovation. *R&D Management*, 22(3), 440–456. <https://doi.org/10.4192/1577-8517-v16>
- Gebert, D., Boerner, S., & Lanwehr, R. (2003). The Risks of Autonomy: Empirical Evidence for the Necessity of a Balance Management in Promoting Organizational Innovativeness. *Creativity and Innovation Management*, 12(1), 41–49. <https://doi.org/10.1111/1467-8691.00267>
- George, G., Wood, J. R., & Khan, R. (2001). Networking Strategy of Boards: Implications for Small and Medium-Sized Enterprises. *Entrepreneurship and Regional Development*, 13(3), 269–285. <https://doi.org/10.1080/08985620110058115>
- GIBB, J., & HAAR, J. M. (2010). Risk Taking, Innovativeness and Competitive Rivalry: A Three-Way Interaction Towards Firm Performance. *International Journal of Innovation Management*, 14(5), 871–891. <https://doi.org/10.1142/s136391961000291x>

- Gilmore, A., Carson, D., & O'Donnell, A. (2004). Small Business Owner- Managers and their Attitude to Risk. *Marketing Intelligence & Planning*, 22(3), 349–360. <https://doi.org/10.1108/02634500410536920>
- Granstrand, O., Patel, P., & Pavitt, K. (1997). Multi-Technology Corporations: Why They Have “Distributed” Rather Than “Distinctive Core” Competencies. *California Management Review*, 39(4), 8–25.
- Grant, R. M. (1991). The Resource-Based Theory of Competitive Advantage: Implications for Strategy Formulation. *California Management Review*, 33(3), 114–135. <https://doi.org/10.4135/9781506374598.n9>
- Gray, D. E. (David E. (2004). *Doing Research in the Real World* (2nd ed.). London: Thousand Oaks, CA : SAGE.
- Greco, M., Grimaldi, M., & Cricelli, L. (2016). An Analysis of the Open Innovation Effect on Firm Performance. *European Management Journal*, 34(5), 501–516. <https://doi.org/10.1016/j.emj.2016.02.008>
- Green, D. H., Barclay, D. W., & Ryans, A. B. (1995). Entry Strategy and Long-Term Performance: Conceptualization and Empirical Examination. *Journal of Marketing*, 59(4), 1–16.
- Green, K. M., Covin, J. G., & Slevin, D. P. (2008). Exploring the Relationship Between Strategic Reactiveness and Entrepreneurial Orientation: The Role of Structure-Style Fit. *Journal of Business Venturing*, 23(3), 356–383. <https://doi.org/10.1016/j.jbusvent.2007.01.002>
- Grimaldi, M., Quinto, I., & Rippa, P. (2013). Enabling Open Innovation in Small and Medium Enterprises: A Dynamic Capabilities Approach. *Knowledge and Process Management*, 20(4), 199–210.
- Guadagnoli, E., & Velicer, W. E. (1988). Relation of Sample Size to the Stability of Component Patterns. *PsycCRITIQUES*, 103(2), 265– 275. <https://doi.org/10.1037//0033-2909.103.2.265>
- Guba, E. G. (1990). *The Paradigm Dialog*. The Paradigm Dialog. London: SAGE Publications. <https://doi.org/10.1080/1357527032000140352>
- Guba, E. G., & Lincoln, Y. S. (1994). Competing Paradigms in Qualitative Research. *Handbook of qualitative research* (Eds). CA: Thousand Oaks, CA:

Sage. <https://doi.org/http://www.uncg.edu/hdf/facultystaff/Tudge/Guba%20&%20Lincoln%201994.pdf>

- Gupta, V. K., & Wales, W. J. (2017). Assessing Organisational Performance Within Entrepreneurial Orientation Research: Where Have We Been and Where Can We Go from Here? *The Journal of Entrepreneurship*, 26(1), 51–76. <https://doi.org/10.1177/0971355716677389>
- Gürbüz, G., & Aykol, S. (2009). Entrepreneurial Management, Entrepreneurial Orientation and Turkish Small Firm Growth. *Management Research News*, 32(4), 321–336. <https://doi.org/10.1108/01409170910944281>
- Haenlein, M., & Kaplan, A. M. (2004). A Beginner's Guide to Partial Least Squares Analysis. *Routledge Information*, 3(4), 37–41. <https://doi.org/10.1207/s15328031us0304>
- Hagel III, J., Brown, J. S., & Davison, L. (2008). Shaping Strategy in a World of Constant Disruption. *Harvard Business Review*, 86(10), 80–89. <https://doi.org/10.3200/HTPS.86.2.38-40>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis. Overview of Multivariate Methods* (7th ed.). Thousand Oaks: SAGE Publications Ltd. <https://doi.org/10.1016/j.ijpharm.2011.02.019>
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM : Indeed a Silver Bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–151. <https://doi.org/10.2753/MTP1069-6679190202>
- Hair, J., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2017). An Updated and Expanded Assessment of PLS-SEM in Information Systems Research. *Industrial Management and Data Systems*, 117(3), 442–458. <https://doi.org/10.1108/IMDS-04-2016-0130>
- Hameed, I., & Ali, B. (2011). Impact of Entrepreneurial Orientation, Entrepreneurial Management and Environmental Dynamism on Firm's Financial Performance. *Journal of Economics and Behavioral Studies*, 3(2), 101–114.
- Harris, L. C. (2001). Market Orientation and Performance: Objective and Subjective Empirical Evidence from UK Companies. *Journal of Management Studies*, 38(10), 17–30.



- Harrison, J. S., Hitt, M. A., Hoskisson, R. E., & Ireland, R. D. (1991). Synergies and Post-Acquisition Performance: Differences versus Similarities in Resource Allocations. *Journal of Management*, 17(1), 173–190. <https://doi.org/10.1177/014920639101700111>
- Hart, S. L. (1992). An Integrative Framework for Strategy-Making Processes. *The Academy of Management Review*, 17(2), 327–351.
- Hatch, S. W. (2009). Study Design for Survey Research. *Optometric Care within the Public Health Community*, 14, 1–10.
- Henderson, B. J. (2002). Building the Rural Economy With High-Growth Entrepreneurs. *Review Literature And Arts Of The Americas*, 87(3), 45–70. Retrieved from <http://www.kc.frb.org/PUBLICAT/ECONREV/PDF/3q02hend.pdf>
- Henkel, J. (2006). Selective Revealing in Open Innovation Processes: The Case of Embedded Linux. *Research Policy*, 35(March), 953.
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The Use of Partial Least Squares Path Modeling in International Marketing. *Advances in International Marketing*, 20, 277–319. [https://doi.org/10.1108/S1474-7979\(2009\)0000020014](https://doi.org/10.1108/S1474-7979(2009)0000020014)
- Henseler, J., & Sarstedt, M. (2013). Goodness-of-fit Indices for Partial Least Squares Path Modeling. *Springer*, 2013(28), 565–580. <https://doi.org/10.1007/s00180-012-0317-1>
- Hernández-Perlines, F., & Mancebo-Lozano, E. (2016). Conditional Mediation of Competitive Strategy and Environment in International Entrepreneurial Orientation of Family Businesses. *European Journal of Family Business*, 6(2), 86–98. <https://doi.org/10.1016/j.ejfb.2017.05.001>
- Hesse-Biber, S. N. (2010). Mixed Methods Research: Merging Theory with Practice. *The Canadian Journal of Program Evaluation*, 27(1), 123–125. Retrieved from <http://cjpe.journalhosting.ucalgary.ca/cjpe/index.php/cjpe/article/viewFile/36/pdf>
- Hilman, H., & Kaliappen, N. (2015). World Journal of Entrepreneurship , Management and Sustainable Development Article information : World



- Journal of Entrepreneurship, Management and Sustainable Development*, 11(1), 48–63.
- Hind, C., & Steyn, R. (2015). Corporate Entrepreneurship - Distilling the Concept. *The Southern African Journal of Entrepreneurship and Small Business Management*, 7(1), 1–21. <https://doi.org/10.4102/sajesbm.v7i1.7>
- Hisrich. (1988). Entrepreneurship: Past, Present, and Future. *Essay on Entrepreneurship*, October(2).
- Hitt, M. A., Li, H., & Iv, W. J. W. (2005). Emerging Markets as Learning Laboratories: Learning Behaviors of Local Firms and Foreign Entrants in Different Institutional Contexts. *Management and Organization Review*, 1(3), 353–380.
- Hofstede, G. (2009). Cultural Dimensions In Management And Planning. *Asia Pacific Journal of Managemen*, 12(January), 1–19. Retrieved from <http://web.a.ebscohost.com.esc-web.lib.cbs.dk/ehost/pdfviewer/pdfviewer?vid=1&sid=227cf387-4b0c-4226-a36c-ab38b7e2ead1%40sessionmgr4006>
- Holden, M. T., & Lynch, P. (2004). Choosing the Appropriate Methodology : Understanding Research Philosophy. *The Marketing Review*, 4, 397–409. <https://doi.org/10.1362/1469347042772428>
- Hossain, M. (2013). Open Innovation: So Far and A Way Forward. *World Journal of Science, Technology and Sustainable Development*, 10(1), 30–41. <https://doi.org/10.1108/09574090910954864>
- Hossain, M., & Anees-ur-Rehman, M. (2016). Open innovation: An Analysis of Twelve Years of Research. *Strategic Outsourcing*, 9(1), 22–37. <https://doi.org/10.1108/SO-09-2015-0022>
- Hosseini, M., Dadfar, H., & Brege, S. (2012). A Taxonomy of Entrepreneurial Firms: Entrepreneurial Orientation versus Corporate Entrepreneurship. *International Trade & Academic Research Conference*, 3(1), 7–8.
- Hsu, Y. (2017). Design-oriented Strategy Typology and Innovation Framework. *Journal of Engineering, Design and Technology*, 15(1), 13–30. <https://doi.org/10.1108/JEDT-09-2015-0053>

- Huang, H. C., Lai, M. C., Lin, L. H., & Chen, C. T. (2013). Overcoming Organizational Inertia to Strengthen Business Model Innovation: An Open Innovation Perspective. *Journal of Organizational Change Management*, 26(6), 977–1002. <https://doi.org/10.1108/JOCM-04-2012-0047>
- Huang, M., & Cao, L. (2016). The Relationship between Institutional Capital and Competitive Advantage: Literature Review and Future Research. *Open Journal of Business and Management*, 4(1), 94–104. <https://doi.org/10.4236/ojbm.2016.41011>
- Huang, Y., & Wang, B. (2011). Chinese Outward Direct Investment: Is There a China Model? *China & World Economy*, 19(4), 1–21. Retrieved from <http://www.eastasiaforum.org/2011/04/12/is-there-a-china-model-of-overseas-direct-investment/>
- Hughes-Morgan, M., Kolev, K., & Mcnamara, G. (2018). A Meta-Analytic Review of Competitive Aggressiveness Research. *Journal of Business Research*, 85(September 2016), 73–82. <https://doi.org/10.1016/j.jbusres.2017.10.053>
- Hughes, M., & Morgan, R. E. (2007). Deconstructing the Relationship between Entrepreneurial Orientation and Business Performance at the Embryonic Stage of Firm Growth. *Industrial Marketing Management*, 36(5), 651–661. <https://doi.org/10.1016/j.indmarman.2006.04.003>
- Huizingh, E. K. R. E. (2011). Open Innovation: State of the Art And Future Perspectives. *Technovation*, 31(1), 2–9. <https://doi.org/10.1016/j.technovation.2010.10.002>
- Hult, G. T. M., Hurley, R. F., & Knight, G. A. (2004). Innovativeness: Its Antecedents and Impact on Business Performance. *Industrial Marketing Management*, 33(1), 55–76. <https://doi.org/10.1016/j.indmarman.2003.08.015>
- Hung, K.-P., & Chiang, Y.-H. (2010). Open Innovation Proclivity , Entrepreneurial Orientation , and Perceived Firm Performance. *Int. J. Technology Management*, 52(3), 257–274.
- Hung, K. P., & Chou, C. (2013). The Impact of Open Innovation on Firm Performance: The Moderating Effects of Internal R&D and Environmental

- Turbulence. *Technovation*, 33(10–11), 368–380.  
<https://doi.org/10.1016/j.technovation.2013.06.006>
- Hutter, K., Hautz, J., Repke, K., & Matzler, K. (2013). Management in Firms and Organizations: Open Innovation in Small and Micro Enterprises. *Problems and Perspectives in Management*, 11(1), 12–22.
- Iammarino, S. (2005). An Evolutionary Integrated View of Regional Systems of Innovation: Concepts, Measures and Historical Perspectives. *European Planning Studies* (Vol. 13).  
<https://doi.org/10.1080/09654310500107084>
- Ihuah, P. W., & Eaton, D. (2013). The Pragmatic Research Approach: A Framework for Sustainable Management of Public Housing Estates in Nigeria. *Journal of US-China Public Administration*, 10(10), 933–944. <https://doi.org/ISSN1548-6591>
- Ilgen, D. R., Hollenbeck, J. R., Johnson, M., & Jundt, D. (2004). Teams in Organizations: From Input-Process-Output Models to IMOI Models. *Annual Review of Psychology*, 56(1), 517–543.  
<https://doi.org/10.1146/annurev.psych.56.091103.070250>
- Ilker, M. A., & Birdogan, B. (2011). Antecedents and Performance Impacts of Product versus Process Innovation Empirical Evidence from SMEs Located in. *European Journal of Innovation Management*, 14(2), 172–206.  
<https://doi.org/10.1108/14601061111124885>
- Imenda, S. (2014). Is There a Conceptual Difference between Theoretical and Conceptual Frameworks? *Journal of Social Sciences*, 38(2), 185–195.  
<https://doi.org/10.1080/09718923.2014.11893249>
- Inauen, M., & Schenker-Wicki, A. (2012). Fostering Radical Innovations with Open Innovation. *European Journal of Innovation Management*, 15(2), 212–231.  
<https://doi.org/10.1108/14601061211220986>
- Ireland, R. D., Hitt, M. A., & Sirmon, D. G. (2003). A Model of Strategic Entrepreneurship: The Construct and its Dimensions. *Journal of Management*, 29(6), 963–989. <https://doi.org/10.1016/S0149-2063>

- Ireland, R. D., Kuratko, D. F., & Morris, M. H. (2006). A Health Audit for Corporate Entrepreneurship: Innovation at all Levels: Part I. *Journal of Business Strategy*, 27(1), 10–17. <https://doi.org/10.1108/02756660610640137>
- Ireland, R. D., Kyratko, D. F., & Morris, M. H. (2002). A Health Audit for Corporate Entrepreneurship: Innovation at all Levels: Part II. *Journal of Business Strategy*, 27(2), 1317. <https://doi.org/10.1108/02756660610650019>
- Ireland, R. D., Reutzell, C. R., & Webb, J. W. (2005). From The Editors' Entrepreneurship Research in AMJ: What Has Been Published, and What Might the Future Hold? *Academy of Management Journal*, 48(4), 556–564. <https://doi.org/10.1111/j.1539-6924.2009.01332.x>
- Ireland, R. D., Webb, J. W., & Coombs, J. E. (2005). Theory and Methodology in Entrepreneurship Research. *Research Methodology in Strategy and Management*, 2(11), 111–141. <https://doi.org/10.1108/s1479-838720140000009007>
- Ismail, M. D., Alam, S. S., & Hamid, R. bt A. (2017). Trust, Commitment, and Competitive Advantage in Export Performance of SMEs. *Gadjah Mada International Journal of Business*, 19(1), 1–18. <https://doi.org/10.22146/gamaijb.22680>
- Jackson, D. L. (2003). Revisiting Sample Size and Number of Parameter Estimates: Some support for the N: q hypothesis. *Structural Equation Modeling*, 10(1), 128–141. <https://doi.org/10.1207/S15328007SEM1001>
- Jajja, M. S. S., Kannan, V. R., Brah, S. A., & Hassan, S. Z. (2017). Linkages between Firm Innovation Strategy, Suppliers, Product Innovation, and Business Performance: Insights from Resource Dependence Theory. *International Journal of Operations and Production Management*, 37(8), 1054–1075. <https://doi.org/10.1108/IJOPM-09-2014-0424>
- Jancenelle, V. E., Storrud-Barnes, S., & Javalgi, R. (Raj) G. (2017). Corporate Entrepreneurship and Market Performance: A Content Analysis of Earnings Conference calls. *Management Research Review*, 40(3), 352–367. <https://doi.org/10.1108/MRR-01-2016-0019>
- Jansson, J., Nilsson, J., Modig, F., & Hed Vall, G. (2017). Commitment to Sustainability in Small and Medium-Sized Enterprises: The Influence of

- Strategic Orientations and Management Values. *Business Strategy and the Environment*, 26(1), 69–83. <https://doi.org/10.1002/bse.1901>
- Jantunen, A., Puumalainen, K., Saarenketo, S., & Kylaheiko, K. (2005). Entrepreneurial Orientation, Dynamic Capabilities and International Performance. *Journal of International Entrepreneurship*, 3(2), 223– 243. <https://doi.org/10.2307/4033662>
- Javalgi, R. G., & Todd, P. R. (2011). Entrepreneurial Orientation, Management Commitment, and Human Capital: The Internationalization of SMEs in India. *Journal of Business Research*, 64(9), 1004–1010. <https://doi.org/10.1016/j.jbusres.2010.11.024>
- Jeong, S., Lee, S., & Kim, Y. (2013). Licensing versus Selling in Transactions for Exploiting Patented Technological Knowledge Assets in the Markets for Technology. *Journal of Technology Transfer*, 38(3), 251–272. <https://doi.org/10.1007/s10961-012-9252-0>
- Jogaratnam, G. (2017). The Effect of Market Orientation, Entrepreneurial Orientation and Human Capital on Positional Advantage: Evidence from the Restaurant Industry. *International Journal of Hospitality Management*, 60, 104–113. <https://doi.org/10.1016/j.ijhm.2016.10.002>
- Johannessen, J., Olsen, B., & Lumpkin, G. T. (2001). Innovation as Newness: What is New, How New, and New to Whom? *European Journal of Innovation Management*, 4(1), 20–31. <https://doi.org/10.1108/14601060110365547>
- Johne, A., & Davies, R. (2000). Innovation in Medium- Sized Insurance Companies: How Marketing Adds Value. *International Journal of Bank Marketing*, 18(1), 6–14. <https://doi.org/10.1108/02652320010315316>
- Johnson, R. B. (1997). Examining the Validity Structure of Qualitative Research. *Education Research Library*, 118(2), 282. [https://doi.org/Retrieved from http://www.nova.edu/ssss/QR/QR4- 3/winter.html](https://doi.org/Retrieved%20from%20http://www.nova.edu/ssss/QR/QR4-3/winter.html)
- Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a Definition of Mixed Methods Research. *Journal of Mixed Methods Research*, 1(2), 112–133. <https://doi.org/10.7748/ns.29.32.41.e8858>

- Joseph-Auguste, B. (2017). Industry 4 . 0 and Entrepreneurship of People with Disabilities Organizational Requirements for Successful Implementation of Industry. *12th IWKM*, 12(11), 47–59.
- Joubert, M. (2007). THE Evaluation of the Skills of Informal Entrepreneurs in the Goldfields. North-West University, *Potchefstroom Campus*, 1(1), 1–24.
- Jr., W. H. S., & Roth, P. L. (2001). Risk Propensity Differences Between Entrepreneurs and Managers: A Meta-Analytic Review. *Journal of Applied Psychology*, 86(1), 280–285. <https://doi.org/10.1037//0021-9010.86.1.145>
- Ju, P., Chen, D., Yu, Y., & Wei, H. (2013). Relationships among Open Innovation Processes , Entrepreneurial Orientation , and Organizational Performance of SMEs : The Moderating Role of Technological Turbulence. *Springer-Verlag Berlin Heidelberg*, 158, 140–160.
- Karacaoglu, K., Bayrakdaroglu, A., & San, F. B. (2013). The Impact of Corporate Entrepreneurship on Firms' Financial Performance: Evidence from Istanbul Stock Exchange Firms. *International Business Research*, 6(1). <https://doi.org/10.5539/ibr.v6n1p163>
- Kazár, K. (2014). PLS Path Analysis and its Application for the Examination of the Psychological Sense of a Brand Community. *Procedia Economics and Finance*, 17(14), 183–191. [https://doi.org/10.1016/s2212-5671\(14\)00893-4](https://doi.org/10.1016/s2212-5671(14)00893-4)
- 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. <https://doi.org/10.1016/j.jbusvent.2006.05.003>
- Kellermanns, F. W., Eddleston, K. A., Barnett, T., & Pearson, A. (2016). An Exploratory Study of Family Member Characteristics and Involvement: Effects on Entrepreneurial Behavior in the Family Firm. *Family Business Review*, XXI(1), 1–14. <https://doi.org/10.1111/j.1741-6248.2007.00107.x>
- Kerlinger, F. N. (1979). Foundations of Behavioral Research: Educational, Psychological and Sociological Inquiry. *Educational Researcher*, 8(10), 22–24. <https://doi.org/10.3102/0013189X008010022>



- Keupp, M. M., & Gassmann, O. (2009). Determinants and Archetype Users of Open Innovation. *R and D Management*, 39(4), 331–341. <https://doi.org/10.1111/j.1467-9310.2009.00563.x>
- Kevin, D., Sheila, O., & Ron, T. (2010). Defining Entrepreneurship: Starting A Dialogue on the Meaning of the “E” in NACCE. *Community College Entrepreneurship*, 32(2), 1–28.
- Khattab, I., SS, A., & Ahmed, A. M. (2017). Determinants of Business Entrepreneurship Success in Sudan. *Journal of Entrepreneurship & Organization Management*, 6(2), 1–7. <https://doi.org/10.4172/2169-026X.1000218>
- Kim, Y., & Vonortas, N. S. (2006). Determinants of Technology Licensing: The Case of Licensors. *Managerial and Decision Economics*, 27(4), 235–249. <https://doi.org/10.1002/mde.1249>
- King, D. R., Dalton, D. R., Daily, C. M., & Covin, J. G. (2004). Meta- Analyses of Post-Acquisition Performance: Indications of Unidentified Moderators. *Strategic Management Journal*, 25(2), 187–200. <https://doi.org/10.1002/smj.371>
- Kline, P. (1994). *An Easy Guide to Factor Analysis* (1st ed.). London: Routledge 's Taylor & Francis.
- Kljucnikov, A., Belas, J., & Smrcka, L. (2016). The Role of Risk-Taking and Competitive Aggressiveness in Manahement SMEs. *Polish Journal of Management Studies*, 14(1), 129–139. <https://doi.org/10.17512/pjms.2016.14.1.12>
- Klomp, L., & Van Leeuwen, G. (2001). Linking Innovation and Firm Performance: A New Approach. *International Journal of the Economics of Business*, 8(3), 343–364. <https://doi.org/10.1080/13571510110079612>
- Knight, G. (2000). Entrepreneurship and Marketing Strategy: The SME Under Globalization. *Journal of International Marketing*, 8(2), 12–32. <https://doi.org/10.1509/jimk.8.2.12.19620>
- Kollmann, T., & Stöckmann, C. (2014). Filling the Entrepreneurial Orientation–Performance Gap: The Mediating Effects of Exploratory and Exploitative



- Innovations. *Entrepreneurship: Theory and Practice*, 38(5), 1001–1026.  
<https://doi.org/10.1111/j.1540-6520.2012.00530.x>
- Kraus, S., Burtscher, J., Vallaster, C., & Angerer, M. (2018). Sustainable Entrepreneurship Orientation: A Reflection on Status-Quo Research on Factors Facilitating Responsible Managerial Practices. *Sustainability* (Switzerland), 10(2), 1–22. <https://doi.org/10.3390/su10020444>
- Krauss, S. I., Frese, M., Friedrich, C., & Unger, J. M. (2005). Entrepreneurial Orientation: A Psychological Model of Success among Southern AFRICAN Small Business Owners. *European Journal of Work and Organizational Psychology*, 14(3), 315–344. <https://doi.org/10.1080/13594320500170227>
- Kreiser, P. M., Marino, L. D., & Weaver, K. M. (2002). Assessing the Psychometric Properties of the Entrepreneurial Orientation Scale: A Multi-Country Analysis. *Entrepreneurship Theory and Practice*, 26(4), 71–93. <https://doi.org/10.1177/104225870202600405>
- Kropp, F., Lindsay, N. J., & Shoham, A. (2008). Entrepreneurial Orientation and International Entrepreneurial Business venture Startup. *International Journal of Entrepreneurial Behaviour and Research*, 14(2), 102–117. <https://doi.org/10.1108/13552550810863080>
- Kuivalainen, O., Sundqvist, S., & Cadogan, J. W. (2010). Entrepreneurial Orientation and International Performance: A Contingent Approach. *Progress in International Business Research*, 5(8), 271–298. [https://doi.org/10.1108/S1745-8862\(2010\)0000005016](https://doi.org/10.1108/S1745-8862(2010)0000005016)
- Kumar, K., Boesso, G., Favotto, F., & Menini, A. (2012). Strategic Orientation, Innovation Patterns and Performances of SMEs and Large Companies. *Journal of Small Business and Enterprise Development*, 19(1), 132–145. <https://doi.org/10.1108/14626001211196442>
- Kunapatarawong, R., & Martínez-Ros, E. (2016). Towards Green Growth: How does Green Innovation Affect Employment? *Research Policy*, 45(6), 1218–1232. <https://doi.org/10.1016/j.respol.2016.03.013>
- Kuratko, D. F. (2007). Corporate Entrepreneurship. *Foundations and Trends in Entrepreneurship*, 3(2), 151–203. <https://doi.org/10.4324/9781315747989>

- Kuratko, D. F., & Audretsch, D. B. (2009). Strategic Entrepreneurship: Exploring Different Perspectives of an Emerging Concept. *Entrepreneurship Theory and Practice*, 34(12), 149–166.
- Kusumawardhani, A. (2013). *The Role of Entrepreneurial Orientation in Firm Performance: A Study of Indonesian SMEs in the Furniture Industry in Central Java*. University of Wollongong.
- Landström, H. (2004). Pioneers in Entrepreneurship Research. *Crossroads of Entrepreneurship*, 12(November), 13–32. [https://doi.org/10.1007/0-306-48742-X\\_2](https://doi.org/10.1007/0-306-48742-X_2)
- Landström, H., Harirchi, G., & Åström, F. (2011). Entrepreneurship: Exploring the Knowledge Base. *DIME Final Conference*, 6(8), 1–77.
- Latif, N. S. A., Abdullah, A., & Jan, N. M. (2016). A Pilot Study of Entrepreneurial Orientation towards Commercialization of University Research Products. *Procedia Economics and Finance*, 37(16), 93–99. [https://doi.org/10.1016/S2212-5671\(16\)30098-3](https://doi.org/10.1016/S2212-5671(16)30098-3)
- Laursen, K., & Salter, A. (2006). Open for innovation: The Role of Openness in Explaining Innovation Performance among U.K. Manufacturing Firms. *Strategic Management Journal*, 27(2), 131–150. <https://doi.org/10.1002/smj.507>
- Laužikas, M., Tindale, H., Tranavičius, L., & Kičiatovas, E. (2015). Effects of Consumer Behaviour on Innovations in Fast Food Industry. *Entrepreneurship and Sustainability Issues*, 3(1), 85–103. [https://doi.org/10.9770/jesi.2015.3.1\(8\)](https://doi.org/10.9770/jesi.2015.3.1(8))
- Lazarotti, V., & Manzini, R. (2009). Different Modes of Open Innovation: a Theoretical Framework and an Empirical Study. *International Journal of Innovation Management*, 13(4), 615–636. <https://doi.org/10.1142/s1363919609002443>
- Leão, A. L. M. de S., & Mello, S. C. B. de. (2007). The Means-End Approach to Understanding Customer Values of a On-Line Newspaper. *BAR - Brazilian Administration Review*, 4(1), 1–20. <https://doi.org/10.1590/s1807-76922007000100002>

- Lechner, C., & Gudmundsson, S. V. (2014). Entrepreneurial Orientation, Firm Strategy and Small Firm Performance. *International Small Business Journal*, 32(1), 36–60. <https://doi.org/10.1177/0266242612455034>
- Lee, C., Lee, K., & Pennings, J. M. (2001). Internal Capabilities\_External Networks and Performance: A Study on Technology-Based Ventures. *Strategic Management Journal*, 22, 615–640. <https://doi.org/10.1002/smj.181> T4 - A study on technology-based ventures M4 - Citavi
- Lee, S. M., & Peterson, S. J. (2000). Culture, Entrepreneurial Orientation, and Global Competitiveness. *Journal of World Business*, 35(4), 401–416. [https://doi.org/10.1016/S1090-9516\(00\)00045-6](https://doi.org/10.1016/S1090-9516(00)00045-6)
- Lee, S., Park, G., Yoon, B., & Park, J. (2010). Open Innovation in SMEs- An Intermediated Network Model. *Research Policy*, 39(2), 290–300. <https://doi.org/10.1016/j.respol.2009.12.009>
- Leech, N. L., Barrett, K. C., & Morgan, G. A. (2005). *SPSS for Intermediate Statistics; Use and Interpretation* (2nd ed.). London: Lawrence Erlbaum Associates, Inc.
- Leeuw, E. D. de, Hox, J. J., & Dillman, D. A. (2008). International Handbook of Survey Methodology. *International Handbook of Survey Methodology* (First). Berlin: European Association of Methodology. <https://doi.org/10.4324/9780203843123>
- Lewis, S. (2015). Qualitative Inquiry and Research Design: Choosing Among Five Approaches. *Health Promotion Practice*, 16(4), 473–475. <https://doi.org/10.1177/1524839915580941>
- Li, T., & Calantone, R. J. (1998). The Impact of Market Knowledge Competence on New Product Advantage: Conceptualization and Empirical Examination. *Journal of Marketing*, 62(4), 13. <https://doi.org/10.2307/1252284>
- Li, Y. H., Huang, J. W., & Tsai, M. T. (2009). Entrepreneurial Orientation and Firm Performance: The Role of Knowledge Creation Process. *Industrial Marketing Management*, 38(4), 440–449. <https://doi.org/10.1016/j.indmarman.2008.02.004>
- Li, Y., Liu, Y., & Liu, H. (2011). Co-opetition, Distributor's Entrepreneurial Orientation and Manufacturer's Knowledge Acquisition: Evidence from

- China. *Journal of Operations Management*, 29(12), 128–142.  
<https://doi.org/10.1016/j.jom.2010.07.006>
- Lichtenthaler, U. (2009). Outbound Open Innovation and its Effect on Firm Performance: Examining Environmental Influences. *R and D Management*, 39(4), 317–330. <https://doi.org/10.1111/j.1467-9310.2009.00561.x>
- Lichtenthaler, U. (2015). A Note on Outbound Open Innovation and Firm Performance. *R and D Management*, 45(5), 606–608.  
<https://doi.org/10.1111/radm.12138>
- Lichtenthaler, U., & Ernst, H. (2007). External Technology Commercialization in Large Firms: Results of a Quantitative Benchmarking Study. *R&D Management*, 37(5), 383–397.
- Liehr, P., & Smith, M. J. (1999). Middle Range Theory: Spinning Research and Practice to Create Knowledge for the New Millennium. *Advances in Nursing Science*, 21(4), 81–91.
- Linton, G., & Kask, J. (2017). Configurations of Entrepreneurial Orientation and Competitive Strategy for High Performance. *Journal of Business Research*, 70(3), 168–176. <https://doi.org/10.1016/j.jbusres.2016.08.022>
- Lisboa, A., Skarmeas, D., & Lages, C. (2011). Entrepreneurial Orientation, Exploitative and Explorative Capabilities, and Performance Outcomes in Export Markets: A Resource-Based Approach. *Industrial Marketing Management*, 40(8), 1274–1284.  
<https://doi.org/10.1016/j.indmarman.2011.10.013>
- Lisboa, A., Skarmeas, D., & Saridakis, C. (2016). Entrepreneurial Orientation Pathways to Performance: A Fuzzy-Set Analysis. *Journal of Business Research*, 69(4), 1319–1324.  
<https://doi.org/10.1016/j.jbusres.2015.10.099>
- Lisle, J. De. (2011). The Benefits and Challenges of Mixing Methods and Methodologies: Lessons Learnt From Implementing Qualitatively Led Mixed Methods Research Designs in Trinidad and Tobago The Emergence of Mixed Methods Research. *Caribbean Curriculum*, 18, 87–120.

- Lowe, R., & Marriott, S. (2006). Multicultural Entrepreneurship. *Enterprise: Entrepreneurship and Innovation*, 2(3), 242–282. <https://doi.org/10.1016/B978-0-7506-6920-7.50014-8>
- Lucas, M. T., & Kirillova, O. M. (2010). Reconciling the Resource-Based and Competitive Positioning Perspectives on Manufacturing Flexibility. *Journal of Manufacturing Technology Management*, 22(2), 189–203. <https://doi.org/10.1108/17410381111102216>
- Lumpkin, G. T., Cogliser, C. C., & Schneider, D. R. (2009). Understanding and Measuring Autonomy: An Entrepreneurial Orientation Perspective. *Entrepreneurship Theory and Practice*, 162(41), 47–70. [https://doi.org/10.1016/S0140-6736\(00\)67397-X](https://doi.org/10.1016/S0140-6736(00)67397-X)
- Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the Entrepreneurial Orientation Construct and Linking it to Performance. *Academy of Management Journal*, 21(1), 135–172. <https://doi.org/10.2307/258632>
- Lyon, D. W., Lumpkin, G. T., & Dess, G. D. (2000). Enhancing Entrepreneurial Orientation Research: Operationalizing and Measuring a Key Strategic Decision Making Process. *Journal of Management*, 26(5), 1055–1085. <https://doi.org/10.1177/014920630002600503>
- Mackenzie, N., & Knipe, S. (2006). Research Dilemmas: Paradigms, Methods and Methodology. *Issues In Educational Research*, 16(2), 1–13. Retrieved from <http://www.iier.org.au/iier16/mackenzie.html>
- MacKinnon, D. P., Fairchild, A. J., & Fritz, M. S. (2007). Mediation Analysis. *Annual Review of Psychology*, 58(7), 697–698. <https://doi.org/10.1001/jama.2018.21973>
- Madhoushi, M., Sadati, A., Delavari, H., Mehdivand, M., & Mihandost, R. (2011). Entrepreneurial Orientation and Innovation Performance: The Mediating Role of Knowledge Management. *Asian Journal of Business Management*, 3(4), 310–316.
- Madsen, E. L. (2007). The Significance of Sustained Entrepreneurial Orientation on Performance of Firms - A Longitudinal Analysis. *Entrepreneurship and Regional Development*, 19(2), 185–204. <https://doi.org/10.1080/08985620601136812>

- Makadok, R. (2001). Toward a Synthesis of the Resource-Based and Dynamic Capability Views of Rent Creation. *Strategic Management Journal*, 22(5), 387–401. <https://doi.org/10.1111/j.1464-5491.2004.01363.x>
- Marczyk, G. R., DeMatteo, D., & Festinger, D. (2005). *Essentials of Research Design and Methodology*. (A. S. K. & N. L. Kaufman, Ed.) (1st ed., Vol. Essentials). New Jersey: John Wiley & Sons, Inc. <https://doi.org/10.5860/CHOICE.43-5572>
- Maritz, A., & Donovan, J. (2015). Entrepreneurship and Innovation: Setting an Agenda for Greater Discipline Contextualization. *Education and Training*, 57(1), 74–87. <https://doi.org/10.1108/ET-02-2013-0018>
- Maritz, A., Jones, C., & Shwetzzer, C. (2015). The Status of Entrepreneurship Education in Australian Universities. *Education and Training*, 57(8/9), 1020–1035. <https://doi.org/10.1108/ET-04-2015-0026>
- Markman, G. D., Gianiodis, P. T., & Phan, P. H. (2009). Supply-Side Innovation and Technology Commercialization. *Journal of Management Studies*, 46(4), 625–649. <https://doi.org/10.1111/j.1467-6486.2009.00835.x>
- Marshall, B., Cardon, P., Poddar, A., & Fontenot, R. (2013). Does Sample Size Matter in Qualitative Research?: a Review of Qualitative Interviews in IS Research. *Journal of Computer Information Systems*, 54(1), 11–22. <https://doi.org/10.1111/jan.12163>
- Martin, S. L., & Javalgi, R. R. G. (2016). Entrepreneurial Orientation, Marketing Capabilities and Performance: The Moderating role of Competitive Intensity on Latin American International New Ventures. *Journal of Business Research*, 69(6), 2040–2051. <https://doi.org/10.1016/j.jbusres.2015.10.149>
- Martínez-Román, J. A., & Romero, I. (2013). About the determinants of the Degree of Novelty in Small Businesses' Product Innovations. *International Entrepreneurship and Management Journal*, 9(4), 655–677. <https://doi.org/10.1007/s11365-013-0269-0>
- Martins, I., & Rialp, A. (2013). Entrepreneurial Orientation, Environmental Hostility and SMEs Profitability: A Contingency Approach. *Cuadernos de Gestion*, 13(2), 67–88. <https://doi.org/10.5295/cdg.110297iz>



- Massa, S., & Testa, S. (2008). Innovation and SMEs: Misaligned perspectives and goals among entrepreneurs, academics, and policy makers. *Technovation*, 28(7), 393–407. <https://doi.org/10.1016/j.technovation.2008.01.002>
- Matchaba-Hove, T., Farrington, S., & Sharp, G. (2015). The Entrepreneurial Orientation - Performance Relationship: A South African Small Business Perspective. *The Southern African Journal of Entrepreneurship and Small Business Management*, 7(1), 36. <https://doi.org/10.4102/sajesbm.v7i1.6>
- Mathiyazhagan, T., & Nandan, D. (2010). Survey Research Method. *Media Mimansa*, (July-September), 34–82. <https://doi.org/10.1.1.464.5585>
- Matsuno, K., Mentzer, J. T., & Özsomer, A. (2002). The Effects of Entrepreneurial Proclivity and Market Orientation on Business Performance. *Journal of Marketing*, 66(3), 18–32. <https://doi.org/10.1509/jmkg.66.3.18.18507>
- Maynard, M. (1994). Methods, Practice and Epistemology: The Debate about Feminism and Research (1st ed.). London: Taylor & Francis.
- Mbhele, T. P. (2012). The Study of Venture Capital Finance and Investment Behaviour in Small and Medium-Sized Enterprises. *SAJEMS*, 15(1), 94–111.
- Mbokane, a N., & Ehlers, V. J. (2006). Contraceptive Challenges Experienced by Women who Requested Termination of Pregnancy Services in the Mpumalanga Province. *Health SA Gesondheid*, 11(1), 43–57. <https://doi.org/10.4102/hsag.v11i1.214>
- McGrath, R., & MacMillan, I. C. (2000). The Entrepreneurial Mindset: Strategies for Continuously Creating Opportunity in an Age of Uncertainty. *Research-Technology Management*, 43(4), 1–6. <https://doi.org/10.2307/259188>
- Melander, L. (2017). Achieving Sustainable Development by Collaborating in Green Product Innovation. *Business Strategy and the Environment*, 26(8), 1095–1109. <https://doi.org/10.1002/bse.1970>
- Mertens, D. M. (2005). Research and Evaluation in Education and Psychology: Integrating Diversity with Quantitative, Qualitative and Mixed Methods (2nd ed.). London: SAGE Publications Ltd.
- Mertens, D. M. (2007). Transformative Paradigm: Mixed Methods and Social Justice. *Journal of Mixed Methods Research*, 1(3), 212–225. <https://doi.org/10.1177/1558689807302811>



- Mertens, D. M. (2010). Transformative Mixed Methods Research. *Qualitative Inquiry*, 16(6), 469–474. <https://doi.org/10.1177/1077800410364612>
- Mertens, D. M. (2012). Transformative Mixed Methods: Addressing Inequities. *American Behavioral Scientist*, 56(6), 802–813. <https://doi.org/10.1177/0002764211433797>
- Merz, G. R., & Sauber, M. H. (1995). Profiles of Managerial Activities in Small Firms. *Strategic Management Journal*, 16(7), 551–564. <https://doi.org/10.1002/smj.4250160705>
- Method, D. C. (n.d.). *Data Collection Methods*. Retrieved October 18, 2017, from <http://www.fao.org/docrep/003/x2465e/x2465e09.htm>
- Meuer, J., & Rupiatta, C. (2015). Qualifying “Fit”: The Performance Dynamics of Firms’ Change Tracks through Organizational Configurations. *COMPASSS Working Paper 2015-81*, 81(11), 1–48.
- Miao, C., Coombs, J. E., Qian, S., & Sirmon, D. G. (2017). The Mediating Role of Entrepreneurial Orientation: A Meta-Analysis of Resource Orchestration and Cultural Contingencies. *Journal of Business Research*, 77, 68–80. <https://doi.org/10.1016/j.jbusres.2017.03.016>
- Michelino, F., Caputo, M., Cammarano, A., & Lamberti, E. (2014). Inbound and Outbound Open Innovation: Organization and Performances. *Journal of Technology Management and Innovation*, 9(3), 65–82. <https://doi.org/10.4067/S0718-27242014000300005>
- Michelino, F., Lamberti, E., Cammarano, A., & Caputo, M. (2015). Open Innovation in the Pharmaceutical Industry: An Empirical Analysis on Context Features, Internal R&D, and Financial Performances. *IEEE Transactions on Engineering Management*, 62(3), 421–435. <https://doi.org/10.1109/TEM.2015.2437076>
- Miller, D. (1983). The Correlates of Entrepreneurship in Three Types of Firms. *Management Science*, 29(7), 770–791. <https://doi.org/10.1287/mnsc.29.7.770>
- Miller, D. (2011). Miller (1983) Revisited: A Reflection on EO Research and Some Suggestions for the Future. *Entrepreneurship: Theory and Practice*, 35(5), 873–894. <https://doi.org/10.1111/j.1540-6520.2011.00457.x>

- Miller, D., & Le Breton-Miller, I. (2011). Governance, Social Identity, and Entrepreneurial Orientation in Closely Held Public Companies. *Entrepreneurship: Theory and Practice*, 35(5), 1051–1076. <https://doi.org/10.1111/j.1540-6520.2011.00447.x>
- Mintzberg, H. (1973). Strategy-Making in Three Modes. *California Management Review*, 16(2), 44–53. <https://doi.org/10.2307/41164491>
- Monsen, E. W. (2005). *Employees Do Matter: Autonomy, Teamwork and Corporate Entrepreneurial Culture*. Dissertation Abstracts International, 66(25), 2293.
- Monteiro, A. P., Soares, A. M., & Rua, O. L. (2017). Linking Intangible Resources and Export Performance: The Role of Entrepreneurial Orientation and Dynamic Capabilities. *Baltic Journal of Management*, 12(3), 329–347. <https://doi.org/10.1108/bjm-05-2016-0097>
- Moreno, A. M., & Casillas, J. C. (2008). Entrepreneurial Orientation and Growth of SMEs: A Causal Model. *Entrepreneurship: Theory and Practice*, 34(23), 507–528. <https://doi.org/10.1111/j.1540-6520.2008.00238.x>
- Morgan, D. L. (2014). Pragmatism as a Paradigm for Social Research. *Qualitative Inquiry*, 20(8), 1045–1053. <https://doi.org/10.1177/1077800413513733>
- Morgan, R. E., & Strong, C. A. (2003a). Business Performance and Dimensions of Strategic Orientation. *Journal of Business Research*, 56(3), 163–176. Retrieved from <http://orca.cf.ac.uk/2700/>
- Morgan, R. E., & Strong, C. A. (2003b). Business Performance and Dimensions of Strategic Orientation. *Journal of Business Research*, 56(3), 163–176.
- Morris, M. H., & Lewis, P. S. (1995). The Determinants of Entrepreneurial Activity: Implications for Marketing. *European Journal of Marketing*, 29(7), 31–48.
- Motaroki, N. J., & Odollo, O. L. (2016). An Assessment of Resource Based Competitive Strategy on Operational Performance: A Case of Mumias Sugar Company, Kenya. *European Journal of Business and Management*, 8(15), 222–241.
- Müller, J. M., Kiel, D., & Voigt, K. I. (2018). What Drives the Implementation of Industry 4.0? The Role of Opportunities and Challenges in the Context of Sustainability. *Sustainability* (Switzerland), 10(1), 1–24. <https://doi.org/10.3390/su10010247>

- Müller, V. C., & Bostrom, N. (2016). Future Progress in Artificial Intelligence: A Survey of Expert Opinion. *Fundamental Issues of Artificial Intelligence*, 1(1), 1–19. <https://doi.org/10.1145/2639475.2639478>
- Murphy, G. B., Trailer, J. W., & Hill, R. C. (1996). Measuring Performance in Entrepreneurship Research. *Journal of Business Research*, 36(1), 15–23. [https://doi.org/10.1016/0148-2963\(95\)00159-X](https://doi.org/10.1016/0148-2963(95)00159-X)
- Naldi, L., Nordqvist, M., Sjöberg, K., & Wiklund, J. (2007). Entrepreneurial Orientation , Risk Taking , and Performance in Family Firms. *Family Business Review*, XX(1), 33–47.
- Namagembe, S., Sridharan, R., & Ryan, S. (2016). Green Supply Chain Management Practice Adoption in Ugandan SME Manufacturing Firms. *World Journal of Science, Technology and Sustainable Development*, 13(3), 154–173. <https://doi.org/10.1108/wjstsd-01-2016-0003>
- Naqshbandi, M. M., & Kamel, Y. (2017). Intervening Role of Realized Absorptive Capacity in Organizational Culture–Open Innovation Relationship: Evidence from an Emerging Market. *Journal of General Management*, 42(3), 5–20. <https://doi.org/10.1177/0306307016687984>
- Nasir, W. M. N. (2013). *The Relationship Between Strategic Orientation and Firm Performance: Evidence From Small and Medium Enterprises in Malaysia*. Dissertation - Victoria University Melbourne. Victoria University. Retrieved from [http://vuir.vu.edu.au/25853/1/Wan Mohd Nazdrol bin Wan Mohd Nasir.pdf](http://vuir.vu.edu.au/25853/1/Wan%20Mohd%20Nazdrol%20bin%20Wan%20Mohd%20Nasir.pdf)
- Ndubisi, N. O., & Iftikhar, K. (2012). Relationship Between Entrepreneurship, Innovation and Performance: Comparing Small and Medium-Size Enterprises. *Journal of Research in Marketing and Entrepreneurship*, 14(2), 214–236. <https://doi.org/10.1108/14715201211271429>
- Nelson, R. R., & Winter, S. G. (1982). *An Evolutionary Theory of Economic Change*. (P. and F. of H. College, Ed.), Long-run Economics: An Evolutionary Approach to Economic Growth (1st ed.). Harvard College: Library of Congress. <https://doi.org/10.5040/9781472553782.ch-005>
- Ngoma, M., Ernest, A., Nangoli, S., & Christopher, K. (2017). Internationalisation of SMEs: Does Entrepreneurial Orientation Matter? *World Journal of*

- Entrepreneurship, Management and Sustainable Development*, 13(2), 96–113. <https://doi.org/10.1108/wjemsd-08-2016-0039>
- Nitzl, C. (2016). The Use of Partial Least Squares Structural Equation Modelling (PLS- SEM) in Management Accounting Research: Directions for Future Theory Development. *Journal of Accounting Literature*, 2(December), 1–47. <https://doi.org/10.2139/ssrn.2469802>
- Nitzl, C., Roldan, J. L., & Cepeda, G. (2016). Mediation Analysis in Partial Least Squares Path Modeling: Helping Researchers Discuss more Sophisticated Models. *Industrial Management & Data Systems*, 116(9), 1849–1864. <https://doi.org/10.1108/imds-07-2015-0302>
- Noh, Y. (2015). Financial Effects of Open Innovation in the Manufacturing Industry. *Management Decision*, 53(7), 1527–1544. <https://doi.org/10.1108/MD-12-2014-0681>
- Núñez-Pomar, J., Prado-Gascó, V., Añó Sanz, V., Crespo Hervás, J., & Calabuig Moreno, F. (2016a). Does Size Matter? Entrepreneurial Orientation and Performance in Spanish Sports Firms. *Journal of Business Research*, 69(11), 5336–5341. <https://doi.org/10.1016/j.jbusres.2016.04.134>
- O'Connor, G. C., & DeMartino, R. (2006). Organizing for Radical Innovation: An Exploratory Study of the Structural Aspects of RI Management Systems in Large Established Firms. *Journal of Product Innovation Management*, 23(6), 475–497. <https://doi.org/10.1111/j.1540-5885.2006.00219.x>
- Oke, A., Burke, G., & Myers, A. (2007). Innovation Types and Performance in Growing UK SMEs. *International Journal of Operations & Production Management*, 27, 735–753. <https://doi.org/10.1108/01443570710756974>
- Oltra, M. J., Flor, M. L., & Alfaro, J. A. (2018). Open Innovation and Firm Performance: The Role of Organizational Mechanisms. *Business Process Management Journal*, 24(3), 814–836. <https://doi.org/10.1108/BPMJ-05-2016-0098>
- Onwuegbuzie, A. J., & Collins, K. M. T. (2007). A Typology of Mixed Methods Sampling Designs in Social Science Research. *The Qualitative Report*, 12(2), 281–316.

- Oster, F. (2016). Review of Entrepreneurship : Theory , Process , and Practice Fiona Oster Dundalk Institute of Technology. *Journal of Teaching and Learning in Higher Education*, 8(1), 2731–2733.
- Otero-Neira, C., Lindman, M. T., & Fernández, M. J. (2009). Innovation and Performance in SME Furniture Industries. *Marketing Intelligence & Planning*, 27(2), 216–232. <https://doi.org/10.1108/02634500910944995>
- Oviatt, B. M., & McDougall, P. P. (2005). Defining International Entrepreneurship and modeling the speed of Internationalization. *Entrepreneurship: Theory and Practice*, 29(5), 537–553. <https://doi.org/10.1111/j.1540-6520.2005.00097.x>
- Palich, L. E., & Bagby, D. (1995). Using Cognitive Theory to Explain Entrepreneurial Risk-Taking: Challenging Conventional Wisdom. *Journal of Business Venturing*, 10, 425–438.
- Pallant, J. (2011). SPSS Survival Manual. London: British Library Version. Parida, V., Westerberg, M., & Frishammar, J. (2012). Inbound Open Innovation Activities in High- Tech SMEs The Impact on Innovation Performance. *Journal of Small Business Management*, 50(2), 283–309.
- Park, N. K., Mezas, J. M., Lee, J., & Han, J. H. (2014). Reverse Knowledge Diffusion: Competitive Dynamics and the Knowledge Seeking Behavior of Korean High-Tech Firms. *Asia Pacific Journal of Management*, 31(2), 355–375. <https://doi.org/10.1007/s10490-013-9349-5>
- Parkman, I. D., Holloway, S. S., & Sebastiao, H. (2012). Creative Industries: Aligning Entrepreneurial Orientation and Innovation Capacity. *Journal of Research in Marketing and Entrepreneurship*, 14(1), 95–114. <https://doi.org/10.1108/14715201211246823>
- Pavlou, P. A., & Sawy, O. A. El. (2006). From IT Leveraging Competence to Competitive Advantage in Turbulent Environments : The Case of New Product Development. *Information Systems Research*, 17(3), 198– 227. <https://doi.org/10.1287/isre.1060.0094>
- Peneder, M. (2009). The Meaning of Entrepreneurship: A Modular Concept. *American Journal of Small Business*, 8(23), 47–56. <https://doi.org/10.1007/s10842-009-0052-7>



- Pérez- Luño, A., Valle Cabrera, R., & Wiklund, J. (2007). Innovation and Imitation as Sources of Sustainable Competitive Advantage. *Management Research: Journal*, 5(2), 71–82. <https://doi.org/10.1080/18125441.2017.1381759>
- Perkmann, M., & Walsh, K. (2007). University-Industry Relationships and Open Innovation: Towards a Research Agenda. *International Journal of Management Reviews*, 9(4), 259–280. <https://doi.org/10.1111/j.1468-2370.2007.00225.x>
- Peteraf, M. A. (1993). The Cornerstones of Competitive Advantage: A Resource-Based View. *Strategic Management Journal*, 14(April 1992), 179–203.
- Pituch, K. A., & Stevens, J. P. (2016). *Applied Multivariate Statistical for the Social Sciences* (Sixth). New York & London: Routledge 's Taylor & Francis.
- Pla-Barber, J., & Alegre, J. (2007). Analysing the Link Between Export Intensity, Innovation and Firm Size in a Science-Based Industry. *International Business Review*, 16(3), 275–293. <https://doi.org/10.1016/j.ibusrev.2007.02.005>
- Ponterotto, J. G., Mathew, J. T., & Raughley, B. (2013). The Value of Mixed Methods Designs to Social Justice Research in Counseling and Psychology. *Journal for Social Action in Counseling and Psychology*, 5(2), 42–68. Retrieved from [http://www.psysr.org/jsacp/Ponterotto-V5N2-13\\_42-68.pdf](http://www.psysr.org/jsacp/Ponterotto-V5N2-13_42-68.pdf)
- Porter, M. E. (1985). *Competitive Advantage: Creating and sustaining Superior Performance*. (M. Macmillan, Ed.), The Free Press (1st ed.). New York: The Free Press. <https://doi.org/10.1007/978-3-319-54540-0>
- Powell, W. W., Koput, K. W., & Smith-Doerr, L. (1996). Interorganizational Collaboration and the Locus of Innovation: Networks of Learning in Biotechnology. *Administrative Science Quarterly*, 41(1), 116. <https://doi.org/10.2307/2393988>
- Prahalad, C. K., & Hamel, G. (1990). The Core Competence of the Corporation. *Harvard Business Review* TA -, 68(3), 79.
- Prajogo, D., & Ahmed, P. K. (2006). Relationships Between Innovation Stimulus, Innovation Capacity, and Innovation Performance. *R&D Management*, 36(April), 499–515. <https://doi.org/10.1111/j.1467-9310.2006.00450.x>
- Pratono, A., Wee, T. C., Syahchari, D. H., TyazNugraha, A., Mat, N. K. N., & HadiatiFitri. (2013). The Direct Effect of Entrepreneurial Orientation and

- Innovation Success on Firm Performance. *American Journal of Economics*, 3(1), 1–6. <https://doi.org/10.5923/j.economics.20130301.01>
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and Resampling Strategies for Assessing and Comparing Indirect Effects in Multiple Mediator Models. *Behavior Research Methods*, 40(3), 879–91. <https://doi.org/10.3758/BRM.40.3.879>
- Preda, G. (2013). The Influence of Entrepreneurial Orientation and Market- Based Organizational Learning on the Firm ' S Strategic Innovation Capability. *Management & Marketing Challenges for the Knowledge Society*, 8(4), 607–622.
- Prottas, D. (2008). Do the Self-Employed Value Autonomy more than Employees?: Research Across four Samples. *Career Development International*, 13(1), 33–45. <https://doi.org/10.1108/13620430810849524>
- Puffer, S. M., McCarthy, D. J., & Jaeger, A. M. (2016). Institution Building and Institutional Voids: Can Poland's Experience Inform Russia and Brazil? *International Journal of Emerging Markets*, 11(1), 18–41. <https://doi.org/10.1108/IJoEM-02-2015-0027>
- Punch, K. F. (2009). *The Analysis of Qualitative Data. Introduction to Research Methods in Education*. Retrieved from <http://books.google.com/books?hl=en&lr=&id=IBvMqiaN5EgC&pgi s=1>
- Quince, T., & Whittaker, H. (2003). Entrepreneurial Orientation and Entrepreneurs' Intentions and Objectives. *ESRC Centre for Business Research*, 91(271), 399–419.
- Rajapathirana, R. P. J., & Hui, Y. (2017). Relationship Between Innovation Capability, Innovation Type, and Firm Performance. *Journal of Innovation & Knowledge*, 3(1), 44–55. <https://doi.org/10.1016/j.jik.2017.06.002>
- Rambe, P., & Mosweunyane, L. (2017). A Poverty-Reduction Oriented Perspective to Small Business Development in South Africa: A Human Capabilities Approach. *African Journal of Science, Technology, Innovation and Development*, 9(3), 289–302. <https://doi.org/10.1080/20421338.2017.1322749>



- Ramirez-Portilla, A., Cagno, E., & Brown, T. E. (2017). Open Innovation in Specialized SMEs: The Case of Supercars. *Business Process Management Journal*, 23(6), 1167–1195. <https://doi.org/10.1108/BPMJ-10-2016-0211>
- Ranasinghe, H. K. G. S., Yajid, M. S. A., Khatibi, A., & Azam, S. M. F. (2018). A Systematic Literature Analysis on Entrepreneurial Orientation and Business Performance. *Journal of Business Economics and Finance*, 7(3), 269–287. <https://doi.org/10.17261/pressacademia.2018.955>
- Ratnasingam, J., Yoon, C. Y., & Ioraş, F. (2013). The Effects of ISO 9001 Quality Management System on Innovation and Management Capacities in the Malaysian Furniture Sector. *Bulletin of the Transilvania University of Brasov, Series II: Forestry, Wood Industry, Agricultural Food Engineering*, 6(1), 63–70.
- Ratnasingam, J., Yoon, C. Y., Mohamed, S., & Kassim, R. M. (2013). Quality Expectations in the Malaysian Wooden Furniture Industry: The Foreign Buyers Perspective. *Journal of Applied Sciences*. <https://doi.org/10.3923/jas.2013.889.894>
- Ratner, C. (2008). Cultural Psychology and Qualitative Methodology: Scientific and Political Considerations. *Culture and Psychology*, 14(3), 259–288. <https://doi.org/10.1177/1354067X08088557>
- Rauch, A., & Frese, M. (2009). Entrepreneurial Orientation. *Handbook Utility Management*, 6(3), 1–80. <https://doi.org/10.1007/978-3-540-79349-6>
- Rauch, A., Wiklund, J., & Frese, M. (2005). Entrepreneurial Orientation and Business Performance: Cumulative Empirical Evidence. *Work and Organizational Psychology*, 23(11), 1–8.
- Rauch, A., Wiklund, J., Frese, M., & Lumpkin, G. T. (2004). Entrepreneurial Orientation and Business Performance. *Babson College*, 3(19), 1–54.
- Rauch, A., Wiklund, J., Lumpkin, G. T., & Frese, M. (2009). Entrepreneurial Orientation and Business Performance: An Assessment of Past Research and Suggestions for the Future. *Entrepreneurship Theory and Practice*, 33(3), 761–787. <https://doi.org/10.1111/j.1540-6520.2009.00308.x>
- Raymond, L., St-Pierre, J., Uwizeyemungu, S., & Le Dinh, T. (2014). Internationalization capabilities of SMEs: A comparative study of the

manufacturing and industrial service sectors. *Journal of International Entrepreneurship*, 12(3), 230–253. <https://doi.org/10.1007/s10843-014-0123-7>

- Rezk, R. M. A., Ibrahim, H. H., Tvaronavičienė, M., Sakr, M. M., & Piccinetti, L. (2015). Measuring of Innovation Activities in Egypt: the Case of Industry 1. *Entrepreneurship and Sustainability Issues*, 3(1), 47–55. [https://doi.org/10.9770/jesi.2015.3.1\(4\)](https://doi.org/10.9770/jesi.2015.3.1(4))
- Ritala, P., Henttonen, K., Salojärvi, H., Sainio, L.-M., & Saarenketo, S. (2013). Gone Fishing for Knowledge?: The Effect of Strategic Orientations on the Scope of Open Knowledge Search. *Baltic Journal of Management*, 8(3), 328–348. <https://doi.org/10.1108/BJOM-Apr-2012-0019>
- Ritchie, J. Lewis, J. (2003). *Qualitative Research Practice. A Guide for Social Science Students and Researchers (First)*. Thousand Oaks: SAGE Publications. <https://doi.org/10.4135/9781452230108>
- Robbins, S. P., & Coulter, M. (2012). *Management. (E. Svendsen & S. Yagan, Eds.)*, Library of Congress Cataloging-in-Publication Data (11th ed., Vol. 216) Boston: Prentice Hall. <https://doi.org/10.1080/10587259208028779>
- Rodriguez-Gutierrez, P. I., Fuentes-Fuentes, M. del M., & Rodriguez-Ariza, L. (2013). Women Entrepreneurs in Mexico: An Analysis of Financial, Human and Social capital. *European Scientific Journal*, 9(16), 246–264.
- Romm, N. R. A. (2015). Reviewing the Transformative Paradigm: A Critical Systemic and Relational (Indigenous) Lens. *Systemic Practice and Action Research*, 28(5), 411–427.
- Rua, O. M. M. M. D. L., & França, A. M. S. S. (2015a). Influence of Entrepreneurial Orientation in Export Performance. Proceedings of the 26th International Business Information Management Association Conference. Portugal. Retrieved from ISBN 9780986041952
- Runyan, R. C., Huddleston, P., & Swinney, J. (2006). Entrepreneurial Orientation and Social Capital as Small Firm Strategies: A Study of Gender Differences from a Resource-Based View. *International Entrepreneurship and*

- Management Journal*, 2(4), 455–477. <https://doi.org/10.1007/s11365-006-0010-3>
- Runyan, R. C., Huddleston, P., & Swinney, J. L. (2007). A Resource-Based View of the Small Firm; Using a Qualitative Approach to Uncover Small Firm Resources. *Qualitative Market Research: An International Journal*, 10(4), 390–402. <https://doi.org/10.1108/13522750710819720>
- Runyan, R., Droge, C., & Swinney, J. (2008). Entrepreneurial Orientation versus Small Business Orientation: What are their Relationships to Firm Performance? *Journal of Small Business Management*, 46(4), 567–588. <https://doi.org/10.1111/j.1540-627X.2008.00257.x>
- Ryssel, R., Ritter, T., & Gemünden, H. G. (2004). The Impact of Information Technology Deployment on Trust, Commitment and Value Creation in Business Relationships. *Journal of Business & Industrial Marketing*, 19(3), 197–207. <https://doi.org/10.1108/08858620410531333>
- Salvador, E., Montagna, F., & Marcolin, F. (2013). Clustering Recent Trends in the Open Innovation Literature for SME Strategy Improvements. *International Journal of Technology, Policy and Management*, 13(4), 354. <https://doi.org/10.1504/ijtpm.2013.056788>
- Sarstedt, M., Bengart, P., Shaltoni, A. M., & Lehmann, S. (2017). The Use of Sampling Methods in Advertising Research: A Gap Between Theory and Practice. *International Journal of Advertising*, 487(July), 1–14. <https://doi.org/10.1080/02650487.2017.1348329>
- Sathe, V. (2004). *Corporate Entrepreneurship: Top Managers and New Business Creation*. University Press, Cambridge, 2(5), 1–26.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research Methods for Business Students. Research methods for business students (Fifth)*. London: Pearson Education Limited, Edinburgh Gate Harlow, Essex CM20 2JE England.
- Schaper, M., Volery, T., Weber, P., & Lewis, K. (2004). Entrepreneurship and Small Business A Pacific Rim Perspective. *John Wiley & Sons Australia, Ltd.*, 3(4), 1–20.
- Schmelzle, U., & Tate, W. L. (2017). Integrating External Knowledge: Building a Conceptual Framework of Innovation Sourcing. *Developing Logistics &*

- Transportation Theory through Systematic Literature Reviews*, Part II, 56(4), 477–512. <https://doi.org/10.5325/transportationj.56.4.0477>
- Schroll, A., & Mild, A. (2011). Open Innovation Modes and the Role of Internal R&D: An Empirical Study on Open Innovation Adoption in Europe. *European Journal of Innovation Management*, 14(4), 475–495. <https://doi.org/10.1108/14601061111174925>
- Scotland, J. (2012). Exploring the Philosophical Underpinnings of Research: Relating Ontology and Epistemology to the Methodology and Methods of the Scientific, Interpretive, and Critical Research Paradigms. *Canadian Center of Science and Education*, 5(9), 9–16. <https://doi.org/10.5539/elt.v5n9p9>
- Scott, D., & Usher, R. (1996). *Understanding Educational Research*. (D. S. and R. Usher, Ed.), Ebook (First). London: Routledge. <https://doi.org/10.1017/CBO9781107415324.004>
- Sebora, T. C., Lee, S. M., & Sukasame, N. (2009). Critical Success Factors for E-Commerce Entrepreneurship: An Empirical Study of Thailand. *Small Business Economics*, 32(3), 303–316. <https://doi.org/10.1007/s11187-007-9091-9>
- Seitz, G. M., & Reger, G. (2010). “Wikipedia, the Free Encyclopedia” As a Role model? Lessons for Open Innovation from an Exploratory Examination of the Supposedly Democratic-Anarchic Nature of Wikipedia. *International Journal of Technology Management*, 52(3/4), 457. <https://doi.org/10.1504/ijtm.2010.035985>
- Serrano- Bedia, A. M., López- Fernández, M. C., & García- Piqueres, G. (2012). Complementarity between Innovation Activities and Innovation Performance: Evidence from Spanish Innovative Firms. *Journal of Manufacturing Technology Management*, 23(5), 557–577. <https://doi.org/10.1108/17410381211234408>
- Sethi, R., Iqbal, Z., & Sethi, A. (2012). Developing New-to-the-Firm Products: The Role of Micropolitical Strategies. *Journal of Marketing*, 76(2), 99– 115. <https://doi.org/10.1509/jm.09.0308>
- Shah, R., & Goldstein, S. M. (2006). Use of Structural Equation Modeling in Operations Management Research: Looking Back and Forward. *Journal of*

- Operations Management*, 24(2), 148–169.  
<https://doi.org/10.1016/j.jom.2005.05.001>
- Shan, P., Song, M., & Ju, X. (2016). Entrepreneurial Orientation and Performance: Is Innovation Speed a Missing Link? *Journal of Business Research*, 69(2), 683–690.
- Shane, S., & Venkataraman, S. (2000). The Promise of Entrepreneurship as a Field of Research. *The Academy of Management Review*, 25(1), 217–226.  
<https://doi.org/10.2307/259271>
- Shimizu, K. (Katsu). (2012). Risks of Corporate Entrepreneurship: Autonomy and Agency Issues. *Organization Science*, 23(1), 194–206.  
<https://doi.org/10.1287/orsc.1110.0645>
- Short, J. C., Payne, G. T., Brigham, K. H., Lumpkin, G. T., & Broberg, J. C. (2009). Family Firms and Entrepreneurial Orientation in Publicly Traded Firms: A Comparative Analysis of the S&P 500. *Family Business Review*, 22(1), 9–24.  
<https://doi.org/10.1177/0894486508327823>
- Shrout, P. E., & Bolger, N. (2002). Mediation in Experimental and Nonexperimental Studies: New Procedures and Recommendations. *Psychological Methods*, 7(4), 422–445. <https://doi.org/10.1037/1082-989X.7.4.422>
- Simon, M., Elango, B., Houghton, S. M., & Savelli, S. (2002). The Successful Product Pioneer: Maintaining Commitment While Adapting to Change. *Journal of Small Business Management*, 40(3), 187–203.
- Sisodiya, S. R., Johnson, J. L., & Grégoire, Y. (2013). Inbound Open Innovation for Enhanced Performance: Enablers and Opportunities. *Industrial Marketing Management*, 42(5), 836–849.  
<https://doi.org/10.1016/j.indmarman.2013.02.018>
- Slater, S. F., & Narver, J. C. (1994). Market Orientation, Customer Value, and Superior Performance. *Business Horizons*. Retrieved from <http://venturepress.dk/wp-content/uploads/2014/09/Slater-Narver-Market-Orientation-Customer-Value-Superior-Performance-.pdf>
- Smart, D. T., & Conant, J. S. (1994). Entrepreneurial Orientation, Distinctive Marketing Competencies and Organizational Performance. *Journal of Applied Business Research*, 10(3), 1–11.



- Sohn, S. Y., Gyu Joo, Y., & Kyu Han, H. (2007). Structural Equation Model for the Evaluation of National Funding on R&D Project of SMEs in Consideration with MBNQA Criteria. *Evaluation and Program Planning*, 30(1), 10–20. <https://doi.org/10.1016/j.evalprogplan.2006.10.002>
- Song, J., & Shin, J. (2008). The Paradox of Technological Capabilities: A Study of Knowledge Sourcing from Host Countries of Overseas R & D Operations. *Journal of International Business Studies*, 39(2), 291–303. <https://doi.org/10.1057/palgrave.jibs.8400348>
- Sonn, J. W., & Storper, M. (2008). The Increasing Importance of Geographical Proximity in Knowledge Production: An Analysis of US Patent Citations, 1975-1997. *Environment and Planning A*, 40(5), 1020–1039. <https://doi.org/10.1068/a3930>
- Sorescu, A. B., Chandy, R. K., & Prabhu, J. C. (2003). Sources and Financial Consequences of Radical Innovation: Insights from Pharmaceuticals. *Journal of Marketing*, 67(12), 82–102.
- Soriano, D. R., & Huarng, K. H. (2013a). Innovation and Entrepreneurship in Knowledge Industries. *Journal of Business Research*, 66(10), 1964– 1969. <https://doi.org/10.1016/j.jbusres.2013.02.019>
- Spithoven, A., Vanhaverbeke, W., & Roijackers, N. (2013). Open Innovation Practices in SMEs and Large Enterprises. *Small Business Economics*, 41(3), 537–562. <https://doi.org/10.1007/s11187-012-9453-9>
- Ståhlbröst, A. (2012). A Set of Key Principles to Assess the Impact of Living Labs. *International Journal of Product Development*, 17(1), 1–2.
- Stam, W., & Elfring, T. (2008). Entrepreneurial Orientation and New Venture Performance: the Moderating Role of Intra- and Extraindustry Social Capital. *Academy of Management Journal*, 51(1), 97–111. Retrieved from <http://10.0.21.89/AMJ.2008.30744031%0Ahttp://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=30744031&site=ehost-live>
- Stambaugh, J. E., Yu, A., & Dubinsky, A. J. (2011). Before the Attack: A Typology of Strategies for Competitive Aggressiveness. *Journal of Management Policy and Practice*, 12(1), 49. Retrieved from <http://t.www.na-businesspress.com/JMPP/StambaughWeb.pdf>



- Stanisławski, R., & Olczak, A. (2010). Innovative Activity in the Small Business Sector of the Textile and Clothing Industry. *Fibres and Textiles in Eastern Europe*, 18(1), 13–16.
- Stevenson, H. H., & Jarillo, J. C. (1990). A Paradigm of Entrepreneurship: Entrepreneurial Management. *Strategic Management Journal*, 11(7), 17–27. [https://doi.org/10.1007/3-540-48543-0\\_7](https://doi.org/10.1007/3-540-48543-0_7)
- Stewart, W. H., & Roth, P. L. (2004). Data Quality Affects Meta-Analytic Conclusions: A Response to Miner and Raju (2004) Concerning Entrepreneurial Risk Propensity. *Journal of Applied Psychology*, 89(1), 14–21. <https://doi.org/10.1037/0021-9010.89.1.14>
- Stock, R. M. (2014). How Should Customers Be Integrated for Effective Interorganizational NPD Teams? An Input–Process–Output Perspective. *Journal of Product Innovation Management*, 31(3), 535–551. <https://doi.org/10.1111/jpim.12112>
- Stoffregen, R. M. (2014). *Entrepreneurial Leadership as the Driving Force to Successfully Establish a Corporate Identity*. 3rd IBA Bachelor Thesis Conference, 3(2), 1–15. Retrieved from <http://essay.utwente.nl/65410/>
- Stoian, M. C., Rialp, A., & Rialp, J. (2011). Export performance under the microscope: A glance through Spanish lenses. *International Business Review*, 20(2), 117–135. <https://doi.org/10.1016/j.ibusrev.2010.07.002>
- Subedi, B. P. (2016). Using Likert Type Data in Social Science Research: Confusion, Issues and Challenges. *International Journal of Contemporary Applied Sciences*, 3(2), 2308–1365. Retrieved from [www.ijcas.net](http://www.ijcas.net)
- Swami, S., & Porwal, R. K. (2005). "Entrepreneurship, Innovation and Marketing: Conceptualization of Critical Linkages. *Journal of Advances in Management Research*, 2(2), 54–69. <https://doi.org/10.1108/09574090910954864>
- Swanson, A., Akwaowo, E., Zobisch, P., & Leventhal, R. (2018). Emotional Intelligence and Entrepreneurs. Hawaii Global Conference on *Business and Finance*, 24(January), 1–11.

- Tabachnick, B. G., & Fidell, L. S. (2013). *Using Multivariate Statistics*. (C. Campanella, Ed.), *PsycCRITIQUES* (Sixth Edit, Vol. 28). New Jersey: Pearson Education, Inc. <https://doi.org/10.1037/022267>
- Tajeddini, K. (2013). Effect of Market Orientation and Entrepreneurial Orientation on Innovation: Evidence from the Hotel Industry in Switzerland. *Journal of Tourism Management*, 11(1), 20–30. Retrieved from <http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:Effect+of+Market+Orientation+and+Entrepreneurial+Orientation+on+Innovation#0>
- Tao, J., & Magnotta, V. (2006). How Air Products and Chemicals “Identifies and Accelerates.” *Research Technology Management*, 49(5), 12–18. <https://doi.org/10.1080/08956308.2006.11657393>
- Tashakkori, A., & Teddlie, C. (1998). *Mixed Methodology: Combining Qualitative and Quantitative Approaches (First)*. Thousand Oaks, CA: Sage Publications, Inc. <https://doi.org/10.4135/9781506335193>
- Taylor, P. (2013). The Effect of Entrepreneurial Orientation on the Internationalization of SMEs in Developing Countries. *African Journal of Business Management*, 7(19), 1927–1937. <https://doi.org/10.5897/AJBM2013.1633>
- Teddlie, C., & Yu, F. (2007). Mixed Methods Sampling: A Typology With Examples. *Journal of Mixed Methods Research*, 1(1), 77–100. <https://doi.org/10.1177/2345678906292430>
- Teece, D. J. (2009). *Dynamic Capabilities and Strategic Management* (1st ed.). Oxford: Oxford University Press Inc.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, 18(7), 509–533. <https://doi.org/10.1176/appi.psychotherapy.2009.63.1.13>
- Teece, D., & Pisano, G. (1994). The Dynamic Capabilities of Firms: An Introduction. *Industrial and Corporate Change*, 3(3), 537–556. <https://doi.org/doi.org/10.1093/icc/3.3.537-a>
- Thanos, I. C., Dimitratos, P., & Sapouna, P. (2017). The Implications of International Entrepreneurial Orientation, Politicization, and Hostility upon SME

- International Performance. *International Small Business Journal*, 35(4), 495–514. <https://doi.org/10.1177/0266242616641749>
- Theriou, G., & Chatzoudes, D. (2015). Exploring the Entrepreneurship- Performance Relationship: Evidence from Greek SMEs. *Journal of Small Business and Enterprise Development*, 22(2), 352–375. <https://doi.org/10.1179/str.2006.53.4.005>
- Theyel, N. (2012). Extending Open Innovation Throughout the Value Chain by Small and Medium-Sized Manufacturers. *International Small Business Journal*, 31(3), 256–274. <https://doi.org/10.1177/0266242612458517>
- Thornton, P. H. (1999). The Sociology of Entrepreneurship. *Annual Review of Sociology*, 25(1), 19–46. <https://doi.org/10.1146/annurev.soc.25.1.19>
- Tidd, J. (2013). Introduction: Why We Need a Tighter Theory and More Critical Research on Open Innovation. *Science and Technology Policy Research*, 2(11), 1–11. [https://doi.org/10.1142/9781783262816\\_0001](https://doi.org/10.1142/9781783262816_0001)
- Tongco, M. D. C. (2007). Purposive Sampling as a Tool for Informant Selection. *Ethnobotany Research and Applications*, 5, 147–158. <https://doi.org/10.17348/era.5.0.147-158>
- Trott, P., & Hartmann, D. (2009). Why “Open Innovation” is Old Wine in New Bottles. *International Journal of Innovation Management*, 13(4), 715–736.
- Tvaronavičienė, M. (2014). If Industrial Sector Development is Sustainable Lithuania Compared to the EU. *Entrepreneurship and Sustainability Issues*, 3(1), 134–142. <https://doi.org/10.1080/13602365.2012.724855>
- Ültanır, E. (2012). An Epistemological Glance At the Constructivist Approach: Constructivist Learning in Dewey, Piaget, and Montessori. *International Journal of Instruction*, 5(2), 196–212. Retrieved from <https://files.eric.ed.gov/fulltext/ED533786.pdf>
- Van de Vrande, V., de Jong, J. P. J., Vanhaverbeke, W., & de Rochemont, M. (2009). Open Innovation in SMEs: Trends, Motives and Management Challenges. *Technovation*, 29(6–7), 423–437. <https://doi.org/10.1016/j.technovation.2008.10.001>
- Van Hemert, P., Nijkamp, P., & Masurel, E. (2013). From Innovation to Commercialization Through Networks and Agglomerations: Analysis of

- Sources of Innovation, Innovation Capabilities and Performance of Dutch SMEs. *Annals of Regional Science*, 50(2), 425–452. <https://doi.org/10.1007/s00168-012-0509-1>
- Van Praag, C. M., & Versloot, P. H. (2007). What is the Value of Entrepreneurship? A Review of Recent Research. *Small Business Economics*, 29(4), 351–382. <https://doi.org/10.1007/s11187-007-9074-x>
- van Stel, A., Carree, M., & Thurik, R. (2004). The Effect of Entrepreneurship on National Economic Growth: An Analysis using the GEM Database. *EIM Business and Policy Research*, 23(12), 1–22.
- Vanderstoep, S. W., & Johnston, D. D. (2009). Research Methods for Everyday Life: Blending Qualitative and Quantitative Approaches. (Jossey-Bass, Ed.), Jossey-Bass (1st ed., Vol. 702). *San Francisco: John Wiley & Sons, Inc.* [https://doi.org/10.1007/978-1-61737-960-4\\_9](https://doi.org/10.1007/978-1-61737-960-4_9)
- Vanhaverbeke, W. (2006). *The Inter-Organizational Context of Open Innovation*. Oxford University Press, 12(January 2006), 1–23.
- Vanhaverbeke, W., & Cloudt, M. (2006). *Open Innovation in Value Networks*. Eindhoven Center for Innovation Studies, Eindhoven University of Technology, 2(June), 1–45.
- Varis, M., & Littunen, H. (2010). Types of Innovation, Sources of Information and Performance in Entrepreneurial SMEs. *European Journal of Innovation Management*, 13, 128–154. <https://doi.org/10.1108/14601061011040221>
- Vaus, D. A. de. (1987). Surveys in Social Research. *Canadian Journal of Sociology/Cahiers canadiens de sociologie* (Fifth, Vol. 12). Allen & Unwin 83 Alexander Street Crows Nest NSW 2065 Australia. <https://doi.org/10.2307/2071069>
- Venkatraman, N.; Ramanujam, V. (1986). Measurement of Business Performance in Strategy Research : A Comparison of Approaches Massachusetts Institute of Technology. *The Academy of Management Review*, 11(4), 801–814. <https://doi.org/10.2307/258398>
- Ventor, A. (2014). *An Analysis of Entrepreneurial Orientation in Selected Small and Medium-Sized Enterprises*. North-West University, Potchefstroom Campus, (May), 112. Retrieved from

[http://dspace.nwu.ac.za/bitstream/handle/10394/10814/Venter\\_A.pdf?sequence=1](http://dspace.nwu.ac.za/bitstream/handle/10394/10814/Venter_A.pdf?sequence=1)

- Veugelers, R., & Cassiman, B. (1999). Make and Buy in Innovation Strategies: Evidence from Belgian Manufacturing Firms. *Research Policy*, 28(2), 151–183. <https://doi.org/10.1080/19761597.2004.9668602>
- Vinzi, V. E., Chin, W. W., Henseler, J., & Wang, H. (2010). Handbook of Partial Least Squares: Concepts, Methods and Applications. (Amato, Ed.) (1st ed.). Berlin: *Springer Handbooks of Computational Statistics Handbook*. <https://doi.org/10.1007/978-3-540-32827-8>
- Vrontis, D., Thrassou, A., Santoro, G., & Papa, A. (2016). Ambidexterity, External Knowledge and Performance in Knowledge-Intensive Firms. *Journal of Technology Transfer*, 42(2), 374–388. <https://doi.org/10.1007/s10961-016-9502-7>
- Wacker, J. (1998). A Definition of Theory: Research Guidelines for Different Theory-Building Research Methods in Operations Management. *Journal of Operations Management*, 16(4), 361–385. [https://doi.org/10.1016/S0272-6963\(98\)00019-9](https://doi.org/10.1016/S0272-6963(98)00019-9)
- Wagner, E. R., & Hansen, E. N. (2005). Innovation in Large Versus Small Companies: Insights from the US Wood Products Industry. *Management Decision*, 43(6), 837–850. <https://doi.org/10.1108/00251740510603592>
- Wales, W. J. (2016). Entrepreneurial Orientation: A Review and Synthesis of Promising Research Directions. *International Small Business Journal: Researching Entrepreneurship*, 34(1), 3–15. <https://doi.org/10.1177/0266242615613840>
- Wales, W. J., Gupta, V. K., & Mousa, F. T. (2013). Empirical Research on Entrepreneurial Orientation: An Assessment and Suggestions for Future Research. *International Small Business Journal*, 31(4), 357–383. <https://doi.org/10.1177/0266242611418261>
- Wales, W. J., Parida, V., & Patel, P. C. (2013). Too Much of a Good Thing? Absorptive Capacity, Firm Performance, and the Moderating Role of Entrepreneurial Orientation. *Strategic Management Journal*, 34(1), 622–633. <https://doi.org/10.1002/smj>

- Walker, R. M., Damanpour, F., & Devece, C. A. (2011). Management Innovation and Organizational Performance: The Mediating Effect of Performance Management. *Journal of Public Administration Research and Theory*, 21(2), 367–386. <https://doi.org/10.1093/jopart/muq043>
- Wallin, M. W., & Von Krogh, G. (2010). Organizing for Open Innovation: Focus on the Integration of Knowledge. *Organizational Dynamics*, 39(2), 145–154. <https://doi.org/10.1016/j.orgdyn.2010.01.010>
- Walter, A., Auer, M., & Ritter, T. (2006). The Impact of Network Capabilities and Entrepreneurial Orientation on University Spin-off Performance. *Journal of Business Venturing*, 21(4), 541–567. <https://doi.org/10.1016/j.jbusvent.2005.02.005>
- Wang, C. H., Chang, C. H., & Shen, G. C. (2015). The Effect of Inbound Open Innovation on Firm Performance: Evidence from High-Tech Industry. *Technological Forecasting and Social Change*, 99, 222–230. <https://doi.org/10.1016/j.techfore.2015.07.006>
- Wang, C. L. (2008). Entrepreneurial Orientation, Learning Orientation, and Firm Performance. *Entrepreneurship Theory and Practice*, 32(4), 635–656.
- Wang, H. K., & Yen, Y. F. (2012). An Empirical Exploration of Corporate Entrepreneurial Orientation and Performance in Taiwanese SMEs: A Perspective of Multidimensional Construct. *Total Quality Management and Business Excellence*, 23(9–10), 1035–1044. <https://doi.org/10.1080/14783363.2012.670917>
- Wang, X., French, B. F., & Clay, P. F. (2015). Convergent and Discriminant Validity with Formative Measurement: A Mediator Perspective. *Journal of Modern Applied Statistical Methods*, 14(1), 83–106. <https://doi.org/10.22237/jmasm/1430453400>
- Watson, J. (2007). Modeling the Relationship Between Networking and Firm Performance. *Journal of Business Venturing*, 22(6), 852–874. <https://doi.org/10.1016/j.jbusvent.2006.08.001>
- Watson, T. J. (2013). Entrepreneurship in Action: Bringing Together the Individual, Organizational and Institutional Dimensions of Entrepreneurial Action.



- Entrepreneurship and Regional Development*, 25(5–6), 404–422.  
<https://doi.org/10.1080/08985626.2012.754645>
- Weerawardena, J., & Mavondo, F. T. (2011). Capabilities, Innovation and Competitive Advantage. *Industrial Marketing Management*, 40(2), 105–120.  
<https://doi.org/10.1016/j.indmarman.2011.10.012>
- Wernerfelt, B. (1984). A Resource Based View of the Firm. *Strategic Management Journal*, 5(2), 171–180. <https://doi.org/10.1002/smj.4250050207>
- West, J., & Bogers, M. (2017). Open Innovation: Current Status and Research Opportunities. *Innovation: Management, Policy and Practice*, 19(1), 43–50.  
<https://doi.org/10.1080/14479338.2016.1258995>
- West, J., & Gallagher, S. (2006). Challenges of Open Innovation: The Paradox of Firm Investment in Open Source Software. *R&D Management* (Vol. 36).  
<https://doi.org/10.1111/j.1467-9310.2006.00436>
- West, J., Salter, A., Vanhaverbeke, W., & Chesbrough, H. (2014). Open Innovation: The Next Decade. *Research Policy*, 43(5), 805–811.  
<https://doi.org/10.1016/j.respol.2014.03.001>
- Wiklund, J. (1999). The Sustainability of the Entrepreneurial Orientation--Performance Relationship. *Entrepreneurship Theory and Practice*, 42(19), 37–48.
- Wiklund, J., & Shepherd, D. (2005). Entrepreneurial Orientation and Small Business Performance: A Configurational Approach. *Journal of Business Venturing*, 20(1), 71–91. <https://doi.org/10.1016/j.jbusvent.2004.01.001>
- Williams, B., Onsmann, A., & Brown, T. (2010). Exploratory Factor Analysis: A Five-Step Guide for Novices. *Journal of Emergency Primary Health Care*, 8(3), 1–14.
- Wolff, J. A., & Pett, T. L. (2006). Small-Firm Performance: Modeling the Role of Product and Process Improvements. *Journal of Small Business Management*, 44(2), 268. Retrieved from <https://www.jstor.org/stable/4033662>
- Wong, K. K.-K. (2013). 28/05 - Partial Least Squares Structural Equation Modeling (PLS-SEM) Techniques Using SmartPLS. *Marketing Bulletin*, 24(1), 1–32.

- Wright, P., Kroll, M., Pray, B., & Lado, A. (1995). Strategic Orientations, Competitive Advantage, and Business Performance. *Journal of Business Research*, 33(2), 143–151. [https://doi.org/10.1016/0148-2963\(94\)00064-L](https://doi.org/10.1016/0148-2963(94)00064-L)
- Wu, W. Y., Chang, M. L., & Chen, C. W. (2008). Promoting Innovation Through the Accumulation of Intellectual Capital, Social Capital, and Entrepreneurial Orientation. *R and D Management*, 38(3), 265–277. <https://doi.org/10.1111/j.1467-9310.2008.00512.x>
- Wu, Y. C., Lin, B. W., & Chen, C. J. (2013). How do Internal Openness and External Openness Affect Innovation Capabilities and Firm Performance? *IEEE Transactions on Engineering Management*, 60(4), 704–716. <https://doi.org/10.1109/TEM.2013.2262050>
- Wynarczyk, P. (2013). Open innovation in SMEs: A Dynamic Approach to Modern Entrepreneurship in the Twenty-First Century. *Journal of Small Business and Enterprise Development*, 20(2), 258–278. <https://doi.org/10.1108/14626001311326725>
- Xavier, A. F., Naveiro, R. M., Aoussat, A., & Reyes, T. (2017). Systematic Literature Review of Eco-Innovation Models: Opportunities and Recommendations for Future Research. *Journal of Cleaner Production*, 149, 1278–1302. <https://doi.org/10.1016/j.jclepro.2017.02.145>
- Xu, H., & Ruef, M. (2004). The Myth of the Risk-Tolerant Entrepreneur. *Strategic Organization*, 2(4), 331–355. <https://doi.org/10.1177/1476127004047617>
- Yang, Y., & Ju, X. F. (2017). Entrepreneurial Orientation and Firm Performance: Is Product Quality a Missing Link? *Entrepreneurship Research Journal*, 8(1), 1–13. <https://doi.org/10.1515/erj-2017-0091>
- Yoo, S. J., Sawyerr, O., & Tan, W. L. (2016). The Mediating Effect of Absorptive Capacity and Relational Capital in Alliance Learning of SMEs. *Journal of Small Business Management*, 54, 234–255. <https://doi.org/10.1111/jsbm.12299>
- Yu, A., Lumpkin, G. T., Praveen Parboteeah, K., & Stambaugh, J. E. (2019). Autonomy and Family Business Performance: The Joint Effect of Environmental Dynamism and National Culture. *International Small Business*

*Journal: Researching Entrepreneurship* (Vol. 37).  
<https://doi.org/10.1177/0266242618811893>

- Zahra, S. A. (1991). Predictors and Financial Outcomes of Corporate Entrepreneurship: An Exploratory Study. *Journal of Business Venturing*, 6(4), 259–285. [https://doi.org/10.1016/0883-9026\(91\)90019-A](https://doi.org/10.1016/0883-9026(91)90019-A)
- Zahra, S. A. (2008). Being Entrepreneurial and Market Driven: Implications for Company Performance. *Journal of Strategy and Management*, 1(2), 125–142. <https://doi.org/10.1108/17554250810926339>
- Zahra, S. A., & Covin, J. G. (1995). Contextual Influences on the Corporate Entrepreneurship-Performance Relationship: A Longitudinal Analysis. *Journal of Business Venturing*, 10(1), 43–58. [https://doi.org/10.1016/0883-9026\(94\)00004-E](https://doi.org/10.1016/0883-9026(94)00004-E)
- Zahra, S. A., Nielsen, A. P., & Bogner, W. C. (1999). Corporate Entrepreneurship, Knowledge, and Competence Development. *Entrepreneurship: Theory & Practice*, 10(23), 169–189.
- Zahra, S. A., Sapienza, H. J., & Davidsson, P. (2006). Entrepreneurship and Dynamic Capabilities: A Review, Model and Research Agenda. *Journal of Management Studies*, 43(4), 917–955. <https://doi.org/10.1111/j.1467-6486.2006.00616.x>
- Zamanian, M. (2011). Measuring Entrepreneurial Performance: Is There Consistency Between Scholars? *Performance Measurement in Entrepreneurship Research Decision*, 23(3), 1–29.
- Zellweger, T., & Sieger, P. (2012). Entrepreneurial Orientation in Long-Lived Family Firms. *Small Business Economics*, 38(1), 67–84. <https://doi.org/10.1007/s11187-010-9267-6>
- Zhao, F. (2005). Exploring the Synergy Between Entrepreneurship and Innovation. *International Journal of Entrepreneurial Behaviour and Research*, 11(1), 25–41. <https://doi.org/10.1108/13552550510580825>
- Zhao, X., Lynch, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and Truths about Mediation Analysis. *Journal of Consumer Research*, 37(2), 197–206. <https://doi.org/10.1086/651257>

- Zhou, K. Z., Yim, C. K. (Bennett), & Tse, D. K. (2005). The Effects of Strategic Orientations on Technology- and Market-Based Breakthrough Innovations. *Journal of Marketing*, 69(2), 42–60. <https://doi.org/10.1509/jmkg.69.2.42.60756>
- Zobel, A. K. (2017). Benefiting from Open Innovation: A Multidimensional Model of Absorptive Capacity\*. *Journal of Product Innovation Management*, 34(3), 269–288. <https://doi.org/10.1111/jpim.12361>



PTTA UTHM  
PERPUSTAKAAN TUNKU TUN AMINAH