

## Linking entrepreneurial orientation dimensions with multidimensional differentiation strategy

Kamal Hossain<sup>a\*</sup> and Ilhaamie Binti Abdul Ghani Azmi<sup>b</sup>

<sup>a</sup>*D. Phil. Scholar, University of Malaya (UM), 50603 Kuala Lumpur, Malaysia*

<sup>b</sup>*Associate Professor, Department of Shariah and Management, University of Malaya (UM), 50603 Kuala Lumpur, Malaysia*

### CHRONICLE

#### Article history:

Received: October 24, 2019  
Received in revised format: November 28 2019  
Accepted: December 22, 2019  
Available online:  
December 22, 2019

#### Keywords:

Apparel  
Bangladesh  
Differentiation Strategy  
Innovativeness  
Proactiveness  
Risk-taking

### ABSTRACT

The aim of this study is to investigate the impact of entrepreneurial orientation (EO) on differentiation strategy. In this study, the components of EO are innovativeness, proactiveness and risk-taking. On the other hand, differentiation strategy indicates the product, process, market and brand differentiation. The study uses survey questionnaire for data collection. The data are collected from Muslim entrepreneurs of the apparel industry from Bangladesh. The study uses 339 data to conduct the research. After data collection, SmartPLS is applied for quantitative analysis to examine the effect of EO on differentiation strategy. The study indicates a positive and significant effect of innovativeness, proactiveness and risk-taking (EO) on differentiation strategy. Among the three components of EO, proactiveness is found the most significant component on differentiation strategy followed by innovativeness and risk-taking.

© 2020 by the authors; licensee Growing Science, Canada

## 1. Introduction

Competitive advantage is one of the important terms of strategic management literature which is applicable for firms' achieving superior performance from the marketplace. Porter (1980,1988) has mentioned about the competitive strategies (differentiation and cost-leadership) for achieving firms' competitive advantage. Differentiation strategy is the sustainable and an effective strategy for firms' competitive advantage compared with cost leadership strategy. Acquah and Yasi-Ardekani (2008) mentioned that firms' differentiation strategy ensures the uniqueness of products from the competitors' product which assist the firm to achieve competitive advantage. In the same line, Baum et al. (2001) advocated that firm applies differentiation strategy to introduce innovative and high-quality products and services which ensures firms' superior growth performance. Differentiation strategy, product quality and customer satisfaction relationship are widely recognized in the marketing perspectives. So, the application of differentiation strategy for product differentiation helps organization ask the premium prices on product through customer satisfaction. Shammot (2011) mentioned that customers are willing to pay more when they are satisfied with product quality. So, product differentiation is one of the vivid marketing strategies to ensure sustainable competitive advantage. In context of firm performance and differentiation, Acquah and Yasai-Ardekani (2008) examined the validity and profitability of the application of cost-leadership, differentiation and the combined strategies. However, the study found that there was no significant difference of the application of combined strategies and only the application of differentiation strategy for firms' incremental performance benefits. In addition, Amoako-Gyampah and Acquah (2008) found a positive relationship between differentiation strategy as a competitive advantage and firm performance. Porter (1988) explained the benefits of the competitive strategy, differentiation which ensures firms' higher profitability through creating brand loyalty and low price sensitivity. In the similar vein, Wong and Merrilees (2008); Allen and Helms (2006) argued that differentiation strategy ensures customers' brand loyalty through offering unique products which assist firm to perform better

\* Corresponding author. Tel. : +6011-16296768

E-mail address: [khossainaub@gmail.com](mailto:khossainaub@gmail.com) (K. Hossain)

than competitors. Few studies have found in the context of EO construct and differentiation strategy relationships with inconsistencies (Wales et al., 2013a; Lechner & Gudmundsson, 2014). Therefore, the purpose of this study is to examine the effect of innovativeness, risk-taking and proactiveness (EO construct) on differentiation strategy. The study is conducted on the Muslim apparel industry owners in Bangladesh.

## 2. Literature Review

Miller (1983) initiated the entrepreneurial orientation (EO) concept which is comprised of three components innovativeness, risk-taking and proactiveness. EO is a process, practice and decision-making activities of entrepreneurial firm which ensures firm performance (Miller, 1983). He defined the entrepreneurial firm characterized by three important factors. Miller (1983) explained, entrepreneurial firm will be involved with product-market innovation strategies, it will undertake the risky ventures through investing large resources commitment and will exploit market opportunities through proactive actions to keep it ahead of competitors. These three EO variables and their relationship with differentiation strategy are discussed below.

### 2.1 Innovativeness and Differentiation Strategy

Innovation and differentiation are closely related to each other (Porter, 1980). Basically, product, process and market differentiation come through innovation strategy of firm. Innovativeness can be defined a firms' strong intention to involve and advocate creative process, experimentation and new ideas which are applied for producing new products, services or technical process. Hage (1980) mentioned that innovation can be varied on the degree of radicalness, incremental or radical innovation. Damanpour (1991) categorized innovation under two dimensions technological and administrative innovation. He explained the technological innovation is the activities of new process, new product and services of business firm on the other hand, administrative innovation indicates the new procedures, policies and administrative structures. However, in context of innovativeness, Kimberly (1981) believes innovativeness indicates the willingness to depart from existing technologies or practices beyond the current state of art. Scherer (1980) as well as Miller and Friesen (1978) explained product and market innovation characterized through new product design, research on market, product advertising and promotion of products which are the sign of differentiation. In context of technological innovation. Verhees and Meulenber (2004) advocated the relationship between innovative technology and sales of differentiated products in the domestic and international markets. Market intelligence (keeping information of suppliers and competitors) is applied when innovative technology assists firms to innovate differentiated products and processes. Grant (1898) emphasized on the product innovation as the main driving force of differentiation for making unique product and services. Based on the competitive strategy, firms' innovation practices are different but Blumentritt and Danis (2006) found a positive association between product innovation and differentiation. Similarly, Frank et al. (2010) and Abrar et al., (2009) explained the relationship between innovation and strategic posture which ensures creativity, new ideas and experiences. Lumpkin and Dess (1996) found a positive relationship between firms' innovation and competitive strategy (new product line, new technological advance) which lead business growth. However, Lechner and Gudmundsson (2014) found a negative relationship between innovativeness and competitive strategy in their study of SMEs performance. Thus, it is hypothesized:

**H<sub>1</sub>:** Innovativeness is positively and significantly associated with differentiation strategy.

### 2.2 Risk-taking and Differentiation Strategy

Risk-taking is the behavior of entrepreneurship. It may be defined as the entrepreneurial firms' making decision and taking actions without having certain knowledge of probable outcomes. It involves through investing large resources commitment for forwarding venture. Kwak et al. (2018) emphasized that entrepreneurial firms' innovative decision regarding product-market is essential at the time of rapid changing of market environment to survive in the competition (Wu & Wu, 2014). In the context of risk-taking and firms' innovation, Garcia-Granero et al. (2015) positively advocated on the innovative product and managers' willingness to accept risky venture. March and Shapira (1987) recommended that risk-taking and innovative behavior of organization are closely linked which have found from the different research fields. Innovative behavior of organization and risk-taking are intertwined. Morris and Kuratko (2002) found that risk-taking behavior differentiate entrepreneurs' from others because it brings losses and inconsistencies in organizational performance. Dewan et al., (2007) found relationship between firms' risk-taking tendency and marginal product of IT. The study revealed that firms were able to produce higher marginal product of IT when it took higher entrepreneurial risk. On the other hand, firms' low-level risk allows lower product of IT. However, Caggese (2012) revealed the reverse findings of higher risk-taking and innovation activities of entrepreneurial firm. Thus, it is hypothesized:

**H<sub>2</sub>:** Risk-taking is positively and significantly associated with differentiation strategy.

### 2.3 Proactiveness and Differentiation Strategy

Market leaders are foresighted and capable of seizing market opportunities through anticipating future market demand. Proactiveness can be defined as searching new opportunities in the market in which proactive firm anticipates future market demand and opportunity, entering into the emerging markets with new products and brands and shaping environment to play as a market leader (Venkatraman, 1989). According to Hughes and Morgan (2007), proactive firms' performance is much better than their competitors because the proactive firms are able to anticipate the future market opportunities and demand in which they are responsive with market changes through the first-mover strategies. Blumentritt and Danis (2006) found the

association between proactive innovations (product, market or process) of firm and first-mover strategy for exploiting market opportunities. In the same line, Freeman and Engel (2007) mentioned that entrepreneurial firm was able to achieve sustainable performance when the firms would focus on proactive innovation strategy to differentiate their business operations. The argument of Tsai et al. (2007) on firms' proactiveness and differentiation and they added that the essence of proactive market orientation leads the firm beyond its existing experience and encourages experimentation through new knowledge of markets. Similarly, Lilien et al. (2002) mentioned, proactive market oriented firm works closely with the lead users and strongly involve in market experimentations, firms' both activities are linked with innovation and development. Anderson et al., (2015) mentioned proactive firms are not creative, their creative actions lead them to be market leader and preempt their rivals in the marketplace. But the study of Lechner and Gudmundsson (2012) found the inconsistencies between firms' proactiveness and differentiation strategy. The study has revealed no relationship between them. Thus, it is hypothesized:

**H<sub>3</sub>:** Proactiveness is positively and significantly associated with differentiation strategy.

### 3. Methodology

The study has designed with four research variables in which risk-taking, proactiveness and innovation are the component of EO. This study has examined the effect of entrepreneurial orientation (EO) on differentiation strategy of Muslim entrepreneurs. To conduct the study, respondents are given structured questionnaires and applied face to face distribution as a data collection process. The study has used the Bangladesh Garments Manufacturers and Exporter's Association (BGMEA) database to select the respondents. The firms are enlisted in the database of BGMEA. The respondents were entrepreneurs, directors, general managers and other senior level managers. The garments manufacturing firms and respondents were selected based on the exporting experience in the international markets not less than five years' experience. The study has collected 339 useable questionnaires for further analysis. The study has used the SmartPLS for analyzing data and produced measurement, and structural model. The measurement model has ensured the reliability and validity. To test the validity of model convergent and discriminant analysis have done. The hypotheses have been tested using the structural model.

### 4. Analysis and Findings

#### 4.1 Test of Reliability

According to Hair et al., (2014), the internal consistency of data ensures the reliability of the model. Basically, in PLS test, Cronbach's alpha and composite reliability values are applied to assess the reliability of constructs.

**Table 1**  
PLS Measurement Model and Properties

Constructs	Item	Loading	AVE	Composite Reliability	Cronbach Alpha	Constructs	Item	Loading	AVE	Composite Reliability	Cronbach Alpha
Innovativeness (INN)	I1	0.829	0.57	0.864	0.813	Proactiveness (PRO)	P1	0.806	0.571	0.909	0.878
	I2	0.817					P2	0.773			
	I3	0.823					P3	0.829			
	I4	0.738					P4	0.827			
	I5	0.858					P5	0.764			
	I6	0.843					P6	0.756			
	I7	0.82					P7	0.718			
	I8	0.836					P8	0.851			
	I9	0.85					P9	0.964			
Risk-taking (RT)	R1	0.839	0.591	0.886	0.848	Differentiation Strategy (DS)	D1	0.935	0.742	0.955	0.939
	R2	0.805					D2	0.914			
	R3	0.787					D3	0.924			
	R4	0.852					D4	0.907			
	R5	0.728					D5	0.94			
	R6	0.729					D6	0.877			
	R7	0.829					D7	0.736			
	R8	0.818					D8	0.916			
	R9	0.833									

Hair et al., (2012) have mentioned that the reliability of all constructs should be above the threshold of 0.70 and the composite reliability values of all constructs should be greater than 0.70 (Bagozzi & Yi, 1988). The Table 1 shows the composite reliability and Cronbach's alpha values which have ensured the standard values (above 0.70) according to Hair et al., (2012). So, this study has established the reliability of all constructs.

#### 4.2 Test of Convergent Validity

According to Hair et al. (2007), convergent validity is a validity which is explained by the actual intended latent variables and correlated with other indicators of the latent variable. The factor loading and average variance extracted (AVE) are used for assessing convergent validity. Fornell and Larcker (1981) mentioned that convergent validity would be established when all constructs AVE value will be more than 0.50 (Table 1 has shown). In case of item loading values, Chin (1998) and Bagozi

and Yi (1988) suggested that item loadings should be above 0.60. This study has confirmed the item loadings and AVE values (Please refer to Table 1). So, the convergent validity has been established in this study.

#### 4.3 Test of Discriminant Validity

Duarte and Raposo (2010) defined the concept of discriminant validity as a validity by which a particular latent construct is varied from other latent constructs. Chin (1998) mentioned that discriminant validity will be established when the values of cross-loadings of other constructs will be lower than the values of measured constructs indicators. Moreover, Chin (1998) has said about the establishment of discriminant validity, when the square root of each construct's AVE is larger than its correlations with other constructs. The Table 2 shows the cross-loadings of all items. It has shown that the all loading items were higher than the cross-loadings of all items. However, cross-loadings of other constructs are below 0.50 which has confirmed the discriminant validity of measurement model (Hair et al., 2012).

**Table 2**  
Factor Loadings and Cross-Loadings

	DS	INNV	PRO	RT		DS	INNV	PRO	RT
<b>D1</b>	<b>0.935</b>	0.439	0.418	0.453	<b>P1</b>	0.418	0.469	<b>0.806</b>	0.374
<b>D2</b>	<b>0.914</b>	0.345	0.49	0.44	<b>P2</b>	0.366	0.427	<b>0.773</b>	0.337
<b>D3</b>	<b>0.924</b>	0.436	0.428	0.14	<b>P3</b>	0.376	0.454	<b>0.829</b>	0.33
<b>D4</b>	<b>0.907</b>	0.35	0.45	0.499	<b>P4</b>	0.367	0.374	<b>0.827</b>	0.361
<b>D5</b>	<b>0.94</b>	0.374	0.396	0.232	<b>P5</b>	0.389	0.298	<b>0.764</b>	0.451
<b>D6</b>	<b>0.877</b>	0.383	0.451	0.467	<b>P6</b>	0.348	0.4	<b>0.756</b>	0.496
<b>D7</b>	<b>0.736</b>	0.167	-0.052	0.11	<b>P7</b>	0.274	0.153	<b>0.718</b>	0.324
<b>D8</b>	<b>0.916</b>	0.316	0.472	0.313	<b>P8</b>	0.416	0.465	<b>0.851</b>	0.444
<b>I1</b>	0.263	<b>0.829</b>	0.429	0.304	<b>R1</b>	0.472	0.335	0.443	<b>0.839</b>
<b>I2</b>	0.324	<b>0.817</b>	0.431	0.416	<b>R2</b>	0.464	0.293	0.303	<b>0.805</b>
<b>I3</b>	0.26	<b>0.823</b>	0.311	0.459	<b>R3</b>	0.439	0.48	0.401	<b>0.787</b>
<b>I4</b>	0.102	<b>0.738</b>	0.191	0.145	<b>R4</b>	0.165	0.1	0.364	<b>0.852</b>
<b>I5</b>	-0.117	<b>0.858</b>	-0.057	-0.063	<b>R5</b>	0.115	0.147	0.249	<b>0.728</b>
<b>I6</b>	0.219	<b>0.843</b>	0.018	0.18	<b>R6</b>	0.355	0.305	0.227	<b>0.729</b>
<b>I7</b>	0.293	<b>0.82</b>	0.431	0.317	<b>R7</b>	0.479	0.474	0.339	<b>0.829</b>
<b>I8</b>	0.362	<b>0.836</b>	0.41	0.39	<b>R8</b>	0.433	0.465	0.346	<b>0.818</b>
<b>I9</b>	0.362	<b>0.85</b>	0.432	0.373	<b>R9</b>	0.526	0.342	0.37	<b>0.833</b>

#### 4.4. Coefficient of Determination ( $R^2$ )

The value of coefficient of determination ( $R^2$ ) denotes the variation impact of exogenous variables on the endogenous variable. The  $R^2$  value of this study is 0.528 for differentiation strategy which means that differentiation strategy has affected by the exogenous variables EO (innovativeness, risk-taking and proactiveness) through 52.80%.

#### 4.5 Structural Model and Test of Hypotheses

The structural model of PLS analysis ensures the hypotheses testing which has done in this study. In the structural model, path coefficients,  $t$  and  $p$  values and errors are analyzed. Henseler and Fassott (2010b) mentioned the conditions for accepted hypotheses when it is significant at 5% level. In that context,  $t$  value must be greater than 1.96 or  $p < 0.05$ . So, the hypotheses testing conditions are followed from the structural model (Table 3).

**Table 3**  
The Structural Estimates

Hypothesized Relationship	Path Coefficients ( $\beta$ )	Standard Errors	T Statistics	P Values
H <sub>1</sub> : Innovativeness → Differentiation Strategy	0.216	0.043	2.994	0.001
H <sub>2</sub> : Risk-taking → Differentiation Strategy	0.323	0.108	2.978	0.001
H <sub>3</sub> : Pro-activeness → Differentiation Strategy	0.301	0.093	5.320	0.000

Note:  $t > 1.96$  and  $p < 0.05$

**H<sub>1</sub>**: Innovativeness is positively and significantly associated with differentiation strategy.

According to the details of the Table 3, the H<sub>1</sub> is accepted because the path coefficient value is 0.216,  $t$  value is 2.994 and  $p$  value is 0.001. The result has fulfilled the conditions like  $t > 1.96$  and  $p < 0.05$ . So, the hypothesis **H<sub>1</sub>** is accepted.

**H<sub>2</sub>**: Risk-taking is positively and significantly associated with differentiation strategy.

The Table 3 has shown the statistical results for the risk-taking and differentiation strategy. The results are path coefficient value is 0.323,  $t$  value is 2.978 and  $p$  value is 0.001. The results of the  $t$  and  $p$  value are complied with the conditions of  $t > 1.96$  and  $p < 0.05$  which are accepted values. So, the **H<sub>2</sub>** is accepted.

**H<sub>3</sub>:** Proactiveness is positively and significantly associated with differentiation strategy.

The findings of this hypothesis testing show a positive and significant correlation between proactiveness and differentiation strategy. The Table 3 has shown the results in which path coefficient, t value and p values respectively 0.301, 5.320 and 0.001. The results are complied with  $t > 1.96$  and  $p < 0.05$ . So, the **H<sub>3</sub>** has accepted.

## 5. Discussion and Conclusion

The present study has tested the effect of entrepreneurial orientation (innovativeness, risk-taking, pro-activeness) on differentiation strategy. The statistical findings have revealed that these three independent variables (IVs) influence differentiation strategy by 52.80%. The present study's findings have also revealed that innovativeness is a significant predictor of differentiation strategy for the entrepreneurs working in the garments industry of Bangladesh. Innovative thinking of the entrepreneurs results in uncommon outcomes which might be of great importance to the customers. This finding of innovativeness and differentiation support the finding of Lumpkin and Dess (1996). Findings based on empirical data indicate that risk-taking positively and significantly influence differentiation strategy. It means that entrepreneurs can differentiate their products through risk-taking capability. According to the propensity of risk, manager needs to change their action to exploit the opportunities from marketplace. Therefore, risk-taking propensity of entrepreneurs might constitute differentiation strategy of the entrepreneurs which consequently leads to better performance in the dynamic markets. The findings are also consistent with the findings of Wu and Wu, (2014). However, the hypothesis testing revealed that proactiveness is a significant predictor of differentiation strategy. According to Tsai et al. (2007), the proactive market oriented firms not only keeps the current market information but also encourages the experimentation for future market demand which are innovative thinking of entrepreneurship. This study's findings are also consistent with the findings of Lilien et al. (2002). They have mentioned the characteristics of the market-oriented proactive firms which are closely related with the lead users and engaged in experiments. The close connection with lead users and market experimentations both are the results of firms' innovation and development initiatives. Therefore, firms intended to differentiate their products must know customers' demand in advance so that they can respond to customers' order on demand. So, these EO (innovativeness, risk-taking and proactiveness) variables can be the essential tools for differentiation strategy to sustain business in the long run. The empirical findings of this study enrich the existing body of knowledge by adding new pages in the literature on entrepreneurship and strategic management field. At the same time, it contributes in the practical aspects by demonstrating how the Muslim entrepreneurs can differentiate their offerings through their entrepreneurial orientation (EO). Moreover, the present study's findings can assist as a reliable reference for business practitioners specially those prone to exporting their products in the different geographic markets. The findings provide guidance that EO variables are important and influential factors for differentiation strategy.

## Acknowledgement

Authors are acknowledged with the organization, Bangladesh Garments Manufacturer and Exporters' Association (BGMEA), Dhaka, Bangladesh for supporting data collection.

## References

- Abrar, M., Tian, Z., & Deng, X. (2009). Exploration of niche market and innovation in organic textile by a developing country. *International Journal of Business and Management*, 4(2), 10-16.
- Acquaah, M., & Yasai-Ardekani, M. (2008). Does the implementation of a combination competitive strategy yield incremental performance benefits? A new perspective from a transition economy in Sub-Saharan Africa. *Journal of Business Research*, 61, 346-354.
- Allen, R.S. & Helms, M.M. (2006). Linking strategic practices and organizational performance to Porter's generic strategies. *Business Process Management*, 12(4), 433-454.
- Amoako-Gyampah, K., & Acquaah, M. (2008). Manufacturing strategy, competitive strategy and firm performance: An empirical study in a developing economy environment. *International Journal of Production Economics*, 111, 575-592.
- Anderson, B.S., Kreiser, P.M., Kuratko, D.F., Hornsby, J.S., & Eshima, Y. (2015). Reconceptualizing entrepreneurial orientation. *Strategic Management Journal*, 36, 1579-1596.
- Bagozzi, R., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Sciences*, 16, 74-94.
- Baum, J. R., Locke, E. A., & Smith, K. G. (2001). A multidimensional model of venture growth. *Academy of Management Journal*, 44(2), 292-303.
- Bidh , A (2000). *The Origin and Evolution of New Businesses*. Oxford: Oxford University Press.
- Blumentritt, T., & Danis, W.M. (2006). Business strategy types and innovative practices. *Journal of Managerial Issues* 18(2), 274-292.
- Caggese, A. (2012). Entrepreneurial risk, investment, and innovation. *Journal of Financial Economics*, 106, 287-307.
- Chin, W. W. (1998). *The partial least squares approach to structural equation modelling*. In 983 G. A. Marcoulides (Ed.), *Modern methods for business research* (pp. 295-336). Mahwah, NJ: 984 Lawrence Erlbaum.
- Damanpour, F. (1991). Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy of management Journal*, 34, 555-590.
- Dewan, S., Shi, C., & Gurbaxani, V. (2007). Investigating the risk-return relationship of information technology investment: firm-level empirical analysis. *Management science*, 53(12), 1829-1842.
- Dewan, S., & Ren, F. (2007). Risk and return of information technology initiatives: Evidence from electronic commerce announcements. *Information Systems Research*, 18(4), 370-394.
- Duarte, P., & Raposo, M. (2010). A PLS model to study brand preference: An application to the mobile phone market. In V. Esposito Vinzi, W. W. Chin, J. Henseler & H. Wang (Eds.). *Handbook of Partial Least Squares*.

- Fornell, C., & Larcker, D. F. (1981). Evaluation structural equation models with unobservable 1028 variables and measurement error. *Journal of Marketing Research*, 18 (February), pp. 39–50.
- Frank, H., Kessler, A., & Fink, M. (2010). Entrepreneurial orientation and business performance—A replication study. *Schmalenbach Business Review*, 62(2), 175-198.
- Freeman, J., & Engel, J. S. (2007). Models of innovation: Startups and mature corporations. *California Management Review*, 50(1), 94-119.
- García-Granero, A., Llopis, Ó., Fernández-Mesa, A., & Alegre, J. (2015). Unraveling the link between managerial risk-taking and innovation: The mediating role of a risk-taking climate. *Journal of Business Research*, 68(5), 1094-1104.
- Grant R (1998). *Contemporary Strategy Analysis*. Malden, MA: Blackwell.
- Hage, J. (1980). *Theories of organizations*. New York: Wiley.
- Hair, J.F., Sarstedt, M., Pieper, T.M. and Ringle, C.M. (2012a). The use of partial least squares structural equation modeling in strategic management research: a review of past practices and recommendations for future applications. *Long Range Planning*, 45(5/6), 320-340.
- Hair, J.F., Sarstedt, M., Ringle, C.M., & Mena, J.A. (2012b). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40(3), 414-433.
- Hair, Joseph F., (2007). *Research methodology for business*. John Wiley & Sons, Chichester, West Sussex, England; Hoboken, N. J.
- Henseler, J., & Fassott, G. (2010a). *Testing moderating effects in PLS path models: An Illustration of Available Procedures*. In V. Esposito Vinzi, W. W. Chin, J. Henseler & H. Wang (Eds.), *Handbook of Partial Least Squares: Concepts, Methods and Applications*.
- Henseler, J., & Fassott, G. (2010b). *Testing Moderating Effects in PLS Path Models: An illustration of available procedures*. In V. Esposito Vinzi, W. W. Chin, J. Henseler & H. Wang (Eds.), *Handbook of Partial Least Squares*.
- 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.
- Hair Jr, J.F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V.G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*, 26(2), 106-121.
- Kimberly, J.R. (1981). *Managerial innovation*. in Nystrom, P.C. and Strabuck, W.H. (Eds), *Handbook of Organizational Design*, Vol. 1, Oxford University Press, New York, NY, pp. 84-104.
- Kwak, D.-W., Seo, Y.-J., & Mason, R. (2018). Investigating the relationship between supply chain innovation, risk management capabilities and competitive advantage in global supply chains. *International Journal of Operations & Production Management*, 38(1), 2–21.
- Lechner, C., & Gudmundsson, S.V. (2014). Entrepreneurial orientation, firm strategy and small firm performance. *International Small Business Journal*, 32, 36–60.
- Lilien, G. L., Morrison, P. D., Searls, K., Sonnack, M., & Von Hippel, E. (2002). Performance assessment of the lead user idea-generation process for new product development. *Management Science*, 48(8), 1042-1059.
- Lumpkin, G.T. & Dess, G.G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, 21(1), 135–172.
- March, J., & Shapira, Z. (1987). Managerial perspectives on risk and risk taking. *Management Science*, 33(11), 1404-18.
- Miller, D. & Friesen, P. (1978). Archetypes of strategy formulation. *Management Science*, 24, 921-933.
- Miller, D. (1983). The correlates of entrepreneurship in three types of firms. *Management Science*, 29(7), 770-791.
- Morris, M. H., & Kuratko, D. F. (2002). *Corporate entrepreneurship: Entrepreneurial development within organizations*, Orlando, FL: Harcourt College Publishers.
- Porter, M. (1980). *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York: Free Press.
- Porter, M. E. (1998). *The Competitive Advantage of Nations*. The Free Press, New York, pg. 74.
- Porter, M.E. (1988). *Competitive strategy: techniques for analyzing industries and competitors*. Free Press: New York. Second edition.
- Scherer, F.M. (1980). *Industrial market structure and economic performance*, 2<sup>nd</sup> ed., Houghton-Mifflin, Boston, MA.
- Shamot, M. M. (2011). Quality management practices and their impact on organizational performance, and customer behavior. *European Journal of Economics, Finance and Administrative Sciences*, 34(2), 21-33.
- Tsai, W. C., Chen, C. C., & Liu, H. L. (2007). Test of a model linking employee positive moods and task performance. *Journal of Applied Psychology*, 92, 1570–1583.
- Venkatraman, N. (1989). Strategic orientation of business enterprises: The construct, dimensionality, and measurement. *Management Science* 35(8), 942-962.
- Verhees, F.J., & Meulenbergh, M.T. (2004). Market orientation, innovativeness, product innovation and performance in small firms. *Journal of Small Business Management*, 42(2), 134-54.
- 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.
- Wong, H. Y. & Merrilees, B. (2008). The performance benefits of being brand-oriented. *Journal of Product and Brand Management*, 17(6), 372-383.
- Wu, J., & Wu, Z. (2014). Integrated risk management and product innovation in China: The moderating role of board of directors. *Technovation*, 34(8), 466–476.

