

# Does Leadership matter in Innovation and New Business Venturing? Testing the Mediating Effect of Absorptive Capacity

Loo-See Beh

Faculty of Economics & Administration, University of Malaya, Kuala Lumpur, Malaysia  
Email: lucybeh@um.edu.my

Imran Shafique

Faculty of Economics & Administration, University of Malaya  
Email: shafiqueimran@hotmail.com

**Abstract**— This study aims to investigate whether leadership matters in promoting innovation and new business venturing. Using survey questionnaire, data is collected from the manufacturing SMEs of Pakistan. Structural equation modeling (SEM) technique is used for analysis. The results demonstrate that transformational leadership has positive influence on innovation, new business venturing and corporate entrepreneurship. Absorptive capacity also has a mediating effect between transformational leadership with innovation and new business venturing.

**Index Terms**—transformational leadership, absorptive capacity, innovation, new business venturing, corporate entrepreneurship

## I. INTRODUCTION

Firms constantly face the continuously changing business environment and strong competition in a globalized era [1] often leading to economic progress [2] and enhancing decentralization [3]. Some of the external environment sources of influence include technology, competition, economics, resources, customers, and legal/political situations along with the internal environment and management of the firm.

Given the ever-changing strategic shifts, old business structures are not sufficient for firms to compete in emerging competitive environment, strong rivalry, and volatility [4]. Firms cannot survive without adapting to changes and adjustments [5]. Environmental changes and intensive competitions are compelling firms to bring transformation inside firms. One of the important transformations is that firms are adopting corporate entrepreneurship [5]. Corporate entrepreneurship includes two elements: (1) creation of new business unit within an established firm and (2) firm transformation via strategic renewal [6]. In fact, corporate entrepreneurship denotes a sustainable strategic option for leaders to stay competitive. This contention raises the question of leadership and management style to sustain business performance [7].

Following [6], corporate entrepreneurship refers to the combination of innovation and new business venturing. Accordingly, transformational leadership is most appropriate to promote corporate entrepreneurship [8]. Several empirical studies also found that transformational leadership positively affects corporate entrepreneurship. Most studies have been conducted in western and developed countries such as [9] in Netherlands, [10] in Australia, [11] in Spain, and [12] in USA. However, limited studies were conducted in developing and emerging countries such as [13] in Malaysia, [14] in Bahrain, [15] in Turkey but none so far in Pakistan.

Small and medium enterprises (SMEs) play vital role for the growth of any national economy. SMEs in Pakistan considered as backbone of its economy and currently facing survivability issues [16]. As studies are limited in the context of Pakistan, general literature advocates that most businesses fail due to inappropriate leadership style [17]. Keeping in view both scenarios, this study aims to investigate the role of transformational leadership to promote corporate entrepreneurship directly and through absorptive capacity in the manufacturing SMEs of Pakistan. Fig. 1 explains the hypothesized relationship between transformational leadership and corporate entrepreneurship. This relationship is mediated by absorptive capacity while transformational leadership also affects the dimensions of corporate entrepreneurship: innovation and new business venturing directly and through absorptive capacity.



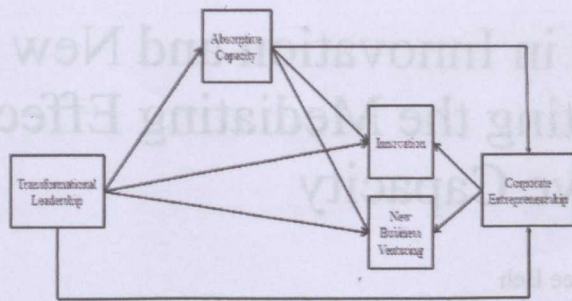


Figure 1: Conceptual Framework

## II. LITERATURE REIWEV

### A. Transformational Leadership

The concept of transformational leadership was initially coined by Burns [18] as “transforming leadership as leaders and followers raise one another to higher levels of morality and motivation”. Transformational leaders influence followers and connect their goals with organizational objectives as well as changing their self-esteem and beliefs by inspiring their respect and loyalty for the leaders [19]. Later, Bass [20] from a psychological point of view named it ‘transformational leadership’ because he was interested to know leaders’ efficacy in affecting followers or employees to transform their concepts, values, aspirations, perceptions, and expectations.

Bass and Avolio [21] introduced five elements of transformational leadership: idealized influence (attributed), idealized influence (behavior), inspirational motivation, intellectual stimulation, and individualized consideration. Idealized influence (attributed) defines the sense of loyalty, admiration, trust, and respect which followers attribute to these leaders. Idealized influence (behavior) explains the character and behavior of the leaders. Intellectual stimulation relates to the aptitude of leaders to develop an environment which is suitable for creativity and innovation, and also authorize followers or employees to solve difficult issues. Finally, individualized consideration denotes that these leaders pay attention to the needs and requirements of individual followers or employees, and assist them for their self-actualization and growth [20].

The extent to which leaders practice these elements has been demonstrated to be linked to a range of organizational and individual results such as augmented satisfaction, effort, and performance of subordinates [22], and increased effectiveness of work unit and team functioning [23]. Transformational leadership works on organizational level to bring improvements and simultaneously stimulate individual employees to assist change at individual level [24]. According to Ozaralli [23], transformational leadership has considerable effects on organizational culture and values.

### B. Corporate Entrepreneurship

Corporate entrepreneurship is a commonly used concept to explain entrepreneurial behavior of a firm [25]. Its main purpose is to attain a viable competitiveness by promoting innovation within all stages of the firm. In 1980s various researchers thought it was rare for entrepreneurship to occur in small and medium firms [26].

There is generally no accepted or agreed definition on corporate entrepreneurship. Different authors attached different meaning to it with minor modification. It comprised three elements: (1) establishment of new firm or business unit within an existing firm; (2) growth and application of entrepreneurial strategic thrusts; and (3) appearance of novel thoughts from different stages in the firm [27]. Furthermore, it is defined as “activities aimed at creating new businesses in established companies” [28]. This definition is extended by Guth and Ginsburg [6] as “transformation of organization through strategic renewal.” Zahra et al. [29] proposed numerous aspects to entrepreneurship at the level of firm revealing various content mixtures, causes and applications of entrepreneurship. Keeping in view above definitions of corporate entrepreneurship, basically it is a combination of two elements: innovation and new business venturing. Vesper [27], Nielsen et al., [30] and Bierwerth et al., [31] also consider corporate entrepreneurship as combination of innovation and new business venturing. Detailed explanations of these elements are as follows.

### C. Innovation

Various scholars explained innovation in different ways. Innovation is the process to bring newness in products or services with special focus on technological development [32]. It is also defined as the commitment of a firm to produce novel products or services, process of production or manufacturing, and a system of organization with technological development focus [33]. In this study innovation refers to the development of new products, improvement in the existing products, and development of new production process, introduce new product in existing market, or introduce existing product in new market. The primary focus is to what degree the products or activities of a firm are new, distinct, and unique.

### D. New Business Venturing

New business venturing is a vital dimension of corporate entrepreneurship because it creates new business within already an established firm [34], through transforming the products of a firm [35], and through introducing the new markets to business [28]. It refers to the establishment of new businesses associated with the already established markets or products [36]. Antoncic and Hisrich, [37] defined it as establishing new business within an already established firm. Thus this study defines new business venturing as the creation or establishment of new business in existing established firms by transforming the firm’s products for existing markets or creating new markets for existing products.

### E. Absorptive Capacity



Cohen and Levinthal [38] defined absorptive capacity as capability of firms to identify, assimilate, process and exploit the novel knowledge achieved from outside firm sources. The knowledge-based theory proposes that with this capability it can considerably enhance the ability to identify and discover novel opportunities by developing new abilities and decreasing cognitive inflexibility among top management of firm [39]. Building and sustaining absorptive capacity is essential for success and long term survival of firm as it could strengthen, refocus, or balance the knowledge base of firm.

### III. HYPOTHESES DEVELOPMENT AND RESEARCH FRAMEWORK

#### A. Transformational Leadership and Corporate Entrepreneurship

Transformational leaders are role models to their followers (employees) by demonstrating idealized influence (behavior), also known as charisma. Through idealized influence (attributed), leaders being models to followers effectively communicate consistent and distinct understandings of future goals and beliefs and realize the importance of collective goals to followers. In response, they are motivated to imitate their belief and standards. Through inspirational motivation, leaders display particular behaviors to express a shared vision, inspire and stimulate followers to achieve targeted objectives. By employing intellectual stimulation, leaders question the established beliefs and standards [40], use logic to promote critical thinking and stimulate followers to rethink basic assumptions and restructure problems. When employees are stimulated to seek fresh approaches in solving existing problems it leads to creativity thus individual creativity is enhanced through appreciating individuals' creative ideas resulting in firm-level innovation. Leaders through individualized consideration establish relationships at individual level with followers where leaders identify needs and values at both individual and firm-level. Transformational leaders shape individuals' development using mentoring, feedback, and effective communication [40] to target new business opportunities.

Eyal and Kark [41] proposed that transformational leadership has positive association with corporate entrepreneurship. As stated by [42] and [43] transformational leadership is necessary for top management to move successfully towards new business venturing. Morrisette and Oberman [17] argued on the findings of [44] that transformational leadership affects more positively in entrepreneurial firms than big organization. Ensley et al., [45] found in their study that transformational leadership positively affects performance of new venture under the conditions of dynamic environment. Yang [46] also found positive association of transformational leadership with corporate entrepreneurship. Consistent with the findings of [46], positive relationship of transformational leadership with corporate entrepreneurship is also found [47]. Thus,

consistent with above literature, we propose, *H1: Transformational Leadership has positive relationship with Corporate Entrepreneurship*

#### B. Transformational Leadership and Innovation

A number of studies have identified several factors which can contribute to stimulate innovation and most studies identified leadership as one of the most important element to promote innovation [48]. Management researchers particularly emphasized on the adaptive perspective of the transformational style of leadership and deemed it a prospective facilitator to augment innovation [49], [50]. Öncel [47] and Yang [46] also found positive relationship between transformational leadership and innovation. Therefore, consistent with extant literature, we propose, *H2: Transformational leadership positively affects innovation*

#### C. Transformational Leadership and New Business Venturing

New business venturing refers to establishment of new venture or business in existing markets or with existing products irrespective of size or level of autonomy [28]. Entrepreneurial firms are those involved in creating new businesses within the existing firm [51]. As stated by [42] and [43], transformational style of leadership is necessary for top management to move successfully toward new business venturing. Morrisette and Oberman [17] argued on the findings of [44] that transformational leadership affects more positively in entrepreneurial firms than big organizations. Ensley et al., [45] found in their study that transformational leadership positively affects the performance of new venture under the conditions of dynamic environment. So, in line with above literature we propose, *H3: Transformational leadership positively affects new business venturing*

#### D. Mediation of Absorptive Capacity

According to resource-based view, competitive advantage in this continually changing business environment is essential for successful survival of any firm. Therefore, firms continuously obtain, develop, and improve their capabilities and resources if they want to remain competitive. The major issue firms are facing is in discovering the basis of capabilities and resources which increase the competitive advantage of a firm. A number of scholars argued that leaders of the organizations play vital role to enhance capabilities of firm [52]. In this backdrop, leadership ability augments firm's absorptive capacity to nurture corporate entrepreneurship [53]. So, we propose, *H4: Absorptive capacity mediates the relationship of transformational leadership and corporate entrepreneurship*

*H4a: Absorptive capacity mediates the relationship of transformational leadership and innovation*

*H4b: Absorptive capacity mediates the relationship of transformational leadership and new business venturing.*

### IV. METHODOLOGY



### A. Population and Sample

Six industries are selected due to their significant contribution to GDP where 56% of total SMEs and seven clusters out of ten are located in province of Punjab. Following the cluster sampling technique as adopted by Bhutta et al., [54], SMEs were selected from each cluster according to their percentage in total population. Table I shows the industries and number of SMEs taken from each industry for this study.

A total of 950 questionnaires (Urdu translation was parallel to English) were distributed in SMEs of six major cities of the province to get a sufficient response rate which are registered at Small and Medium Enterprises Development Authority (SMEDA). A total of 433 responses were finally collected with the response rate of almost 46%. However, only 400 responses were used for further analysis.

TABLE I: SAMPLE DISTRIBUTION

Sr. No.	Industry	%	Firms	Responses Collected
1	Textile	21	199	127
2	Leather/Footwear	14	134	71
3	Sports	12	114	99
4	Food & Beverages	19	180	65
5	Metal	8	76	24
6	Wood & Furniture	10	95	28
7	Others	16	152	19
Total		100	950	433(usable-400)

### B. Measurements of Variables

Three different variables are used in this study. Each variable is measured according to the appropriate instrument. Further details of variables are presented as follows. Multifactor Leadership Questionnaire (MLQ Form 5X-short) is employed to measure transformational leadership. MLQ developed and refined by [21] which ranging from "1=Not at all" to "5=frequent". Transformational leadership is measured by 20-items scale. MLQ (Form 5X-short) is multi-cultural instrument. In other words, it is reliable and can be used in the context of Pakistan as used by [55], [56], [57] and [58]. Corporate entrepreneurship is measured by Corporate Entrepreneurship scale. Corporate entrepreneurship scale includes innovation and new business venturing which is developed and refined by [59] and tested by [60] and [51]. Each innovation and new business venturing are measured by five items ranging from "1=Increased Significantly" to "5=Decreased Significantly". Absorptive capacity is measured by 14 items scale which is developed by [61], further refined by [62]. This scale is used by [63] and assured its reliability. Furthermore, this scale is validated in the context of Pakistan [64]. This scale has also range from "1=Strongly Disagree" to "5=Strongly Agree".

### C. Analytical Technique

Structural Equation Modeling (SEM) is used to test the conceptual model and applied in two stages [65]. The first step is to evaluate SEM measurement properties, unidimensionality of each latent variables, modification or

re-specification of model and assessment of reliability and validity of measurement properties. The second step provides the path association in causal theoretical latent measures. When a good fit of structural model is recognized, the structural model is then used for testing the hypotheses.

## V. RESULTS AND DISCUSSION

The values of mean, standard deviations, and correlations variables are presented in Table II. The low and medium levels of correlation coefficients show that variables do not have high collinearity with each other.

TABLE II: DESCRIPTIVE STATISTICS

	Means	SD	1	2	3	4
1.TL	4.1795	0.69717				
2.INN	4.0369	0.80649	0.350*			
3.NBV	3.9588	0.88207	0.342*	0.065		
4.AC	4.1046	0.76039	0.361*	0.000	-0.114**	
5.CE	3.8721	0.59509	0.506*	0.115**	-0.057	0.704*

\*and\*\* represent significance level at 1% and 5% respectively

Reliability and validity of every construct is measured [66]. Reliability is measured by average variance extracted (AVE), construct reliability (CR), and Cronbach's alpha. Likewise, validity is measured by convergent validity. AVE and CR are computed employing confirmatory factor analysis (CFA) on the bases of formulas presented by [67] which confirm the reliability of the constructs. Results are presented in Table III. All constructs used in this study have CR above 0.60 and AVE not less than 0.50 as suggested by [68], recommending the constructs' reliability. The values of Cronbach's alpha of all constructs are more than 0.70 [69] which also confirms the reliability.

TABLE III: INSTRUMENT RELIABILITY

Variables	FL	AVE	CR	Cronbach Alpha
TL	1	0.68	0.508	0.912
	2	0.72		
	3	0.70		
	4	0.67		
	5	0.70		
	6	0.70		
	9	0.69		
	14	0.76		
	15	0.75		
	20	0.75		
Innovation	21	0.68	0.562	0.773
	22	0.68		
	23	0.75		
	24	0.60		
NBV	26	0.64	0.518	0.81
	28	0.73		
	29	0.79		
	30	0.71		
AC	33	0.68	0.525	0.885
	34	0.70		
	37	0.73		
	38	0.77		
	40	0.81		
	41	0.68		
	42	0.69		

Construct validity is important to test a theory [68]. Therefore, construct validity is assessed on the basis of



GFI [70] and discussed in Table IV. Convergent validity is assured on the basis of high factor loadings (>0.50) of all factors [71]. Furthermore, AVE outputs give an additional support to convergent validity.

This study uses two phase modeling; measurement and structural model [72]. First, this technique is recognized broadly; second, correct value of items reliability for every construct is carried out in two phases to keep away from any relation of measurement and structural model. In Table IV, the results of measurement models depict the goodness-of-fit of models along with the finalized items. The analysis of structural model is carried out in this phase. Two structural models are analyzed to address the hypotheses. The results of both models are as shown in Table IV and V.

TABLE IV: GOODNESS-OF-FIT MODELS

Goodness-of-fit	GFI	CFI	RMSEA	chi sq/df
<b>Transformational Leadership</b>				
Finalized Items: 1,2,3,4,5,6,9,14,15,20	0.934	0.949	0.085	3.884
<b>Innovation</b>				
Finalized Items: 21,22,23,24	0.982	0.994	0.055	2.194
<b>New Business Venturing</b>				
Finalized Items: 26,28,29,30	0.995	0.998	0.033	1.433
<b>Absorptive Capacity</b>				
Finalized Items: 33,34,37,38,40,41,42	0.966	0.977	0.071	3.014
Structural Model 1	0.92	0.903	0.068	2.831
Structural Model 2	0.962	0.901	0.069	2.875

TABLE V: STANDARDIZED EFFECTS

Paths	Direct	Indirect	Total
TL→CE	0.317*	0.245*	0.562*
TL→AC	0.470*	-	0.470*
AC→CE	0.523*	-	0.523*

\* represent level of significance at 0.1%

The results show that transformational leadership has significant positive association with corporate entrepreneurship both direct and indirect through absorptive capacity (Table VI). The magnitude of direct and indirect association is substantial as evident from its coefficient value 0.317 and 0.245 respectively. These results are consistent with previous literatures. For example, Ling et al. [44] and Moriano et al. [73] found positive relationship between transformational leadership and corporate entrepreneurship. Similarly, García-Morales et al. [11] found that transformational leadership positively influences the absorptive capacity. Furthermore, Zahra et al. [39] and Sakhdari et al. [53] also found that absorptive capacity positively affects corporate entrepreneurship.

It is vital to examine the effects of transformational leadership on the dimensions of corporate

entrepreneurship. The results in Table VI illustrate the aforesaid relationship.

TABLE VI: STANDARDIZED EFFECTS

Paths	Direct	Indirect	Total
TL→INN	0.165*	0.183*	0.348*
TL→NBV	0.236*	0.134*	0.370*
TL→AC	0.470*	-	0.470*
AC→INN	0.390*	-	0.390*
AC→NBV	0.286*	-	0.286*

\* represent level of significance at 0.1%

Transformational leadership has direct influence on both dimensions of corporate entrepreneurship (innovation & new business venturing). García-Morales et al. [11] and Ryan and Tipu [58] also found positive association between transformational leadership and innovation. Ensley et al. [45] found positive relationship between transformational leadership and new business venturing, but with moderating role of environmental dynamism. Absorptive capacity also positively mediates between transformational leadership and both elements of corporate entrepreneurship. The results are consistent with theory and past studies [11], [39], [53]. García-Morales et al. [11] and Ryan and Tipu [58] found positive relationship between transformational leadership and innovation. For instance, it is found that absorptive capacity positively influenced the corporate entrepreneurship activities and innovation [39], [53]. Ensley et al. [45] found positive relationship between transformational leadership and new business venturing but with moderating role of environmental dynamism. The findings of Eyal and Kark [41] and Öncel [47] also support the results of this study that transformational leadership has significant direct effects on proactivity of a firm and performance [74].

From this study, it shows that leadership does matter in innovation and new business venturing resulting in corporate entrepreneurship. SMEs owners and managers need to understand the importance of corporate entrepreneurship for survival, growth, and profitability. Secondly, only shifting form management approach to leadership is insufficient, instead an appropriate leadership style is required to promote corporate entrepreneurship in firms. Furthermore, a leadership style which links the firm with external sources is helpful to promote corporate entrepreneurship given that the results of this study and previous empirical studies found that transformational leadership as an appropriate leadership style which has significant direct and indirect (through absorptive capacity) influence on all the dimensions of corporate entrepreneurship. Thirdly, SMEs owners or top management ought to recruit managers or directors with special attention of transformational leadership capability. Thus, in developing entrepreneurial culture (corporate entrepreneurship) research and development (R&D) capacity is encouraged for innovation and new business venturing.

## VI. CONCLUSION AND IMPLICATIONS



The results illustrate that transformational leadership has positive significant effects on corporate entrepreneurship directly and indirectly through absorptive capacity. Nevertheless, SMEs survival cannot be ensured until and unless they promote corporate entrepreneurship through management approach. In improving transformational leadership skills in industries, appropriate education and training of key personnel of SMEs are essential for transformational leadership. The issue can be resolved through hiring trained and qualified individuals with focus on trainings and workshops on regular basis to maintain the practices of transformational leadership within the firms. SMEs can collaborate with specific training and educational institutions to enhance the managerial skills of key management personnel. For example, textile firms have collaboration with National Textile University, Faisalabad and Textile Institute of Pakistan (TIP). Some specific institutions have been established for leather industry to provide related training and education. With the collaboration of those institutions or universities, required leadership skills can be achieved. Such type of measures can be taken for all the major industries. This study is conducted in the limited manufacturing sectors (textile, leather/footwear, sports, food and beverages, metal, and wood and furniture) in one province of the Pakistan. Thus the results of the study and the importance of transformational leadership can be further improved by including other sectors. This study recommends future research to include data of other manufacturing sectors such as surgical equipment, chemical, carpet, and electronic industries.

#### ACKNOWLEDGEMENT

The authors gratefully acknowledge the funding from the University of Malaya Grant RG289-14AFR.

#### REFERENCES

- [1] David, F. R. (2007). *Strategic Management: Concepts and Cases*. Upper Saddle River, NJ: Prentice Hall.
- [2] Sethi, S. P. (2009). Globalization and the good corporation. *Journal of business ethics*, 87(1), 1-2.
- [3] Monbiot, G. (2001). New European: Against corporate power, for free trade. *European Business Review*, 13(5), XXII-XXIII.
- [4] Scherrer, P. S. (2003). Management turnarounds: Diagnosing business ailments. *Corporate Governance: The international journal of business in society*, 3(4), 52-62.
- [5] Morris, M., Kuratko, D., & Covin, J. (2008). *Corporate entrepreneurship & innovation* (2<sup>nd</sup> ed.). Mason, OH: Thompson.
- [6] Guth, W. D., & Ginsberg, A. (1990). Guest Editors' Introduction: Corporate Entrepreneurship. *Strategic management journal*, 11(04), 05-15.
- [7] Dess, G. G., & Lumpkin, G. T. (2003). *Strategic Management: Creating Competitive Advantages* (8th ed.). Boston: McGraw-Hill.
- [8] Dess, G. G., & Lumpkin, G. T. (2003). *Strategic Management: Creating Competitive Advantages* (8th ed.). Boston: McGraw-Hill.
- [9] Hamstra, M. R. W., Van Yperen, N. W., Wisse, B., & Sassenberg, K. (2014). Transformational and Transactional leadership and Followers' Achievement Goals. *Journal of Business and Psychology*, 29(03), 413-425.
- [10] Westerlaken, K. M., & Woods, P. R. (2013). The Relationship between Psychopathy and the Full Range Leadership Model. *Personality and Individual Differences*, 54(01), 41-46.
- [11] García-Morales, V. J., Jiménez-Barrionuevo, M. M., & Gutiérrez-Gutiérrez, L. (2012). Transformational Leadership Influence on Organizational Performance through Organizational Learning and Innovation. *Journal of Business Research*, 65(07), 1040-1050.
- [12] Valdiserri, G. A., & Wilson, J. L. (2010). The Study of Leadership in Small Business Organizations: Impact on Profitability and Organizational Success. *The Entrepreneurial Executive*, 15(01), 47-71.
- [13] Bakar, M. S., & Mahmood, R. (2014). Linking Transformational Leadership and Corporate Entrepreneurship to Performance in the Public Higher Education Institutions in Malaysia. *Advances in Management and Applied Economics*, 4(3), 109-122.
- [14] Birasnav, M. (2014). Knowledge Management and Organizational Performance in the Service Industry: The Role of Transformational Leadership beyond the Effects of Transactional Leadership. *Journal of Business Research*, 67(08), 1622-1629.
- [15] Gumusluoglu, L., & Ilsev, A. (2009). Transformational leadership, creativity, and organizational innovation. *Journal of business research*, 62(4), 461-473.
- [16] Hussain, I., Si, S., Xie, X., & Wang, L. (2010). Comparative Study on Impact of Internal and External CFFs on SMEs. *Journal of Small Business & Entrepreneurship*, 23(04), 637-648.
- [17] Morrisette, S., & Oberman, W. (2013). Shifting Strategic Imperatives: A Stages of Leadership Perspective on the Adoption of Corporate Entrepreneurship. *Journal of Applied Management and Entrepreneurship*, 18(02), 59-82.
- [18] Burns, J. M. (1978). *Leadership* (1st ed.). New York: Harper & Row.
- [19] Kark, R., Shamir, B., & Chen, G. (2003). The two faces of transformational leadership: empowerment and dependency. *Journal of applied psychology*, 88(2), 246-255.
- [20] Bass, B. M. (1985). *Leadership and performance beyond expectations*: Free Press: Collier Macmillan.
- [21] Bass, B. M., & Avolio, B. J. (2004). *Multifactor Leadership Questionnaire: Manual and Sample Set* (3rd ed.). Redwood City: Mind Garden Inc.
- [22] Bryman, A. (1992). *Charisma and leadership in organizations*. London: Sage.
- [23] Özaralli, N. (2003). Effects of transformational leadership on empowerment and team effectiveness. *Leadership & Organization Development Journal*, 24(6), 335-344.
- [24] Yukl, G. A. (2002). *Leadership in Organizations* (5th ed.). Upper Saddle River, NJ: Prentice-Hall International.
- [25] Sharma, P., & Chrisman, J. (1999). Toward a Reconciliation of the Definitional Issues in the Field of Corporate Entrepreneurship. *Entrepreneurship Theory and Practice*, 23(03), 11-27.
- [26] Morse, M. D. (1986). Clusters of transition-metalatoms. *Chemical Reviews*, 86(6), 1049-1109.
- [27] Vesper, K. H. (1984). Three Faces of Corporate Entrepreneurship: A Pilot Study. In J. A. Hornaday, F. Tarpley, J. A. Timmons & K. H. Vesper (Eds.), *Frontiers of entrepreneurship research*. Wellesley, MA: Babson College.
- [28] Zahra, S. A. (1991). Predictors and Financial Outcomes of Corporate Entrepreneurship: An Exploratory Study. *Journal of Business Venturing*, 06(04), 259-285.
- [29] Zahra, S. A., Nielsen, A. P., & Bogner, W. C. (1999). Corporate entrepreneurship, knowledge, and competence development. *Entrepreneurship: Theory and Practice*, 23(3), 169-169.
- [30] Nielsen, R. P., Peters, M. P., & Hisrich, R. D. (1985). Intrapreneurship Strategy for Internal Markets—Corporate, Non-Profit and Government Institution Cases. *Strategic management journal*, 06(02), 181-189.
- [31] Bierwerth, M., Schwens, C., Isidor, R., & Kabst, R. (2015). Corporate Entrepreneurship and Performance: A Meta-Analysis. *Small Business Economics*, 45(2), 255-278.
- [32] Knight, G. A. (1997). Cross-cultural Reliability and Validity of a Scale to Measure Firm Entrepreneurial Orientation. *Journal of Business Venturing*, 12(03), 213-225.
- [33] Lumpkin, G. T., & Dess, G. G. (1996). Clarifying the Entrepreneurial Orientation Construct and linking it to



- Performance. *Academy of Management review*, 21(01), 135-172.
- [34] Stopford, J. M., & Baden-Fuller, C. W. (1994). Creating Corporate Entrepreneurship. *Strategic management journal*, 15(07), 521-536.
- [35] Rule, E. G., & Irwin, D. W. (1988). Fostering Intrapreneurship: The New Competitive Edge. *Journal of Business Strategy*, 09(03), 44-47.
- [37] Antoncic, B., & Hisrich, R. D. (2001). Intrapreneurship: Construct refinement and cross-cultural validation. *Journal of Business Venturing*, 16(5), 495-527.
- [38] Cohen, W. M., & Levinthal, D. A. (1990). Absorptive Capacity: A New Perspective on Learning and Innovation. *Administrative science quarterly*, 35(01), 128-152.
- [39] Zahra, S. A., Filatotchev, I., & Wright, M. (2009). How Do Threshold Firms Sustain Corporate Entrepreneurship? The Role of Boards and Absorptive Capacity. *Journal of Business Venturing*, 24(03), 248-260.
- [40] Bass, B. M., & Riggio, R. E. (2006). *Transformational Leadership* (2nd ed.). Mahwah, New Jersey: Lawrence Erlbaum Associates, Inc.
- [41] Eyal, O., & Kark, R. (2004). How Do Transformational Leaders Transform Organizations? A Study of the Relationship Between Leadership and Entrepreneurship. *Leadership and Policy in Schools*, 3(3), 211-235.
- [42] Covin, J. G., & Slevin, D. P. (2002). The Entrepreneurial Imperatives of Strategic Leadership. In M. A. Hitt, R. D. Ireland, S. M. Camp & D. L. Sexton (Eds.), *Strategic entrepreneurship: Creating a new mindset* (pp. 309-327). Oxford: Blackwell Publishers.
- [43] Gupta, V., MacMillan, I. C., & Surie, G. (2004). Entrepreneurial Leadership: Developing and Measuring a Cross-Cultural Construct. *Journal of Business Venturing*, 19(02), 241-260.
- [44] Ling, Y., Simsek, Z., Lubatkin, M. H., & Veiga, J. F. (2008). Transformational Leadership's Role in Promoting Corporate Entrepreneurship: Examining the CEO-TMT Interface. *Academy of Management Journal*, 51(03), 557-576.
- [45] Ensley, M. D., Hmieleski, K. M., & Pearce, C. L. (2006). The Importance of Vertical and Shared Leadership within New Venture Top Management Teams: Implications for the Performance of Startups. *The Leadership Quarterly*, 17(03), 217-231.
- [46] Yang, C.-W. (2008). The Relationships Among Leadership Styles, Entrepreneurial Orientation, and Business Performance. *Managing Global Transitions*, 06(03), 257-275.
- [47] Öncü, A. Z. (2013). Investigation of The Effects of Transactional and Transformational Leadership on Entrepreneurial Orientation. *International Journal of Business and Social Research*, 03(04), 153-166.
- [48] Mumford, M. D., Scott, G. M., Gaddis, B., & Strange, J. M. (2002). Leading creative people: Orchestrating expertise and relationships. *The leadership quarterly*, 13(6), 705-750.
- [49] Gardner, W. L., & Avolio, B. J. (1998). The charismatic relationship: A dramaturgical perspective. *Academy of management review*, 23(1), 32-58.
- [50] Crawford, C. B., & Strohkirch, C. S. (2000). Organizational innovation: Understanding of agents of technological influence. *Electronic Journal of Communication*, 10(1), 2.
- [51] Antoncic, B. (2007). Intrapreneurship: a comparative structural equation modeling study. *Industrial Management & Data Systems*, 107(3), 309-325.
- [52] Hamel, G., & Prahalad, C. K. (1990). The Core Competence of the Corporation. *Harvard Business Review*, 68(03), 79-91.
- [53] Sakhdari, K., Burgers, H., & Davidsson, P. (2014). *The Moderating Role of Entrepreneurial Management in the Relationship between Absorptive Capacity and Corporate Entrepreneurship: An Attention-Based View*. Paper presented at the Australian Centre for Entrepreneurship Research Exchange Conference 2014, Sydney, Australia.
- [54] Bhutta, M. K. S., Khan, J. H., Omar, A., & Asad, U. (2008). An Exploratory Study of the Characteristics Affecting the Success of SMEs in Pakistan. *International Journal of Entrepreneurship and Small Business*, 7(1), 107-122.
- [55] Khan, R., Rehman, A. U., & Fatima, A. (2009). Transformational Leadership and Organizational Innovation: Moderated by Organizational Size. *African Journal of Business Management*, 03(11), 678-684.
- [56] Nawaz, M. M., & Bodla, M. A. (2010). Comparative study of Full Range Leadership Model Among Faculty Members in Public and Private Sector Higher Education Institutes and Universities. *International Journal of Business and Management*, 05(04), 208-214.
- [57] Tipu, S. A. A., Ryan, J. C., & Fantazy, K. A. (2012). Transformational Leadership in Pakistan: An Examination of the Relationship of Transformational Leadership to Organizational Culture and Innovation Propensity. *Journal of Management & Organization*, 18(04), 461-480.
- [58] Ryan, J. C., & Tipu, S. A. (2013). Leadership Effects on Innovation Propensity: A Two-Factor Full Range Leadership Model. *Journal of Business Research*, 66(10), 2116-2129.
- [59] Zahra, S. A. (1993). A Conceptual Model of Entrepreneurship as Firm Behavior: A Critique and Extension. *Entrepreneurship theory and Practice*, 17(24), 05-21.
- [60] Zahra, S. A. (1996). Governance, Ownership, and Corporate Entrepreneurship: The Moderating Impact of Industry Technological Opportunities. *Academy of Management Journal*, 39(06), 1713-1735.
- [61] Zahra, S. A., & George, G. (2002). Absorptive Capacity: A Review, Reconceptualization, and Extension. *Academy of Management review*, 27(02), 185-203.
- [62] Flatten, T. C., Engelen, A., Zahra, S. A., & Brettel, M. (2011). A Measure of Absorptive Capacity: Scale Development and Validation. *European Management Journal*, 29(02), 98-116.
- [63] Jiménez-Castillo, D., & Sánchez-Pérez, M. (2013). Nurturing Employee Market Knowledge Absorptive Capacity Through Unified Internal Communication and Integrated Information Technology. *Information & Management*, 50(02), 76-86.
- [64] Umrani, W., Ahmed, U., & Memon, P. (2015). Examining the absorptive capacity construct: A validation study in the Pakistani banking context. *Management Science Letters*, 5(12), 1053-1058.
- [65] Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin*, 103(3), 411-423.
- [66] De Wulf, K., Odekerken-Schröder, G., & Lacobucci, D. (2001). Investment in Consumer Relationships: Across-Country and Cross-Industry Exploration. *Journal of Marketing*, 65(04), 33-50.
- [67] Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of marketing research*, 18(01), 39-50.
- [68] Bagozzi, R. P., & Yi, Y. (1988). On The Evaluation of Structural Equation Models. *Journal of the academy of marketing science*, 16(1), 74-94.
- [69] Nunnally, J. C. (1978). *Psychometric Theory* (2nd ed.). New York: McGraw-Hill.
- [70] Hsieh, Y.-C., & Hsiang, S.-T. (2004). A Study of the Impacts of Service Quality on Relationship Quality in Search-Experience-Credence Services. *Quality control and applied statistics*, 49(06), 687-688.
- [71] Holmes-Smith, P., Coote, L., & Cunningham, E. (2006). *Structural Equation Modeling: From the Fundamentals to Advanced Topics*. Melbourne: Sream and Statsline.
- [72] Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis: A Global Perspective* (7th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- [73] Moriano, J. A., Molero, F., Topa, G., & Mangin, J.-P. L. (2014). The influence of Transformational Leadership and Organizational Identification on Intrapreneurship. *International Entrepreneurship and Management Journal*, 10(01), 103-119.
- [74] Williams, H. M., Parker, S. K., & Turner, N. (2010). Proactively Performing Teams: The Role of Work Design, Transformational Leadership, and Team Composition. *Journal of Occupational and Organizational Psychology*, 83(02), 301-324.