

Exploring the link between entrepreneurial skills and entrepreneurial intentions: Proposing a hypothesized model for future research

Dr. Muhammad Salman Shabbir

Associate Professor, The Orbit Institute of Management and Technology, Lahore
salman.shabbir55@gmail.com

Prof. Dr. Mohd Noor Mohd Shariff

Professor, School of Business Management, University Utara Malaysia
mdnoor@uum.edu.my

Rabia Salman

PhD Scholar, University Utara Malaysia (UUM)
aarabiala@gmail.com

Muhammad Farooq Shabbir

PhD Scholar, Dalian University of Technology, China
farooq.shabbir@iub.edu.pk

ABSTRACT

The primary purpose of the study is to propose a hypothesized model which can explore the association, if any between entrepreneurial skills and entrepreneurial intentions. The data was collected from 372 respondents working as IT professionals through self-administered survey using Likert scale. The data was analyzed using descriptive statistics and PLS-SEM version 3.0. The results and analysis were aimed at proposing a hypothesized model using PLS-SEM approach. The hypothetical deductive model was developed and used to examine the exogenous variable of entrepreneurial skills which comprises of technical, managerial, personal maturity, leadership and entrepreneurial personal skills towards the endogenous variable of entrepreneurial intentions through the mediating constructs of attitude towards behavior, perceived behavioral control, and stakeholders’ support systems.

Key words:

Entrepreneurial skills, Entrepreneurial intentions, Attitude towards behavior, Perceived behavioral control, and Stakeholders’ support system.

INTRODUCTION

Pakistan is a developing country with increasing rate of unemployment (World Bank, 2016). Unemployment is compelling Government and policy makers to transform the existing structure of the economy by defining it from industrial and agricultural based to knowledge based economy (OECD 1996). One of the potential engine for this transmute can be encouraging entrepreneurship in the country (Audretsch & Fritsch, 2002; GEM, 2012; Sarfraz & Qureshi, 2011). Global University Entrepreneurial Spirit Students’ Survey (2011) reported that Pakistani University students had shown lower level of motivation for entrepreneurship and to initiate a business after graduating. Furthermore, Sarfraz and Qureshi (2011) refer to the Global Entrepreneurship Monitor

(GEM, 2011) report incited that Pakistani section of population had shown only 23% entrepreneurial intentions, which is less than Bangladesh and Algeria that reposted 25% and 42% respectively. Additionally, Haque (2007) also reported that in Pakistan, very limited use of modern practices and trends are observed in connection to entrepreneurial activities and ways of doing business. Global Entrepreneurship Monitor (2012) had attempt to perform a Comparison of various entrepreneurial characteristics of Pakistan with different regional countries (see figure 1). It indicates that Pakistan is ranked very low on most of these dimensions as compare to similar regional counterparts.

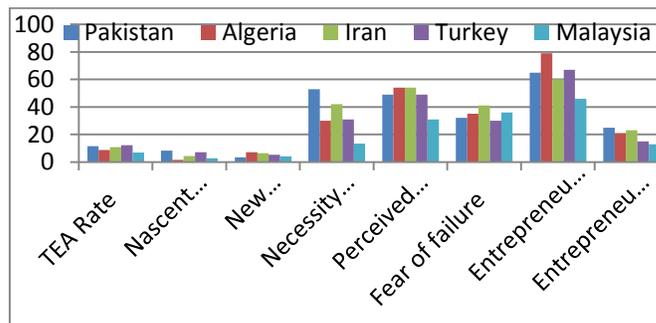


Figure.1- Comparison of Various Entrepreneurial Characteristics and Framework Conditions of Pakistan with its Peer Nations, Global Entrepreneurship Monitor (2012).

Entrepreneurs often come up with innovative technological developments, new product development or process reengineering and new market opportunities (Audretsch, 2002). Certain skills set play an important part in taken the decision to be self-employed, as skills have a cognitive aspect which represent one’s true self (Chell, 2013; Kuratko, 2016). Existing research literature on entrepreneurship had recognized the impact of entrepreneurial

skills on entrepreneurial intentions (Kuratko & Hodgetts, 2001; Oosterbeek, Van, Praag, & Ijsselstein, 2010; Shabbir, Shariff & Shahzad, 2016; Smith, Schallenkamp & Eichholz, 2007). Furthermore, numerous research studies have, till date, also identify the important role of entrepreneurship skills during entrepreneurship process (Gibb, 1993; Kuratko & Hodgetts, 2001; Oosterbeek et al., 2010; Timmons, 1994; Zimmerer, Böcker, Wenz & Singer, 2008).

Keeping in view the context, present study is aimed at examining variables namely technical skills, managerial skills, personal maturity skills, leadership skills and entrepreneurial personal skills as independent variables with respect to their impact on entrepreneurial intentions of IT employees in Pakistan, while considering attitude towards behavior, stakeholders' support system, and perceived behavioural control as mediating variables. Data were collected through self-administrated survey from 372 respondents employed in Information Technological based companies across Pakistan at different career levels. This paper attempts to elaborate methodology of the data analysis using descriptive statistics and proposes a hypothesized model.

The primary purpose of this research paper is to propose hypothesized model using partial least square structural equation modelling (PLS-SEM) technique to assess the impact of entrepreneurial skills on developing entrepreneurial intentions among employees working in IT companies in Pakistan. The paper is structured as, the following section carries literature review on the subject, while section three is designated to development of hypothesis, section four describes research methodology followed by the respondent's profile and finally section six concludes the study.

LITERATURE REVIEW

Skills are multidimensional and a quite dynamic concept (Hayton & McEvoy 2006; Kuratko, 2016). Chell (2013) explains that "Skills are multidimensional constructs; they comprise the cognitive – knowledge and what is learnt; the affective – emotional expression and what is experienced; *the behavior – action at strategic, tactical and personal levels; and the context – sectoral, occupational, job and task levels*" (p.8). Furthermore she argued that skills can be learned and sharpened with the due course of time with practice and repetition. Hayton and McEvoy (2006) identified great misunderstanding regarding the terms competencies, skills, knowledge and abilities as these are referred interchangeably in research literature.

Delamare-Le Deist and Winterton (2005) suggested a typology of competencies, they characterized four types of competence typologies;

- Cognitive competence
- Functional competence
- Behavioural and attitude competence
- Meta-competence

In their classification of competence, cognitive

competence characterizes as understanding and knowledge, while skills are taken as functional competencies, attitudinal and behavioural competence is related to social competence, and Meta competencies are related to obtaining other related competencies.

Skills are multidisciplinary, and contain cognitive, affective, and behavioural elements (Chell, 2013). Fischer and Bidell (2005) defined skills "a capacity to act in an organized way in a specific context" (p.5). Chell (2013) consider skills and competencies are distinct constructs, and these should also be segregated from capability and aptitude. However, skills are still under researched construct and needs to be explored in more details.

Several research studies have highlighted the importance of entrepreneurial skills and its contribution on growth and sustainability of any business (Bird, 1995; Capaldo, Iandoli, & Ponsiglione 2004; Chandler & Jansen 1992; Storey, 1994) Similarly, Capaldo et al (2004) concluded that entrepreneurial skills and competencies are one of vital aspect that define the fate of any business venture. Furthermore, Brinckmann (2008) suggested that though a significant research literature had been produced on entrepreneurship, but still there is a great scope of research on the entrepreneurial skills and competencies both on theoretical and practical aspects. Chandler and Jansen (1992) have identifies two different types of skills requirements, one at the start of a new business venture and second are vital for growth of entrepreneurial venture.

Entrepreneurial intentions or decision to be self-employed can be affected by number of factors, it includes both internal and external (Ajzen 2005; Thomas & Mueller 2000). The theory of planned behavior (Ajzen, 1991) is the underlying paradigm for entrepreneurial intentions and factors affecting the intentions to be self-employed (Shabbir, Shariff, & Shazad, 2016). Rauch and Frese (2000) highlighted that impact of personal skills, attitude and characteristics are the important factors leading towards self-employment decision. Janssen, Giacomini and Shinnar (2013) claimed that university students with optimistic behavior seems to be more inclined toward self-employment and possess higher level of entrepreneurial intentions. Krueger Reilly and Carsrud (2000) suggested that entrepreneur's self-efficacy or perceived behavioural control has a great significant impact on the entrepreneurial intentions. Gürol and Atsan (2006) identified that entrepreneurs found to be scoring high on innovative aspects when compare to managers and non-entrepreneurial professionals. Individuals with a higher level of risk taking ability seems to be having entrepreneurial intention (Hmieleski & Corbett 2006). Furthermore, Rauch Frese (2000) noted that education can contribute toward sharpening the creative skills and can ultimately lead towards higher degree of entrepreneurial intentions. Numerous studies described that the subjective norm (support from environment and family) intermediates positive association between exogenous factors and entrepreneurial intentions (Ajzen,

1992; Cooper 1993; Linan, 2008; Krueger & Brazeal, 1994).

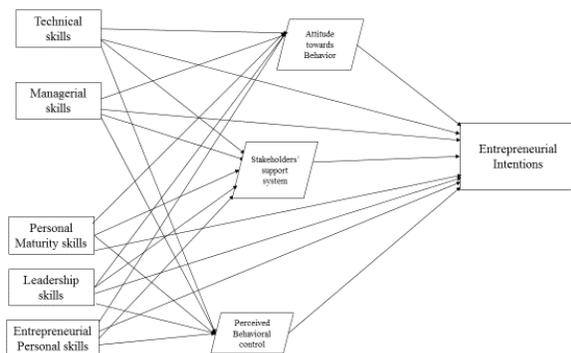
Along with exogenous factors, some studies had also reported that attitude has an impact on entrepreneurial intention (Busenitz, Gómez, & Spencer, 2000; Chell, 2008, Davidsson, 1995; Linan, 2008; Lorz, 2011; Cooney, 2012; Noorderhaven, Thurik, Wennekers, & Van Steel, 2004; Tiessen, 1997).

Based on the existing literature of the subject, it is recognized that entrepreneurial skills are important and have an impact on the entrepreneurial intention, thus needs to be explored further. The debate on entrepreneurial skills and its dimensions is yet at its early stage in the research literature and calls for further investigation (Brinckmann, 2008).

Research Framework

The framework for the current paper is proposed after an extensive review of literature, framework is proposed after a detailed review of existing research studies and on Theory of Planned Behavior Ajzen (1992), Social Cognitive Career Theory (SCCT) Lent, Brown, and Hackett (1994) and Social Cognitive Theory (SCT) Bandura (1986).

Based on the literature review, five hypothesis were proposed to be empirically tested in order to determine the relationship of the variables under examination portrayed in following hypothesized research model.



Hypothesis Development

Based on the above mentioned research model following hypostasis were developed:

H₁: Technical Skills have a positive impact on entrepreneurial intentions among IT Sector employees in Pakistan.

H₂: Managerial Skills have a positive impact on entrepreneurial intentions among IT Sector employees in Pakistan.

H₃: Personal maturity skills have a positive impact on entrepreneurial intentions among IT Sector employees in Pakistan.

H₄: Leadership skills have a positive impact on entrepreneurial intentions among IT Sector employees in Pakistan.

H₅: Entrepreneurial personal skills have a direct and positive impact on entrepreneurial intentions among IT Sector employees in Pakistan.

METHODOLOGY

The primary purpose of this study was to examine a theoretical paradigms, therefore, descriptive statistics and partial least square structural equation modelling (PLS-SEM) are used as analysis techniques. Entrepreneurial intention is a dependable variable which is also referred as “unobservable” variable. Due to its abstract nature it is not possible to be measured directly. In order to grasp a true picture, sample size is one of the key factor as it has to be a significant number. Kline (1998) has defined the ranges of sample size number for SEM analysis, sample size of less than 100 is categorized as small, 100 to 200 considered as medium sized sample while more than 200 is labeled as large sample size (Kline, 1998). Current study used 372 respondents as sample size. Seven point Likert scale was used to measure the response regarding entrepreneurial intention, attitude towards behavior, perceived behavioral control, stakeholders’ support system, and entrepreneurial skills. Nominal and ordinal scales were used to record demographics, details are shown in table 1.

DISCUSSIONS

The current study is aimed at suggesting a hypothesized model and to assess the relationship between entrepreneurial skills and entrepreneurial intention with the mediating role of attitude towards behavior, stakeholder support system, and perceived behavioral control. In order to confirm the measurement as proposed PLS-SEM is used as a testing tool. The hypothesized model is as follow;

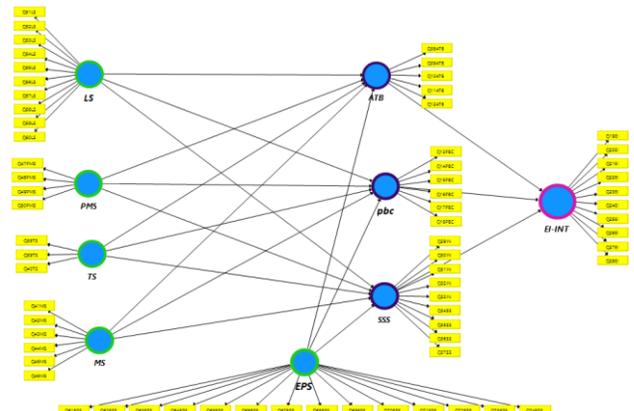


Figure 2 Hypothesized Model

This section is designated for characteristics of the respondents for the study, summary of the respondents’ demographic profile is presented. Regarding the working status of the father 22.5 % were self-employed (own business), full time employees were 34.94% while 10.21 were employed on part time bases and 17.74% were unemployed while the remaining 14.61% were deceased. Concerning entrepreneurship of the family 25% reported that their parents are involved in business 7.52% indicated their siblings, 12.36% stated relatives while majority of the respondents that were 50.10% had no entrepreneurial history.

The details of respondents are shown in the following

table

Item	Frequency	Percentage
Order of Births		
Eldest	131	35.2
Youngest	139	37.3
Only Child	22	5.91
None of above	80	21.50
Father's Working Status		
Business	84	22.5
Full Time	130	34.94
Part Time	38	10.21
Not Working	66	17.74
Deceased	54	14.61
Family History of Entrepreneurship		
Parents	93	25.0
Sibling	28	7.52
Relatives	46	12.36
None	205	55.10
Work Experience		
1 Year	84	22.5
2 Years	39	10.48
3 Years	24	6.45
4 Years	61	16.39
5 Years or more	164	44.18
Location of Your Company		
Rawalpindi	124	33.33
Lahore	109	29.30
Faisalabad	44	11.82
Gujranwala	51	13.70
Multan	44	11.85
Position		
Director	31	8.30
Manager	61	16.39
Team lead	81	21.77
Developer	153	41.12
Others	43	11.90
Gender		
Male	256	68.88
Female	116	31.12
Age		
Up to 25 Years	176	47.31
26-30 Years	84	22.58
31-35 Years	53	14.24
36-40 Years	27	7.25
41-45 Years	20	5.37

51-55 Years	9	2.41
56-60 Years	3	0.80
Educational Background		
Doctoral Degree	3	0.80
Masters in Computer Sciences	105	28.22
MIT	41	11.02
Master Degree in other Subject	58	15.59
Bachelor Degree (4 years)	139	37.36
Diploma or Equivalent	12	3.20
Others	14	3.76

CONCLUSIONS

Descriptive and inferential statistics using PLS-SEM were used for data analysis for current research study. Nine items on the demographics including age, gender, educational background, position, and location of the company, work experience, work employment history, father working status and order of birth were inquired. Majority of the respondents were male with the age of up to 25 years. The theorized research model developed indicated how the independent variables of entrepreneurship skills and its components in terms of managerial skill, leadership skill, technical skill, entrepreneurial personal skill and personal maturity skill have an impact on entrepreneurial intentions with the mediating impact of stakeholder support system, attitude towards behavior and perceived behavioral control. The partial least square structural equation modelling (PLS-SEM) is used to test the suggested model.

REFERENCES

- Anumnu S (2014), "Knowledge Management and Development of Entrepreneurial Skills among Students in Vocational Technical Institutions in Lagos, Nigeria" *The Electronic Journal of Knowledge Management* 12 (2), 144- 154
- Ajzen, I. (1991) The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179–211
- Ajzen, I. (1992) A Comparison of the Theory of Planned Behavior and the Theory of Reasoned Action, *Personality and Social Psychology Bulletin* 18(1),3-9
- Ajzen, I. (2005). Attitudes, personality and behavior (2nd ed.). England: Open University Press (McGraw-Hill)
- Albright, K.S. (2004). Environmental scanning: Radar for success. *Information Management Journal* 38(3), 38-45.
- Amabile, T. M. (1996). Creativity in context. Boulder: Westview Press.
- Audretsch, D. B (2002) "The dynamic role of small firms— Evidence from the US." *Small Business Economics* 18.
- Audretsch, D. B., & Fritsch, M. 2002. Growth regimes over time and space. *Regional Studies*, 36, 113–124.
- Bandura, A. (1986). Social Foundations of Thought and Action: A Social Cognitive Theory. *Englewood Cliffs, NJ*:

- Prentice Hall.
- Bartlett, C.A. and Ghoshal, S. (1997), "The myth of the generic manager: new personal competencies for new management roles", *California Management Review*, 40(1), 92-116.
- Baum, J.R., Locke, E.A. and Smith, K.G. (2001), "A multidimensional model of venture growth", *Academy of Management Journal*, 44(2), 292-303
- Bhutta, M.S (2000), "Engineering subcontracting and enterprise development in Pakistan", PhD thesis, Bahauddin Zakariya University, Multan, 1-276.
- Bird, B. (1995), "Towards a theory of entrepreneurial competency", *Advances in Entrepreneurship, Firm Emergence and Growth*, 2, 51-72
- Brinckmann, J. (2008), *Competence of Top Management Teams and the Success of New Technology Based Firms: A Theoretical and Empirical Analysis Concerning Competencies of Entrepreneurial Teams and the Development of Their Ventures*, Wiesbaden.
- Busenitz, L. W., Gomez, C., & Spencer, J. W. 2000. Country institutional profiles: Unlocking entrepreneurial phenomena. *Academy of Management Journal*, 43(5).
- Caliendo, M., F. M. Fossen, and A. S. Kritikos (2014) "Personality characteristics and the decision to become and stay self-employed." *Small Business Economics* 42(4).
- Capaldo, G., Iandoli, L. and Ponsiglione, C. (2004), "Entrepreneurial competencies and training needs of small firms", 14th Annual IntEnt Conference, Napoli
- Chandler, G.N. and Jansen, E. (1992), "The founder's self-assessed competence and venture performance", *Journal of Business Venturing*, 7(3), 223-36.
- Chell, E. (2008). *The Entrepreneurial Personality. A Social Construction* (2nd ed.). London: Routledge.
- Chell, E. (2013) Review of skill and the entrepreneurial process. *International Journal of Entrepreneurial Behavior and Research*, 19(1): 6-31.
- Churchill, N.C. and Lewis, V.L. (1983), "The five stages of small business growth", *Harvard Business Review*, 61(3), 1-12.
- Cooney, T. M. (2012). *Entrepreneurship Skills for Growth-Orientated Businesses: Report for the Workshop on 'Skills Development for SMEs and Entrepreneurship'*.
- Cooper, Arnold (2003). *Entrepreneurship: The Past, the Present, the Future*, in Zoltan J. Acs and David Audretsch (eds.), *Handbook of Entrepreneurship Research*. Boston
- Davidsson, P. (1995). Determinants of entrepreneurial intentions. Working Paper 1995: 1. Jonkoping: *Jonkoping International Business School*
- elamare-Le Deist, F., & Winterton, J. (2005). What is competence? *Human Resource Development International*, 8(1), 27-46
- Fischer, K. W., & Bidell, T. R. (2005). Dynamic development of action, thought, and emotion. In W. Damon & R. M. Lerner (Eds.), *Theoretical models of human development. Handbook of Child Psychology* 1, 313-399. New York: Wiley
- Gibb, A. A. (1993) 'The Enterprise Culture and Education. Understanding Enterprise Culture and its Links with Small Business, Entrepreneurship and Wider Educational Goals' *International Small Business Journal* April 11(3)
- Gürol, Y., & Atsan, N. (2006). Entrepreneurial characteristics amongst university students: Some insights for entrepreneurship education and training in Turkey. *Education + Training*, 48(1), 25-38.
- Hayton J. C. and McEvoy G. M. (2006) Guest editors' note. *Human Resource Management* 45(3): 291-294
- Hayton, J.C. and Kelley, D.J. (2006), "A competency-based framework for promoting corporate entrepreneurship", *Human Resource Management*, 45 (3), pp. 407-27.
- Hmieleski, K. M., & Corbett, A. C. (2006). Proclivity for improvisation as a predictor of entrepreneurial intentions. *Journal of Small Business Management*, 44, 45-63.
- Janssen, F., Giacomini, O. & Shinnar, R. (2013). Students' entrepreneurial optimism, overconfidence and entrepreneurial intentions. In ECSB Entrepreneurship Education Conference, Aarhus; 29-31 May
- John L. Thompson, (2004) "The facets of the entrepreneur: identifying entrepreneurial potential", *Management Decision*, 42 (2), pp.243 – 258
- Kline, Rex B., 1998. *Principles and practice of structural equation modelling*, New York: Guilford Press
- Kolvereid, L. 1996. Prediction of employment status choice intentions. *Entrepreneurship Theory and Practice*, 47-57.
- Krueger, N. F., & Brazeal, D. V. (1994). Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship theory and practice*, 18, 91-91.
- Krueger, N., Reilly, M., & Carsrud, A. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15(5-6), 411-432.
- Kuratko, D. (2016). *Entrepreneurship: Theory, process, and practice*. Cengage Learning.
- Kuratko, D.F. and Hodgetts, R.M. (2001). *Entrepreneurship: A Contemporary Approach*. Harcourt, Fortworth.
- Kutzhanova, N., Lyons, T.S. & Lichtenstein, G.A. (2009) - Skill-Based Development of Entrepreneurs and the Role of Personal and Peer Group Coaching in Enterprise Development - *Economic Development Quarterly*, 20(10)
- Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance [Monograph]. *Journal of Vocational Behavior*, 45, 79-122.
- Lichtenstein, G. A., & Lyons, T. S. (2001). The entrepreneurial development system: Transforming business talent and community economies. *Economic Development Quarterly*, 15(1), 3-20..

- Liñán, F. (2008). Skill and value perceptions: how do they affect entrepreneurial intentions? *International Entrepreneurship and Management Journal*, 4(3), 257–272
- Lorz, M. (2011). The Impact of Entrepreneurship Education on Entrepreneurial Intention (Doctoral Dissertation).
- Lyons, N. (2002) Results: what faculty say they learn and value, in: N. Lyons, A. Hyland & N. Ryan (Eds) *Advancing the scholarship of teaching and learning through a reflective portfolio process: the University College Cork experience* (Cork, Ireland, University College Cork), 109–112.
- Man, T., Lau, T. and Chan, K.F. (2002), “The competitiveness of small and medium enterprises. A conceptualization with focus on entrepreneurial competencies”, *Journal of Business Venturing*, 17 (2), 123-42.
- Man, T., Lau, T. and Chan, K.F. (2002), “The competitiveness of small and medium enterprises. A conceptualization with focus on entrepreneurial competencies”, *Journal of Business Venturing*, 17(2), 123-42.
- Man, T.W.Y. (2001), “Entrepreneurial competencies and the performance of small and medium enterprises in the Hong Kong services sector”, PhD dissertation, Hong Kong Polytechnic University, Hong Kong
- Noorderhaven, N., Thurik, R., Wennekers, S. and van Stel, A. 2004 The role of dissatisfaction and per capita income in explaining self-employment across 15 European countries, *Entrepreneurship: Theory and Practice*, 28(5), 447-466.
- Oosterbeek, H., Van Praag, M., & Ijsselstein, A. (2010). The impact of entrepreneurship education on entrepreneurship skills and motivation. *European economic review*, 54(3).
- Rauch, A., & Frese, M. (2000). Psychological approaches to entrepreneurial success: a general model and an overview of findings. In C. L. Cooper & I. T. Robertson (Eds.), *International review of industrial and organizational psychology* (pp. 101–142). Chichester: Wiley
- Sarfraz, M., & Quresh, S. (2013). The Global Entrepreneurship Monitor Pakistan Report. 2011. GEM Pakistan 2011 Report.
- Shabbir, M. S., Shariff, M. N. M., & Shahzad, A. (2016). A Conceptual Development of Entrepreneurial Skills and Entrepreneurial Intentions: A Case of IT employees in Pakistan. *International Journal of Academic Research in Business and Social Sciences*, 6(3), 65-78.
- Shabbir, M. S., Shariff, M. N. M., & Shahzad, A. (2016). Determinants of Entrepreneurial Skills set in Pakistan: A Pilot Study. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 6(2).
- Shabbir, M. S., Shariff, M. N. M., & Shahzad, A. (2016). Mediating Role of Perceived Behavioral Control and Stakeholders’ Support System on the Relationship Between Entrepreneurial Personal Skills and Entrepreneurial Intentions of it Employees in Pakistan. *International Business Management*, 10(9), 1745-1755.
- Shabbir, M. S., Shariff, M. N. M., Kiran, R., Faisal, M., & Shahzad, A. (2016). Cyber Entrepreneurship: A Note on Indigenous Perspective from a Developing Country. *The Social Sciences*, 11(5), 704-709.
- Sieger, P., Fueglistaller, U., Zellweger, T.. Global University Entrepreneurial Spirit Students’ Survey 2011 International Report. Retrieved on July 18, 2016, from http://www.guesssurvey.org/PDF/2011/GUESSS_INT_2011_FINAL.pdf
- Siwan Mitchelmore and Jennifer Rowley, (2013) "Entrepreneurial competencies of women entrepreneurs pursuing business growth", *Journal of Small Business and Enterprise Development*, 20 (1), 125 - 142
- Smith B, Morse E (2005). *Entrepreneurship Competencies: Literature Review and Best Practices*, Small Business Policy Branch, industry Canada, Ottawa.
- Smith, W. L., & Eichholz, D. E. (2007). Entrepreneurial Skills Assessment: An Exploratory Study. Sim, H. C. M. (2005). Key entrepreneurial skills and their acquisition: exploratory study of successful male Chinese founder entrepreneurs in Singapore (Doctoral dissertation)
- Smith, W. L., Schallenkamp, K., & Eichholz, D. E. (2007). Entrepreneurial skills assessment: an exploratory study. *International Journal of Management and Enterprise Development*, 4(2), 179-201.
- Storey, D. (1994) - *Understanding the Small Business Sector* - Routledge, London
- Stuart, R. and Lindsay, P. (1997), “Beyond the frame of management competencies: Towards a contextually embedded framework of managerial competence in organizations”, *Journal of European Industrial Training*, 21(1), 26-34.
- The Global Entrepreneurship Monitor Pakistan Report. 2011. GEM Pakistan 2011 Report.
- Thomas, A. S., & Mueller, S. L. (2000). A case for comparative entrepreneurship: assessing the relevance of culture. *Journal of International Business Studies*, 31(2).
- Tiessen, J. H. (1997). Individualism, collectivism, and entrepreneurship: A framework for international comparative research. *Journal of Business Venturing*, 12(5), 367-384.
- Timmons J.A., (1994), *New Venture Creation: entrepreneurship for the 21st century*, Chicago, Irwin
- Ward, T. B. (2004). Cognition, creativity, and entrepreneurship. *Journal of Business Venturing*, 19.
- World Bank (2016) Pakistan Unemployment Rate,
- Zhao, H., Seibert, S. E., & Lumpkin, G. T. (2010). The relationship of personality to entrepreneurial intentions and performance: a meta-analytic review. *Journal of Management*, 36(2), 381–404
- Zimmerer, T., Böcker, U., Wenz, F., & Singer, M. V. (2008). Medical prevention and treatment of acute and chronic radiation induced enteritis--is there any proven therapy? a short review. *Zeitschrift fur Gastroenterologie*, 46(5), 441-

448.