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**MEDIATING ROLE OF ATTITUDE, BEHAVIORAL CONTROL, AND
STAKEHOLDERS' SUPPORT ON THE RELATIONSHIP BETWEEN
ENTREPRENEURIAL SKILLS AND ENTREPRENEURIAL INTENTIONS OF IT
EMPLOYEES IN PAKISTAN.**



By

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**Thesis Submitted to
School of Business Management
Universiti Utara Malaysia,
in Fulfillment of the Requirement for the Degree of Doctor of Philosophy**

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ABSTRACT

Pakistan being a developing country has a high rate of unemployment among young population. This present study examines the effects of entrepreneurial skills on developing entrepreneurial intentions of IT employee of Punjab, Pakistan. The study also examines the mediating role of attitude towards behavior, perceived behavioral control, and stakeholders' support system in the relationship between entrepreneurial skills and entrepreneurial intentions. The probing into the literature of concepts and conceptualizations of the theories permitted a theoretical framework that identified the research issues and the research gap. The data were collected from IT employees working with SECP registered companies in Punjab, Pakistan using a cross-sectional study design. The study used simple random sampling technique to the selected 398 employees working with Information Technology (IT) companies in Punjab, Pakistan. For the initial data screening SPSS 20 was used, and then the Partial Least Squares Structural Equation Modelling (PLS-SEM) was employed to test the present study hypotheses. This study found the significant mediating effects of attitude towards behavior, perceived behavioral control, and stakeholders' support system on the relationship between EPS, LS, MS, PMS, and TS and entrepreneurial intentions of IT employees in Punjab, Pakistan. The findings of this study further reveal that entrepreneurial intentions depend on the degree of EPS, LS, MS, PMS, and TS. The results of this study provide important insights to the policy making institutions, government, and the researchers to further understand the effects of entrepreneurial skills on developing entrepreneurial intentions and mediating role of attitude towards behavior, perceived behavioral control, and stakeholders' support system. The findings of this research extended to the body of knowledge on entrepreneurial skills and entrepreneurial intentions in Pakistani context.

Keywords: entrepreneurial intentions, stakeholders' support system, perceived behavioral control, attitude towards behavior, entrepreneurial skills.

Abstrak

Pakistan sebagai sebuah negara membangun, didapati mempunyai kadar pengangguran yang tinggi dalam kalangan populasi mudanya. Kajian ini menyelidik kesan kemahiran keusahawanan ke atas niat untuk membangunkan keusahawanan pekerja IT di Punjab, Pakistan. Selain itu, kajian ini juga menyelidik peranan perantara sikap terhadap tingkah laku, kawalan tingkah laku anggapan, dan sistem sokongan pihak berkepentingan dalam hubungan antara kemahiran keusahawanan dengan niat keusahawanan. Penelitian literatur tentang konsep dan konseptualisasi teori menghasilkan rangka kerja teori yang mengenal pasti isu-isu dan jurang dalam penyelidikan. Data dikumpulkan daripada kakitangan IT yang bekerja dengan syarikat-syarikat yang berdaftar dengan SECP di Punjab, Pakistan menggunakan reka bentuk kajian keratan rentas. Kajian ini menggunakan teknik persampelan rawak mudah terhadap 398 orang kakitangan terpilih yang bekerja dengan syarikat Teknologi Maklumat (IT) di Punjab, Pakistan. SPSS 20 digunakan untuk membuat saringan awal, kemudian Permodelan Persamaan Kuasa Dua Terkecil Separa Berstruktur (*Partial Least Squares Structural Equation Modelling*) (PLS-SEM) digunakan untuk menguji hipotesis kajian. Kajian menemui kesan pengantaraan sikap yang signifikan terhadap tingkah laku, kawalan tingkah laku anggapan, dan sistem sokongan pihak berkepentingan terhadap hubungan antara EPS, LS, MS, PMS, dan TS dengan niat keusahawanan pekerja IT di Punjab, Pakistan. Hasil kajian ini selanjutnya, mendedahkan bahawa niat keusahawanan bergantung kepada tahap EPS, LS, MS, PMS, dan TS. Dapatan kajian turut memberikan maklumat penting kepada institusi penggubal dasar, kerajaan, dan para penyelidik untuk lebih memahami kesan kemahiran keusahawanan terhadap niat pembangunan keusahawanan dan peranan pengantara sikap terhadap tingkah laku, kawalan tingkah laku anggapan, dan sistem sokongan pihak berkepentingan. Hasil kajian ini diperluaskan kepada institusi berkaitan tentang kemahiran keusahawanan dan niat keusahawanan dalam konteks negara Pakistan.

Kata kunci: niat keusahawanan, sistem sokongan pihak berkepentingan, kawalan tingkah laku anggapan, sikap terhadap tingkah laku, kemahiran keusahawanan.

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LIST OF ABBREVIATIONS

ATB	Attitude Towards Behavior
AVE	AVE Average Variance Extracted
EU	EU European Union
CR	CR Composite Reliability
EI	Entrepreneurial Intentions
EPS	Entrepreneurial Personal Skills
ES	Entrepreneurial Skills
GEM	Global Entrepreneurship Monitor
MS	Managerial Skills
LS	Leadership Skills
OECD	Organizations for Economic Cooperation and Development
PSEB	Pakistan Software Export Board
P@SHA	Pakistan association of software houses
PBC	Perceived behavioral Control
PMS	Personal Maturity Skills
PLS	Partial Least Squares
SECP	Security & Exchange Commission of Pakistan
SEM	Structural Equation Modelling
SmartPLS	SmartPLS Statistical Package
SMEDA	Small & Medium Enterprises
SMEs	Small and Medium Enterprises
SPSS	Statistical Package for the Social Science
SSS	Stakeholders' support System

TEA Total Entrepreneurial Activity

TS Technical Skills



CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

1.1.1 Entrepreneurship

Entrepreneurship has become one of the most essential activities of modern economic life (Morelix, Reedy, & Russell, 2015). The need of entrepreneurship has increased in today's competitive environment (Kelley, Singer, & Herrington, 2016). It is consensus among policymakers and academics that entrepreneurship plays a significant role for the development and well-being of society (Amorós, Bosma, & Levie, 2013; Kelley et. al. 2016). Entrepreneurship has been recognized as a driving force and an approach to deal with the volatile business and economic conditions, sustainable advancement, supporting economic growth and development of the economy, creating employment for youth, and social well-being. Therefore, developed and developing nations have been paying lots of attention on entrepreneurship (Amorós et. al., 2013; Fairlie, Morelix, Reedy, & Russell, (2015). The term “entrepreneurship” has been used in a wider sense to denote all the persons either working in multinational companies, public sector, academia, or developing small and medium businesses (Busenitz, Gómez, Spencer, Busenitz, & Spencer, 2014; Amoros et. al., 2013; GEM, 2012; Looney, 2012; Robertson, Collins, Medeira, & Slater, 2003; Wu, 2009; Volkmann, 2009).

Among business sectors, small and medium enterprises (SMEs) have a large share in the economic growth, employment generation, and social well-being in every country (Fairlie et. al., 2015). Some recent studies such as Hussien (2010), Obaji (2014), and Kelley et. al. (2016), reported that the value and popularity of SMEs around the world account 90% of total companies, and provided 80% job opportunities in major economies

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Appendix A

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Research Questionnaire



QUESTIONNAIRE:

Dear Sir/Madam,

I am pleased to inform you of the aforementioned study, which is currently undertaken by UUM. Mainly this study aims to evaluate the effects of entrepreneurial skills in developing the entrepreneurial intentions among the employees of IT companies in Punjab, Pakistan. This is an academic research and will be helpful in understanding the factors affecting entrepreneurial skills. For this purpose. This is self-administered questionnaire and it will take 5-10 minutes to complete.

The analysis of all the questionnaires will provide the basis for identifying best practices, highlighting the key critical factors and building a proposed model for the implementation. I would highly appreciate your participation, since the success of the research is dependent upon receiving the maximum number of responses. Your response is very important and will be kept strictly confidential for the sake of knowledge. Your answers will of course be treated confidentially and the information will only be used for the purpose of this study. The questionnaire has been designed to make completion simple, easy, and speedy.

I am looking forward to receive your completed questionnaire as soon as possible and many thanks for your kind support and the cooperation.

Yours sincerely,

Supervisors:

Muhammad Salman Shabbir

Prof.Dr. Noor Mohd Noor Shariff

PhD (Management)

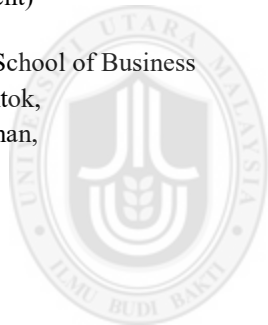
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OYA Graduate School of Business

06010 UUM Sintok,

Kedah Darul Aman,

Malaysia.



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Dr. Arfan Shahzad (Co-Supervisor)

Order of Birth

- Eldest
- Youngest
- Only Child
- None of the above

Father's working Status

- Business
- Full-time
- Part-time
- Not working
- Deceased (Late)

Mother's working Status

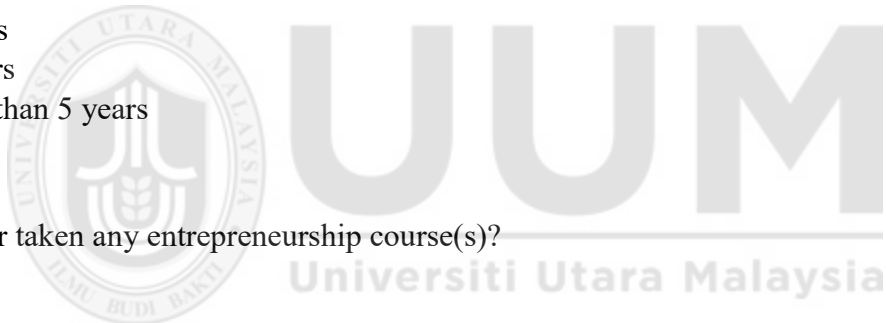
- Business
- Full-time
- Part-time
- Not working
- Deceased (Late)

Family History of Entrepreneurship (having own business)

- Parents
- Siblings (Sisters/brothers)
- Relatives
- None

Working Experience

- 1 year
- 2 Years
- 3 years
- 4 Years
- More than 5 years



Have you ever taken any entrepreneurship course(s)?

- Yes
- No

Location of your company

- Rawalpindi
- Lahore
- Multan
- Faisalabad
- Gujranwala
- Other

About yourself	
Position	<input type="checkbox"/> Director <input type="checkbox"/> Manager <input type="checkbox"/> Supervisor/team leader <input type="checkbox"/> Developer <input type="checkbox"/> Other: _____

Gender	<input type="checkbox"/> Male <input type="checkbox"/> Female									
Age	<input type="checkbox"/> Up to 25 years <input type="checkbox"/> 26-30 years <input type="checkbox"/> 31-35 years <input type="checkbox"/> 36-40 years <input type="checkbox"/> 41-45 years <input type="checkbox"/> 46-50 years <input type="checkbox"/> 51-55 years <input type="checkbox"/> 56-60 years <input type="checkbox"/> More than 60 years									
Educational background	<input type="checkbox"/> Doctoral degree <input type="checkbox"/> Masters in Computer Sciences <input type="checkbox"/> MIT (Master in Information Technology) <input type="checkbox"/> Master degree other subjects <input type="checkbox"/> Bachelors degree (4 years) <input type="checkbox"/> Bachelors degree (2 years) <input type="checkbox"/> Diploma or equivalent <input type="checkbox"/> Others: _____									
About your organization										
No of employees	<input type="checkbox"/> Less than 10 <input type="checkbox"/> 10-20 <input type="checkbox"/> 20-50 <input type="checkbox"/> 50-100 <input type="checkbox"/> 101-150 <input type="checkbox"/> 151-250 <input type="checkbox"/> 250 above									
Ownership	<input type="checkbox"/> Sole proprietorship <input type="checkbox"/> Partnership <input type="checkbox"/> Joint venture <input type="checkbox"/> limited company <input type="checkbox"/> Joint stock corporation <input type="checkbox"/> Others: _____									
Years of operations	<input type="checkbox"/> Less than 5 years <input type="checkbox"/> 6-10 years <input type="checkbox"/> 11-15 years <input type="checkbox"/> 15-20 years <input type="checkbox"/> more than 20 years									
Attitude toward behavior										
<i>Read each of the following items carefully and try to decide how true the statement is in describing you. Indicate your level of agreement with the following statements. Please encircle only one box of each statement.</i>				Strongly disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree	Strongly agree

Being an entrepreneur implies more advantages than disadvantages to me	1	2	3	4	5	6	7
A career as an entrepreneur is attractive for me	1	2	3	4	5	6	7
If I had the opportunity and resources, I would like to start a business	1	2	3	4	5	6	7
Being an entrepreneur would entail great satisfactions for me	1	2	3	4	5	6	7
Among various options, I would rather be an entrepreneur	1	2	3	4	5	6	7
Perceived behavioral control							
To start a firm and keep it working would be easy for me	1	2	3	4	5	6	7
I am prepared to start a viable company	1	2	3	4	5	6	7
I can control the creation process of a new firm	1	2	3	4	5	6	7
I know the necessary practical details to start a firm	1	2	3	4	5	6	7
I know how to develop an IT company	1	2	3	4	5	6	7
If I tried to start a firm, I would have a high probability of succeeding	1	2	3	4	5	6	7
Entrepreneurial Intentions							
I am ready to do anything to be an entrepreneur	1	2	3	4	5	6	7

1	My professional goal is becoming an entrepreneur	1	2	3	4	5	6	7
1	To start my own company would probably be the best way for me to take advantage of my education.	1	2	3	4	5	6	7
1	I will make every effort to start and run my own firm	1	2	3	4	5	6	7
1	I am determined to create a firm in the future	1	2	3	4	5	6	7
1	I personally consider entrepreneurship (to start my own company) to be a highly desirable career alternative for people with my education	1	2	3	4	5	6	7
1	I am seriously thinking of starting a firm	1	2	3	4	5	6	7
1	I have got the intention to start a firm in the next 2-5 years	1	2	3	4	5	6	7
1	I would rather found a new company than be the manager of an existing one	1	2	3	4	5	6	7
1	I have got the intention to start a firm some day	1	2	3	4	5	6	7
Informal Networks								
1	If I decide to become an entrepreneur, my parents will support me	1	2	3	4	5	6	7
1	If I decide to become an entrepreneur, my family members will support me	1	2	3	4	5	6	7
1	If I decide to become an entrepreneur, I will consult my family members	1	2	3	4	5	6	7

1	If I decide to become an entrepreneur, my friends will support me	1	2	3	4	5	6	7
1	If I decide to become an entrepreneur, my family will give me emotional support	1	2	3	4	5	6	7
Structural Support								
1	In Pakistan, the government encourages entrepreneurs (who start new business) to establish a firm	1	2	3	4	5	6	7
1	Rules and regulations are unfavorable to running a business in Pakistan	1	2	3	4	5	6	7
1	Tax regulations in my country give facilities to entrepreneurs	1	2	3	4	5	6	7
1	There are lot of opportunities for entrepreneurs in Pakistan.	1	2	3	4	5	6	7
Entrepreneurial Skills								
Technical Skills								
1	It is not difficult for me to serve in an IT company.	1	2	3	4	5	6	7
1	I have skills to learn about new things in the field of information Technology.	1	2	3	4	5	6	7
4	I can work according to the task and have ability to match my skills according to the needs.	1	2	3	4	5	6	7
Managerial Skills								
4	I can design and supervising work activities	1	2	3	4	5	6	7
4	I think I am able to identify clients' needs.	1	2	3	4	5	6	7

I have knowledge about accounting and budgeting activities	1	2	3	4	5	6	7
I have knowledge about legal and security aspects of an IT organization	1	2	3	4	5	6	7
I am able to make and utilize relations	1	2	3	4	5	6	7
I have ability to learn from the situations	1	2	3	4	5	6	7
Personal Maturity Skills							
I have clear idea about myself and have ability to reflect and be introspective	1	2	3	4	5	6	7
I feel that I am able to take responsibility for resolving a problem	1	2	3	4	5	6	7
I think I have emotional ability to cope with a problem	1	2	3	4	5	6	7
I have the ability to produce a creative solution to a problem	1	2	3	4	5	6	7
Leadership Skills							
I have the Ability to perform tasks in a group or teams.	1	2	3	4	5	6	7
I have the Ability to coordinate work.	1	2	3	4	5	6	7
I have the Ability to do work with and through other people.	1	2	3	4	5	6	7
I am able to plan work and execute	1	2	3	4	5	6	7
I have consistency and intensity to achieve goals.	1	2	3	4	5	6	7
I believe that I am a motivated employee in my organization.	1	2	3	4	5	6	7
I am inspiration to do work.	1	2	3	4	5	6	7

I am able to adjust myself in different environmental settings.	1	2	3	4	5	6	7
I have independent thinking to plan something.	1	2	3	4	5	6	7
I am able to adopt new technology and methods to perform new tasks	1	2	3	4	5	6	7
Entrepreneurial Personal Skills							
I accept and easily adapt to change.	1	2	3	4	5	6	7
I respond to change with exibility.	1	2	3	4	5	6	7
I can easily absorb and adapt ideas and information.	1	2	3	4	5	6	7
I continually show interest in new developments and in keeping up to date	1	2	3	4	5	6	7
My knowledge adds value to the work that I do	1	2	3	4	5	6	7
I am quick to foresee difficult situations and come up with alternative solutions.	1	2	3	4	5	6	7
I inspire enthusiasm in the people that I work with	1	2	3	4	5	6	7
I effectively present my ideas with a sound belief.	1	2	3	4	5	6	7
I am experienced in leading and motivating people.	1	2	3	4	5	6	7
I put a lot of effort in meeting set goals.	1	2	3	4	5	6	7
I come up with continual good results under pressure.	1	2	3	4	5	6	7

I can maintain or even increase effort under stressful situations.	1	2	3	4	5	6	7
I remain composed in stressful conditions.	1	2	3	4	5	6	7
I can control stressful situations	1	2	3	4	5	6	7



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Appendix B

Profile of Experts Interviewed for Content Validity

Sr. No	Name of expert	Designation	Organization
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1	Prof. Dr. Abdul Basit	Professor	Leads Business School, Lahore Leads University, Pakistan.
2	Prof. Dr. Jawad Iqbal	Associate Professor	Department of Management Sciences, The Islamia University of Bahawalpur.
3	Dr. Yasir Riaz	Assistant Professor,	International Islamic University Islamabad, Pakistan.
4	Dr. Muhammad Farooq	Assistant Professor	Department of Management Sciences, The Islamia University of Bahawalpur
5	Mr. Sajid Mohayodin	Assistant Professor	Leads Business School, Lahore Leads University, Pakistan.
6	Mr. Muhammad Nauman	Director	BS Solutions, Lahore Pakistan.
7	Mr. Ijaz Ahmad	Director	Bizsoftech Lahore, Pakistan.
8	Mr. Tayyab Rafique	Manager	Rozee.com, Lahore Pakistan.
9	Muhammad Faisal	Manager Office of Sponsored Research and Programs.	Lahore University of Management Sciences, Pakistan.